CITY OF ALAMEDA TRANSIT AND TDM PLANS

Existing Conditions Memo

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Date: May 15, 2016

1. Introduction

In terms of transportation, much has changed in the City of Alameda over the past few years. Economic recovery has resulted in record traffic on Interstate-880. Job growth in the South Bay has resulted in increasing numbers of Alameda residents traveling south on Interstate-880. It has also resulted in some of the large 'tech shuttles' establishing stops in Alameda for their employees.

While the city's population and the actual volume of vehicles leaving Alameda during the peak morning period hasn't changed much, increased traffic on the interstate and adjacent Oakland streets has increased travel time and the amount of back-up on Alameda's local streets leading to the tubes and bridges. Additionally, more Alamedans are taking ferries or buses for commute trips, creating more demand for improved access and service. Furthermore, with the increase in public schools that draw from a citywide enrollment, such as charter and magnet schools, school related traffic jams are on the rise.

Millennials, with travel behavior different from prior generations, are now in their twenties and entering the workforce. One of the most salient characteristics of this cohort is that car ownership and driving to work is not their preferred mode of transportation and they are the most frequent users of public transportation or walking to work. [1] Shared and on-demand transportation options, plus a population more inclined to use active transportation modes are more prominent for this population.

Simultaneously, technology is improving the delivery of these transportation alternatives. As we move towards a 'mobility as a service' model, real-time arrival data will be integrated with travel times, cost, and availability of all modes: ridesharing, carshare, bikeshares, walking, and public transit in easy-to-use, on-demand mobile apps. More 'express' services provided by out-of-the-area employers with high concentrations of employees living in and near Alameda can also be expected.

The challenge for a Transit and Transportation Demand Management (TDM) Plan is to provide adequate infrastructure and detail for multiple modes yet retain the flexibility to adapt to new modes and new ways of delivering mobility services.

Transit/TDM Plan Purpose and Process

The purpose of the Transit and TDM Plan is to provide strategies for alternatives to drive alone trips for accessing destinations outside the city and within it. This plan combines transit recommendations with a focus on city infrastructure improvements and TDM program recommendations, which are regulated by the City. This planning process originated with the City of Alameda experiencing increasing congestion

[1] http://www.brookings.edu/blogs/the-avenue/posts/2014/10/07-millennials-generation-x-commuting-trends-kane-tomer

along its limited points of entry as infill development continues to be constructed. Through this process, the City will identify specific projects and strategies that will help increase transit use and increase multimodal mobility within Alameda and for commuters with destinations outside Alameda.

The City of Alameda Transit and TDM Plan Existing Conditions Memo is the first step in this planning effort, and examines the transit conditions and current TDM practices in the city. The process also includes community engagement, an evaluation of strategies and recommendations, and then a strategic and focused plan for City Council approval.

This memo considers available and relevant information in the context of local and regionally adopted policies, plans, and studies, and assesses the obstacles to implementing the recommendations from previous studies and reports.

The Existing Conditions Report consists of six sections, which are summarized below.

1. **Introduction**: Provides an introduction and overview to this memo.
2. **Executive Summary**: Summarizes highlights from the existing conditions analysis.
3. **Demographics and Planning Context**: Summarizes the existing planning context, identifying population and job centers, land use, travel patterns, ongoing projects, and existing recommendations.
4. **Driving Conditions**: Provides an overview and analysis of travel patterns, congestion, and intersection conditions.
5. **Transit Conditions**: Provides an overview and analysis of existing transit conditions, including information on each of the AC Transit routes running through Alameda and on the three ferry routes to San Francisco and South San Francisco.
6. **TDM Programs**: Provides an overview and analysis of existing TDM program, including current efforts to create one Transportation Management Association.

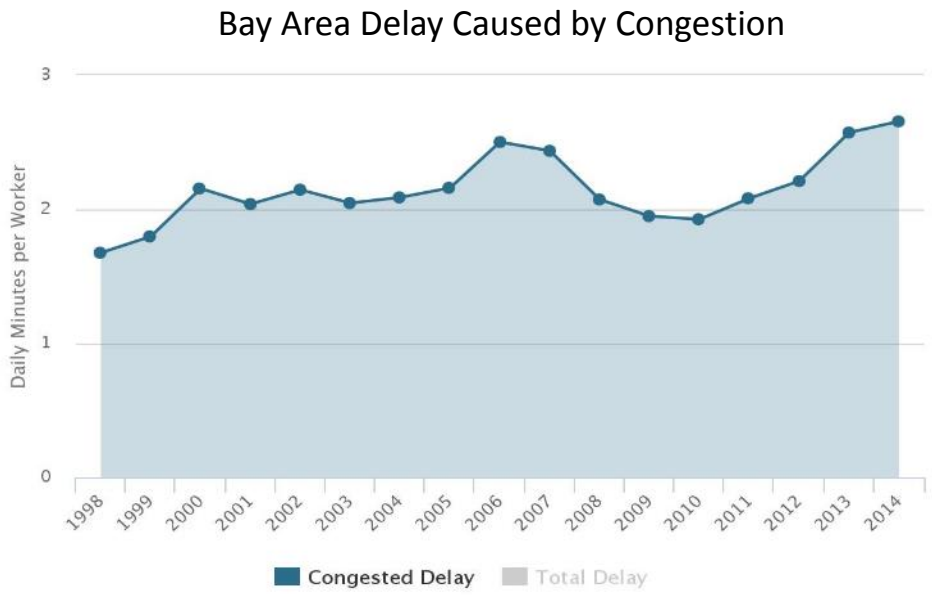
2. Executive Summary: Highlights from the Existing Conditions Analysis

Highlights from the Existing Conditions Analysis

Congestion is Increasing

Based on data from the Metropolitan Transportation Commission (MTC), delay from region wide congestion has surpassed 2006 levels and has increased 40 percent since 2010. This congestion has impacts on island crossings in Alameda with congestion on Park Street, the Webster/Posey Tubes, as well as ridership increases at the ferry terminals. Significant bottlenecks also form during morning and afternoon drop-off and pick-up times at local magnet and charter schools. **Figure 1** shows delay times experienced by Bay Area residents on a daily basis. While there have been changes over the last 15 years, driving the number up and down, the overall trajectory displays a steady increase in delay over time.

Figure 1: Bay Area Delay Caused by Congestion



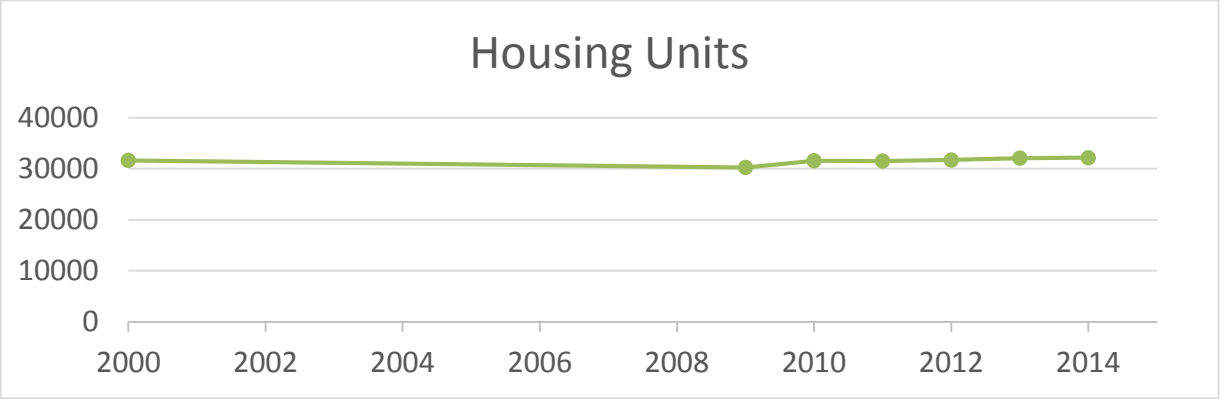
Source: Metropolitan Transportation Commission, Vital Signs. http://www.vitalsigns.mtc.ca.gov/

This increase in congestion not only impacts drivers, but also transit users when buses are delayed in traffic and when parking is limited at the ferry terminals. The estuary crossings and/or the adjacent intersections and ramps are bottlenecks that limit the amount of traffic that can leave or enter the island during peak periods. The result is increased queuing and delay as the travel demand grows, as well as a lengthening of the duration of the peak travel period. Increasing the capacity of these crossings or the ferry terminals will be challenging.

Housing and Jobs Are Growing

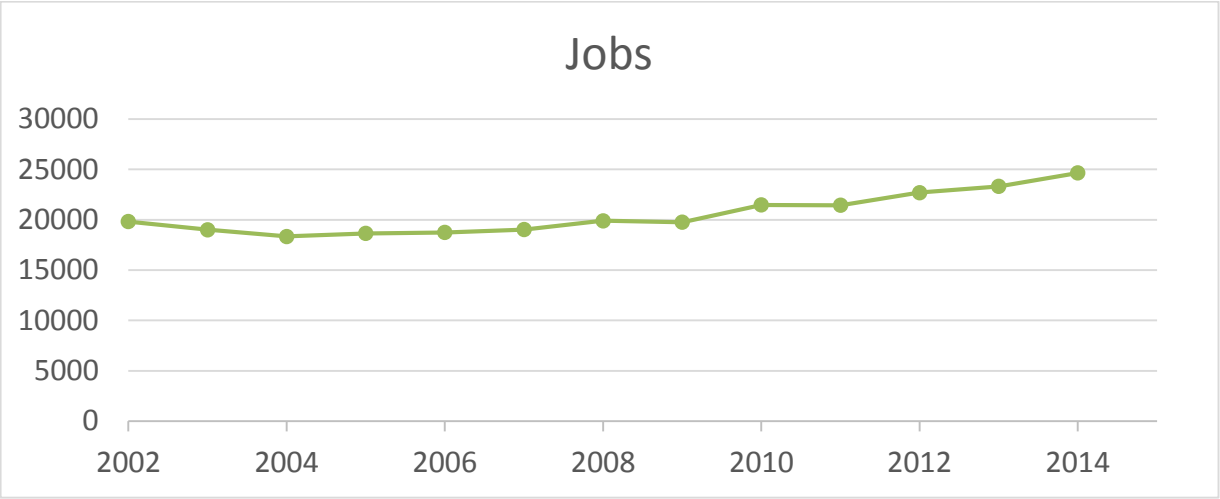
Alameda is experiencing moderate growth in housing and jobs. According to the 2014 Census, there are 30,346 households and 24,655 jobs in Alameda. Approved and entitled developments in Alameda Point and the Northern Waterfront will account for 2,260 units (a 7 percent increase over 2014) and 7,909 jobs (a 30 percent increase over 2015) over the next 10 years. Growth in housing units is slower than the expected average Bay Area growth rate of 8.5 percent over 10 years. Nevertheless, job growth is expected to outpace the Bay Area average which is forecasted at 11.4 percent over 10 years. **Figures 2** and **3** presents housing data from the year 2000 to 2014 and total job figures from 2002 through 2014.

Figure 2: City of Alameda Housing Units



Source: U.S. Census (2000); U.S. Census American Community Survey 5-Year Data (2009-2014)

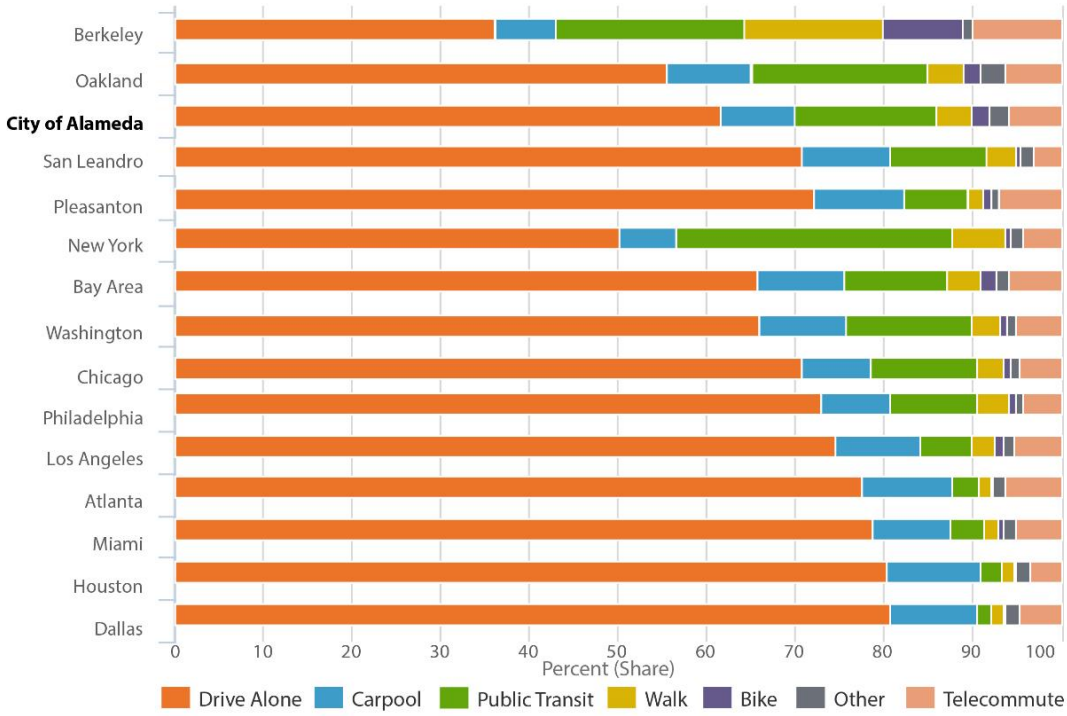
Figure 3: City of Alameda Jobs



Commute Patterns are Changing

Since 2010, there have been two notable trends in commute patterns in the Bay Area: One is that the percentage of auto commuters is declining and the other is that the percentage of transit commuters is increasing. This pattern reflects trends in Alameda with a drop in drive alone commuting between 2010 and 2014 from 64 percent to 61.5 percent and a related increase in transit use. **Figure 4** presents 2014 mode choice preferences for Bay Area cities, including the City of Alameda, and other large Metro Areas around the country. When compared to neighboring cities and some of the largest metro areas in the country, Alamedans outperform most other Bay Area cities and metro areas around the country.

Figure 4: Mode-Split (Select Cities and Metro Areas)



Another trend for Alameda is that there are more commuters leaving the island for work, nearly 5,000 more compared to 2005. An increasing number of commuters head to San Francisco, South Bay and Peninsula each day. **Figure 5** line graph displays the number of people leaving Alameda for work from 2005 to 2014. **Figure 6** bar graph shows changes in commute totals over a nine year period to nearby counties.

Figure 5: Off-Island Commuters

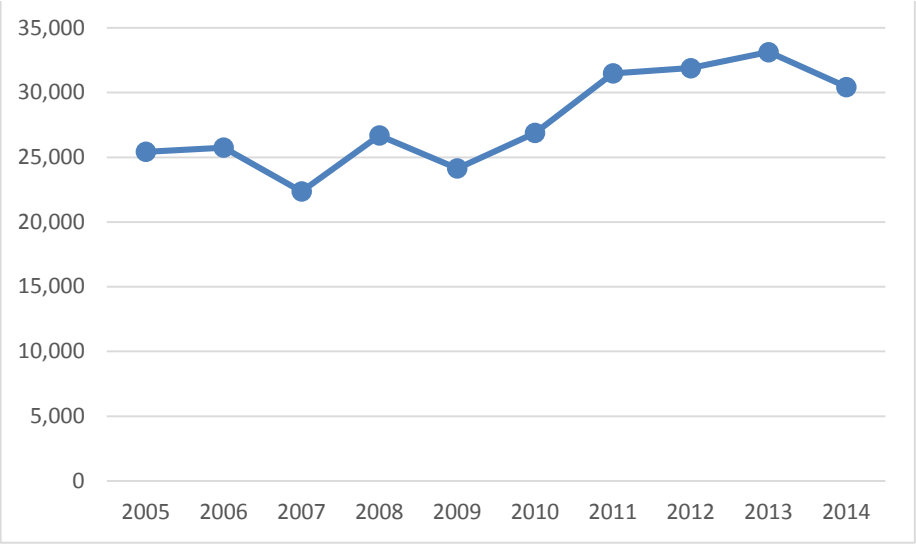
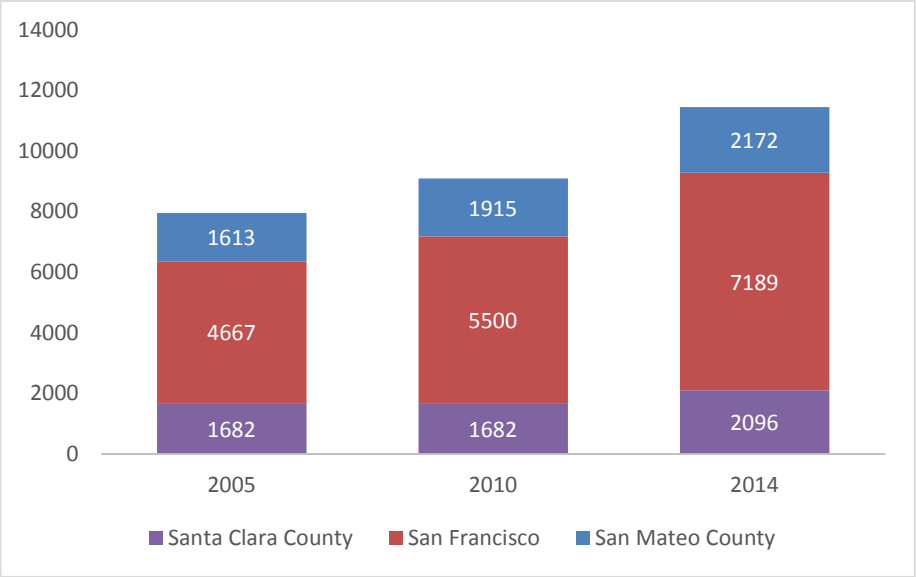
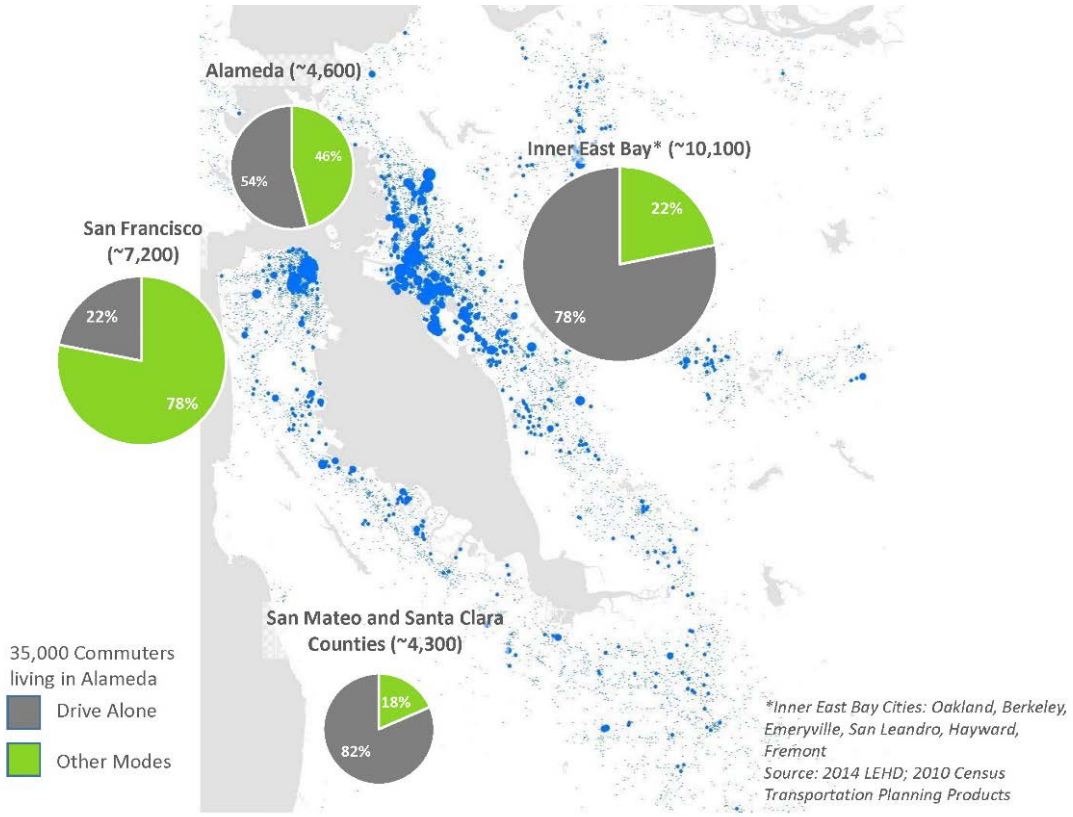


Figure 6: Numbers of Commuters to Nearby Destinations



San Francisco and Oakland are the two highest destinations for Alameda residents commuting to work, but commute mode choice to these cities are very different. Only one out of every five Alamedans commuting to San Francisco drives alone. Nevertheless, for those commuting to Oakland, nearly four out of every five residents drive alone. **Figure 7** shows the commute patterns of Alameda residents to the Inner East Bay (Oakland, Berkeley, Emeryville, San Leandro, Hayward, and Fremont) and commute patterns of Alamedans headed to San Francisco, and San Mateo and Santa Clara counties.

Figure 7: Commute Patterns from Alameda to East Bay vs San Francisco



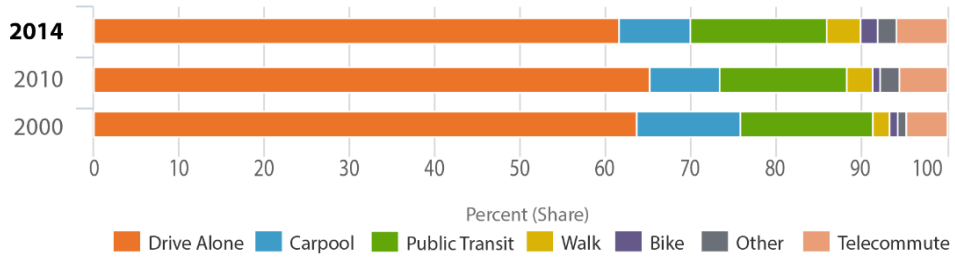
Alameda is a Multimodal City

Alameda has many characteristics, existing policies and infrastructure that supports multimodal mobility, including:

- Well-suited geography: A flat topography and temperate climate makes Alameda an ideal place for walking and bicycling.
- General Plan has strong goals and policies: The general plan's goals, objectives and policies support transit and transportation demand management.
- City requiring transportation alternatives for new development projects: The TDM requirement for new development provides transportation alternatives for residents and employees at new developments.
- Constructing or obtaining funding for multimodal improvements: The City actively pursues funding for pedestrian, bicycle, and transit infrastructure improvements.
- Coordinating services with transit agencies: The City is actively engaging with transit agencies to improve transit service in Alameda.

Figure 8 shows commute mode share for Alameda commuters. The number of drive alone mode share went up between 2000 and 2010, but has declined since. As of 2014, more than 38 percent of commuters travel by modes other than driving alone.

Figure 8: Alameda Commute Mode Share



Source: U.S. Census (2000); U.S. Census American Community Survey 5-Year Data (2009-2014)

There are also challenges to expanding multimodal mobility, including lack of awareness of transportation options, addressing public perceptions of public transit, tackling island crossing issues for all modes, and balancing the needs of all users on public rights-of-way, and adapting to new technologies as they arise.

Alameda is Well-Served by Transit

The City of Alameda is served by multiple transit agencies and services, including four local bus routes, three Transbay bus routes, three school routes, two ferry terminals, five nearby BART stations (within two miles of island crossings), paratransit, a senior/paratransit shuttle, and two shuttles connected to BART that is operated by a Transportation Management Association. Sixteen percent of Alameda residents commute using transit and there are more than 13,300 weekday boardings each weekday. Furthermore, access to bus service is good with two-thirds of residents and jobs located within a ¼-mile of a bus stop. **Figure 9** shows existing fixed-route transit service in Alameda.

Figure 9: Existing Transit Service

TDM Improves Transportation Options

TDM refers to strategies that improve transportation efficiency by providing services focused on shifting drive alone trips to carpooling, walking, bicycling, and taking transit, among others. TDM requirements in Alameda have resulted in additional transit service, transit pass programs, a shuttle that connects to BART, and bicycle and pedestrian facilities at new developments. Nevertheless, TDM programs only are required for new developments. Programs have been adopted in the former Naval Air Station, Alameda Landing and the Northern Waterfront areas (see **Figure 10**). The challenge for TDM is expanding programs to established neighborhoods and employees to provide them with similar programs.

Figure 10: Areas with Adopted TDM Programs

Moving forward in the process it will be important to examine how new policies in the three major developments areas have worked since implementation. Which programs have been most successful locally and how the City can establish polices or guidelines that are able to be implemented in already developed areas of Alameda. The three major development areas provide an opportunity for the City of Alameda to test creative policies and plans to increase transit that can then be translated for developed areas like Central Alameda or Bay Farm Island.

3. Demographics and Planning Context

This section summarizes local demographics, jobs, upcoming development, travel patterns, and existing City plans and recommendations. Understanding the existing conditions of these areas is important for developing an accurate snapshot of issues and that recommendations and strategies are driven by the local transportation environment.

Demographics

Population and Demographics

According to data from the 2014 U.S. Census American Community Survey[2] the City of Alameda is home to 75,763 people in 30,346 households. Population growth was slight between 2000 and 2010, when the population grew from 72,259 to 72,512-only 253 more residents. The growth since 2010 has been more significant with 3,251 new residents, a 4.4 percent growth or an average annual growth rate of 1.1 percent. New housing developments, a booming Bay Area job market, and increasing regional housing prices have added to the shift in Alameda's population over the past 5 years. **Table 1** provides selected demographics for Alameda.

Table 1: Selected Demographics

Category	City of Alameda	San Francisco Metro Area [1]
Population	75,763	4,466,251
Housing Units	32,166	1,754,894
Households	30,346	1,642,466
Average Household Size	2.46	2.72
Median Household Income	73,775	83,222
Percent Low-Income Population (<200 percent Poverty Level)	19.2%	25.7%
Percent Minority	50.9%	46.0%
Percent Households with no vehicles	8.7%	12.5%
Percent Seniors (65 and older)	13.5%	13.3%
Percent Youth (0 to 19)	22.2%	23.1%
Percent Limited English (No one age 14 and over speaks English only or speaks English "very well")	9.9%	9.3%

[1] San Francisco Metro Area includes the counties of Alameda, Contra Costa, Marin, San Francisco, and San Mateo.
Source: U.S. Census. 2014 American Community Survey (five-year summary. http://factfinder.census.gov/

Jobs

There are approximately 24,655 jobs in the city, 10 percent of which are held by Alameda residents.[3] An analysis of existing jobs by geographic location (see **Figure 11**) shows that jobs in Alameda are centered around five main employment clusters, the largest being the Harbor Bay Business Park. The other large clusters are located in West Alameda at Alameda Landing, Marina Village, along Webster Street, and in downtown along Park Street. Major employers include:

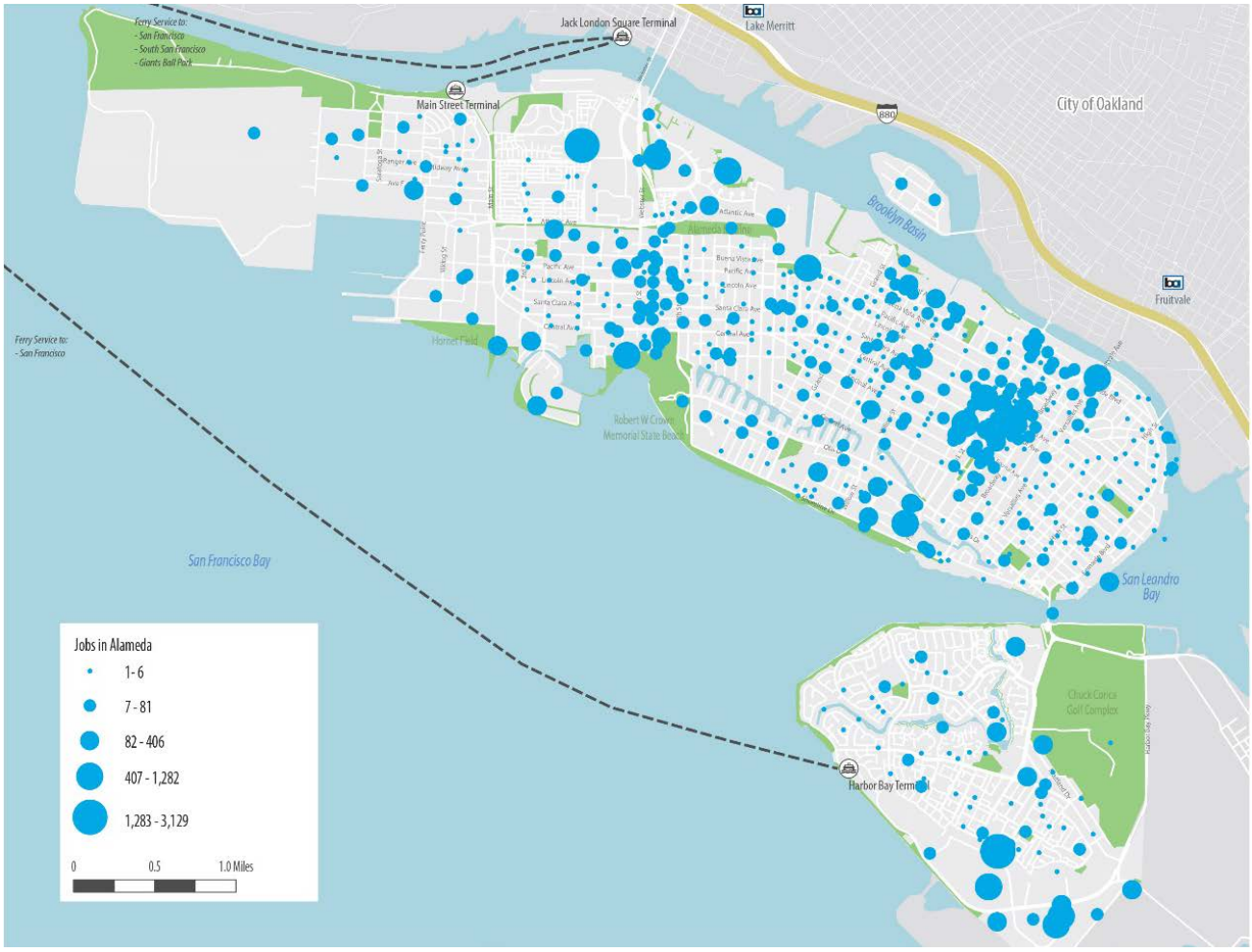
- Largest Employers - Private
    - Abbott Diabetes Care, Inc. (Harbor Bay Business Park)
    - Alameda Hospital (Central Alameda)

[2] U.S. Census. 2014 American Community Survey (five-year summary); Table: DP05. http://factfinder.census.gov/
[3] Longitudinal Employer-Household Dynamics (LEHD, 2014)

- Bay Ship and Yacht Company (Alameda Point
- Penumbra (Harbor Bay Business Park)
- Safeway Stores (Central Alameda & Bay Farm Island)
- VF Outdoors (Harbor Bay Business Park)
- Wind River Systems (Harbor Business Park)

- Largest Employers - Public
  - Alameda Unified School District (Various Locations)
  - City of Alameda (downtown, Alameda Point and Grand Street area)
  - College of Alameda (West Alameda/Marina Village annex)

Figure 11: Location of Jobs in Alameda

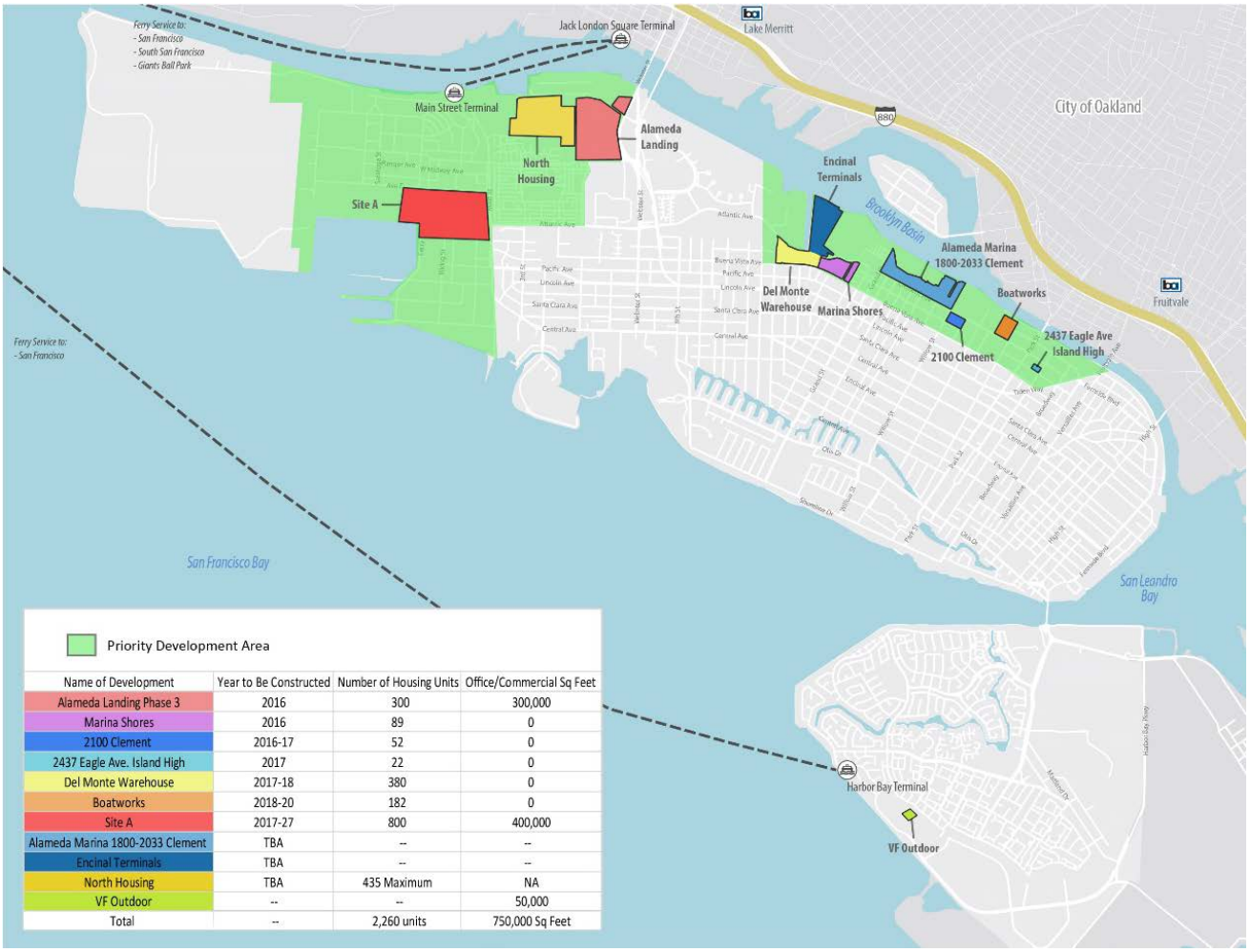


Source: Longitudinal Employer-Household Dynamics (LEHD, 2014)

Approved and Entitled Developments and Projected Growth

Through the *Plan Bay Area* planning process, the Association of Bay Area Governments worked with local communities to identify Priority Development Areas (PDAs), or high growth areas in the region. PDA's are required to be within an existing community, near existing or planned transit, and planned for more housing.[4] The City of Alameda has two PDAs: the Naval Air Station in western Alameda and the Northern Waterfront in north-central Alameda adjacent to Brooklyn Basin. Planned development in the two PDAs is expected to bring 7,900 jobs and include 2,260 new housing units over the next 10 years. **Figure 12** shows the location of approved and entitled developments within the two PDAs, as well as information regarding each project.

Figure 12: Approved and Entitled Developments



Name of Development	Year to Be Constructed	Number of Housing Units	Office/Commercial Sq Feet
Alameda Landing Phase 3	2016	300	300,000
Marina Shores	2016	89	0
2100 Clement	2016-17	52	0
2437 Eagle Ave. Island High	2017	22	0
Del Monte Warehouse	2017-18	380	0
Boatworks	2018-20	182	0
Site A	2017-27	800	400,000
Alameda Marina 1800-2033 Clement	TBA	--	--
Encinal Terminals	TBA	--	--
North Housing	TBA	435 Maximum	NA
VF Outdoor	--	--	50,000
Total	--	2,260 units	750,000 Sq Feet

Source: City of Alameda

[4] http://abag.ca.gov/priority/

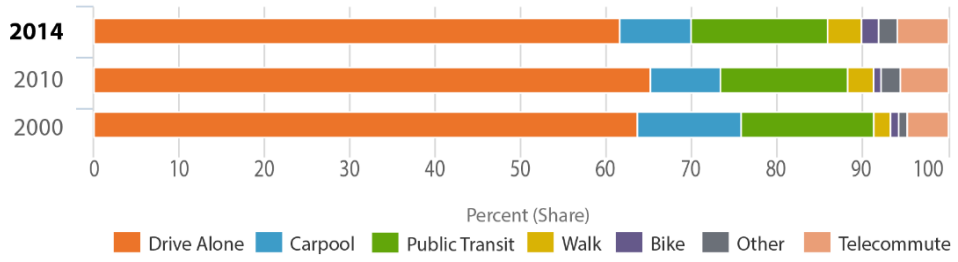
Travel Patterns

Travel patterns for Alameda residents and employees are analyzed in this section, looking particularly at three key characteristics: commute modes, commute locations of Alameda residents, and commute patterns for employees coming to Alameda.

Commute Mode Split

Figure 13 shows that the commute mode share for Alameda residents has shifted to more transit, walking and bicycling commuters and to fewer drive-alone commuters between 2010 and 2014.[5]

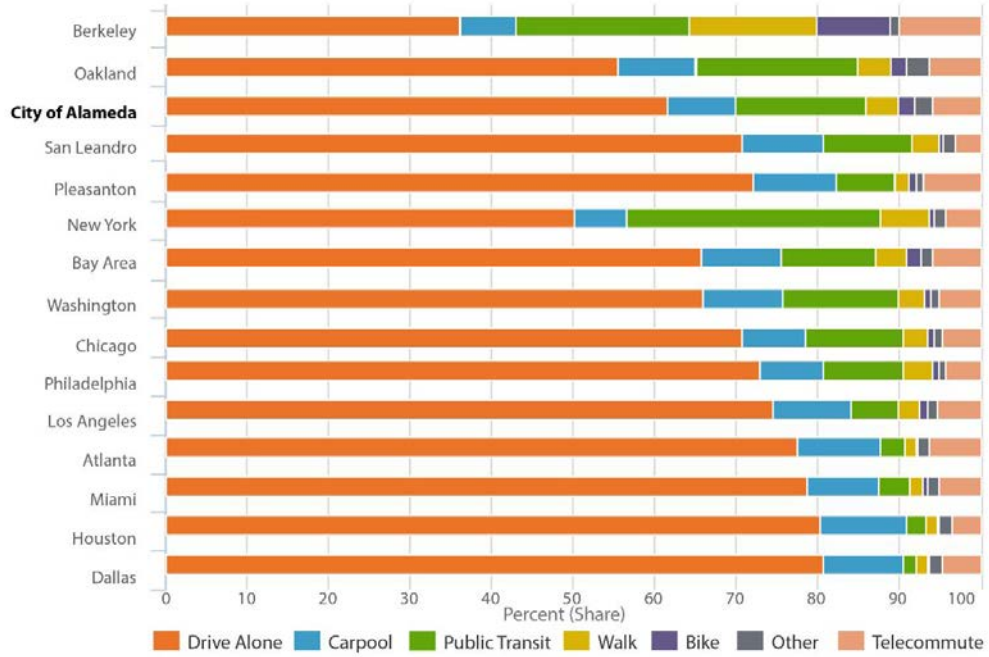
Figure 13: Mode Share for Alameda Commuters



Source: U.S. Census (2000); U.S. Census American Community Survey 5-Year Data (2009-2014)

Alamedans utilize non-drive alone transportation options to commute more than their counterparts at various cities across the Bay Area and the country. **Figure 14** provides a comparison between the City of Alameda and other cities across the Bay Area and metropolitan areas throughout the country.

Figure 14: Mode-Split (Select Cities and Metro Areas)



Source: U.S. Census American Community Survey 5-Year Data (2009-2014)

[5] U.S. Census 2014 five-year American Commute Survey

Table 2 shows how Alamedans are commuting to specific destinations.[6] This data is available for 2010 and shows that commute mode choice from Alameda depends on people's location of employment.

Table 2: Commute Mode Comparison

Commute Destination	Alameda	San Francisco	Oakland	San Mateo County/Santa Clara County	Berkeley
Drive Alone	54%	22%	75%	77%	81%
Carpool	5%	13%	10%	17%	11%
Transit	4%	64%	11%	5%	6%
Walk	2%	0%	2%	0%	0%
Bike	13%	1%	1%	0%	0%
Other (Taxi, Motorcycle, Telecommute)	21%	1%	2%	1%	2%

Source: Census Transportation Planning Products (CTPP)

Commute Locations of Alameda Residents

There are 30,430 residents who commute outside of Alameda to work and 4,565 who live and work within the city.[7] The cities with the largest draw of Alameda residents are San Francisco, Oakland, and Berkeley. **Table 3** shows the top job locations for Alameda residents and **Figure 15** shows locations throughout the Bay Area where residents commute and how they commute. Commuting to San Francisco is overwhelmingly accomplished by something other than driving alone (78 percent). Commuting to much closer areas in the Inner East Bay show the reverse trend is true, with 78 percent choosing to drive alone. A recent study determined that 32 percent of AM peak traffic and 18 percent of PM peak traffic from the Posey Tube is destined for downtown Oakland.[8]

There are an increasing number of Alameda commuters leaving the City for their jobs. Off-island commuters have increased by 20 percent between 2005 and 2014. During this same time period, the number of commuters also increased to San Francisco, San Mateo County, and Santa Clara County.

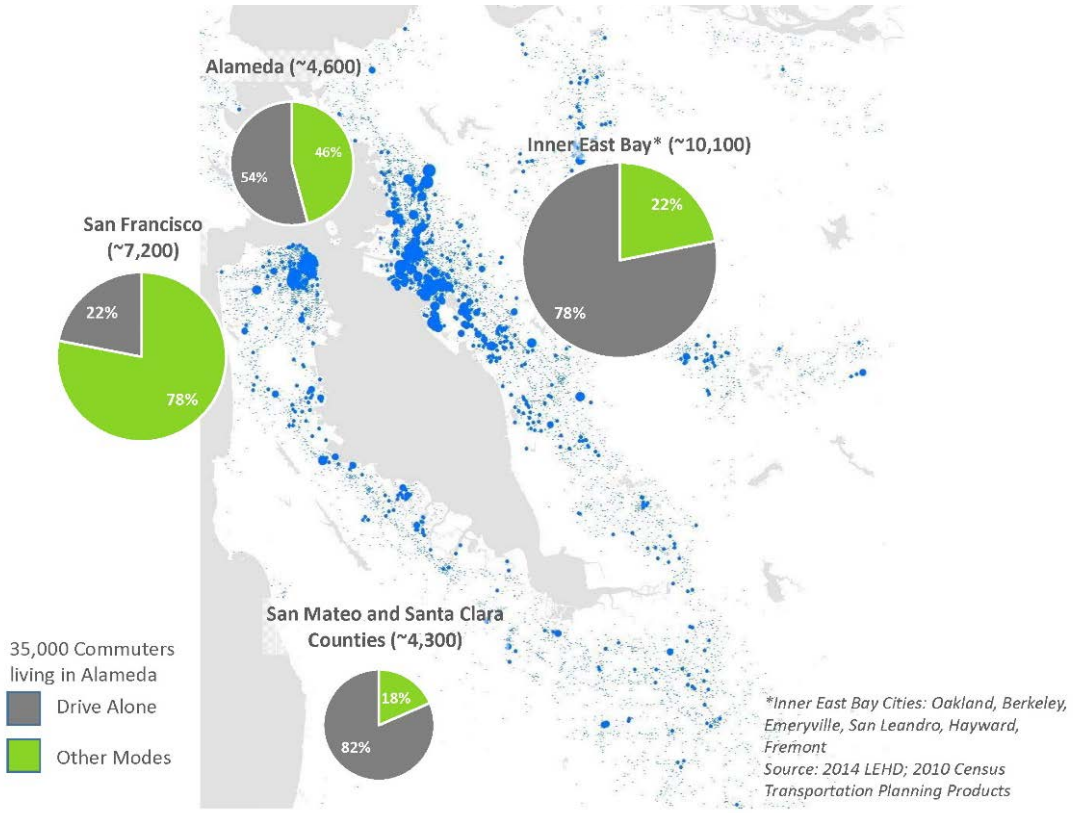
Table 3: Top Job Locations for Alameda Residents

Location	Number of Workers	Percentage
San Francisco city, CA	7,189	21%
Oakland city, CA	6,290	18%
Alameda city, CA	4,565	13%
San Mateo County	2,172	6%
Santa Clara County	2,096	6%
Berkeley city, CA	1,461	4%
San Leandro city, CA	927	3%
Hayward city, CA	826	2%
Fremont city, CA	567	2%
Emeryville city, CA	488	1%
Walnut Creek city, CA	473	1%
All Other Locations	11,409	33%

Source: LEHD, 2014

[6] 2010 Census Transportation Planning Products (CTPP)
[7] Longitudinal Employer-Household Dynamics (LEHD, 2014)
[8] Comprehensive Circulation Study for Downtown Oakland and to/from West Alameda (2014)

Figure 15: Commuters from Alameda



A sampling of in-vehicle GPS data show personal trips from Alameda to the surrounding areas for average weekday mornings (Monday through Thursday from 6 a.m. to 10 a.m.) are shown in **Table 4**. Top locations include Oakland, Central Oakland, San Francisco, San Leandro, Berkeley, and Hayward. The new data affirms the information collected by the LEHD in 2014. The greatest share of trips from Alameda went to Oakland and Southern Alameda County (Inner East Bay cities) followed by San Francisco, San Mateo, and Santa Clara counties.

Table 4: Estimated AM Vehicle Trips to surrounding Areas

Destinations	Estimated Average Morning Weekday Trips	Percent
Albany	22	0.13%
Berkeley	646	3.69%
Emeryville	373	2.13%
Piedmont	54	0.31%
Oakland	8,925	51.00%
• Central Oakland	4,262	24.36%
• Fruitvale BART	308	1.76%
• West Oakland BART	146	0.84%
Eastern Alameda County (Pleasanton and East)	191	1.09%
Southern Alameda County (South of Oakland)	2,442	13.96%
• Castro Valley	318	1.82%
• Hayward	636	3.63%
• Fremont	243	1.39%
• San Leandro	782	4.47%
• San Lorenzo	38	0.22%
San Francisco	1,923	10.99%
Eastern Contra Costa County	757	4.32%
Western Contra Costa County	285	1.63%
San Mateo County	692	3.95%
Santa Clara County	500	2.86%
Other Areas	690	3.94%

Source: Streetlight InSight, 2015

Commute Patterns to Alameda

There are 24,650 people who commute to Alameda for work.[9] The cities with the largest numbers of Alameda workers, include Alameda, Oakland, San Francisco, and San Leandro. **Table 5** shows the top home origins for Alameda workers.

Table 5: Home Origins for Alameda Workers

Home Origin City or County	Number of Workers	Percentage
Alameda city, CA	4,565	18.5%
Oakland city, CA	3,350	13.6%
Contra Costa County, CA	3,430	13.9%
San Francisco city, CA	1,614	6.5%
San Leandro city, CA	1,079	4.4%
San Mateo County, CA	1,201	4.9%
Santa Clara County, CA	1,022	4.1%
Hayward city, CA	775	3.1%
Fremont city, CA	520	2.1%

[9] Longitudinal Employer-Household Dynamics (LEHD, 2014)

Castro Valley CDP, CA	502	2.0%

Source: LEHD, 2014

A sampling of in-vehicle GPS data show trips from surrounding areas to Alameda for average weekday mornings (Monday through Thursday from 6 a.m. to 10 a.m.). **Table 6** shows the number and percentage of incoming trips to Alameda, with the highest number coming from Oakland, San Francisco and Berkeley. The information shown in **Table 6** affirms the information collected by the LEHD 2014. City of Oakland, Contra Costa County, and San Francisco make up the largest home origins for employees working in the City of Alameda.

Table 6: Estimated AM Vehicle Trips from surrounding Areas to Alameda

Origins	Estimated Average Morning Weekday Trips	Percent
Albany	74	0.53%
Berkeley	651	4.67%
Emeryville	82	0.59%
Piedmont	325	2.33%
Oakland	5,828	41.80%
• Central Oakland	952	6.83%
• Fruitvale BART	82	0.59%
• West Oakland BART	13	0.09%
Eastern Alameda County (Pleasanton and East)	477	3.42%
Southern Alameda County (South of Oakland)	1,417	10.16%
• Castro Valley	179	1.28%
• Hayward	280	2.01%
• Fremont	99	0.71%
• San Leandro	630	4.52%
• San Lorenzo	36	0.25%
San Francisco	1,780	12.77%
Eastern Contra Costa County	1,509	10.82%
Western Contra Costa County	361	2.59%
San Mateo County	973	6.98%
Santa Clara County	117	0.84%
Other Areas	350	2.51%

Source: Streetlight InSight, 2015

City Plans, Documents and Recommendations

The City of Alameda has many documents related to transit and transportation demand management.

A list of previous relevant recommendations is provided in **Attachment 1** and **Attachment 2**.

Transit Related Documents

General Plan Transportation Element

The City of Alameda's General Plan Transportation Element (adopted in 2009) provides targeted objectives and policies that seek to enhance the use of alternative modes of transportation and assist the

development of an intermodal transportation system. Many of the listed objectives seek to improve transit services by reducing conflicts, implementing the latest technology to reduce delay and travel time, and providing different modes of transit, beyond only a typical bus line. An example is *Objective 4.1.1 Plan, develop and maintain a safe, barrier-free and efficient transportation system to provide the community with adequate present and future mobility.* **Attachment 1** and **2** provide the full list of related goals, objectives and policies. The Transportation Element was used as a starting point to establishing goals and objectives for this planning effort.

2001 Transit Plan

The 2001 Transit Plan analyzes the public transit system that operates in the City of Alameda and recommends various changes to improve the system. The recommendations are based on goals and objectives that were developed in conjunction with the City's Public Transit Committee, which was established to supervise and guide this study's effort. Key recommendations include increasing bus frequency during weekday operations and further investigation into a transit-only estuary crossing, including a dedicated transit tube, bus barge, or ferry service. Other recommendations include a shift to battery-powered buses and introduction of a light-rail system.

Water Emergency Transportation Authority (WETA) System Expansion Policy

WETA is the San Francisco Bay Area's regional public transit agency that is tasked with operating and expanding ferry service on the San Francisco Bay.[10] WETA provides a list of 13 policy statements that together establish an agreed-upon framework for project development process and expansion, such as:

- Minimum Service Period
- New Service Project and On-Going Evaluation
- Service Design and Service Agreement
- WETA System Integration
- Emergency Response
- Vessels, Infrastructure
- Operating and Capital Funding including public-private partnership opportunities
- Terminal Access

Alameda County Transportation Commission (ACTC) Countywide Transit Plan (2015)

The Countywide Transit Plan is currently under development. The plan's goal is to help guide future public transit investments, programs, and polices in Alameda County through 2040 through tier-based policy strategies. The document provides five financing approaches (broken down by scale and magnitude of project) that should be used as each new transportation project goes through its specific planning and engineering phase. Increased significance has been placed on the plan as new data has shown the number of people riding transit has remained stagnant (except on BART), while the cost of providing transit service has continued to go up.

The plan makes several recommendations for transit improvements at the regional level and several affect the City of Alameda. Recommendations affecting the City of Alameda include:

[10] http://sanfranciscobayferry.com/sites/default/files/weta/currentprojects/ProposedRoutes/SystemExpansionPolicy.pdf

- Implementation of an Urban Rapid Service between Berkeley and Fruitvale BART with service to Alameda Point.
- Addition of new ferry transit services between Brooklyn Basin to San Francisco Ferry Terminal and Alameda Point to San Francisco.

Water Shuttle Feasibility Study (2013)

The study examined the economic and operation feasibility of a water shuttle service connecting Alameda Landing and Oakland. The study produced the following findings.

- A water shuttle is feasible, but not a cost effective commute solution. Purchasing new vessels and hiring and training operating staff is costly. A lack of connectivity between the docks in the Alameda and Oakland waterfronts and the regional transportation and BART systems require multiple transfers for the typical commuter.
- Partnerships with Oakland could make a water shuttle an economic development asset. The water shuttle service could provide a unique branding opportunity for Alameda and could be used to support commercial and retail businesses on both sides of the Estuary. The newly formed West Alameda Transportation Demand Management Association would be an ideal organization to facilitate discussions between the cities and developers.
- A City operated water shuttle is not recommended. It is not practical or cost effective for the City of the Alameda to purchase, store and maintain the water shuttle vessels.
- A one year pilot program is not recommended. Most ground shuttle programs take two to three years to reach acceptable ridership and public awareness. Most operators would require a minimum two or three year service contract.
- Marketing must be aggressive and extensive. This should include branding, brochures, dedicated website and public outreach. Estimated cost for the necessary marketing effort would be $25,000-$40,000.
- All boats should have a roof enclosure, seating, bicycle racks and be ADA compliant for passengers with disabilities.
- If funding for hourly transit service between Alameda and Oakland is limited, the study does not recommend funding a commute hour water shuttle. A traditional land based shuttle will provide more service to more riders for less of a cost.

Estuary Crossing Study (2009)

The study examined implementing various crossing alternatives between the City of Alameda and City of Oakland. Three alternatives were identified in the screening process including existing service improvements (short-term), new water crossing (mid-term), and bridge, tunnel or other evaluated structure (long-term).

The existing service improvement alternative recommended modifications to Posey Tube. Recommended improvements included replacing existing plate covers, filling in grooves on the existing concrete path, and establishing a regular maintenance program. The new water crossing project alternative determined an intermediate solution that would establish water shuttle/taxi with high-priority for bicyclist and pedestrian alternatives. The Bridge, Tunnel, or Other Evaluated Structure Alternative (long-term) recommended an elevated, moveable, low level structure for pedestrians, bicyclists and neighborhood electric vehicles. The long-term alternative faces various obstacles to implementation because of new

construction requirements, U.S. Coast Guard policies, and nearby land uses. A fixed bridge meeting ADA requirements would require a 600 foot (horizontal) clearance, a full environmental impact report, and cost an estimated $125 million. Existing U.S. Coast Guard policy could keep a potential Draw Bridge closed during peak travel time to prioritize access to boats and the nearby Union Pacific railroad tracks on the Oakland side could also delay bridge users.

AC Transit Service Expansion Plan (SEP) (2016)

The AC Transit SEP provides approximately 40 recommendations for new, expanded, and improved routes and schedules throughout the service area. Recommendations are made at the sub-regional level with four identified service area sub-regions: Richmond/San Pablo/El Cerrito, Albany/Berkeley/Emeryville, Alameda/Oakland/Piedmont, and San Leandro/Hayward. The recommendations focus on simplifying route structures, improving connections, increasing frequency, and improving service in emerging markets.

Three alternatives were recommended for the City of Alameda. The selected alternative will add service along Buena Vista Avenue and restore Line 19 service between Downtown Oakland and Fruitvale BART. The approved alternative also recommends free transfers for Clipper Card holders for travel within the City of Alameda.[11] The two postponed alternatives not selected would improve service to the Shoreline area (Main Street Ferry to Fruitvale BART) and Encinal Avenue (Man Street Ferry to Fruitvale BART). The plan is currently being circulated and available for another round of community input prior to a public hearing and final approval by AC Transit Board of Directors later this year.

TDM Related Documents

Several recent City plans have articulated a combination of both general and specific transportation policies, goals and recommendations.

These range from specific requirements in the General Plan that mandate that all new residential and commercial development projects meet certain criteria to more aspirational goals such as transit mode splits for travel between Alameda and San Francisco and through the tubes that were part of the city's TSM/TDM Plan, Alameda Transit Plan and other documents adopted in the last decade.

General Plan

All new development – including Alameda Landing, Alameda Point, the Lennar and Del Monte projects, as well as a handful of other smaller developments, must comply with the General Plan requirement to reduce peak hour residential trips by 10 percent and commercial/retail peak hour trips by 30 percent. The methodology for measuring and monitoring trip generation also was set forth in the General Plan. The General Plan also specifically called for an overall increase in drive alone mode share by 10 percent by 2015. In the benchmark year of 2000, drive alone mode share was 34 percent; in 2010 it had risen to 36 percent, and in 2014, drive alone mode share was 38 percent, which is an increase of 4 percent compared to the benchmark year.

Triggers for meeting the trip reduction requirements for new developments are based on certificates of occupancy for either 100,000 square feet of commercial space, or 150 residential dwelling units. All

[11] City of Alameda City Council Presentation, February 2,2016

property owners (and/or their tenants) must participate in the TDM program (and help fund it), although certain low income housing units are exempt from assessments.

The General Plan requires each project to prepare a Transportation Management Plan (TMP) which is approved by the City concurrently with the first phase of development. This TMP must identify not only which and how it will implement various transportation demand management strategies, but how it will market, monitor and evaluate those efforts. The TMP also spells out any phasing of strategies, such as those which need higher densities of population before implementation, annual reporting and identifying permanent funding mechanisms for TDM.

Transportation Systems Management Ordinance

This document, adopted by the city in 2009, codified definitions, standards and enforcement procedures for transportation demand management strategies in a Transportation Systems Plan (TSP). While all projects are not subject to the same TDM strategies because of size, use and other variables, all strategies are measured by consistent criteria such as:

- Average vehicle ridership and commute trips
- Bike and bus incentive programs
- Carpools, buspools
- Trip reduction programs
- Record keeping requirements
- Employee commute surveys

The ordinance is not regularly used and has been labeled by as “obsolete” by city staff. Without any state mandated authority, the City has been unable to provide any significant enforcement mechanism.

2012 TSM/TDM Plan

The City’s TSM/TDM Plan, which was published in 2012 but not adopted, called for restoring AC Transit bus service to 2009 levels of service or better, increasing frequencies on key transit routes and establishing a circulator service between the College of Alameda, Webster Street, South Shore Shopping Center, and Park Street. This plan focused primarily on island-centered transit, pedestrian and bicycle improvements.

The TDM/TSM plan articulated two key motivators for TDM to be successful: the projection for the Posey Tubes to exceed capacity by 2030, and the relatively high percentage of Alameda residents who also work in Alameda (some 30 percent).

The plan also identified some of the barriers to alternative mode use, including:

- Abundant and free parking for employees at most employment centers
- Lack of availability of transit
- Segregated land uses
- Small employers not participating in TDM
- Lack of awareness by employees about alternatives open to them (other than BART locations)
- Difficulty to find out and use alternatives

As for opportunities, most Alameda employees were willing to consider transit, carpools, vanpools, and telecommuting, if these alternates were available for their work site. In addition, Alameda residents indicated a high willingness to consider biking to work. The TSM/TDM Plan estimated that of Alameda's 26,000+ employees, more than 30 percent either work and live in Alameda, or live in places near good transit to their Alameda jobs. The majority of employment centers (Marina Village/Webster St; Park Street; Harbor Bay; and Southshore) have relatively good access to transit and other alternatives.

The final draft of this report was presented to the City of Alameda Public Works Department in 2012, but was not adopted by the City Council.

Regional Transit Access Study

A 2012 Regional Access Study called for enhancing regional access to Alameda's employment centers; creating new transit access from Alameda Point and the West End with a transit mode share goal of 15 percent; and increasing overall transit mode share for Alameda employees who live outside the city.

Alameda Point TDM Plan

The 2014 plan defines a procedure for implementing strategies and measures designed to reduce automobile travel, particularly among drive alone residents and visitors of Alameda Point. It establishes trip reduction goals, near and long-term services and programs to be offered by the Alameda Point Transportation Management Association, parking management strategies, monitoring and reporting, and implementation.

Alameda Landing TDM Program

The goal of the Alameda Landing TDM Program (2007) is to implement permanently funded measures and programs intended to reduce weekday drive alone weekday trips and total emissions, while simultaneously increasing awareness and the use of alternative modes of transportation. The program provides implementation strategies, monitoring, evaluation and annual reporting criteria, as well as key program elements to make the new program a success.

Parking Related Documents

Transportation Element

The City of Alameda's General Plan Transportation Element provides a targeted objective and set of policies that seek to provide parking, enhance the use of alternative modes of transportation, and assist the development of an intermodal transportation system. Many of the objectives and policies pertaining to parking seek to increase multi-modal use through multiple mechanisms, including the use of in-lieu fees and shared parking strategies in mixed use areas. An example objective is *Objective 4.2.5.a* which states "Work with retail development to set aside existing parking areas as well as develop and promote mode transfer points, such as park-and-ride lots, to enhance the use of alternative modes of transportation and to assist the development of an intermodal transportation system."

2008 Parking Study

The 2008 parking study focused on two parking districts, West Alameda and Park Street. An existing conditions analysis was performed, including occupancy, turnover, and duration of occupancy for parking spaces in the study area. The study determined high underutilization of several parking lots in both parking districts, with concentrated occupancy at two public parking lots (lot C and lot A) located in the Park Street district. The study made several recommendations including: (1) Establish an evaluation

process for satellite parking and park and ride lots for future study, (2) further explore the feasibility of four parking garage locations, (3) implement a two-tiered metered price parking in both parking districts, (4) install multi-spaced metering, (5) raise the price of monthly employee parking permits for the Civic Center Parking Garage.

In 2014, the City approved parking improvements for Park Street and Webster Street Shopping Districts. The approved recommendations included installation of metered parking, installation of new wayfinding signage, and a commitment to maintaining an 85 percent parking occupancy rate to maximize turnover and reduce rates of cruising for parking.

Other Related Ongoing Projects

- ***City of Alameda Bicycle Master Plan Update***: The City of Alameda will be updating the 2010 Bicycle Master Plan. This update will include an update to recommendations, funding and implementation.
- ***Bike Share Feasibility***: The City of Alameda is currently examining implementing its own bike share program through the expansion of Bay Area Bike Share on the island. A report examining market potential and implementation recommendations will be prepared in the spring of 2016.
- ***Consolidated Transportation Management Association (TMA)***: The City of Alameda is pursuing a consolidated TMA to oversee TDM programs throughout the City. This TMA could work with the TDM programs of individual developments to more efficiently coordinate these programs.
- ***Union Pacific Right-of-way Purchase***: The City of Alameda is studying the feasibility of purchasing Union Pacific property at Tilden way and Constitution Way for potential dedicated bus lanes, bikeways, or walkways.
- ***Seaplane Lagoon Ferry Termina***l: With funds dedicated from the Alameda Point development, the City and the developer are working with the San Francisco Bay Area Water Emergency Transportation Authority with a Memorandum of Understanding to seek the remaining fund to move this project forward. The project implementation schedule has construction in 2018 and 2019 and operations beginning in 2020.
- ***Northern Waterfront AC Transit bus service***: AC Transit is moving forward with plans to restore bus service in the Northern Waterfront Area that will connect to Fruitvale BART and 12th Street BART in Oakland.
- ***AC Transit's Major Corridor Study***: AC Transit is currently conducting a study to identify infrastructure investments that will help buses run faster and more reliably along key transit corridors. The study's goal is to improve customer satisfaction and increase ridership, including bus rapid transit to/from Alameda Point.
- ***WETA's Short-Range Transit Plan and Strategic Plan***: Present a five year plan and vision for the next 20 years of ferry service in the San Francisco Bay Area.
- ***Alameda CTC's Freeway Access Study (formerly the Broadway/Jackson Study to address improved freeway access between west Alameda and freeways)***: This Access Study proposes to improve connectivity between Interstate-880, Interstate-980 and the cities of Alameda and Oakland. The consultant team is studying whether four project concepts, two build alternatives, and a no-build alternative will move into the environmental process for formal evaluation.
- ***MTC's Core Capacity Study***: The Bay Area Core Capacity Transit Study is a joint effort of five transit operators (BART, Muni, AC Transit, Caltrain, and WETA) to find and prioritize investments that will improve travel on public transportation to and from the San Francisco Core.

- ***Downtown Oakland Circulation Study***: The City of Oakland is studying circulation in its downtown and is identifying improvements for circulation including improved access ramps on and off Interstate-880 that connected to the Webster and Posey tubes.

4. Driving Conditions

Intercity Travel

There are four bridges and two tubes accessing Alameda: Posey Tube (southbound), Webster Tube (northbound), Park Street Bridge, Miller-Sweeney Fruitvale Avenue Bridge, High Street Bridge, and Bay Farm Island Bridge (within Alameda, but leads to Doolittle Drive in Oakland). WETA also operates ferries, with terminals at Main Street and Harbor Bay, which take people on and off the island (Ferry operations are described further in Section 5: Public Transit). Since there are limited access points getting on and off the island, peak hour congestion is a primary issue for Alameda.

Interstate-880 borders the western edge of Oakland and provides access after exiting the island from most points of entry/exit. This freeway provides connections to San Francisco via the San Francisco-Oakland Bay Bridge and other Bay Area cities and connecting freeways. **Table 7** provides data on existing conditions at and near the four bridges and two tubes. Level of Service (LOS) at the majority of crossings are acceptable, except at Park Street Bridge during morning commute (LOS E) and during both morning and evening commute at Bay Farm Island Bridge (LOS E at both times).

Table 7: Bridge and Tube Volumes, Delay, and Level of Service (LOS)

Segment	Description	Average Daily Traffic (Year)*	Delay in Seconds (AM/PM)**	LOS**
Webster & Posey Tube	The Webster & Posey Tubes have the highest ADT numbers of any entry/exit point for the City of Alameda. Although tube volumes have fallen more than 20 percent since 1990, combined average daily traffic volumes have remained between 56,000 and 58,000 since 2005. Delay on the Alameda side is minor, with much of the delays occurring on the Oakland side of the crossing, near the 1st intersection and I-880 on-ramp.	57,397 (2013)	10.4/12.3 12/15.8	AM Peak-B PM Peak-B (Webster St & Willie Stargell Ave) AM Peak-B PM Peak-B (Constitution Way & Mariner Square Dr)
Park Street Bridge	Provides connections for motorists, transit users, and cyclists to Oakland and/or the Fruitvale BART station. Traffic along the corridor is heavily congested during peak hours, causing daily backups along I-880 on-ramps, especially for commuter's utilizing Posey Tube upstream to reach I-880.	36,140 (2011)	65.5/36.2	AM Peak-E PM Peak-D (Blanding Ave & Park St)
Miller-Sweeney Fruitvale Avenue Bridge	The bridge provides access to the Fruitvale BART station and shopping center across the estuary, north of I-880. It experiences low to moderate delay.	21,800 (2011)	13.6/17.3	AM Peak-B PM Peak-B (Tilden Way & Blanding Ave)
High Street Bridge	Two lane, double leaf bascule bridge, which spans the Oakland Estuary for 296 feet. High Street Bridge has the fewest number of users of all 5 entry/exit points. While its ADT numbers are the lowest, the nearby bridge intersection displays higher delay than two of the other crossings.	18,000 (2011)	33.3/20.9	AM Peak-C PM Peak-C (Fernside Blvd & High St)
Bay Farm Island Bridge	Bay Farm Island Bridge has the second highest ADT numbers of any entry/exit point for the City of Alameda. It is the only direct land connection between Bay Farm Island and Alameda and is complemented by an adjacent bicycle/pedestrian drawbridge operated by the County.	41,860 (2011)	67.6/58.8	AM Peak-E PM Peak-E (Fernside Blvd & Otis Dr)

*Bridge ADT provided by City of Alameda, March 2011

**Delay and LOS information provided by Alameda Point Draft EIR, September 2013

Intra-city Travel

Getting around within the city is accomplished with the grid network of streets, including east/west and north/south arterial and collector streets. The City of Alameda General Plan Transportation Element identifies three separate types of arterial streets (Regional, Island, Transitional) and two types of collector streets (Island or Transitional). The general plan also identifies roadways that have been prioritized for transit use (see **Figure 16**). Primary transit streets provide for high volume and frequent regional and city wide transit service as well as priority for transit priority treatments such as queue jumps lanes. Secondary transit streets provide for local and neighborhood transit service without physical priority treatments.

Figure 16: Existing Primary and Secondary Transit Streets

As part of the 2013 Alameda Point Project Environmental Impact Report, an analysis of major City of Alameda intersections was conducted to determine existing conditions and future potential traffic impacts due to the construction of the project. Existing Level of Service (LOS) for 32 intersections were examined, two of which were determined to operate at LOS E or F, as well as four additional intersections outside the City. These additional four intersections are within the City of Oakland but close proximity to the island can affect overall Alameda traffic conditions. Intersections operating at unacceptable LOS (E or

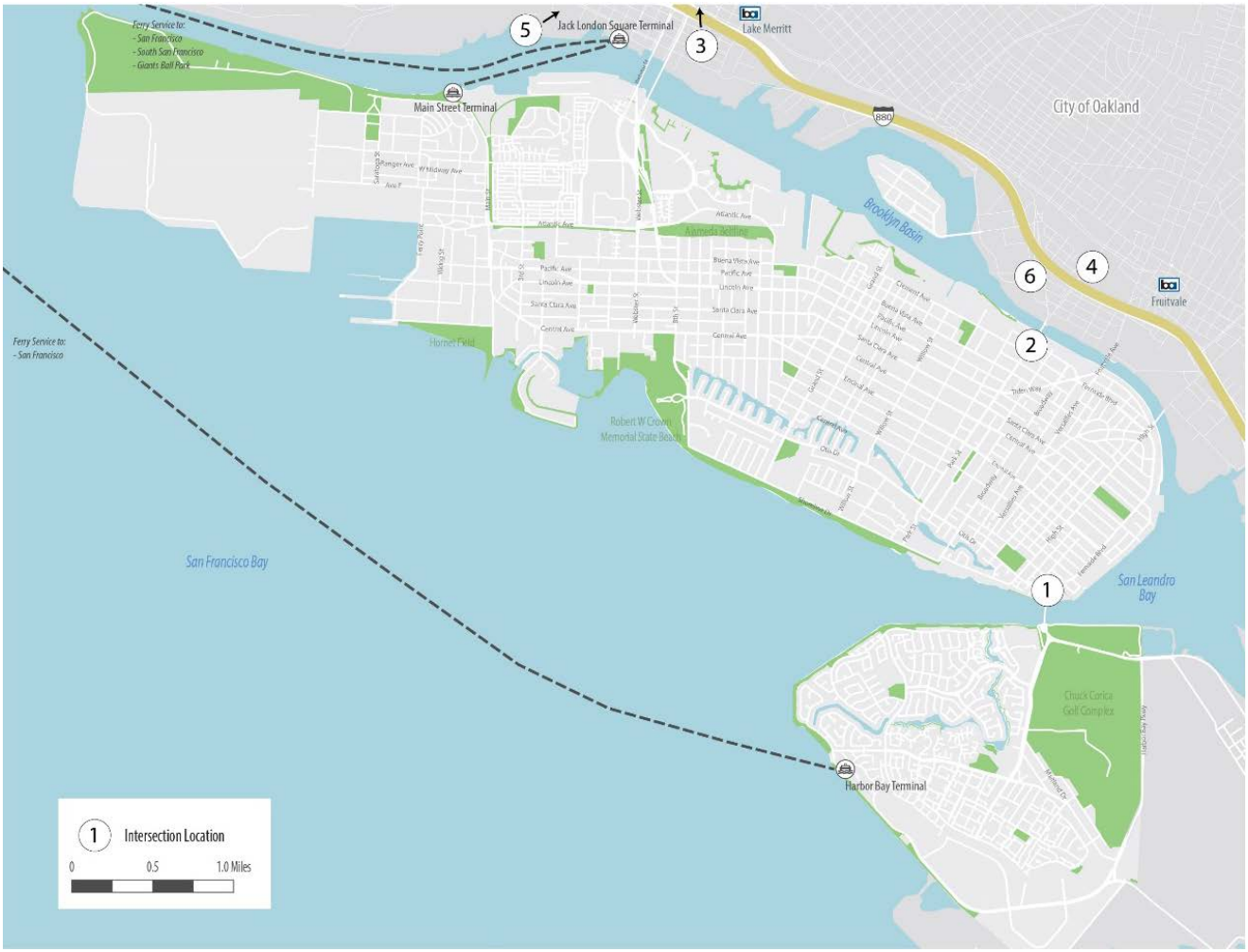
F) during either their morning or afternoon peak hour are shown in **Table 8**. **Figure 17** provides locations of these intersections as they are spread throughout the City of Alameda and Oakland.

Table 8: 2013 Alameda Point EIR LOS E and F Intersections

Map Location	Study Intersection Name	Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
	Alameda Intersections					
1	Fernside Blvd & Otis Dr.	Signal	67.6	E	58.8	E
2	Park St. & Blanding Ave.	Signal	65.5	E	36.2	D
3	Jackson Street & Sixth Street*	Signalized	38.2	D	77	E
4	29th Avenue & I-880 off ramp/E. Eighth/E. Ninth Street*	All-Way Stop	93.4	F	49.9	E
5	Brush Street & 11th Street*	Signalized	80.4	F	14.5	B
6	23rd Avenue & Seventh Street*	Signalized	>120	F	38.7	D

*Located in Oakland, CA

Figure 17: Failing Intersections



Intersections with unacceptable LOS are located in a variety of areas in and around Alameda. It is important to learn about the specific attributes of each individual intersections to determine whether

notable patterns or commonalities exist to remedy the situation. Below are summaries of the six intersections:

- Fernside Blvd & Otis Drive: The Fernside Blvd and Otis Drive intersection is located at the southern end of the City of Alameda, adjacent to the Otis Drive Bridge. The two-lane, signalized intersection is located next to the only direct roadway access between Alameda and Bay Farm Island/Oakland International Airport. The low-performing intersection endures poor LOS during peak commute times for several reasons, including indirect highway access to job centers located on Bay Farm Island, nearby school related traffic at Lincoln Middle School, and indirect highway access for residents of Bay Farm Island to job centers in Oakland and across the Bay Area.
- Park St & Blanding Ave: The Park St and Blanding Ave intersection is located at the southeast end of the City of Alameda, adjacent to the Park Street Bridge. The two-lane, signalized intersection is located next to one of four roadway connections linking the City of Alameda with the City of Oakland and the rest of the Bay Area. Its proximity to the nearby I-880 on/off ramps directly affect the intersections performance, especially during peak travel time. Nearby commercial and retail land uses also affect intersection LOS.
- Jackson St & Sixth St: Jackson St & Sixth St is located in the southwest part of Oakland, southwest of Lake Merritt and adjacent to the I-880 on-ramp at Sixth St. The two-lane, signalized intersection is at the entrance to the I-880 North and two-blocks from an I-880 off-ramp. According to data compiled for the Comprehensive Circulation Study for Downtown Oakland and to/from West Alameda, 32 percent of AM (36 percent of PM) peak traffic from the Posey Tube is destined for the on-ramp at Jackson Street.
- 29th Avenue & I-880 Off-Ramp/E. Eighth/E. Ninth Street: The intersection is located approximately 1/3 mile east of the Park Street Bridge. The All-Way Stop controlled intersection is bisected by an I-880 off-ramp, I-880 on-ramp, and two arterial roads. The intersection is adjacent to a Charter School and within 300 feet of a major shopping center. The intersection is currently negatively affected by the reconstruction of the 29th Ave Highway Overpass Project through summer 2018.
- Brush St & 11th St: The signalized intersection is located in West Oakland, approximately 1.25 miles from Posey Tube. It is intersected by two one-way streets, between 3-4 lanes each, and has an additional 5th leg made up of a two-lane I-980 off-ramp.
- 23rd Ave & Seventh St: The signalized intersection is located in southern Oakland, a quarter-mile north of the Park Street Bridge. The nearby area is predominately industrial and the intersection serves 23rd Ave, which provides access over existing railways, linking Alameda to southern Oakland.

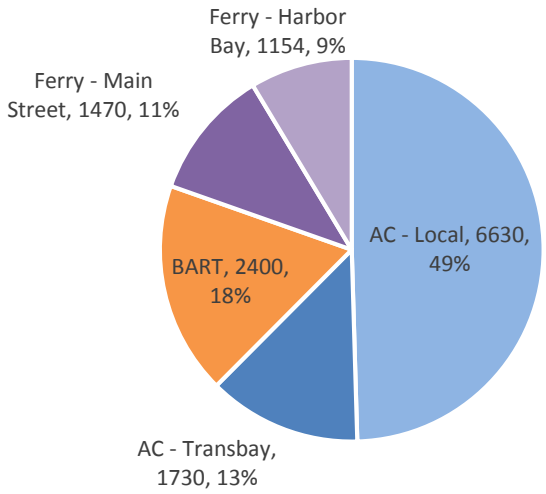
5. Transit Conditions

The City of Alameda is served by multiple transit agencies and services, including local bus service, Transbay bus service, ferry service, five nearby BART stations, paratransit, two senior shuttles, and two shuttles that connect to BART operated by TMAs. As stated in Section 3, 16 percent of Alameda residents use transit to get to and from work (ACS, 2014). **Figure 18** shows existing fixed-route transit service in Alameda.

Figure 18: Fixed-Route Transit

Weekday transit boardings in Alameda, average more than 13,300 each day (see **Figure 19**). AC Transit makes up more than half of all boardings with its local and Transbay service, BART accounts for 18 percent, and ferry boardings account for 20 percent.

Figure 19: Average Weekday Boardings



Alameda-Contra Costa Transit District (AC Transit)

AC Transit provides transit service in Alameda with ten existing lines, including four local lines, three Transbay routes with service to San Francisco, one late night line, and East Bay Paratransit funded with BART. Information on lines serving Alameda are provided in **Table 9**, including service times, frequency, population served and key destinations. As of the time this report was drafted, AC Transit Board of Directors has not voted on System Expansion Plan[13] (SEP) changes that could potentially affect existing lines 20, 31 and O.

Within a ¼-mile of bus stops, about two-thirds of residents and jobs have access to AC transit local and Transbay service. Within a ½-mile of stops, approximately 9 out of 10 residents and jobs have access to service. The following is a breakdown of access to local and Transbay bus stops:

- Local bus stops
  - ¼ mile access: 67 percent of residents have access; 66 percent of jobs have access
  - ½ mile access: 94 percent of residents have access; 97 percent of jobs have access
- Transbay bus stops
  - ¼ mile access: 65 percent of residents have access; 56 percent of jobs have access
  - ½ mile access: 91 percent of residents have access; 87 percent of jobs have access

[13] AC Transit. System Expansion Plan. http://www.actransit.org/overview-alamedaoaklandpiedmont-proposed-improvements/

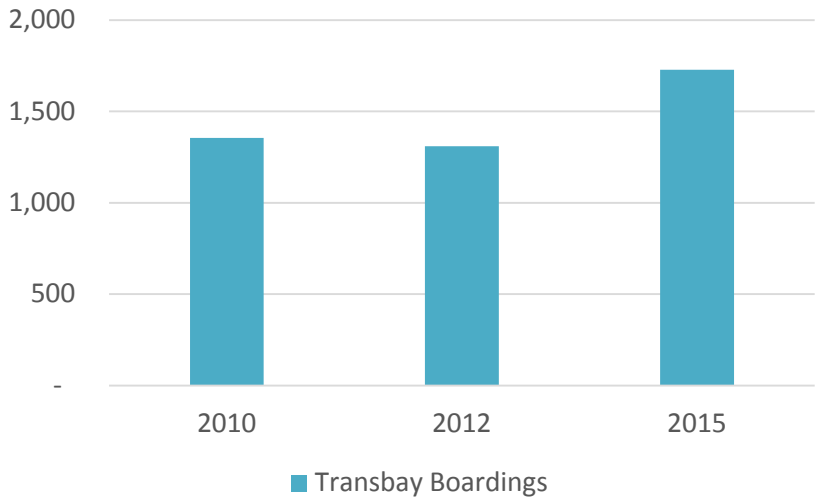
Table 9: AC Transit Line Descriptions

Line	Key Destinations	Span of Service (Weekday)	Peak Frequency (Weekday)	Average Daily Boardings (Weekday)	Population within a ¼ mile of stops (1/2 mile)	Jobs within a ¼ mile of stops (1/2 mile)
Line 20	College of Alameda, South Shore Shopping Center, Webster/Park Streets, 12th Street BART, Fruitvale BART, Diamond District	5:00 a.m. to 12:30 a.m.	30 min	1,470 (Fall 2015)	20,841 (40,651)	9,330 (13,709)
Line 21	Downtown Alameda, Bay Farm Island, Diamond District, Harbor Bay Ferry, Fruitvale BART, OAK Airport	6:00 a.m. to 10:00 p.m.	30 min	750 (Fall 2015)	17,767 (31,902)	7,158 (13,682)
Line 31	Marina Village, West Alameda, Alameda Point, Highland Hospital, Lake Merritt BART, 12th Street BART	5:30 a.m. to 10:45 p.m.	30 min	550 (Fall 2015)	10,543 (18,477)	4,462 (11,266)
Line 51A	College of Alameda, Central Alameda, Webster Street, Downtown Alameda Rockridge BART, Oakland Kaiser, 19th St Oakland BART, 12th Street BART, Fruitvale BART	5:00 a.m. to 12:35 a.m.	7 to 10 min	3,870 (Fall 2015)	22,498 (41,389)	6,639 (12,789)
Line O (Transbay)	San Francisco Transbay Terminal, High Street, Santa Clara Ave, Webster Street	5:00 a.m. to 11:00 p.m.	10 min	1,110 (Fall 2015)	28,995 (48,228)	7,575 (14,612)
Line OX (Transbay)	San Francisco Transbay Terminal, East end of Alameda, Bay Farm Island	5:30 a.m. to 9:00 a.m. & 4:00 p.m. to 9:00 p.m.	10 min	310 (Fall 2015)	18,337 (32,636)	5,677 (9,037)
Line W (Transbay)	San Francisco Transbay Terminal, Webster Street, Shoreline Drive, High Street, Fruitvale BART	5:30 a.m. to 9:00 a.m. & 4:00 p.m. to 9:00 p.m.	20 minutes	300 (Fall 2015)	24,670 (46,202)	7,361 (14,949)
Line 851 (Owl)	Fruitvale BART, Downtown Berkeley, Downtown Oakland	12:00 a.m. to 5:00 a.m.	60 minutes	No data available	22,498 (41,389)	6,639 (12,789)
Line 631	Bay Farm School, Amelia Earhart School, Lincoln Middle School, Alameda High School, St. Joseph, Nea, Academy Middle School, Alameda Learning Center and Encinal High School	7:00 a.m. to 8:00 p.m.	Supplementary Service	No data available	NA	NA
Line 663	Wood Middle School, Lum School, Nea, Academy Middle School, Alameda Learning Center and Encinal High School	7:00 a.m. to 8:00 p.m.	Supplementary Service	No data available	NA	NA

In addition to the lines described in **Table 9**, there are two senior shuttles—lines 314 and 356—operated by AC Transit providing service from Oakland to shopping areas in Alameda. There are also three supplementary lines serving schools, including lines 631, 663, and 687.

Since 2010 ridership on Transbay routes is up 27 percent and ridership on local routes is up 3 percent. **Figure 20** shows average daily Transbay boardings over time and a significant increase between 2012 and 2015.

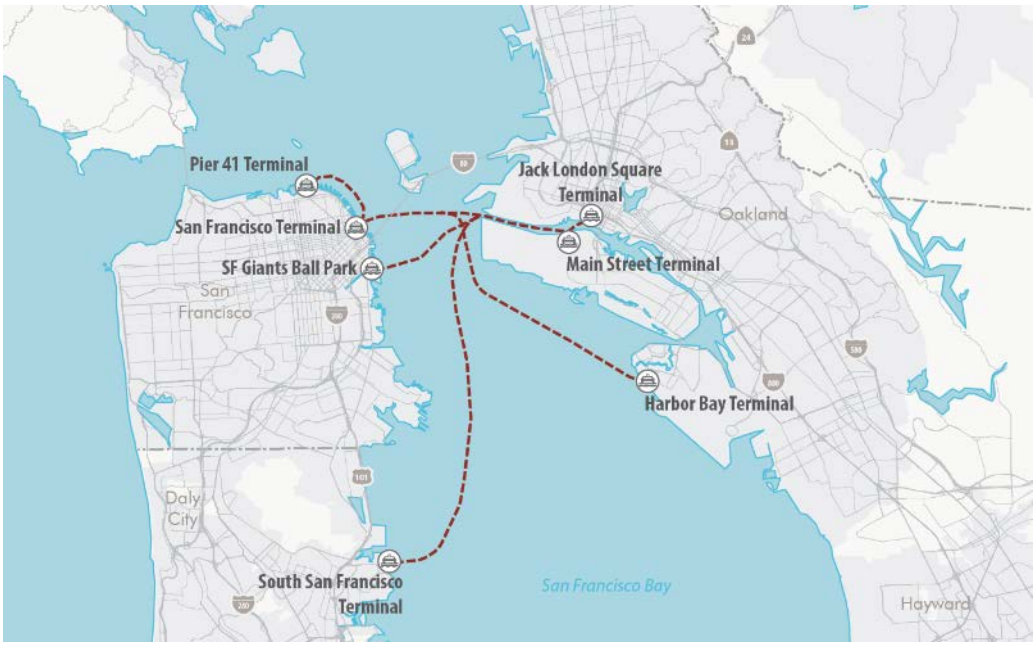
Figure 20: AC Transit Transbay Average Daily Boardings (Weekday)



San Francisco Bay Area Water Emergency Transportation Authority (San Francisco Bay Ferry)

The San Francisco Bay Ferry operates from two terminals in Alameda, one at the Alameda Main Street Terminal and one at Harbor Bay. The Harbor Bay terminal has service to downtown San Francisco exclusively. From the Main Street Terminal, there is service to Oakland (one directional only in the evening), downtown San Francisco, Pier 41, and South San Francisco. **Figure 21** shows ferry service from Alameda.

Figure 21: Existing Ferry Service



Alameda Main Street Terminal Route Service

The Alameda Main Street and Oakland ferry terminals provide all-day weekday and weekend service between the East Bay and Downtown San Francisco, Pier 41, and South San Francisco. Local "Short Hop" services are also provided between Alameda and Oakland and between Downtown San Francisco and Pier 41. Special event services are also provided to AT&T Park from the Alameda Main Street Ferry Terminal. Annual ridership on the Alameda/Oakland Ferry route was approximately 910,000 in 2015.[14] There are no connecting services, routes, or transfer fare agreements at this terminal. There are 62 bicycle racks and 20 bike lockers. There are 324 parking spaces in the designated lot and more than 500 additional spaces on-street or in unpaved lots to the west of the terminal. **Table 10** provides a summary of San Francisco Bay Ferry services at the Alameda Main Street Terminal.

Table 10: Alameda Main Street/Oakland Ferry Route

Terminal	Service Hours	Transit Time
	Year-Round	
Oakland Alameda Main Street San Francisco Downtown Ferry Terminal	Weekdays: 6:00 a.m. to 9:25 p.m. Weekends: 8:30 a.m. to 11:59 p.m.	20-45 Minutes
San Francisco Pier 41	Weekdays: 9:00 a.m. to 9:30 p.m. Weekends: 8:55 a.m. to 10:50 p.m.	
	Special Event	
AT&T Park/China Basin	One roundtrip for weekday and weekend San Francisco Giants games; other events, as scheduled	25-30 Minutes

[14] Draft San Francisco Bay Area Water Emergency Transportation Authority Short Range Transit Plan FY 2015-16

Alameda Harbor Bay Terminal Route Service

The Alameda Harbor Bay Ferry Service provides commute-only weekday service between the Alameda Harbor Bay terminal and the Downtown San Francisco Terminal. The service has an annual ridership of approximately 265,000. Unlike the Alameda Main Street Terminal, Harbor Bay offers connections to AC Transit Line 21 and the Harbor Bay Business Park Shuttle. Users of the Harbor Bay route also receive a free AC Transit transfer with San Francisco Bay Ferry ticket.[15] The most recent inventory of the Harbor Bay facility found 20 bicycle racks and 16 bike lockers available for use. **Table 11** provides a summary of San Francisco Bay Ferry services at the Harbor Bay Terminal.

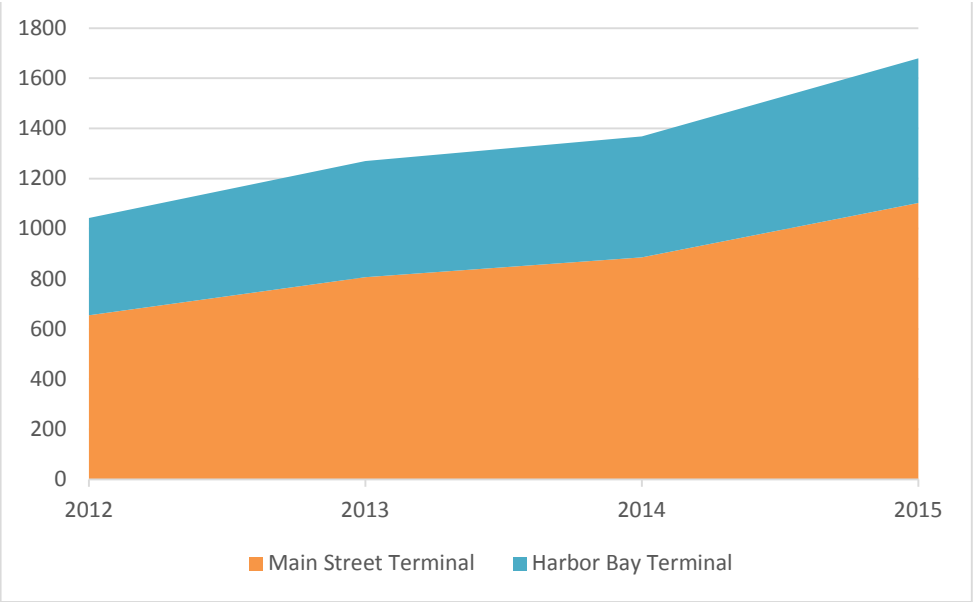
Table 11: Alameda Harbor Bay Ferry Route

Terminal	Service Hours	Transit Time
	Year-Round	
Alameda Harbor Bay San Francisco Downtown Ferry Terminal	Weekdays: 6:30AM to 8:55AM, 4:36PM to 8:00PM Weekends: None	25 Minutes

Ferry Ridership

Ferry ridership by Alameda residents has increased 60 percent since 2012. The Main Street Terminal has average weekday boardings of 1,050 and Harbor Bay Terminal has 580 average weekday boardings. Ridership fluctuates throughout the year with more ferry riders during the warmer summer and fall months. **Figure 22** shows annual average daily boardings between 2012 and 2015.

Figure 22: Average Weekday Ferry Boardings

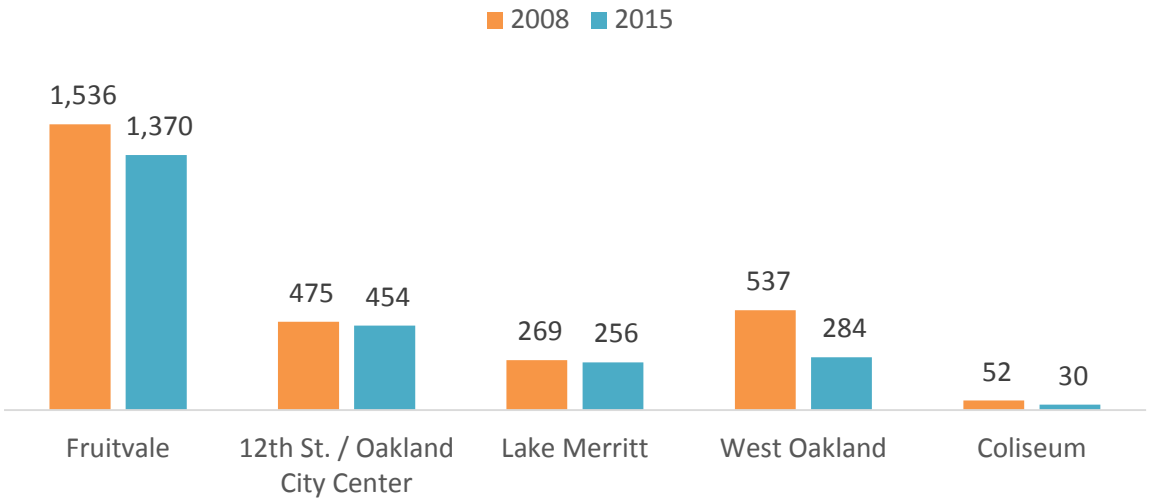


[15] DRAFT San Francisco Bay Area Water Emergency Transportation Authority Short Range Transit Plan FY 2015-16

Bay Area Rapid Transit (BART)

Bay Area Rapid Transit (BART) is a rapid transit, heavy-rail system that covers 104 miles and serves 44 stations throughout the San Francisco Bay Area. There are no BART stations within Alameda, however, there are five BART Stations nearby that are used by Alameda commuters on a daily basis. Nearby BART locations include 12th Street, Coliseum, Fruitvale, Lake Merritt, and West Oakland. The Fruitvale Station attracts the most riders from Alameda with more than 1,300 daily trips originating in Alameda. Daily boardings for each of the nearby stations is 2,395 as show in **Figure 23**.[16] Between 2008 and 2015 the data shows a decline in BART ridership from Alameda residents by 17 percent.

Figure 23: Alameda Home-Based BART Boardings



Paratransit

East Bay Paratransit

East Bay Paratransit provides service to Alameda as a public transit service for people who are unable to use regular buses or trains because of a disability or a disabling health condition. East Bay Paratransit was established by AC Transit and BART to meet requirements of the Americans with Disabilities Act.

Alameda Paratransit Program

The City of Alameda Paratransit Program provides a free mode to get around town. The primary purpose of the shuttle is to serve individuals with disabilities and seniors with access to major shopping destinations and medical facilities around town.[17] Unlike regular fixed-route service, the driver may provide assistance with boarding and exiting, groceries, and other amenities that would normally be unavailable on regular route service. The shuttle operates from 9 a.m. to 4 p.m. Tuesday through Thursday an on average provides services to 430 passengers a month.[18] Planned improvements for the program include Shuttle service to Fruitvale BART, increased shuttle frequency, and shuttle rebranding.

[16] Source: 2008 and 2015 BART Station Profile Study, BART Marketing and Research Department
[17] https://alamedaca.gov/public-works/city-alameda-paratransit-services
[18] City of Alameda

Planned Transit Service Expansion

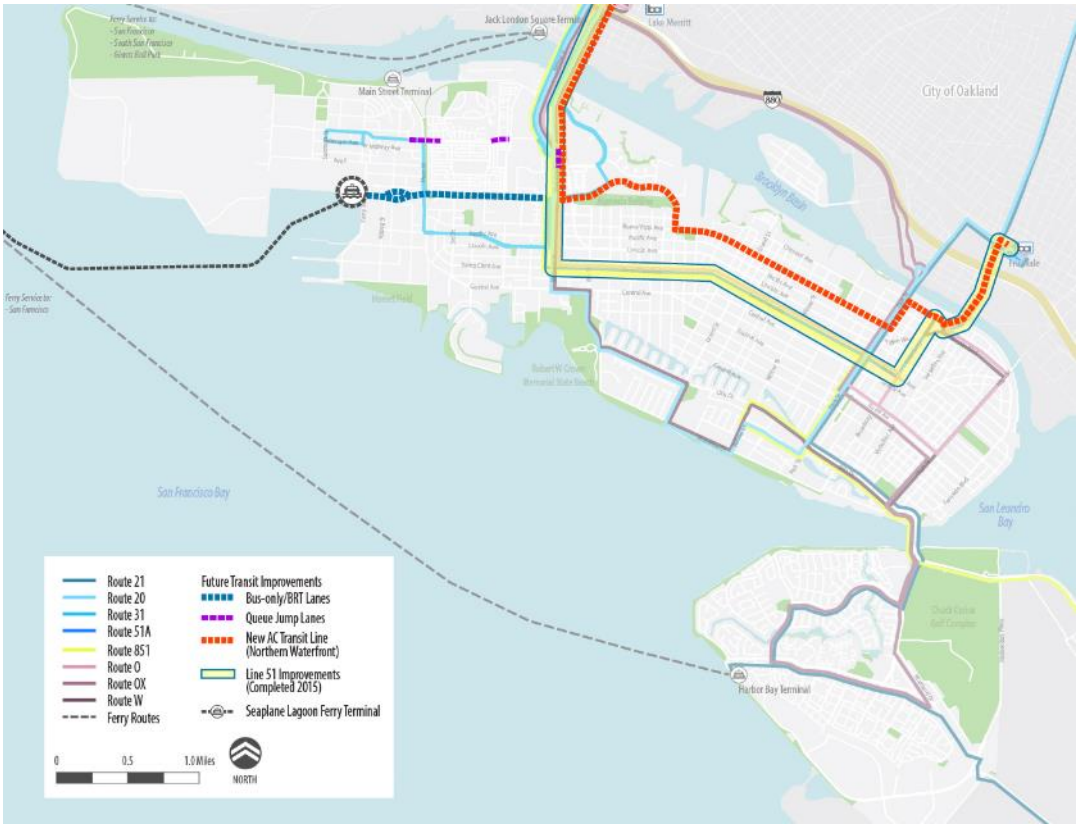
There are several recently completed and planned transit improvements shown in **Figure 24**. Recently completed improvements include the following:

- Line 51A: Improvements to AC Transit Line 51A aimed at improving speeds and reducing delays. Improvements include bus stop relocations, bus stop upgrades, bus bulbs, and bus only lanes.
- Line O: Additional morning trips were recently added to AC Transit Line O.
- Ferry Service: Additional ferry trips have been added.

There are also several planned improvements to transit, including the following:

- Restored AC Transit route along the Northern Waterfront.
- Bus-only lanes on Ralph Appezzato Memorial Parkway funded through TDM fees from new developments.
- Bus queue-jump lanes at Willie Stargell Ave. to improve bus speeds through the intersection of Willie Stargell Ave. and Webster Street.
- New Seaplane Lagoon Ferry Terminal and Service partially funded through TDM fees from new developments.

Figure 24: Planned Transit Service Improvements



6. TDM Programs

TDM refers to strategies that improve transportation efficiency by providing services focused on shifting drive alone trips to carpooling, walking, bicycling, and taking transit. TDM requirements in Alameda have resulted in additional transit service, transit pass programs, BART shuttles, and bicycle and pedestrian facilities at new developments. In Alameda, TDM programs are defined in "Transportation Management Plans" carried out through a Transportation Management Association or TMA.

Current TDM Programs

Six development projects in Alameda (all subject to the General Plan trip reduction requirements) are in various stages of development and have incorporated TDM programs into their development plans. Most of these projects must either join an existing TMA or form their own to implement these programs and services. To date, only one site, Alameda Landing, is open and has a functioning TMA. The others are in various stages of development, and although not yet required to have a functioning TMA, they are exploring the possibilities of joining the existing West Alameda TMA in order to work more collaboratively and efficiently.

The first phase of Alameda Landing (and its TMA) has been open since 2013; it is currently phasing in several new residential units. The City Council approved the project and the Transportation Management Plans for Site A in Alameda Point in 2015.Alameda Point is currently partially occupied by a number of office and retail/restaurant tenants. The Del Monte and Lennar sites are in various stages of planning and approvals. The General Plan and other documents have informed the respective Transportation Management Plans and TDM strategies for each project. The most recent developments share some basic requirements: to meet the "10/30 percent" reductions in peak hour trips, and to staff and fund their respective TDM programs sufficiently to achieve those results from Day One. Specific programs and services such as providing 'last mile' shuttle service to BART, a guaranteed ride home program, a website and informational events to inform residents and employees of their transportation options are also common features of the approved and proposed Transportation Management Plans for each development. Annual monitoring and reporting to the City is another commonality.

Amenities within each project such as secure bicycle parking, showers in commercial buildings, fitness facilities, restaurants and ATM also are required elements of the TDM programs for most of these developments. Other TDM strategies such as transit subsidies, bicycle repair facilities, car-share stations and further studies (such as a water taxi feasibility study) are prescribed for some but not all developments based on unique and variable aspects of each.

TDM program requirements for each development are presented in **Table 12**.

Table 12: TDM Requirements by Development

TDM Strategy (Required to be in place on day one of occupancy	Alameda Landing	Alameda Point	TLC (Del Monte)	Lennar (Lennar Shores)	2100 Clement Ave	500 Wind River Way
Operational TMA with a part time coordinator	x	x	x	x	NA	
Shuttle to BART at :30 headways in peak AM/PM	x	x	x	x		
Website	x	x	x	x		
Marketing/Information (onsite boards/kiosks; new employee/resident handbooks; promo materials; Guaranteed Ride Home)	x	x	x	x		NA
Annual monitoring and reporting	x	x	x	x	x	X
Transit subsidy or pass program		x	x	x	NA	
Conduct water taxi feasibility study	x				NA	
Secure bike parking in all buildings	x	x	x	x	NA	
Shower facilities in commercial buildings	x	x		NA	NA	

7. Best Practices in Transit and TDM

Transit and TDM strategies have grown significantly with advancements in communications and wireless technology. The following section explores potential best practice solutions that could be implemented in Alameda to better manage its transportation system.

Transit Signal Priority (TSP)

Operation improvement that uses technology to reduce dwell time at traffic signals for transit vehicles by shortening red lights or holding green lights. The system modifies normal signal operation process to better accommodate transit vehicles. Benefits of implementing TSP include reduced transit travel times and reductions of large fluctuations in arrival and departure times.

Queue Jump Lanes

Short stretches of bus lane combined with TSP that enable buses to by-pass waiting traffic queues and to cut out in front of traffic by getting an early green signal.

Bus-Only Lanes

Traffic lanes on surface streets reserved for the exclusive use of buses. Typical configurations are either curb-side lanes like in San Francisco or median lanes like those typically used for bus-rapid transit systems.

Real-Time Arrivals

Real-time arrival information helps reduce uncertainty associated with public transit trips and improves overall level of service. Real-time predictions enable operators like AC Transit to apply proactive control strategies in cases of bus breakdowns or special events.

Transit Passes

Transit agencies typical team with universities, employers, developers and residential neighborhoods to provide universal transit passes. Passes provide unlimited rides on local or regional transit providers for low monthly fees, often absorbed by schools, employer, or developer. This strategy has been shown to be extremely efficient at reducing the number of car trips in an area-reductions in care mode share of 4 percent to 22 percent with an average reduction of 11 percent.[19]

Parking Demand-Based Pricing

A pricing method that uses consumer demand as the central element for minute-by-minute to hourly parking rates. Demand-based pricing has been implemented in multiple cities across the Bay Area including San Francisco, Oakland, and Berkeley.

Parking Maximums

Policy shift that establishes maximum levels of parking requirements for new developments. The policy lowers or completely removes minimum parking requirements and demands parking space requirements be justified on a project by project basis. The practice can lower the overall cost of developments and enable additional units to be added where parking spaces would have traditionally been incorporated.

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[19] http://www.seattle.gov/transportation/docs/ump/07%20SEATTLE%20Best%20Practices%20in%20Transportation%20Demand%20Management.pdf

Unbundling Parking Costs

Parking is sold or rented separately from the cost of buying or renting building space. Occupant's pay for the parking spaces they actually need. Best practices also advise building owners lease or sell excess parking spaces and regulation of nearby on-street parking to avoid spillover problems.[20]

[20] http://www.vtpi.org/tdm/tdm28.htm#_Toc128220488

8. Conclusion

The residents of Alameda are well-serve by transit, have adequate transportation options, and are in close proximity to major regional connectors (Main Street Ferry Terminal, Harbor Bay Ferry Terminal, Fruitvale BART, and Lake Merritt BART). Transportation options are abundant, especially for new developments that are implementing TDM programs and expanding access to transit and other modes. Congestion on the island is focused around major corridor connections (Park Street Bridge, Bay Farm Island Bridge, and Webster/Posey Tube on the Oakland side) and there is strong consensus from existing city plans and staff that multimodal transportation options should be a top priority for the city's short and long-term future. This memo, along with the Goals and Objectives Memo, will form the basis for a set of strategies and recommendations to improve transit within Alameda.

ATTACHMENTS

Attachment 1: City of Alameda Transit/TDM Plans - Recommendations from Previous Studies

Primary Category	Secondary Category	Recommendation	Source	Current Status
Crossings	Ferry	New Vessels - Alameda-SF Ferry Terminal	ACTC Transit Plan Network Recommendations (2015 Draft Technical Memo)	TBD
Crossings	Ferry	Brooklyn Basin-SF Ferry Terminal: Ferry service between Brooklyn Basin and San Francisco Ferry terminals via Jack London Square. This project would build upon existing successful service currently operated by WETA from Jack London Square and Main Street Alameda	ACTC Transit Plan Network Recommendations (2015 Draft Technical Memo)	TBD
Crossings	Ferry	A water shuttle is not recommended at this time. Currently, there is a lack of land uses at the waterfront.	Alameda to Oakland Water Shuttle Feasibility Study (2013); Estuary Crossing Study (2009)	TBD
Crossings	Ferry	New Ferry Terminal - Seaplane Lagoon/Alameda Point	City of Alameda 2015/2017 Capital Budget, Long-term Project (2021-2025)	TBD
Crossings	Ferry	Potential Ferry Corridor: Central Mission Bay to Alameda NAS	SF Bay Area Core Capacity Transit Study (2015)	TBD
Crossings	Ferry	Potential Ferry Corridor: San Francisco to Alameda NAS (draft includes 15 hours of service, 30-60 minute headway, 15 to 20 minute trip time)	SF Bay Area Core Capacity Transit Study (2015) and ACTC Transit Plan (2016 Draft)	TBD
Crossings	Ferry	Transit services in the form of standard public bus or private shuttle that is timed to meet ferry departures and arrivals will attract ferry riders and reduce the need to construct parking. Min: Local bus service, hourly headways; Target: :Local and shuttle service timed to meet ferry arrivals and departures	WETA Terminal Access Policy 2015-2016	Policy
Crossings	Ferry	The following targets are for non-motorized mode of access at a ferry terminal. In other words, the percentage of passengers that arrive by walking, biking or transit. Min:30%, Target:50%	WETA Terminal Access Policy 2015-2016	Policy
Primary Category	Secondary Category	Recommendation	Source	Current Status
Crossings	Bus	Main Street-Encinal-Fruitvale BART alternative - unfunded due to lack of funds: 30 minute headway; 6 a.m. to 10 p.m.	AC Transit Service Expansion Plan Alternative (2015)	
Crossings	Bus	Main Street-Shore Line Drive-Fruitvale BART alternative - unfunded due to lack of funds: 30 minute headway; 6 a.m. to 10 p.m.	AC Transit Service Expansion Plan Alternative (2015)	
Crossings	Bus	College Avenue/University Avenue: 2040 Alternative for evaluation of rapid bus - includes Alameda Point BRT	AC Transit Major Corridors Study Draft Evaluation (Feb 2016 TAC Mtg)	
Crossings	Bus	Fruitvale Avenue/Park Street: 2040 Alternative for evaluation of enhanced bus upgrades - includes Alameda Point BRT	AC Transit Major Corridors Study Draft Evaluation (Feb 2016 TAC Mtg)	
Crossings	Bus	Telegraph Avenue: 2040 Alternative for evaluation of BRT - includes Alameda Point BRT	AC Transit Major Corridors Study Draft Evaluation (Feb 2016 TAC Mtg)	
Crossings	Bus	Berkeley-Brooklyn Basin (use of Alameda BRT): Upgrade of existing AC Transit routes 1/1R that run on Telegraph Avenue. Proposed project could potentially include an extension to Brooklyn Basin to accommodate the anticipated growth in this area, or an extension and incorporation of the proposed Alameda BRT.	ACTC Transit Plan Network Recommendations (2015 Draft Technical Memo)	TBD

Crossings	Bus	Berkeley-Fruitvale BART (Upgrade to routes 51A & 51B): This project is an upgrade to the existing AC Transit routes 51A and 51B. The project includes potential extensions along University Avenue and to Alameda Point.	ACTC Transit Plan Network Recommendations (2015 Draft Technical Memo)	TBD
Crossings	Bus	Bus service between Alameda Landing and 12th Street Oakland BART Station.	Alameda Landing TDM Program (2007)	
Crossings	Bus	Maintain a public right of way for a future rail/transit corridor along Clement Avenue from Grand Street to Sherman Street as part of a citywide transit corridor.	Alameda Northern Waterfront General Plan Amendment (2007)*	TBD
Crossings	Bus	Bus service between Alameda Point and 12th Street Oakland BART Station.	Alameda Point TDM Program (2014)	
Crossings	Bus	Adds trash receptacles, lighting, shelters, benches, transit information, bicycle parking, etc. at bus stops.	Alameda Transit Plan (2001)	TBD
Crossings	Bus	Commit to 30 percent transit modal split in tubes (to increase 400-500 additional peak hour person trips and on estuary bridges, provide 400+ peak hour person trips on transit)	Alameda Transit Plan (2001)	TBD
Crossings	Bus	Investigate options for transit "queue jumps" at the Park Street and High Street Bridges	Alameda Transit Plan (2001)	TBD
Crossings	Bus	Line 3-retain diesel bus; proposed Bayfair extension would limit overhead wire capabilities; Line 6-initially operate as diesel bus, retain ROW for either future rail or busway use; Line 49-retain vans; Line 50-convert to battery buses; Line 63-convert to battery buses	Alameda Transit Plan (2001)	TBD
Crossings	Bus	I-880/Broadway/Jackson Multimodal Transportation and Circulation Improvements	City of Alameda 2015/2017 Capital Budget, Long-term Project (2021-2025)	
Crossings	Bus	Miller-Sweeney/Fruitvale Bridge - Lifeline Status - Bus Lanes with bikeway and walkway	City of Alameda 2015/2017 Capital Budget, Long-term Project (2021-2025)	
Crossings	Bus	Bus queue jump lanes at two intersections on Stargell Avenue	City of Alameda 2015/2017 Capital Budget, Short-term Project (2017-2020)	
Crossings	Bus	Bus rapid transit infrastructure on Ralph Appezzato Pkwy	City of Alameda 2015/2017 Capital Budget, Short-term Project (2017-2020)	
Crossings	Bus	Bus service between Northern Waterfront and Oakland BART Stations.	Del Monte and Marina Shores developments	
Crossings	Bus	Enhanced bus stops with level boarding platform to accommodate reduced dwell time	Regional Transit Access Study (2013)	TBD
Crossings	Bus	Half-mile spacing of bus stops	Regional Transit Access Study (2013)	TBD
Crossings	Bus	Traffic signal enhancements - including transit-priority and dedicated bus left-turn phases where needed	Regional Transit Access Study (2013)	TBD
Primary Category	Secondary Category	Recommendation	Source	Current Status
Crossings	Bus/Ferry	Investigate additional transit-only cross estuary capacity, including dedicated transit tube or bus barge or ferry.	Alameda Transit Plan (2001)	TBD
Crossings	Bus/Ferry	By 2005 peak hour cross-estuary capacity must be enhanced through transit services and transit priority measures	Alameda Transit Plan (2001)	TBD
Crossings	Bus/Ferry	Modal split for SF trips should be 65 percent via transit, including 25 percent on ferry, 20 percent on Transbay buses, and 20 percent on BART	Alameda Transit Plan (2001)	TBD
Crossings	Bus/Ferry	Transit centers should be considered at various locations throughout the island, including the College of Alameda, Park Street, Bay Farm Island, Alameda Point and South Shore Center. At these transit centers, multiple transit lines could converge and allow for the efficient transfer of passengers	Alameda Transit Plan (2001) and City of Alameda Transportation Element (2009 Update)	TBD
Citywide	Bus/Ferry	Work with appropriate regional agencies to identify the feasibility of developing presently unavailable alternative modes such as citywide and regional light rail, expanded ferry options and Bus Rapid Transit.	City of Alameda Transportation Element (2009 Update)	TBD

Citywide	Bus/Ferry	Implements a low-income fare discount.	Economic Development Strategic Plan (2008)	TBD
Primary Category	Secondary Category	Recommendation	Source	
Citywide	Bike/Ped	Update Bicycle and Pedestrian Master Plans	Capital Budget-City of Alameda 2015/2017	In process
Primary Category	Secondary Category	Recommendation	Source	
Citywide	Parking	Require that parking be located inside, below, or behind buildings and are not located or designed in a manner that would deter access to the waterfront or reduce the quality of the waterfront experience. Require ample space for pedestrians, landscaping, lighting, and benches in front of buildings	Alameda Northern Waterfront General Plan Amendment (2007)*	Policy
Citywide	Parking	Develop a coordinated parking strategy for the area that maximizes utilization of shared parking facilities or structures and minimizes the need for multiple surface parking lots.	Alameda Northern Waterfront General Plan Amendment (2007)*	TBD
Primary Category	Secondary Category	Recommendation	Source	
Citywide	All Modes	Main Street infrastructure improvements for all modes	City of Alameda 2015/2017 Capital Budget, Short-term Project (2017-2020)	
Citywide	All Modes	Central Avenue complete street	City of Alameda 2015/2017 Capital Budget, Short-term Project (2017-2020)	
Primary Category	Secondary Category	Recommendation	Source	
Citywide	Bus	Alameda Intra-Island Bus Service: Provides cross-island transit access between west Alameda and Bay Farm Island. Increases transit access to business parks.	Economic Development Strategic Plan (2008)	TBD

Attachment 2: 2009 General Plan Transportation Element (TE) Status

Policy Number	Goal/Objective/Policy	Status
4.1: Circulation Goal: Plan, develop and maintain a safe, barrier-free and efficient transportation system to provide the community with adequate present and future mobility.		In process
Objective 4.1.1	Provide for the safe and efficient movement of people, goods, and services.	In process
Policies		
4.1.1.a	Maintain a consistent multimodal classification system of streets throughout the City that will be the basis for identifying vehicle commuter routes, transit routes, bike lanes, as well as corridors for other modes of transportation.	Done as part of TE (2009).
4.1.1.a.1	Continue to identify and improve pedestrian crossings in areas of high pedestrian use where safety is an issue.	In process
4.1.1.b	Enhance pedestrian safety and mobility, particularly in high pedestrian use areas, applying methods consistent with the hierarchy classification of streets identified in 4.1.1.a.	In process
4.1.1.b.1	Identify and mitigate impediments and obstacles to walking to locations that attract pedestrians, such as business districts, schools, transit stops, recreational facilities, and senior facilities.	Completed Grand St/Wood School, Shoreline bikeway, flashing beacons on Otis Drive and Fernside Blvd and Line 51 improvements.
4.1.1.b.2	Develop needed connections that maximize direct access for walking. Examples include legs of intersections where crossing is currently prohibited.	Completed Webster St/ Central Ave improvements.
4.1.1.b.3	Modify signal timing as required to provide pedestrians with sufficient crossing time and minimize pedestrian/vehicle conflicts.	In process
4.1.1.b.4	Identify locations where lighting should be enhanced to provide better visibility and a more comfortable nighttime environment for pedestrians.	In process
4.1.1.c	Implement and maintain a Truck Route map coordinated with the private sector and neighborhood representatives.	In process: http://alamedaca.gov/public-works-key-documents
4.1.1.d	Provide a network of facilities to allow for the safe conveyance of bicycle traffic on all streets and in all sections of the city.	In process

4.1.1.e	Support a convenient, cost-effective public transit system to serve the mobility needs of all segments of the population, including citizens with disabilities, to and from major destinations in Alameda and throughout the region.	In process
4.1.1.f	Design transportation facilities to comply with accepted design and safety standards or guidelines including the use of design features and materials that do not adversely impact on people with disabilities.	In process
4.1.1.f.1	Upgrade existing pedestrian signals by adding countdown, audible, and tactile/vibrational signals. New signals should include these as standard features.	In proces: Nine additional intersections with accessible ped signals in late 2015.
4.1.1.g	Work with appropriate regional agencies to identify the feasibility of developing presently unavailable alternative modes such as citywide and regional light rail, expanded ferry options and Bus Rapid Transit.	In process
4.1.1.h	Encourage traffic within, to, and through Alameda to use the appropriate street system by providing clear and effective traffic control measures to promote smooth flow without unduly disrupting the quality of life for residents.	In process
4.1.1.i	Design transportation facilities to accommodate current and anticipated transportation use.	In process - City maintains a traffic demand model.
4.1.1.j	Maintain the historic street grid and maximize connectivity of new developments to the grid, as well as within any new developments.	In process
4.1.1.k	Minimize the creation of improvements that would physically interrupt existing grid systems, such as cul-de-sacs or diverters.	In process
4.1.1.l	Develop and implement a list of priority projects that support level of service standards.	In process - CIP (2015-17) has 10-year list of transportation projects.
4.1.1.m	Develop a set of design criteria for safe passage of transit users, bicyclists, pedestrians, and people with disabilities through or around construction sites.	Use Caltrans standard procedures.
4.1.1.n	Develop criteria for prioritizing specific transportation projects or types of projects to make the most effective use of resources.	Done in 2013 - Prioritized Transportation Lists.
4.1.1.o	Establish a transportation system management program that provides both mobility and accessibility for people, freight, and goods at all times.	In process

4.1.1.o.1	Employ transportation system management measures to improve traffic and transit movements and safety for all modes of travel. For example, coordinating and synchronizing signals.	In process
4.1.1.o.2	Manage operations to maintain acceptable levels of LOS.	In process
4.1.1.o.2.a	Develop and implement a strategy to increase the use of alternative modes of transportation by 10 percentage points by the year 2015.	In process
4.1.1.o.2.b	Reduce the percentage of Alameda traffic made up of single occupant vehicle trips (e.g. based on Census data, or do survey to establish baseline).	In process
4.1.1.o.2.c	Shift 10 percent of peak hour trips to less congested times of day.	In process
4.1.1.o.2.d	Collaborate with AUSD to explore opportunities to reduce congestion during peak school times, for example staggering class times, encouraging parents to carpool, etc.	In process
Objective 4.1.2	Protect and enhance the service level of the transportation system.	In process
Policies		
4.1.2.a	Develop multimodal level of service (LOS) standards that development will be required to maintain by encouraging the use of non-automotive modes.	In process
4.1.2.b	Monitor the multimodal level of service at major intersections to identify priorities for improvement.	In process
4.1.2.c	Promote methods to increase vehicle occupancy levels.	In process
4.1.2.d	Support and monitor the City's Traffic Capacity Management Procedure (TCMP), which was developed to meet the City's development and transportation goals west of Grand Street.	In process
4.1.2.e	Work with regional, state, and federal agencies to develop plans for design, phasing, funding, and construction of facilities to enhance multimodal cross-estuary travel, such as increased access to Interstate 880 (bridge, tunnel or other vehicle connection) bike/pedestrian shuttles or high occupancy vehicle-only crossing (e.g. transit or carpool lane) to Oakland.	In process
4.1.2.f	Create interagency working groups to discuss ways of mitigating impacts on circulation	In process

	generated from outside the impacted agency's jurisdiction.	
Objective 4.1.3	Preserve mobility for emergency response vehicles and maintain emergency access to people and property.	In process
Policies		
4.1.3.a	Consider emergency response goals in long-range transportation planning and while designing current projects.	In process
4.1.3.b	Work with public safety agencies to adequately consider emergency response needs.	In process
4.1.3.c	Develop a network of emergency response routes, balancing emergency service needs with vehicular, pedestrian and bicycle safety consistent with the adopted street classification system.	In process
Objective 4.1.4	Encourage, promote and facilitate proactive citizen participation to determine the long-term mobility needs of our community.	In process
Policies		
4.1.4.a	Maintain a public forum, such as the Transportation Commission, to facilitate citizen input on transportation policy.	In process - Transportation Commission.
4.1.4.b	Assist in efforts to facilitate dialogue between City departments, residents, and neighborhood organizations.	In process with meetings and on-line surveys on specific topics.
Objective 4.1.5	Consider the transportation needs of the community, including those with limited mobility options.	In process
Policies		
4.1.5.a	Maximize compliance of transportation facilities with Americans with Disabilities Act (ADA) requirements.	In process
4.1.5.b	Continue to support the Paratransit program.	In process: www.AlamedaParatransit.com
4.1.5.c	Continue to support the fixed-route AC Transit system to provide mobility for all, including those without access to personal transportation.	In process
Objective 4.1.6	Increase the efficiency of the existing transportation system by emphasizing Transportation System Management (TSM) strategies and Transportation Demand Management (TDM) techniques.	In process as part of the upcoming Transit and TDM Plans.
Policies		
4.1.6.a	Identify, develop, and implement travel demand management strategies to reduce demand on the existing transportation system.	In process

4.1.6.a.1	Establish peak hour trip reduction goals for all new developments as follows: • 10 percent peak hour trip reduction for new residential developments • 30 percent peak hour trip reduction for new commercial developments.	In process with each new development project.
4.1.6.a.2	Develop a TDM toolbox that identifies a menu of specific TDM measures and their associated trip reduction percentages.	In process with each new development project.
4.1.6.a.3	Develop a citywide ITS infrastructure assessment using a Systems Engineering approach to determine capital investment needs.	In process
4.1.6.a.4	Require implementation of ITS infrastructure as part of all new developments.	In process with each new development project.
4.1.6.b	Identify locations where signal coordination could be employed to improve traffic flow and reduce vehicle emissions.	In process
4.1.6.c	Coordinate with the appropriate agencies to utilize emerging technologies and Smart Corridor techniques (e.g. transit-priority systems for traffic signals and real-time information to enable travelers to choose the best routes) for the bridges and tubes.	In process - transit priority is now provided on Webster St at Willie Stargell Ave.
4.1.6.c.1	Integrate with existing regional ITS initiatives such as SMARTCORRIDORS.org, 511.org, Integrated Congestion management for the I-880 corridor, etc., to improve capacity at the bridges, tubes and corridors.	In process
4.1.6.c.2	Collaborate with neighboring jurisdictions such as Oakland and San Leandro to ensure a coordinated approach to ITS implementation.	In process
4.1.6.c.3	Work with transit agencies in linking their ITS infrastructure to enhance operational efficiency along the City's egress and ingress corridors.	In process
4.1.6.d	Minimize the cross-island portion of regional vehicular trips by providing alternative connections to Oakland, such as Water Taxis, shuttles, and a Bicycle Pedestrian Bridge and by encouraging Transportation Systems Management (TSM) and Transportation Demand Management (TDM) techniques.	In process - Estuary Crossing Shuttle began in 2011: www.EstuaryXINGshuttle.org.
4.1.6.e	Support and maintain an up-to-date Transportation System Management (TSM) and Transportation Demand Management (TDM) plan consistent with state law to provide adequate traffic flow to maintain established LOS.	In process as part of the upcoming Transit and TDM Plans.
4.1.6.e.1	Develop a TDM plan which would include specific requirements for new developments	In process with each new development project.

	to implement measures to mitigate their traffic impacts based on an applicable nexus.	
4.1.6.e.2	Develop one or more sub-area TDM plans to help address the unique conditions of different areas within Alameda.	In process as part of the upcoming Transit and TDM Plans.
4.1.6.f	Require monitoring programs to ensure that TSM and TDM measures mitigate impacts.	In process with each new development project.
4.1.6.f.1	Develop thresholds of significance for ongoing monitoring and evaluation of TSM/TDM measures.	In process with each new development project.
4.1.6.g	Maximize the integration and coordination of various individual modes of transportation to enhance systemwide efficiency.	In process
4.1.6.g.1	Work with various local and regional transit agencies in integrating their schedules.	In process as part of the upcoming Transit and TDM Plans.
Objective 4.1.7	Identify facilities, corridors, mode transfer points, and rights-of-way needed to enhance the viability of non-automobile transportation. Meet long-term mobility needs in order to minimize the need for increased cross-island roadway capacity.	In process - Clement Avenue and Central Avenue Complete Street projects as well as the Cross Alameda Trail.
Policies		
4.1.7.a	Identify and address impediments to system-wide mobility.	In process
4.1.7.b	Identify major activity centers that can function as mode transfer points.	In process as part of the upcoming Transit and TDM Plans.
4.1.7.c	Work with retail development to set aside existing parking areas as well as develop and promote mode transfer points, such as park-and-ride lots, to enhance the use of alternative modes of transportation and to assist the development of an intermodal transportation system.	In process - City CarShare now has four parking spaces in the city of Alameda.
4.1.7.d	Develop strategies to preserve and identify required rights-of-way.	In process
4.1.7.d.1	Pursue opportunities to utilize the corridor of the former Alameda Belt Line railroad for transit, bicycle, and pedestrian transportation.	In process - the Cross Alameda Trail is funded through to construction between Main St and Sherman St.
4.1.8.d	Study options for an estuary crossing in Alameda's West End for bicyclists, pedestrians and transit.	Done as part of the Estuary Crossing Study (2009).

4.2 - Livability Goal: Balance the mobility needs of the community with the overall community objective of creating a livable human and natural environment. Coordinate the interaction of transportation systems development with land use planning activities.		In process
Objective 4.2.1	Design and maintain transportation facilities to be compatible with adjacent land uses.	In process
Policies		
4.2.1.a	Buffer land uses adjacent to high volume streets without the use of soundwalls.	In process
4.2.1.a.1	Where sound walls or buffers exist, breaks for pedestrian access should be provided wherever pedestrian routes would normally occur.	In process
4.2.1.b	Include landscaping in transportation projects to enhance the overall visual appearance of the facility and improve and treat urban runoff.	In process
Objective 4.2.2	Plan, develop and implement a transportation system that enhances the livability of our residential neighborhoods.	In process
Policies		
4.2.2.a	Protect residential neighborhood integrity by minimizing the impacts of through traffic on low-volume residential streets.	In process
4.2.2.b	Maintain a Traffic Calming Toolbox, as described on the City Website, and implementation program.	In process
4.2.2.b.1	Integrate traffic calming elements into new facility design and as appropriate, modify existing facilities to enhance traffic systems management.	In process
4.2.2.c	Support programs that increase the number of people transported without increasing the number of vehicles.	In process
4.2.2.d	Develop a program that monitors and reacts to traffic volumes on selected city streets to ensure an appropriate distribution of traffic.	In process
4.2.2.e	Maintain a speed limit of 25 MPH on all streets in Alameda in order to avoid creating barriers between neighborhoods. Exempt current roadways with speed limits above 25 MPH: Ralph Appezzato Memorial Parkway, Main Street, Constitution Way, Tilden Way, Doolittle Drive, Island Drive, North Loop Road, South Loop Road, and Harbor Bay Parkway.	In process
4.2.2.f	Encourage the inclusion of amenities, such as benches or art, in pedestrian improvement projects.	In process

Objective 4.2.3	Plan, develop and implement a transportation system that protects and enhances air and water quality, protects and enhances views and access to the water, and minimizes noise impacts on residential areas.	In process
Policies		
4.2.3.a	Street projects should be designed to minimize the requirements for sound mitigation measures. Do not implement street projects that necessitate a soundwall.	In process
4.2.3.b	Ensure that transportation system improvements comply with accepted noise standards in residential areas. Monitor the noise impacts of the existing transportation system. Identify strategies to mitigate excessive noise conditions.	In process
4.2.3.c	Identify and pursue opportunities to enhance shoreline access for pedestrians.	In process - completed Shoreline bikeway project, extended waterfront trail by the Main Street Ferry Terminal
4.2.3.d	Support and prioritize trip reduction strategies that maximize air quality benefits and reduce greenhouse gas emissions.	In process
4.2.3.d.1	Support the use of alternative fuel vehicles for all transportation modes.	In process
4.2.3.d.2	Encourage shift of trips to alternative transportation modes. This includes short trips, as these will have a disproportionate impact on air quality.	In process
Objective 4.2.4	Develop a Transportation plan based on existing and projected land uses and plans. Encourage land use decisions that facilitate implementation of this transportation system.	In process with each new development project.
Policies		
4.2.4.a	Encourage development patterns and land uses that promote the use of alternate modes and reduce the rate of growth in region-wide vehicle miles traveled.	In process with each new development project.
4.2.4.b	Integrate planning for Environmentally Friendly Modes, including transit, bicycling and walking, into the City's development review process.	In process with each new development project.
4.2.4.c	Encourage mixed use development that utilizes non-single occupancy vehicle transportation modes.	In process with each new development project.

Objective 4.2.5	Manage both on-street and off-street parking to support access and transportation objectives.	In process with each new development project.
Policies		
4.2.5.a	Consider a fully-funded on-street parking permit program in neighborhoods with chronic parking problems and new developments.	In process with each new development project.
4.2.5.b	Support use of parking in-lieu fees where feasible to increase and encourage public transit options and evaluate the use of shared parking strategies in mixed use areas.	In process with each new development project.
4.3 - Transportation Choice Goal: Encourage the use of transportation modes, especially at peak-period, other than single-occupant automobile in such a way as to allow all modes to be mutually supportive and to function together as one transportation system.		In process
Objective 4.3.1	Develop programs and infrastructure to encourage the use of high occupancy vehicles (HOVs), such as buses, ferries, vans and carpools.	In process
Policies		
4.3.1.a	Update and implement the recommendations of the Alameda Long Range Transit Plan.	In process as part of the upcoming Transit and TDM Plans.
4.3.1.b	Consider the use of strategies to give priority to high occupancy vehicles at the bridges and tubes.	In process: Webster St/ Willie Stargell Ave bus queue jump lane and signal.
4.3.1.c	Actively encourage increases in public transit, including frequency and geographic coverage.	In process as part of the upcoming Transit and TDM Plans.
4.3.1.d	Encourage and support efforts to provide information to use environmentally-friendly transportation modes.	In process
4.3.1.e	Provide amenities or support programs to make using alternative modes a more attractive option.	In process
4.3.1.f	Reduce vehicle trips through telecommuting or other options.	In process
4.3.1.g	Establish targets for increasing mode share of non-SOV transportation modes.	In process
4.3.1.g.1	Increase daily non-SOV mode share (transit, walking, bicycling) by 10 percentage points by 2015 as compared to 2000.	In process
4.3.1.g.2	Increase the share of children who walk or bicycle to school by 10 percentage points by 2015 as compared to 2000.	In process

4.3.1.h	Encourage the creation of transit-oriented development and mixed use development.	In process with each new development project.
4.3.1.i	Develop parking management strategies for both new development projects and, as appropriate, for existing development.	In process with each new development project.
4.3.1.i.1	Establish maximum parking requirements for both new development and, as appropriate, for existing development.	In process with each new development project.
4.3.1.j	Implement queue jump lanes and other strategies for improving transit operations.	In process: Webster St/ Willie Stargell Ave bus queue jump lane and signal.
Objective 4.3.2	Enhance opportunities for pedestrian access and movement by developing, promoting, and maintaining pedestrian networks and environments.	In process
Policies		
4.3.2.a	Include improvements to pedestrian facilities as part of City transportation improvement projects (streets, bridges, etc.).	In process
4.3.2.a.1	Wherever possible provide wide sidewalks that facilitate and accommodate activities such as sidewalk cafes and other pedestrian friendly activities.	In process
4.3.2.b	Review City sidewalk design standards to ensure continued compliance with requirements of the Americans with Disabilities Act and to better serve pedestrian needs.	Covered in the City's Pedestrian Design Guidelines (2011).
4.3.2.b.1	Evaluate existing sidewalks for compliance with ADA requirements, and to identify possible improvements such as relocating utility installations and poles which block or hinder pedestrian access.	In process - CIP (2015-17) has a sidewalk repair budget totaling $3 million.
4.3.2.c	Identify gaps and deficiencies in the City's existing pedestrian network and develop strategies to rectify them.	Covered in the City's Pedestrian Plan (2009).
4.3.2.c.1	Wherever possible, establish facilities on all natural pedestrian routes (both sides of streets and drives, along visually direct lines to major destinations, etc.).	In process - proposed path in Neptune Park - construction expected in late 2015.
4.3.2.c.2	Establish a program to plan for future pedestrian paths to connect streets, alleys, paths, etc., that are cut off from others (e.g., at the end of a cul-de-sac).	In process

4.3.2.c.3	Use observations of common pedestrian behavior, from general studies or direct evidence such as informal paths in Alameda, to improve connections where feasible.	In process - proposed path in Neptune Park - construction expected in late 2015.
4.3.2.d	Develop and implement a Pedestrian Master Plan with regard to physical system improvements, as well as programs and policies relating to encouragement, education and enforcement.	Completed in 2009; update expected to begin in 2015.
4.3.2.d.1	Develop criteria to identify intersections where signal priority could be given to pedestrians to improve and encourage pedestrian trips.	In process
4.3.2.d.2	Produce and distribute brochures and other materials to educate residents, especially children and seniors, on walking safely, and encourage walking as an alternative to car trips, including walking to school.	In process
4.3.2.d.3	City should work with public and private schools to identify needs and roles in addressing infrastructure, education and encouragement.	In process: Work with schools on a case-by-case basis.
Objective 4.3.3	Promote and encourage bicycling as a mode of transportation.	In process
Policies		
4.3.3.a	Maintain and implement the Bicycle Master Plan with regard to physical system improvements (especially the identified priority projects), as well as programs and policies relating to encouragement, education and enforcement.	In process
4.3.3.b	Include improvements to bike facilities as part of City transportation improvement projects (streets, bridges, etc.).	In process - Central Ave resurfacing added bike lanes (2014).
4.3.3.c	Identify gaps and deficiencies in the City's existing bike network and develop strategies to rectify them.	In process
Objective 4.3.4	Manage demand placed on the street system through a TDM program to be developed with available funding in accordance with state law.	In process as part of the upcoming Transit and TDM Plans.
Policies		
4.3.4.a	Work with major employers to accommodate and promote alternative transportation modes, flexible work hours, and other travel demand management techniques and require that appropriate mitigation be funded through new development if a nexus exists.	In process as part of the upcoming Transit and TDM Plans as well as with each new development project.

Objective 4.3.5	Assess the impacts on all transportation modes (including auto, transit, bike and pedestrian) when considering mobility and transportation improvements.	In process with complete street projects.
Objective 4.3.6	Coordinate and integrate the planning and development of transportation system facilities to meet the needs of users of all transportation modes.	In process
Policies		
4.3.6.a	Review and update multimodal design standards for lane widths, parking, planting area, sidewalks, and bicycle lanes to guide construction, maintenance, and redevelopment of transportation facilities consistent with the street classification system.	In process
4.3.6.b	Identify areas of conflict and of compatibility between modes (e.g. walking, bicycling, transit, automobiles, and people with disabilities). Pursue strategies to reduce or eliminate conflicts, increase accessibility, and foster multimodal compatibility.	In process
4.3.6.c	Maintain a committee (such as the Interagency Liaison Committee) that works with transit service providers to resolve transit-related problems.	In process - Interagency Liaison Committee
4.3.6.d	Coordinate efforts with regional funding agencies in order to address Alameda's regional transportation issues.	In process
4.4 - Implementation Goal: Implement and maintain the planned transportation system in a coordinated and cost-effective manner.		In process
Objective 4.4.1	Require developers to reserve and construct (if nexus exists) rights of way, transportation corridors and dedicated transportation facilities through the development process and other means.	In process
Policies		
4.4.1.1	Develop design guidelines for pedestrian access in new development and redevelopment areas, including shopping centers, residential developments, and business parks.	In process
4.4.1.2	In any new development or re-development, safe and convenient pedestrian connections between major origins and destinations, including connections within the development and between the development and adjacent areas, should be a high priority in evaluating the site plan.	In process
4.4.1.3	Develop shoreline access design guidelines.	In process

Objective 4.4.2	Ensure that new development implement approved transportation plans, including the goals, objectives, and policies of the Transportation Element of the General Plan and provides the transportation improvements needed to accommodate that development and cumulative development.	In process with each new development project.
Policies		
4.4.2.a	Roadways will not be widened to create additional automobile travel lanes to accommodate additional automobile traffic volume with the exception of increasing transit exclusive lanes or non-motorized vehicle lanes.	In process
4.4.2.b	Intersections will not be widened beyond the width of the approaching roadway with the exception of a single exclusive left turn lane when necessary with the exception of increasing transit exclusive lanes or non-motorized vehicle lanes.	In process
4.4.2.c	Speed limits on Alameda's new roads should be consistent with existing roadways and be designed and implemented as 25mph roadways.	In process
4.4.2.d	All EIRs must include analysis of the effects of the project on the city's transit, pedestrian and bicycling environment, including adjacent neighborhoods and the overall City network.	In process with each new development project.
4.4.2.e	EIRs will not propose mitigations that significantly degrade the bicycle and pedestrian environment which are bellwethers for quality of life issues and staff should identify "Levels of Service" or other such measurements to ensure that the pedestrian and bicycling environment will not be significantly degraded as development takes place.	In process with each new development project.
4.4.2.f	Transportation related mitigations for future development should first implement TDM measures with appropriate regular monitoring; transit, bicycle and pedestrian capital projects; and more efficient use of existing infrastructure such as traffic signal re-timing in order to reduce the negative environmental effects of development, rather than attempting to accommodate them. Should appropriate regular monitoring indicate that these mitigations are unable to provide the predicted peak-hour vehicle trip reductions, additional TDM measures, development specific traffic caps, or mitigations through physical improvements	In process with each new development project.

	of streets and intersections, consistent with policy 4.4.2.a and policy 4.4.2.b, may be implemented.	
4.4.2.g	After the implementation of quantifiable/verifiable TDM measures (verified through appropriate regular monitoring), and mitigation measures consistent with 4.4.2.f and identification of how multimodal infrastructure relates to congestion concerns, some congestion may be identified in an EIR process as not possible to mitigate. This unmitigated congestion should be evaluated and disclosed (including intersection delay length of time) during the EIR process, and acknowledged as a by-product of the development and accepted with the on-going funding of TDM measures.	In process with each new development project.
Objective 4.4.3	When considering improvements to transportation facilities, the following issues should be addressed: traffic demand, preservation of neighborhood character, impacts to traffic operations including all modes of transportation, protection of historic and natural resources, utility and stormwater needs, the conservation of energy, and maintenance costs.	In process with each transportation project.
Policies		
4.4.3.a	Utilize alternative paving materials and/or root barriers to help prevent sidewalk deterioration.	In process
Objective 4.4.4	Prioritize the maintenance of capital investment and maximize the efficient use of the existing street system through operational improvements over new construction.	In process
Policies		
4.4.4.a	Implement programs to fund maintenance of the existing and future transportation systems to the extent feasible to meet desired service levels.	In process
4.4.4.a.1	Include Pedestrian Master Plan projects in the Capital Improvement Program.	In process - Cross Alameda Trail projects
4.4.4.a.2	Apply for available grant funding for pedestrian improvement projects.	In process - Submitted grant application for new traffic signal at Central/Third/ Taylor by Encinal High School.
4.4.4.a.3	Establish an annual program to install curb ramps at crosswalks throughout the City to comply with the Americans with Disabilities Act (ADA).	In process
4.4.4.b	Coordinate with utility construction, maintenance schedule and public agencies.	In process

4.4.4.c	Continue to regularly update the City's pavement management system (PMS) program.	In process - streets are in fair condition.
4.4.4.c.1	Develop guidelines for choosing appropriate street trees and avoiding species with aggressive roots that can cause sidewalk damage.	In process - City of Alameda Master Tree Plan (2010)
4.4.4.d	Pursue funding opportunities to implement Citywide ITS infrastructure.	In process
Objective 4.4.5	Develop service level standards for the operation and maintenance of public works infrastructure, including streets, bridges, pedestrian ways, bicycle facilities and intersections.	In process
Objective 4.4.6	Work with area employers and other stakeholders to develop one or more TMAs to implement TDM programs.	In process as part of the upcoming Transit and TDM Plans.
Policies		
4.4.6.1	For new development projects, require residential, business associations, property owners, and lessees to be dues-paying members in the TMA, as allowed by law.	In process with each new development project.
4.4.6.2	Encourage existing and previously approved developments to join a TMA, through which they would contribute toward, and benefit from, TDM programs.	In process as part of the upcoming Transit and TDM Plans.
Objective 4.4.7	Require developers to contribute toward the implementation of appropriate TSM/TDM measures to mitigate the impacts of their projects on the bridges, tubes, specific intersections, and corridors.	In process with each new development project.
Policies		
4.4.7.a	Develop standardized method for calculating the appropriate financial contribution for TSM/TDM fees.	In process with each new development project.
4.4.7.b	Develop TSM/TDM fee collection mechanism.	In process as part of the upcoming Transit and TDM Plans as well as with each new development project.
Objective 4.4.8	Work with AUSD to include transportation choice awareness in education in the schools.	In process through Countywide Safe Routes to School program funded by Measure B.