ACTIVE TRANSPORTATION PROGRAM - CYCLE 2

Application Form for Part A

Parts B & C must be completed using a separate document

PROJECT unique APPLICATION NO.: 04-Oakland-1

Auto populated

Total ATP Funds Requested: $ 4,583 (in 1000s)

Auto populated

Important: Applicants must follow the CTC Guidelines and Chapter 22 of the Local Assistance Program Guidelines, and include attachments and signatures as required in those documents. Ineligible project elements may result in a lower score/ranking or a lower level of ATP funding. Incomplete applications may be disqualified.

Applicants are expected to use the corresponding "step-by-step" Application Instructions and Guidance to complete the application (3 Parts):

Part A: General Project Information
Part B: Narrative Questions
Part C: Application Attachments

Application Part A: General Project Information

Implementing Agency: This agency must enter into a Master Agreement with Caltrans and will be financially and contractually responsible for the delivery of the project within all pertinent Federal and State funding requirements, including being responsible and accountable for the use and expenditure of program funds. This agency is responsible for the accuracy of the technical information provided in the application and is required to sign the application.

IMPLEMENTING AGENCY'S NAME:

Oakland

IMPLEMENTING AGENCY'S ADDRESS	CITY		ZIP CODE
250 Frank H. Ogawa Plaza	Oakland	CA	94612

IMPLEMENTING AGENCY'S CONTACT PERSON: Wladimir Wlassowsky

CONTACT PERSON'S TITLE: Transportation Services Manager

CONTACT PERSON'S PHONE NUMBER: (510) 238-6383

CONTACT PERSON'S EMAIL ADDRESS : wwlassowsky@oaklandnet.com

Project Partnering Agency: Entities that are unable to apply for Active Transportation Program funds or that are unable to enter into a Master Agreement with the State must partner with an eligible applicant that can implement the project. **In addition, entities that are unfamiliar with the requirements to administer a Federal-Aid Highway Program project may partner with an eligible applicant that can implement the project.**

If another entity (Partnering Agency) agrees to assume responsibility for the ongoing operations and maintenance of the facility, documentation of the agreement (e.g., letter of intent) must be submitted with the project application, and a copy of the Memorandum of Understanding or Interagency Agreement between the parties must be submitted with the first request for allocation. For these projects, the Project Partnering Agency's information shall be provided below.

(The Grant Writer's or Preparer's information should not be provided)

PROJECT PARTNERING AGENCY'S NAME:

N/A

PROJECT PARTNERING AGENCY'S ADDRESS	CITY		ZIP CODE
		CA	

PROJECT PARTNERING AGENCY'S CONTACT PERSON:

CONTACT PERSON'S TITLE:

CONTACT PERSON'S PHONE NUMBER:

CONTACT PERSON'S EMAIL ADDRESS :

MASTER AGREEMENTS (MAs):

Does the Implementing Agency currently have a MA with Caltrans?	☒ Yes ☐ No
Implementing Agency's Federal Caltrans MS number	District 4, No 5012R
Implementing Agency's State Caltrans MS number	00099S 8/12/2008

* Implementing Agencies that do not currently have a MA with Caltrans, must be able to meet the requirements and enter into an MA with Caltrans prior to funds allocation. The MA approval process can take 6 to 12 months to complete and there is no guarantee the agency will meet the requirements necessary for the State to enter into a MA with the agency. Delays could also result in a failure to meeting the CTC Allocation timeline requirements and the loss of ATP funding.

PROJECT NAME: (To be used in the CTC project list)

City of Oakland 19th Street BART to Lake Merritt Urban Greenway

Application Number: 1 **out of** 4 **Applications**

PROJECT DESCRIPTION: (Max of 250 Characters)

Close a Last Mile gap between the 19th Street BART Station, Lake Merritt, Downtown employers, & residential neighborhoods through the PS&E and construction of Class II bicycle lanes, widened sidewalks, crosswalks enhancements, and a landscaped median

PROJECT LOCATION: (Max of 250 Characters)

20th Street (Thomas L. Berkeley Way) between Broadway and Harrison Street, connecting to 19th Street BART, Lake Merritt, and the Measure DD-funded Lakeside Greening Project.

Will any infrastructure-improvements permanently or temporarily encroach on the State right-of-way? ☐ Yes ☒ No

If yes, see the application instructions for more details on the required coordination and documentation.

Project Coordinates: (latitude/longitude in decimal format) Lat. 37.808545 /long. -122.266640

Congressional District(s):	13						
State Senate District(s):	9			**State Assembly District(s):**	18		
Caltrans District(s):	04						
County:	Alameda County						
MPO:	MTC						
RTPA:							
MPO UZA Population:	Within a Large MPO (Pop > 200,000)						

ADDITONAL PROJECT GENERAL DETAILS: (Must be consistent with Part B of Application)

ESTIMATION OF ACTIVE TRANSPORTATION USERS

Existing Counts:	**Pedestrians**	18,046	**Bicyclists**	1,329
One Year Projection:	**Pedestrians**	19,878	**Bicyclists**	2,390
Five Year Projection:	**Pedestrians**	20,673	**Bicyclists**	6,935

BICYCLE AND/OR PEDESTRIAIN INFRASTRUCTURE (Check all that apply)

Bicycle:	**Class I**	☐	**Class II**	☒	**Class III**	☐	**Other** Cycle IV Cycle Track
Pedestrian:			**Sidewalk**	☒	**Crossing**	☒	**Other**
Multiuse Trails/Paths:			**Meets "Class I" Design Standards**			☐	**Other**

DISADVANTAGED COMMUNITIES

Project contributes toward the Disadvantaged Communities funding requirement: the project must clearly demonstrate a direct, meaningful, and assured benefit to a community that meets any of the following criteria: ☒ Yes ☐ No

If yes, which criterion does the project meet in regards to the Disadvantaged Community (mark all that apply):

Household Income	☒ Yes	☐ No	**CalEnvioScreen**	☐ Yes	☒ No
Student Meals	☐ Yes	☐ No	**Local Criteria**	☐ Yes	☐ No

Is the majority of the project physically located within the limits of a Disadvantaged Community: ☒ Yes ☐ No

CORPS

Does the agency intend to utilize the Corps: ☐ Yes ☒ No

PROJECT TYPE (Check only one: I, NI or I/NI)

Infrastructure (I) ☒ **OR Non-Infrastructure (NI)** ☐ **OR Combination (N/NI)** ☐

"Plan" applications to show as NI only

Development of a Plan in a Disadvantaged Community: ☐ Yes ☐ No

If Yes, check all Plan types that apply**:**

☐ **Bicycle Plan**

☐ **Pedestrian Plan**

☐ **Safe Routes to School Plan**

☐ **Active Transportation Plan**

Indicate any of the following plans that your agency currently has: (Check all that apply)

Bicycle Plan ☒ Pedestrian Plan ☒ Safe Routes to School Plan ☐ Active Transportation Plan ☐

PROJECT SUB-TYPE (check all Project Sub-Types that apply)**:**

☒ **Bicycle Transportation** **% of Project** 35.0 % (ped + bike must = 100%)

☒ **Pedestrian Transportation** **% of Project** 65.0 %

☐ **Safe Routes to School** *(Also fill out Bicycle and Pedestrian Sub-Type information above)*

How many schools does the project impact/serve: _____

If the project involves more than one school: 1) Insert "Multiple Schools" in the School Name, School Address, and distance from school; 2) Fill in the student information based on the total project; and 3) Include an attachment to the application which clearly summarizes the following school information and the school official signature and person to contact for each school.

School name: _____

School address: _____

District name: _____

District address: _____

Co.-Dist.-School Code: _____

School type (K-8 or 9-12 or Both) [ ] Project improvements maximum distance from school _____ mile

Total student enrollment: _____

% of students that currently walk or bike to school% _____ %

Approx. # of students living along route proposed for improvement: _____

Percentage of students eligible for free or reduced meal programs ** _____ %

**Refer to the California Department of Education website: http://www.cde.ca.gov/ds/sh/cw/filesafdc.asp

A map must be attached to the application which clearly shows the limits of: 1) the student enrollment area, 2) the students considered to be along the walking route being improved, 3) the project improvements.

☐ **Trails (Multi-use and Recreational):** *(Also fill out Bicycle and Pedestrian Sub-Type information above)*

Trails Projects constructing multi-purpose trails and are generally eligible in the Active Transportation Program. If the applicant believes all or part of their project meets the federal requirements of the Recreational Trails Program they are encouraged to seek a determination from the California Department of Parks and Recreation on the eligibility of their project to complete for this funding. This is optional but recommended because some trails projects may compete well under this funding program.

For all trails projects:

Do you feel a portion of your project is eligible for federal Recreational Trail funding? ☐ Yes ☐ No

If yes, estimate the total projects costs that are eligible for the Recreational Trail funding: _____

If yes, estimate the % of the total project costs that serve "transportation" uses? _____ %

Applicants intending to pursue "Recreational Trails Program funding" **must submit** the required information to the California Department of Parks and Recreation prior to the ATP application submissions deadline. (See the Application Instructions for details)

PROJECT STATUS and EXPECTED DELIVERY SCHEDULE

Applicants need to enter **either** the date the milestone was completed (for all milestones already complete prior to submitting the application) **or** the date the applicant anticipates completing the milestone. Applicants should enter "N/A" for all CTC Allocations that will not be requested as part of the project. Per CTC Guidelines, all project applications must be submitted with the expectation of receiving partially federally funded and therefore the schedule below must account for the extra time needed for federal project delivery requirements and approvals. *See the application instructions for more details.*

The agency is responsible for meeting all CTC delivery requirements or their ATP funding will be forfeited.
For projects consisting of entirely non-infrastructure elements are not required to complete all standard infrastructure project milestones listed below. Non-infrastructure projects only have to provide dates for the milestones identified with a " * " and can provide "N/A" for the rest.

MILESTONE:	DATE COMPLETED	OR	EXPECTED DATE
CTC - PA&ED Allocation:			8/15/2016
* CEQA Environmental Clearance:			4/1/2017
* NEPA Environmental Clearance:			6/1/2017
CTC - PS&E Allocation:			8/15/2017
CTC - Right of Way Allocation:			5/1/2018
* Right of Way Clearance & Permits:			N/A
Final/Stamped PS&E package:			4/1/2018
*** CTC - Construction Allocation:**			8/15/2018
* Construction Complete:			2/1/2012
* Submittal of "Final Report"			8/1/2021

PROJECT FUNDING (in 1000s)

Per CTC Guidelines, Local Matching funds are not required for any ATP projects, but Local Leveraging funds are strongly encouraged.

See the Application instructions for more details and requirements relating to ATP funding.

ATP funds being requested for this application/project by project delivery phase:

ATP funds for PA&D:	$150	
ATP funds for PS&E:	$550	
ATP funds for Right of Way:	$0	
ATP funds for Construction:	$3,883	
ATP funds for Non-Infrastructure:	$0	*(All NI funding is allocated in a project's Construction Phase)*
Total ATP funds being requested for this application/project:		$4,583

Local funds leveraging or matching the ATP funds: $100

For local funding to be considered Leveraging/Matching it must be for ATP eligible activities and costs.
Per CTC Guidelines, Local Matching funds are not required for any ATP projects, but Local Leveraging funds are strongly encouraged. See the Application instructions for more details and requirements relating to ATP funding.

Additional Local funds that are `non-participating' for ATP: $0

These are local funds required for the overall project, but not for ATP eligible activities and costs. They are not considered leverage/match.

TOTAL PROJECT FUNDS: $4,683

ATP - FUNDING TYPE REQUESTED:

Per the CTC Guidelines, All ATP projects must be eligible to receive federal funding. Most ATP projects will receive federal funding, however some projects may be granted State only funding (SOF) for all or part of the project.

Do you believe your project warrants receiving state-only funding? ☐ Yes ☒ No

If "Yes", provide a brief explanation. (Max of 250 characters) Applicants requesting SOF must also attach an "Exhibit 22-f"

ATP PROJECT PROGRAMMING REQUEST (PPR): In addition to the project funding information provided in Part A of the application, all applicants must complete the ATP Project Programming Request form and include it as Attachment B. More information and guidance on the completion and submittal of this form is located in the Application Instructions Document under Part C - Attachment B.

ACTIVE TRANSPORTATION PROGRAM - CYCLE 2

Part B: Narrative Questions

(Application Screening/Scoring)

Project unique application No.: 04-Oakland-1

Implementing Agency's Name: City of Oakland

Important:

- *Applicants must ensure all data in Part B of the application is fully consistent with Part A and C.*
- *Applicants must follow all instructions and guidance to have a chance at receiving full points for the narrative question and to avoid flaws in the application which could result in disqualification.*

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Part B: Narrative Questions
Detailed Instructions for: Screening Criteria

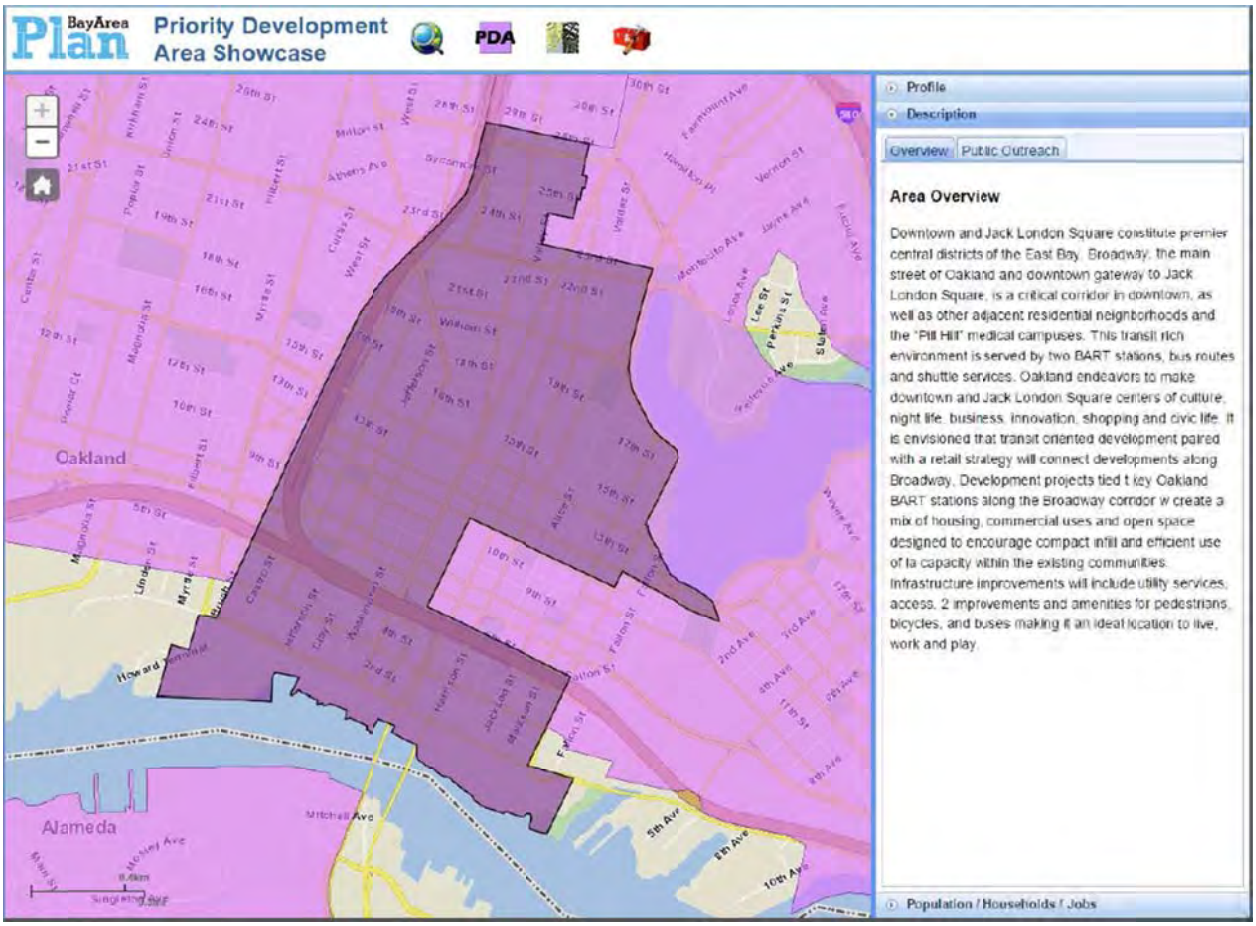
The following Screening Criteria are requirements for applications to be considered for ATP funding. Failure to demonstrate a project meets these criteria will result is the disqualification of the application.

1. Demonstrated fiscal needs of the applicant:

The City of Oakland 19th Street BART to Lake Merritt Urban Greenway (the Project) meets the two screening criteria for ATP eligibility based on demonstrated fiscal need: the project does not have funding allocated and, as a result, is seeking full funding for design and construction through the ATP grant. The City of Oakland is constrained fiscally and cannot fund this project through a Capital Improvement Program or other local funds alone. The Project is neither directly nor indirectly related to past or future environmental mitigation.

2. Consistency with Regional Plan.

The Urban Greenway is consistent with the goals and performance targets of the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC) *Plan Bay Area* and is located within the MTC-designated Downtown & Jack London Square Priority Development Area (PDA). The area is defined as a transit rich, compact central district with the goal of creating centers of culture, business, innovation, shopping and civic life. Infrastructure improvements are focused on enhancements and amenities for pedestrians, bicyclists, and buses. The proposed Urban Greenway encapsulates all of those regional goals in providing new dedicated bicycle facilities and enhanced pedestrian facilities to close a "First Mile" and "Last Mile" gap to the regional transit system via the 19th Street BART Station and to the regional parks/trails system via Lake Merritt. The Project is also consistent with the adopted *Plan Bay Area* performance targets, specifically Performance Targets 4, 5 and 9 (**Attachment-Screening-1**).


BayArea Plan
Priority Development Area Showcase
PDA
Profile
Description
Overview
Public Outreach
Area Overview
Downtown and Jack London Square constitute premier central districts of the East Bay. Broadway, the main street of Oakland and downtown gateway to Jack London Square, is a critical corridor in downtown, as well as other adjacent residential neighborhoods and the "Pill Hill" medical campuses. This transit rich environment is served by two BART stations, bus routes and shuttle services. Oakland endeavors to make downtown and Jack London Square centers of culture, night life, business, innovation, shopping and civic life. It is envisioned that transit oriented development paired with a retail strategy will connect developments along Broadway. Development projects tied t key Oakland BART stations along the Broadway corridor w create a mix of housing, commercial uses and open space designed to encourage compact infill and efficient use of la capacity within the existing communities. Infrastructure improvements will include utility services, access, 2 improvements and amenities for pedestrians, bicycles, and buses making it an ideal location to live, work and play.
Population / Households / Jobs
Oakland
Alameda

Part B: Narrative Questions
Detailed Instructions for: Question #1

QUESTION #1

POTENTIAL FOR INCREASED WALKING AND BICYCLING, ESPECIALLY AMONG STUDENTS, INCLUDING THE IDENTIFICATION OF WALKING AND BICYCLING ROUTES TO AND FROM SCHOOLS, TRANSIT FACILITIES, COMMUNITY CENTERS, EMPLOYMENT CENTERS, AND OTHER DESTINATIONS; AND INCLUDING INCREASING AND IMPROVING CONNECTIVITY AND MOBILITY OF NON-MOTORIZED USERS. *(0-30 POINTS)*

A. Describe the following:

-Current and projected types and numbers/rates of users. (12 points max.)

CURRENT USE

As part of the City's *20th Street Complete Streets Study*, multi-modal peak period counts were taken for the corridor in May 2013. **Attachments I-1-1, I-1-2, & I-1-3** present observed pedestrians and bicycle volumes from 4-6PM. **Based on the 2013 observed PM peak period volumes, existing daily bicycle volumes (adjusted to 2015) are estimated to be 1,329 trips per day** (**Table 1**). Bicyclists on 20th Street plus bicyclists on Franklin and Webster Streets totaled 207 from 4-6PM. This was extrapolated to daily bicycle trips using an observed weekday ADT extrapolation factor of 6.31 from bicycle ADT counts taken on Telegraph Avenue, which is two blocks to the west and has similar travel patterns. The 2013 counts were then adjusted to 2015 counts using the ABAG population growth rate estimate of 1% per year.

The Metropolitan Transportation Commission's (MTC's) *Bay Area Travel Survey* (BATS, 2000) provides trip purpose data for each transportation analysis zone (TAZ) in the San Francisco Bay Area. Approximately 11% of all trips are home-based work trips and 33% are recreational trips; however, the commute mode share was increased to 55% to better account for the employment growth in Downtown Oakland since 2000. **510 daily bicycle commute trips and 306 daily bicycle recreation trips occur on the corridor.**

TABLE 1: EXISTING BICYCLE ACTIVITY (2015) BASED ON 2013 COUNT DATA		
Step 1: 2013 Count Data (PM Peak Period) of Urban Greenway Project Site		
Location	**PM Peak Period Bicycle Trips**	**Notes/Sources**
Bicyclists on 20th Street	72	[1]
Cross-Street Bicyclists on Franklin	105	[1]
Cross-Street Bicyclists on Webster	30	[1]
Total Observed Bikes Benefitting from Urban Greenway	**207**	[1]
Step 2: Calculate Daily Extrapolation		
Total daily bicycle trips (2013)	1,303	[5]
Total daily bicyclists (2013)	814	[3]
Total daily bicyclists (2015)	830	[2]
Total daily bicycle trips (2015)	1,329	[3]
Step 3: Calculate Trip Types		
Daily Bike Trips (2015)	1,329	[3]
Daily Commute Bike Trips (2015)	731	[4]
Daily Recreational Bike Trips (2015)	438	[4]

[1] Peak period data based on intersection turning movement counts conducted on corridor 5/8/15 between 4:00 to 6:00 PM. Through bicyclists on 20th Street represents an average between the Franklin Street and Webster Street intersection counts.
[2] ABAG Population Growth Estimates
[3] Dill, J. and Gliebe, J. (2008) "Understanding and Measuring Bicycling Behavior: A focus on travel time and route choice." OTREC Final
[4] Based on 2000 BATS Mode Share Data for the ten TAZs that fall within 3-miles of the project, the split between commute and recreational trips is 11% and 33%. Since 2000, there has been an increase in bicycle culture for utilitarian and commute trips combined with an increase concentration of jobs in downtown Oakland. Given these two trends, commute trips were increased to 50% to account for the higher incidence of commute trips than recreational trips on the corridor.
[5] Daily extrapolation factor method sourced from daily counts conducted at 20th Street and Telegraph Avenue in 2013

	Factors	Notes/Sources
5%	ABAG Population Growth Rate 2010 - 2015	input into 2
6.31	Telegraph Peak Period to ADT Growth Factor (2014 Bike ADT counts)	[5]
1.0%	Annual ABAG Population Growth Rate	[2]
55%	Commute trips	[4]
33%	Recreational trips	[4]

Existing pedestrian volumes are very high, as the project is located in Downtown Oakland. Based on 2013 counts, an average of 2,360 pedestrians cross 20th Street during the weekday PM peak period (4-6PM). **That amounts to 18,046 daily pedestrian trips (2015) and 11,279 daily pedestrians** using National Bicycle and Pedestrian Database (NBPD) daily extrapolation factors (**Table 2)**.

TABLE 2: EXISTING PEDESTRIAN ACTIVITY (2015) BASED ON 2013 COUNTS		
Step 1: 2013 Count Data (Peak Period) of Project Site		
Location	**PM Bicycle Trips**	**Notes/Sources**
Franklin and 20th Street	2,366	[1]
Webster and 20th Street	2,353	[1]
Average Peak Period Pedestrian Volume	2,360	[1]
Step 2: Calculate Daily Pedestrian Trips		
Total daily ped trips (2013)	17,697	[5]
Total daily peds (2013)	11,061	[3]
Total daily peds (2015)	11,279	[2], [3]
Total daily ped trips (2015)	18,046	[2]
Step 3: Calculate Current Pedestrian Trip Types		
Daily Ped Trips (2015)	18,046	[5]
Daily Commute Ped Trips (2015)	9,925	[4]
Daily Recreational Ped Trips (2015)	5,955	[4]

	Factors	Notes/Sources
4.9%	ABAG Population Growth Rate 2010 - 2015	input into 2
0.14	Peak Period to Daily Extrapolation Factor from NBPD	[5]
1.05	Two-Hour Peak Period Multiplier from NBPD	[5]
1.0%	Annual ABAG Population Growth Rate	[2]
55%	Commute trips	[3]
33%	Recreational trips	[4]

[1] Data based on counts conducted on corridor 5/8/15 during the PM Peak period (4:00 to 6:00 PM) at the intersections listed.

[2] ABAG, *Plan Bay Area, 2014* <http://planbayarea.org/plan-bay-area.html>

[3] The same average number of trips has been applied to pedestrians as well as bicyclists: Dill, J. and Gliebe, J. (2008) "Understanding and Measuring Bicycling Behavior: A focus on travel time and route choice." OTREC Final Report, OTREC-RR-08-03.

[4] Based on 2000 BATS Mode Share Data for the ten TAZs that fall within 3-miles of the project, the split between commute and recreational trips is 11% and 33%. Since 2000, there has been an increase in bicycle culture combined with an increase concentration of jobs in downtown Oakland. Given these two trends, commute trips were increased to 50% to account for the higher incidence of commute trips than recreational trips on the corridor.

[5] Daily extrapolation factor method sourced from National Bicycle and Pedestrian Documentaiton Project Extrapolation Workbook based on time of year, district type, and climate zone http://bikepeddocumentation.org/downloads/

In addition, senior population in the area is significant, as senior housing and centers are located within 1/3 mile from the project site (**Attachment I-1-4)**. The ACS 2013 estimates indicate that 16% of the population

within 0.5 mile are seniors over 65 years old, and 25% of the population in the project area census tract are seniors. School aged population is lower, about 12% of the population within 0.5 mile of the corridor.

The *BART Station Profile Study* (2008) also collected data on the 19th Street BART Station mode of access, found 90% of station users walk or bike to BART, one of the highest mode shares in the system. The BART Study found that of the 9,794 riders entering 19th Street BART, 70% access the station of by walking and 6% by biking, and 70% of trips were made for work, 11% for school, with the remaining 19% of trips made for utilitarian purposes, including recreation. 2,485 of the daily riders are coming from home when entering the station, showing that the Urban Greenway project is also critical for improving "First Mile" access from dense residential neighborhoods.

PROJECTED USE

Projected use is derived from existing (2013) available counts and assumes that in five years the facility would be in operation for one year. As a result, forecasts are derived for a five-year outlook only. Because the Project is located in a dense urban environment, the NCHRP 770 methodology that looks at three-mile bikesheds around a project area to project future bike trips was **not** used, as this is considered to substantially overestimate the bike shed in an urban area. For example, bike mode share is already high in the area and three other BART stations exist in a three mile bike shed; therefore, mode and route choice is more complex than this method would suggest. The approach outlined below is more conservative in that it is based on observed biking and walking trips on the corridor today.

Table 3 shows the 4.9% ABAG population growth rate assumed under no-project conditions between 2015 and 2020. **Table 4** assumes a conservative 5% growth rate after one year of operations, as the pedestrian volumes are already very high on the corridor and pedestrian improvements may or may not directly influence the pedestrian mode split. **Table 5** assumes an additional 5% growth rate after five years of operations in 2025, totaling 20,673 daily pedestrian trips.

TABLE 3: 2020 PEDESTRIAN TRIPS NO PROJECT

Daily Pedestrian Trips No Project		
Total daily peds (2015)	11279	
Factored by ABAG growth rate	11,832	[1]
Total daily ped trips 2020 No Proj	**18,932**	[2]

[1] ABAG, *Plan Bay Area, 2014* <http://planbayarea.org/plan-bay-area.html>

[2] The same average number of trips has been applied to pedestrians as well as bicyclists: Dill, J. and Gliebe, J. (2008) "Understanding and Measuring Bicycling Behavior: A focus on travel time and route choice." OTREC Final Report, OTREC-RR-08-03.

TABLE 4: 2020 PEDESTRIAN TRIPS PLUS PROJECT (1 YEAR FORECASTS)

Daily Pedestrian Trips plus Project			Factors		
Total daily ped trips 2020 No Proj	18,932				
Factored by 10% Growth Rate	19,878	[1]	5%	Demand Increase due to project	[1]
Daily ped trips added by project in 2020 After One Year	947		33%	Recreational trips	[2]
			55%	Commute trips	[2]
Trip Types					
Daily Ped Trips	947				
Daily Commute Ped Trips	521				
Daily Recreational Ped Trips	312				

[1] Unlike the bicycling estimates, pedestrian improvements may or may not influence the rate of people who choose to walk; therefore a conservative estimate of future pedestrian activity was provided, taking into account ABAG growth factors and a conservative 5% increase in pedestrian trips.

[2] Based on 2000 BATS Mode Share Data for the ten TAZs that fall within 3-miles of the project, the split between commute and recreational trips is 11% and 33%. Since 2000, there has been an increase in bicycle culture combined with an increase concentration of jobs in downtown Oakland. Given these two trends, commute trips were increased to 50%

TABLE 5: 2025 PEDESTRIAN TRIPS PLUS PROJECT - FIVE YEAR FORECASTS

Daily Pedestrian Trips plus Project					
Total daily pedestrians 2020 No Project	18,932		Factors		
Total daily pedestrians 2025 No Project	19,689	[2]	5%	Demand Increase due to project	[1]
Factored by 5% Growth Rate	20,673	[1]	33%	Recreational trips	
Daily ped trips added by project	984		55%	Commute trips	
Trip Types					
Daily Ped Trips	984				
Daily Commute Ped Trips	541				
Daily Recreational Ped Trips	325				

[1] Unlike the bicycling estimates, pedestrian improvements may or may not influence the rate of people who choose to walk; therefore a conservative estimate of future pedestrian activity was provided, taking into account ABAG growth factors and a conservative 10% increase in pedestrian trips.

[2] Used ABAG growth estimates for Alameda County

Using a one-year estimate **139 new daily bicycle trips (2,390 total trips)** are expected on the corridor in 2020 because of the project (**Table 6**). In five years, **4,450 new daily bicycle trips** are expected on the corridor in 2025 as a result of the project and network build out (**Table 7**). This growth in bike trips assumes a network build out factor (279%, 2,712 new trips). This factor is derived from the study of bicycling increase as bike networks expand in other West Coast cities[1], which in the case of Oakland would include the restriping of Webster Street and Franklin Street as buffered Class II bike lanes and the Telegraph Avenue Class IV cycle track that are programmed for the next five years. The new trips on 20th Street also assume that 30% of existing trips using the Class II bike lanes on Grand Avenue – a parallel route just two blocks to the north – would use 20th Street instead, as 20th Street is a more direct route that avoids a hill on Grand Avenue. The 2020 trips with no project shown in **Table 8** reflect an ABAG growth rate of 4.9% between 2015 and 2020.

[1] Los Angeles County Metropolitan Transportation Authority, *Bicycle Transportation Account Compliance Study*, 2006.

TABLE 6: 2020 BICYCLE TRIPS PLUS URBAN GREENWAY PROJECT

2020 Daily Bicycle Trips Plus Urban Greenway Project			Factors		
Total Daily Bike Trips in 2020 Without Project	1,394		10%	Growth rate for 1st year	[1]
Factored by 10% growth rate	139	[1]	55%	Commute trips	[3]
Shifted trips from Parallel Route (Grand)	857		33%	Recreational trips	[3]
Total Daily Bicycle Trips with Project	**2,390**				
Total Net New Daily Bicycle Trips with Project	**139**				
Trip Types					
Daily Bike Trips	2,390				
Daily Commute Bike Trips	1,315	[3]			
Daily Recreational Bike Trips	789	[3]			

[1] Build-out factor of 279% applied, from LA County Metropolitan Transportation Authority (2006). This is an average rate based on studies in City of Portland, San Francisco, and Seattle. "Bicycle Transportation Account Compliance Study." http://ebb.metro.net/projects_studies/bikeway_planning/images/BTA.pdf. 10% was applied in the first year, the rest in a 5 year timeline

[2] Factored up to 2020 by 4.9% ABAG growth projection

[3] Based on 2000 BATS Mode Share Data for the ten TAZs that fall within 3-miles of the project, the split between commute and recreational trips is 11% and 33%. Since 2000, there has been an increase in bicycle culture for utilitarian and commute trips combined with an increase concentration of jobs in downtown Oakland. Given these two trends, commute trips were increased to 50% to account for the higher incidence of commute trips than recreational trips on the corridor.

TABLE 7: 2025 BICYCLE TRIPS PLUS URBAN GREENWAY PROJECT

2025 Daily Bicycle Trips Plus Urban Greenway Project			Factors		
Total Daily Bicyclists in 2020 With Project	1,494		279%	Network Buildout Effect	[1]
Total Daily Bicyclists in 2025 With Project (Population Growth	1,554	[2]	55%	Commute trips	[3]
Total Daily Bike Trips in 2025 With Project	2,486	[4]	33%	Recreational trips	[3]
Factored by Network Buildout Effect	6,935		4.0%	ABAG Population Growth Rate between 2020 and 2025	
Total 2025 Daily Bicycle Trips with Project	**6,935**				
Total Net New Daily Bicycle Trips with Project and Network Buildout between 2020 and 2025	**4,450**				
Trip Types					
Daily Bike Trips	6,935				
Daily Commute Bike Trips	3,814	[3]			
Daily Recreational Bike Trips	2,289	[3]			

[1] Build-out factor of 279% applied, from LA County Metropolitan Transportation Authority (2006). This is an average rate based on studies in City of Portland, San Francisco, and Seattle. "Bicycle Transportation Account Compliance Study." http://ebb.metro.net/projects_studies/bikeway_planning/images/BTA.pdf. 10% was applied in the first year, the rest in a 5 year timeline

[2] Factored up to 2020 by 4% ABAG growth projection

[3] Based on 2000 BATS Mode Share Data for the ten TAZs that fall within 3-miles of the project, the split between commute and recreational trips is 11% and 33%. Since 2000, there has been an increase in bicycle culture for utilitarian and commute trips combined with an increase concentration of jobs in downtown Oakland. Given these two trends, commute trips were increased to 50% to account for the higher incidence of commute trips than recreational trips on the corridor.

[4] Dill, J. and Gliebe, J. (2008) "Understanding and Measuring Bicycling Behavior: A focus on travel time and route choice." OTREC Final Report, OTREC-RR-08-03.

TABLE 8: 2020 BICYCLE TRIPS WITHOUT PROJECT		
2020 Daily Bicycle Trips Without Project		
Total Daily Bicyclists (2015)	830	
Factored by ABAG Growth Rate	871	[1]
Total Daily Bicycle Trips in 2020 Without Project	**1,394**	[2]
[1] ABAG Population Growth Estimates		

[2] Dill, J. and Gliebe, J. (2008) "Understanding and Measuring Bicycling Behavior: A focus on travel time and route choice." OTREC Final Report, OTREC-RR-08-03.

City of Oakland Bicycle and Pedestrian Counts

LOC ID	INTERSECTION	COUNT DATE	COUNT TIME	DURATION (HRS)	BIKE TOTAL	PED TOTAL	VEHICLE TOTAL
346	Bay Place & Grand Ave	5/25/2004	11:00 AM	2	75	549	2878
346	Bay Place & Grand Ave	5/25/2004	7:00 AM	2	99	588	2893
346	Bay Place & Grand Ave	5/25/2004	4:00 PM	2	145	566	4123
346	Bay Place & Grand Ave	2/16/2006	7:00 AM	2	123	702	3319
346	Bay Place & Grand Ave	2/16/2006	4:00 PM	2	102	253	4490
346	Bay Place & Grand Ave	9/11/2012	4:00 PM	2	419	259	4378

Total Counts 6 Report Date 9/3/2014

B. Describe how the project links or connects, or encourages use of existing routes (for non-infrastructure applications) to transportation-related and community identified destinations where an increase in active transportation modes can be realized, including but not limited to: schools, school facilities, transit facilities, community, social service or medical centers, employment centers, high density or affordable housing, regional, State or national trail system, recreational and visitor destinations or other community identified destinations via: (12 points max.)

a. creation of new routes
b. removal of barrier to mobility
c. closure of gaps
d. other improvements to routes
e. educates or encourages use of existing routes

(a, e) **<u>The Project creates a new, continuous urban greenway</u>** between 19th Street BART, the Lake Merritt Trail, planned and funded Measure DD Lakeside Greening Project Improvements, and residential neighborhoods to the north, south, and east. **<u>This project closes a gap between these critical recreation</u>**

and commute destinations in Downtown Oakland for both bicyclists and pedestrians. It would make substantial comfort and operational improvements for bicyclists and pedestrians to better connect four distinct Oakland neighborhoods: Downtown, Uptown, Broadway-Valdez, Adams Point, and Koreatown-Northgate. These areas plus key destinations and the bicycle network are shown on **Attachment I-1-4**. The project would encourage further use of existing Class II bike lanes on Grand Avenue and buffered Class II bike lanes on Harrison Street and Oakland Avenue and connect to plan and funded facilities at Snow Park. Additionally, this project would encourage further use of the Bike Station recently constructed at 19th Street/Broadway, a key "end of trip" facility for Downtown workers and Oakland residents riding their bikes to BART.

(b, d) The **existing corridor has numerous barriers to mobility that will be removed through bicycle and pedestrian route improvements**. These gaps and barriers are shown in **Attachment I-1-5.** A wide multi-lane cross-section on 20th Street creates a stressful environment for bikes and long crossing distances for pedestrians. The wide cross-section encourages high auto speeds, making an uncomfortable and stressful environment for bicyclists who must share the lane with autos. Using the Mineta Institute Report *Low Stress Bicycling and Network Connectivity* (2011, **Attachment I-1-6, I-1-7, I-1-8**), bicycle level of traffic stress (LTS) was calculated to be LTS 4, signifying that only the "Fast and Fearless" bicyclists with extreme levels of traffic tolerance are using the corridor. With the project, the proposed bicycle facilities would generally improve level of traffic stress to LTS 1 or 2, signifying that more inexperienced riders may feel comfortable using the bikeway.

Long pedestrian crossing distances (typically 70-90' in width) at intersections increase pedestrian delay and auto exposure. The project would address this through a lane reduction on 20th Street, reduction in curb radii, and installation of curb extensions and landscaped pedestrian refuges, as shown on **Attachment I-1-9**. These features decrease pedestrian exposure at intersections and improve accessibility for the mobility impaired through directional curb ramps. These improvements will calm traffic speeds on 20th Street and therefore reprioritize 20th Street for walking and biking, consistent with adopted policies in the City's *General Plan*, *Pedestrian Master Plan* (2002), and *Bicycle Master Plan* (2007).

Existing narrow sidewalks do not accommodate the over 2,000 pedestrians that use 20th Street during the morning peak hour. Sidewalks are typically 8' to 10' feet in width between Broadway and Harrison, with pinch

points of 6'. The project would address this through sidewalk widening of 3' to 10' on both sides of the roadway and removal of obstructions. Additionally, numerous large non-compliant driveways in need of repair would be replaced and reduced in width.

Bus islands are proposed as sidewalk extensions to improve bus operations on the corridor by allowing in-lane stopping and comfortable, accessible pedestrian queuing areas for boardings and alightings. The bus islands also remove bicycle-bus conflicts at bus stops by placing the bike lane behind the bus island as a raised continuation of the one-block segment of Class IV bikeway, as shown in **Attachment I-1-9**, **Attachment I-1-10**, and **Attachment I-1-11.**

Pedestrian signals are missing at one corner at the 20th Street/Webster Street, and they do not include countdown signals. Accessible countdown signals would be provided at all locations with the project.

(c) **The Urban Greenway is fundamentally a gap closure project connecting the regional BART system, the regional trail system, Downtown Oakland employers, and Oakland residential neighborhoods**. 20th Street provides access to BART, Lake Merritt, and businesses. BART has recently made significant investments in the 20th Street portal at Broadway, reconstructing the portal in Spring 2015. This project will build on BART and Oakland's investments by creating a more comfortable sidewalk space for pedestrians through improving the "usable" sidewalk width and reducing pedestrian's exposure to autos through a reduction in crossing distances. **Part C of Question 1** provides additional documentation of investments in the 20th Street corridor that show how Oakland and regional agencies are leveraging existing programmed funding to close this last gap between the transit and trail systems.

(e) **By providing comfortable, low traffic stress dedicated bicycle space and pedestrian enhancements, the 20th Street Urban Greenway will encourage use of existing biking and walking routes**. At present, there is significant residential population (40,289 within a 0.5 mile radius according to the ACS 2013) and employment population along 20th Street. **Multiple major employers are located along or near 20th Street** including four of the top 20 employers in Oakland (**Attachment I-1-12).** Kaiser Permanente (10,914 employees), Bay Area Rapid Transit (BART, 1,158 employees), California Department of Transportation (Caltrans, 1,190 employees), and Wells Fargo Bank (667 employees), with over 13,929 employees from those

employers alone. By providing a continuous, dedicated bike space and substantial pedestrian safety improvements with this project, walking and biking to the project area is expected to increase.

The Urban Greenway closes a Last Mile gap between employers and residences, the BART system, and the **Lake Merritt Trail and Snow Park**. Lake Merritt is Oakland's major urban park, ringed by a shared-use path, serving as both a community park for local residents and a regional resource for recreation. The project would build on significant recent investments to connect the Lake, Bay Trail, and BART via 20th Street.

C. Referencing the answers to A and B above, describe how the proposed project represents one of the Implementing Agencies (and/or project Partnering Agency's) highest unfunded non-motorized active transportation priorities. (6 points max.)

The 20th Street Urban Greenway is one the City's highest priorities given the significant financial and planning efforts that have occurred in the immediate project area (**Table 9** and **Attachment I-1-13)**. In building on these planned and funded investments, the City will provide a regionally significant gap closure between the BART system and the Bay Trail in addition to connecting city-significant assets such as major employers, dense residential neighborhoods, and the City's most significant urban park – Lake Merritt. The City has demonstrated its commitment through the preparation of the *20th Street Complete Streets Study* to build on the identification of the project in the City's *Bicycle Master Plan* (2007).

TABLE 9. RECENT INVESTMENTS, PLANNED AND FUNDED IMPROVEMENTS, AND RECENT PLANNING EFFORTS IN THE IMMEDIATE AREA OF THE 20TH STREET URBAN GREENWAY				
Map ID	**Project/Plan**	**Description**	**Funding /Agency Information**	**Status**
1	Lakeside Green Streets Project	Removes pedestrian/bicycle barriers at existing Lakeside Drive/Harrison Street intersection and improves Snow Park and Lake Merritt Trail	One Bay Area Grant with Measure DD funding, led by City of Oakland	Fully funded & Designed. Construction expected 2016.
2	19th Street Bike Station	Provides free secure, all-day bike storage and store/bike repair	BART, Bike Station	Opened in Spring 2015
3	19th Street BART Portal	BART reconstructed the portal on 20th Street at Broadway for 125 bikes	BART	Opened in Spring 2015
4	Lake Merritt to Bay Trail Bike/Ped Gap Closure	Connect Lake Merritt Trail to Bay Trail, traversing major barriers such as I-880	$3,210,000 in PS&E and ROW	Funded through MTC ATP Cycle 1
5	Broadway-Valdez District Specific Plan	Proposes significant residential and employment growth relying on walking and biking north of and including 20th Street	City of Oakland	Adopted Plan and EIR June 2014. Several housing & retails development underway.
6	East Bay Bus Rapid Transit (BRT)	BRT services between San Leandro and Oakland, terminating at 20th Street/Broadway	AC Transit, City of Oakland	Construction to begin in 2016.

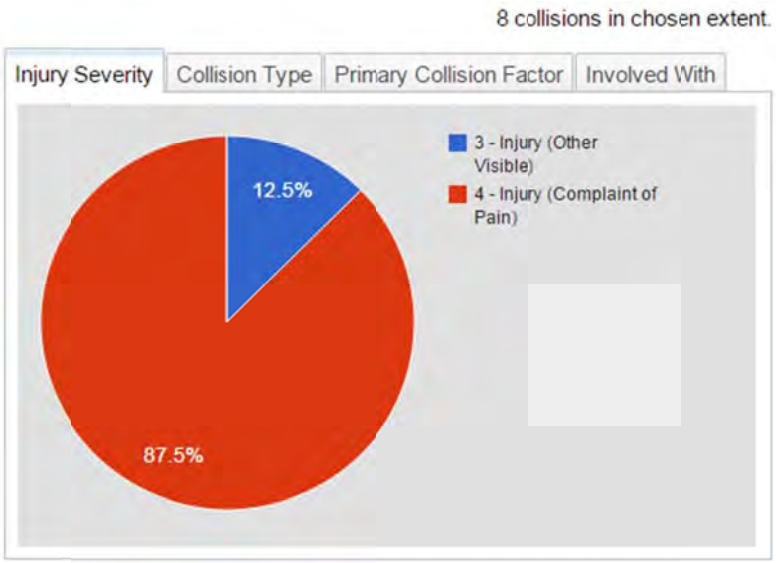
Part B: Narrative Questions
Detailed Instructions for: Question #2

QUESTION #2

POTENTIAL FOR REDUCING THE NUMBER AND/OR RATE OF PEDESTRIAN AND BICYCLIST FATALITIES AND INJURIES, INCLUDING THE IDENTIFICATION OF SAFETY HAZARDS FOR PEDESTRIANS AND BICYCLISTS. ***(0-25 POINTS)***

A. Describe the plan/program influence area or project location's history of collisions resulting in fatalities and injuries to non-motorized users and the source(s) of data used (e.g. collision reports, community observation, surveys, audits). (10 points max.)

Transportation Injury Mapping System (TIMS) data for the last five years of available data (2008 to 2012) indicates that five pedestrian-auto and three bicyclist-auto injury collisions occurred on 20th Street between Broadway and Harrison Street. One collision involved other visible injury, and seven were recorded as compliant of pain.



Three of the pedestrian collisions occurred at or immediately adjacent to intersections, and two of those pedestrian-auto collisions at intersections resulted from the driver violating the pedestrians' right-of-way. Installing curb extensions, adjusting signal timings, and tightening curb radii at all intersection will reduce the auto-orientation of the environment and would substantially reduce the risk of this collision type on the corridor. The other two pedestrian-auto collisions occurred approximately 50' back from the intersection, presumably as mid-block crossings. The project would correct these collision types by reducing pedestrian delay and crossing distances at the existing signalized intersections, increasing the incentive to obey traffic laws along the street.

Of the three bicyclist-auto collisions, two occurred at the intersection at Broadway, and one occurred mid-block between Franklin and Webster Streets. Reducing travel lane widths and providing dedicated bicycle space will create more predictable behavior between bicyclists and autos and would likely correct this type of collision.

In addition to the reported collision record, the walk audit and field observation documented several kinds of risky behavior between pedestrians and autos that would be corrected through the proposed project. At both Franklin and Webster Streets, pedestrians were observed frequently crossing against the traffic signal. This unsafe behavior appeared due to high pedestrian delay resulting from signal timings, and is further enabled by pedestrians knowing they can likely clear the crosswalk since auto volumes are low. Modifying signals timings, adding missing pedestrian countdown heads, and reducing the crossing distance will encourage pedestrians to obey the traffic signal.

Autos were observed making the westbound right-turn onto Webster Street at high speed, conflicting with the high pedestrian volumes. Sidewalk extensions and curb radii reductions would address the

ability to make fast right turns at these locations. As discussed in **Question #2**, a number of other gaps and hazards exist on 20th Street that contribute to safety issues, including: narrow sidewalks, damaged and uneven sidewalks, lack of curb ramps, lack of pedestrian push buttons and signal heads, long crossing distances, bicyclists traveling in shared lanes with fast traffic, and reduced site distances at driveways.

B. Describe how the project/program/plan will remedy (one or more) potential safety hazards that contribute to pedestrian and/or bicyclist injuries or fatalities; including but not limited to the following possible areas: (15 points max.)

- Reduces speed or volume of motor vehicles in the proximity of non-motorized users.
- Improves sight distance and visibility between motorized and non-motorized users.
- Eliminates potential conflict points between motorized and non-motorized users, including creating physical separation between motorized and non-motorized users.
- Improves compliance with local traffic laws for both motorized and non-motorized users.
- Addresses inadequate traffic control devices.
- Eliminates or reduces behaviors that lead to collisions involving non-motorized users.
- Addresses inadequate or unsafe traffic control devices, bicycle facilities, trails, crosswalks and/or sidewalks.

The relationship between observed and reported hazards and proposed countermeasures is largely documented in Question 2A. **Table 10** presents the observed and reported safety conditions on the corridor and the proposed countermeasures.

TABLE 10 DOCUMENTED SAFETY ISSUES AND COUNTERMEASURES PROPOSED IN 20TH STREET URBAN GREENWAY

Location	Observations/ Recorded Collisions	Proposed Countermeasures	Crash Reduction Factor	
			CRF	Life
Pedestrians at Intersections	4 reported injury collisions, field observations	Sidewalk extensions and curb extensions	*	*
		Signal timing improvements	37[1]	*
		Pedestrian countdown signal heads	25[2]	20[2]
		Curb radii reduction to reduce auto speeds	*	*
		Directional curb ramps to aid those with visual and mobility impairments	*	*
		Advanced stop bars to reduce auto encroachment on crosswalk	15[2]	10[2]
		Install median	45[2]	20[2]

Bicyclists at Intersections	2 reported injury collisions, field observations	Bus islands with cycle track behind to separate bus/bike conflicts and bike/ped conflicts	*	*
		Lane reduction to reduce speeds and provide dedicated bike space (Class II and Class IV bikeways)	35[2]	20[2]
Mid-block Pedestrians	2 reported injury collisions	Improve signalized intersections to discourage mid-block crossings	30[2]	10[2]
		Landscaped median to deter mid-block crossings	25[2]	20[2]
		Sidewalk repair, reconstruction of driveways to provide high quality sidewalk with comfortable path of travel for users with visual and mobility impairments	*	*
		Implement road diet	30[2]	20[2]
Mid-block Bicycle	1 reported injury collision, field observations	Lane reduction to reduce speeds and provide dedicated bike space (Class II and Class IV bikeways)	35[2]	20[2]

* = indicates has a clear safety benefit but unable to find published literature documented crash reductions.

1. FHWA-SA-014-May 2008 Toolbox of Countermeasures and Their Potential Effectiveness for Pedestrian Crashes http://safety.fhwa.dot.gov/ped_bike/tools_solve/ped_tctpepc/ Information on Life is not available from this source.

2. Transportation Injury Mapping Systems (TIMS) Cost-Benefit Calculator for HSIP Applications.

Part B: Narrative Questions
Detailed Instructions for: Question #3

QUESTION #3
PUBLIC PARTICIPATION and PLANNING *(0-15 POINTS)*

Describe the community based public participation process that culminated in the project/program proposal or will be utilized as part of the development of a plan.

A. Who: Describe who was engaged in the identification and development of this project/program/plan (for plans: who will be engaged). (5 points max)

Through the 2013 20th Street Complete Streets Study, the City engaged AC Transit, BART, Lake Merritt/Uptown Business Improvement District (BID), the Downtown Oakland Association, local residents and businesses, and members of the public. This project was first identified in the 2007 *Bicycle Master Plan* (BMP), which had a Citizens Advisory Committee of 20 individuals from different Oakland council districts, community-based organizations, and other interested individuals. The BMP proactively engaged neighborhood groups, merchants associations, and community-based organizations, delivering over 50 presentations to over 850 people throughout the City (**Attachment I-3-1)**.

B. How: Describe how stakeholders were engaged (or will be for a plan). (4 points max)

The City sent mailers to residents and employers within 400 feet of the area, conducted a walking audit, two stakeholder meetings, two City of Oakland Bicycle and Pedestrian Advisory Committee (BPAC) meetings, and a survey.

The City hosted a walking audit of the project site on May 29, 2013. Representatives from AC Transit, BART, City of Oakland, and the BID participated. The issues and opportunities identified during the walking audit are presented on **Attachment I-1-5** (also **Attachment 1-3-2, I-3-3).**

The City hosted two meetings with stakeholder groups (May 14, 2013 and September 10, 2013). The first focused on existing conditions and included representatives from multiple City departments, AC Transit, and BART (meeting minutes are provided in **Attachment I-3-4 and I-3-5)**. The second presented the alternatives for discussion and selection of a preferred alternative. Stakeholders in attendance included City staff from multiple departments, AC Transit, and BART.

On August 7, 2014, City staff presented the project to the BPAC, which was supportive and had ideas for further enhancements (**Attachment I-3-6)**. The City then presented again to BPAC showing a revised version in support of the ATP application on May 21, 2015, at which point additional support for the project was voiced (**Attachment I-3-7)**. A mailer was sent to 43 residences within 400 feet of the corridor in Summer 2014 (**Attachment I-3-8).**

An intercept survey was conducted at 1999 Harrison and Kaiser Centre, two major offices building on the corridor, on May 27, 2015. 48 surveys were collected, and 93% of respondents were supportive or very supportive of the project.

C. What: Describe the feedback received during the stakeholder engagement process and describe how the public participation and planning process has improved the project's overall effectiveness at meeting the purpose and goals of the ATP. (5 points max)

The stakeholder outreach has improved the project's overall effectiveness by selecting a preferred alternative that best meets the needs of the community and agency stakeholders. BART and AC Transit have provided letters of support for this application. Feedback included comments on bike design, many of which were incorporated into the concept plans and some of which can be further considered in the future during the PS&E phase. The overwhelming support for this project from agency stakeholders, the BPAC, and City departments indicates the strong need for this project. Feedback and ideas have been provided at each stage of the project to date. BPAC members again voiced their support in May 2015 for this ATP application, with the sidewalk widening improvements and the bus island/cycle track treatments as areas of high priority.

D. Describe how stakeholders will continue to be engaged in the implementation of the project/program/plan. (1 points max)

As part of the funding for PS&E requested through the ATP grant, additional stakeholder outreach will be completed as part of the design process, which will focus on continuing to work with the Uptown/Lake Merritt BID, major property owners, AC Transit, and BART.

Part B: Narrative Questions
Detailed Instructions for: Question #4

QUESTION #4
IMPROVED PUBLIC HEALTH *(0-10 points*)

- **NOTE: Applicants applying for the disadvantaged community set aside must respond to the below questions with health data specific to the disadvantaged communities. Failure to do so will result in lost points.**

A. **Describe the health status of the targeted users of the project/program/plan. (3 points max)**

Available public health data indicates that the project area's zip code (94612) is one of the most vulnerable in Oakland. The Bay Area Air Quality Management District's (BAAQMD) *Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area Report* (Version 2, March 2014) provides various health indicators by zip code. The study area (Zip Code 9612) is considered an "Impacted Community" based on the BAAQMD methodology and is within the top 15% of the pollution-vulnerability and top 25% of the Emission index (**Table 11, Attachment I-4-1, I-4-2**). The Project area is one of the most impacted zip codes within Oakland, ranking consistently high for pollutant mortality rate, pollutant morbidity costs, cancer risk per million (second highest zip code in the city), pollution-vulnerability index, and pollution index.

Table 11: BAAQMD Impacted Community Health Data for Project Area Zip Code (94612)

Oakland Zip Code	Mortality Rate	Total Morbidity Costs	Pollutant Mortality Rate	Pollutant Morbidity Costs	Cancer Risk Per Million	Pollution-Vulnerability Index	Pollution Index
94612	683.5	609.0	39.8	6.4	591.4	94.5	88.8
Rank out of All Oakland Zip Codes[1]	9/14	9/14	10/14	10/14	13/14	11/14	11/14

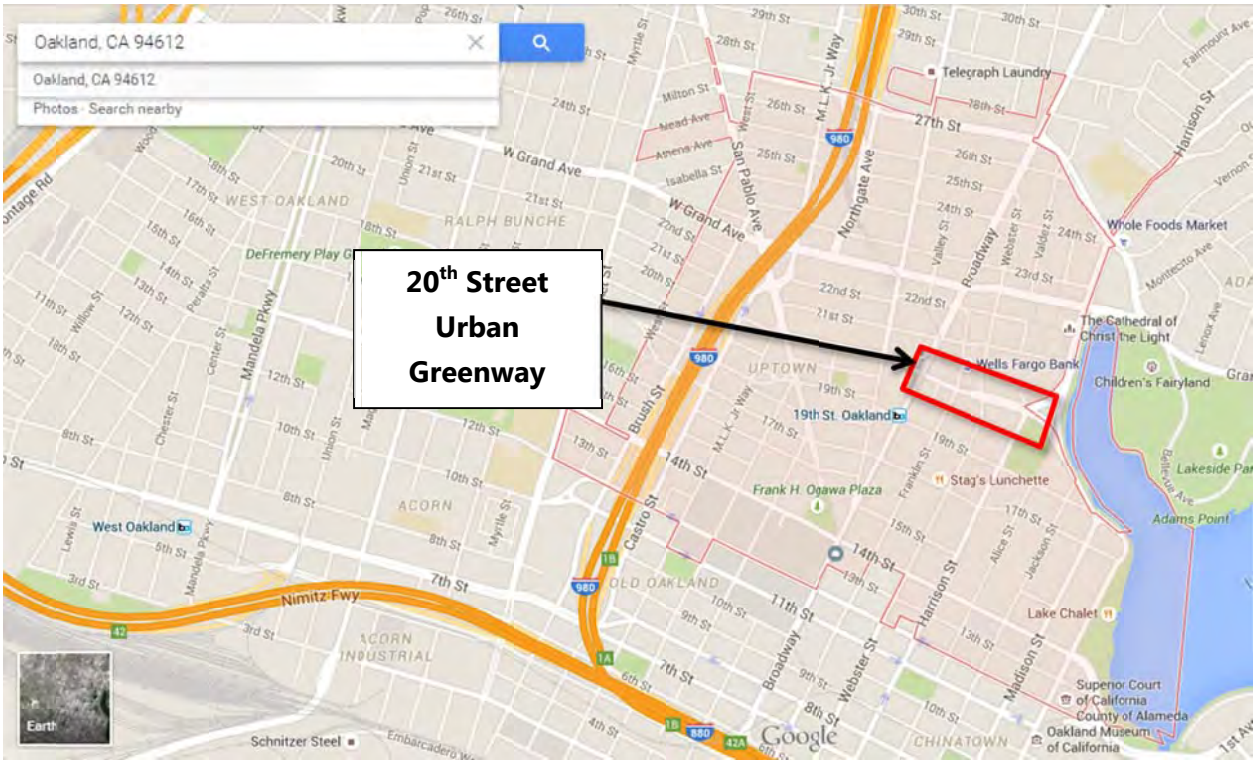
1. Rank: A higher number (e.g. 8 of 12) signifies that 7 other zip code have a heathier rate or cost associated with that criteria (lower cost or lower rate, e.g.). The higher number, the unhealthier the ranking.

Source: BAAQMD, 2014.

California Health Interview Survey 2011-2012 is another source of public health information available by zip code. The percentage of the population diagnosed with asthma, considered obese, and diagnosed with diabetes is presented in **Table 12 (Attachment I-4-2)**. While the obesity rate is lower than the statewide average of almost 25%, incidence of diabetes is high and similar to the statewide average. Increasing physical activity and access to park space in particular, which the Urban Greenway would do

through improving walking and biking connections between disadvantaged communities and Lake Merritt/ Snow Park, may help to decrease the incidence of diabetes and obesity in this vulnerable community. Encouraging more trips to be made by active modes through improved facilities will also help to decrease pollutants, such as particulate matter in this community.

TABLE 12 CHIS HEALTH INDICATOR FOR PROJECT AREA (94612 ZIPCODE)			
Area	**Asthma**	**Obesity**	**Diabetes**
94612 (20th Street)	17.4%	17.5%	7.4%
California	15.4%	24.8%	8.4%
Source: CHIS Survey for 94612 and statewide data.			



B. Describe how you expect your project/proposal/plan to enhance public health. (7 points max.)

The Urban Greenway will improve public health by removing significant barriers to walking and biking and by encouraging new trips to be made by active modes, thereby reducing auto pollutants and increasing physical activity in this disadvantaged community. This will be done through improving

pedestrian safety, enhancing access to Lake Merritt and improving connections to the 19th Street BART Station. Further, the Urban Greenway will enhance access to regional parks for this community, as it is a gap closure project that will connect the community to the continuous path connection from Lake Merritt to the Bay Trail.

Part B: Narrative Questions
Detailed Instructions for: Question #5

QUESTION #5
BENEFIT TO DISADVANTAGED COMMUNITIES *(0-10 points*)

A. **Identification of disadvantaged communities: (0 points – SCREENING ONLY**)

To receive disadvantaged communities points, projects/programs/plans must be located within a disadvantaged community (as defined by one of the four options below) AND/OR provide a direct, meaningful, and assured benefit to individuals from a disadvantaged community.

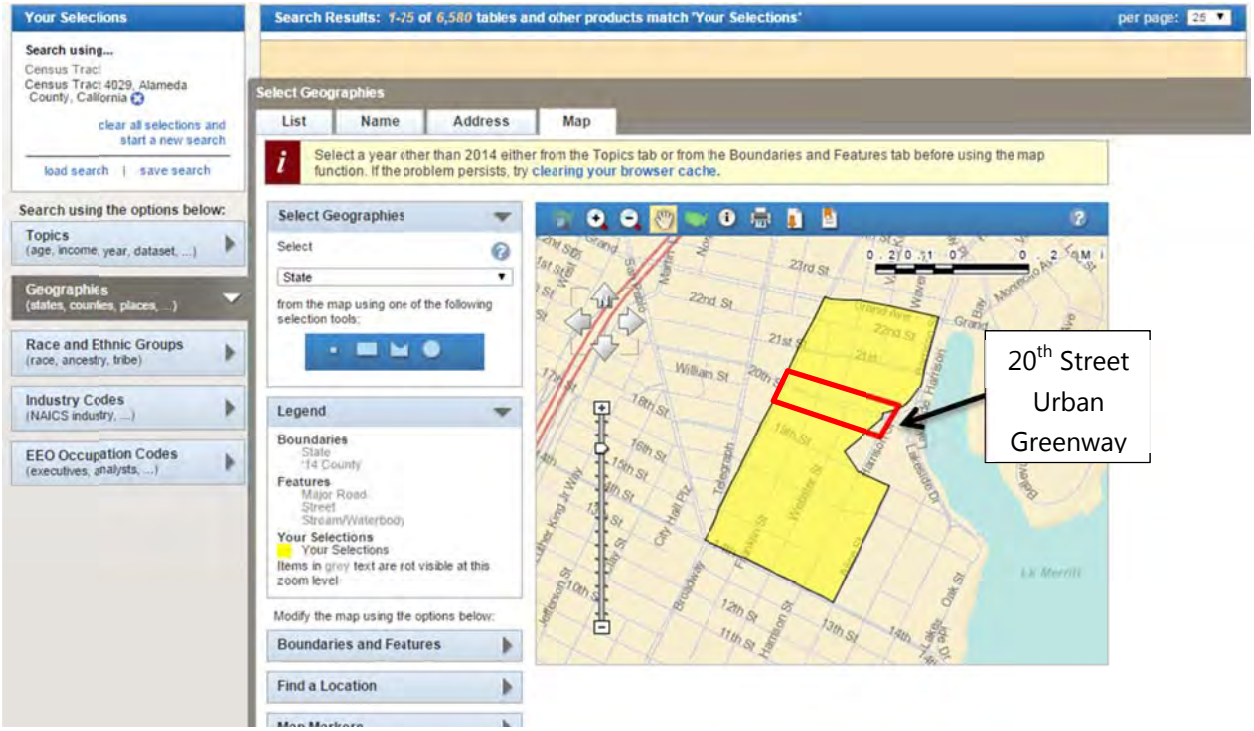
1. The median household income of the census tract(s) is 80% of the statewide median household income
2. Census tract(s) is in the top 25% of overall scores from CalEnviroScreen 2.0
3. At least 75% of public school students in the project area are eligible for the Free or Reduced Priced Meals Program under the National School Lunch Program
4. Alternative criteria for identifying disadvantage communities (see below)

Provide a map showing the boundaries of the proposed project/program/plan and the geographic boundaries of the disadvantaged community that the project/program/plan is located within and/or benefiting.

Option 1: Median household income, by census tract for the community(ies) benefited by the project:

The project is located fully within Census Tract 4209. The median household income for Census Tract 4209 is $23,301, and the statewide median income is $61,094 (American Community Survey, 2009-2013 Five-Year Estimate, Table S1901), which is only 38% of the statewide median income

- Provide all census tract numbers **Census Tract 4209**
- Provide the median income for each census track listed **$23,301 for Census Tract 4209, Attachment I-5-2**
- Provide the population for each census track listed **1,429 residents in Census Tract 4209, Attachment I-5-1**



Option 2: California Communities Environmental Health Screening Tool 2.0 (CalEnviroScreen) score for the community benefited by the project: _____

- Provide all census tract numbers
- Provide the CalEnviroScreen 2.0 score for each census track listed
- Provide the population for each census track listed

Option 3: Percentage of students eligible for the Free or Reduced Price Meals Programs: _____ %

- Provide percentage of students eligible for the Free or Reduced Meals Program for each and all schools included in the proposal

Option 4: Alternative criteria for identifying disadvantaged communities:

- Provide median household income (option 1), the CalEnviroScreen 2.0 score (option 2), and if applicable, the percentage of students eligible for Free and Reduced Meal Programs (option 3)
- Provide ADDITIONAL data that demonstrates that the community benefiting from the project/program/plan is disadvantaged
- Provide an explanation for why this additional data demonstrates that the community is disadvantaged

B. For proposals located within disadvantage community: (5 points max)

What percent of the funds requested will be expended in the disadvantaged community? _100_%

Explain how this percent was calculated.

The 20th Street Urban Greenway is fully located within Census Tract 4209, which is considered a disadvantaged community with a median income of only 38% of the statewide median income, as described above. Therefore all of the funds will be expended in a disadvantaged community.

C. Describe how the project/program/plan provides (for plans: will provide) a direct, meaningful, and assured benefit to members of the disadvantaged community. (5 points max)

Define what direct, meaningful, and assured benefit means for your proposed project/program/plan, how this benefit will be achieved, and who will receive this benefit.

The 20th Street Urban Greenway provides a direct, meaningful, and assured benefit to residents of Census Tract 4209 and other disadvantaged communities by providing a new low-stress bicycle facility and improving pedestrian safety. Crossing improvements and sidewalk widening improve pedestrian safety to everyday destinations in the community in addition to a safer connection to parks. In this census tract, 44% of workers take transit to work, and 14% walk directly to work (ACS, 2013). As a result, this project directly benefits at least 58% percent of the working population of this disadvantaged community who walk every day to the BART Station, AC Transit bus stop, or directly to employers. The low number of bicycle commute trips in the census tract (<1%) may be attributed to limited existing bicycle infrastructure in the area, which could be expected to increase with the addition of the Urban Greenway Class II bike lanes/Class IV cycle tracks.

Part B: Narrative Questions
Detailed Instructions for: Question #6

QUESTION #6
COST EFFECTIVENESS *(0-5 POINTS)*

A. Describe the alternatives that were considered and how the ATP-related benefits vs. project-costs varied between them. Explain why the final proposed alternative is considered to have the highest Benefit to Cost Ratio (B/C) with respect to the ATP purpose of "increased use of active modes of transportation". (3 points max.)

The 20th Street Complete Streets Study studied two alternatives for 20th Street between Broadway and Harrison Street, (**Attachment I-6-1**). A median-running Class IV two-way cycle track was studied to connect the proposed Class IV cycle tracks on Telegraph Avenue with 19th Street BART and Lake Merritt via 20th Street. To safely remove conflicts between bicyclists and autos, this option would require significant signal modifications, including the addition of a bicycle signal phase, protected left-turn movements, and new bicycle signal heads. Additionally, this facility would only extend for three-blocks, so while having a high level of benefit (LTS 1), the solution was less practical, as bicyclists would have to transition from curbside bike facilities to median running bikeway and back again. The preferred alternative does not require the same signal modifications and therefore has a higher benefit to cost ratio. While the median-running cycle tracks alternative would have LTS 1, the Urban Greenway project has an LTS of 1-2, which still has a strong ability to draw new biking trips to the corridor.

B. Use the ATP Benefit/Cost Tool, provided by Caltrans Planning Division, to calculate the ratio of the benefits of the project relative to both the total project cost and ATP funds requested. The Tool is located on the CTC's website at: http://www.dot.ca.gov/hq/tpp/offices/eab/atp.html. After calculating the B/C ratios for the project, provide constructive feedback on the tool (2 points max.)

$$\left(\frac{Benefit}{Total\ Project\ Cost} \text{ and } \frac{Benefit}{Funds\ Requested}\right).$$

The benefit of the total project cost and benefit/funds requested are both 21.38 (**Attachment I-6-2**).

The following benefits are not captured in the Beta tool:

- Bike Lanes/Cost Effective Solutions: bike lanes should have a very high B/C ratio given they are very cost efficient improvements, but they cannot be included as countermeasure because they are not 15% of the total cost
- Bikeway Type: Tool only allows selection of one bikeway class (I, II, or III), but a project many include multiple bikeway types, which is limiting. Cycle tracks and bike boulevards are not options.

- Pedestrian Benefits: Countermeasures are confusingly organized and worded. Crossing treatments appear in multiple locations. Should sidewalk widening be included under roadway new sidewalk? How should that benefit be captured?
- Countermeasures should be defined in more detail as comment boxes

Part B: Narrative Questions
Detailed Instructions for: Question #7

QUESTION #7
LEVERAGING OF NON-ATP FUNDS *(0-5 points*)

A. The application funding plan will show all federal, state and local funding for the project: (5 points max.)

The City has self-funded the initial design (to approximately 15% design) and community outreach for this project. Considering contracted consultant costs only, and not calculating substantial internal staff costs which were not discreetly tracked and therefore are not included, Oakland has spent the following funds to date:

- Planning and Conceptual Engineering (4/13-4/14) $46,430
- Design refinement & Analysis (4/15-5/15) $16,371

TOTAL $62,801

Oakland also pledges future match to the project to design and construct the project, totaling $100,000. These funds are from Oakland's Measure B/BB (local transportation sales tax) funds devoted to grant matching and will be available to appropriate specifically to this project in FY 15/16.

Part B: Narrative Questions
Detailed Instructions for: Question #8

QUESTION #8

USE OF CALIFORNIA CONSERVATION CORPS (CCC) OR A CERTIFIED COMMUNITY CONSERVATION CORPS *(0 or -5 points)*

Step 1: Is this an application requesting funds for a Plan (Bike, Pedestrian, SRTS, or ATP Plan)?

- ☐ Yes (If this application is for a Plan, there is no need to submit information to the corps and there will be no penalty to applicant: 0 points)
- ✓ **No (If this application is NOT for a Plan, proceed to Step #2)**

Step 2: The applicant must submit the following information via email concurrently to **both** the CCC **AND** certified community conservation corps prior to application submittal to Caltrans. The CCC and certified community conservation corps will respond within five (5) business days from receipt of the information.

- Project Title
- Project Description
- Detailed Estimate
- Project Schedule
- Project Map
- Preliminary Plan

California Conservation Corps representative:
Name: Wei Hsieh
Email: atp@ccc.ca.gov
Phone: (916) 341-3154

Community Conservation Corps representative:
Name: Danielle Lynch
Email: inquiry@atpcommunitycorps.org
Phone: (916) 426-9170

Step 3: The applicant has coordinated with Wei Hsieh with the CCC **AND** Danielle Lynch with the certified community conservation corps and determined the following (check appropriate box):

- ✓ **Neither corps can participate in the project (0 points) (Attachment I-8-1 & I-8-2)**
- ☐ Applicant intends to utilize the CCC or a certified community conservation corps on the following items listed below (0 points).

_____

_____

_____

- ☐ Applicant has contacted the corps but intends not to use the corps on a project in which either corps has indicated it can participate (-5 points)
- ☐ Applicant has not coordinated with both corps (-5 points)

The CCC and certified community conservation corps will provide a list to Caltrans of all projects submitted to them and indicating which projects they are available to participate on. The applicant must also attach any email correspondence from the CCC and certified community conservation corps to the application verifying communication/participation.

Part B: Narrative Questions
Detailed Instructions for: Question #9

QUESTION #9
APPLICANT'S PERFORMANCE ON PAST GRANTS AND DELIVERABILITY OF PROJECTS
(0 to-10 points OR disqualification)

A. *Applicant*: Provide short explanation of the Implementing Agency's project delivery history for all projects that include project funding through Caltrans Local Assistance administered programs (ATP, Safe Routes to School, BTA, HSIP, etc.) for the last five (5) years.

The City of Oakland is a regular federal grant recipient, and is familiar with successfully working with Caltrans Local Assistance to deliver projects. We are current on all projects that include Caltrans oversight. Current projects include STP/CMAQ funds for projects through the One Bay Area Grant program, HSIP projects, ATP projects, and Highway Bridge projects. In total, the City of Oakland is currently managing 33 projects, in phases between PE, Construction, and Project Closeout. No project has failed.

One project to note is the Foothill Boulevard Streetscape (ALA110029). It was awarded $2.2 million STP/CMAQ funds under the Metropolitan Transportation Commission's Transportation for Livable Communities program in 2010. Due to the state mandated dissolution of Redevelopment Agencies (which was to provide the project's local match), the City was forced instead to construct that project with 100% local redevelopment funds before it lost access to these funds. Working with MTC, the funding obligation was transferred to the Lakeside Green Streets project (ALA130024), which will be obligated for construction in FY14/15. The end result is that the federal funds will be successfully used to deliver projects in Oakland.

The local CCC has expressed interest in participating in the ATP Cycle 1 funded LAMMPS project, and it is still the City's intention to work with them to do so.

B. *Caltrans response only*:
Caltrans to recommend score for deliverability of scope, cost, and schedule based on the overall application.

Part C: Application Attachments

Applicants must ensure all data in this part of the application is fully consistent with the other parts of the application. See the Application Instructions and Guidance document for more information and requirements related to Part C.

List of Application Attachments

The following attachment names and order must be maintained for all applications. Depending on the Project Type (I, NI or Plans) some attachments will be intentionally left blank. All non-blank attachments must be identified in hard-copy applications using "tabs" with appropriate letter designations

Application Signature Page **Attachment A**
Required for all applications

ATP - PROJECT PROGRAMMING REQUEST (ATP-PPR) **Attachment B**
Required for all applications

Engineer's Checklist **Attachment C**
Required for Infrastructure Projects

Project Location Map **Attachment D**
Required for all applications

Project Map/Plans showing existing and proposed conditions **Attachment E**
Required for Infrastructure Projects (optional for 'Non-Infrastructure' and 'Plan' Projects)

Photos of Existing Conditions **Attachment F**
Required for all applications

Project Estimate **Attachment G**
Required for Infrastructure Projects

Non-Infrastructure Work Plan (Form 22-R) **Attachment H**
Required for all projects with Non-Infrastructure Elements

Narrative Questions backup information **Attachment I**
Required for all applications
Label attachments separately with "H-#" based on the # of the Narrative Question

Letters of Support **Attachment J**
Required or Recommended for all projects (as designated in the instructions)

Additional Attachments **Attachment K**
Additional attachments may be included. They should be organized in a way that allows application reviews easy identification and review of the information.

Part C: Attachments
Attachment A: Signature Page

IMPORTANT: Applications will not be accepted without all required signatures.

Implementing Agency: Chief Executive Officer, Public Works Director, or other officer authorized by the governing board
The undersigned affirms that their agency will be the "Implementing Agency" for the project if funded with ATP funds and they are the Chief Executive Officer, Public Works Director or other officer **authorized by their governing board with the authority to commit the agency's resources and funds**. They are also affirming that the statements contained in this application package are true and complete to the best of their knowledge. For infrastructure projects, the undersigned affirms that they are the manager of the public right-of-way facilities (responsible for their maintenance and operation) or they have authority over this position.

Signature: _____ Date: 5/29/15
Name: Brooke A. Levin Phone: 510-238-3961
Title: Director, Oakland Public Works e-mail: blevin@oaklandnet.com

For projects with a Partnering Agency: Chief Executive Officer or other officer authorized by the governing board
(For use only when appropriate)
The undersigned affirms that their agency is committed to partner with the "Implementing Agency" and agrees to assume the responsibility for the ongoing operations and maintenance of the facility upon completion by the implementing agency and they intend to document such agreement per the CTC guidelines. The undersigned also affirms that they are the Chief Executive Officer or other officer authorized by their governing board with the authority to commit the agency's resources and funds. They are also affirming that the statements contained in this application package are true and complete to the best of their knowledge.

Signature: _____ Date: _____
Name: _____ Phone: _____
Title: _____ e-mail: _____

For Safe Routes to School projects and/or projects presented as benefiting a school: School or School District Official
(For use only when appropriate)
The undersigned affirms that the school(s) benefited by this application is not on a school closure list.

Signature: _____ Date: _____
Name: _____ Phone: _____
Title: _____ e-mail: _____

For projects with encroachments on the State right-of-way: Caltrans District Traffic Operations Office Approval*
(For use only when appropriate)
If the application's project proposes improvements within a freeway or state highway right-of-way, whether it affects the safety or operations of the facility or not, it is required that the proposed improvements be reviewed by the district traffic operations office and either a letter of support/acknowledgement from the traffic operations office be attached or the signature of the traffic manager be secured in the application. The Caltrans letter and/or signature does not imply approval of the project, but instead is only an acknowledgement that Caltrans District staff is aware of the proposed project; and upon initial review, the project appears to be reasonable and acceptable.

Is a letter of support/acknowledgement attached? _____ If yes, no signature is required. If no, the following signature is required.

Signature: _____ Date: _____
Name: _____ Phone: _____
Title: _____ e-mail: _____

* Contact the District Local Assistance Engineer (DLAE) for the project to get Caltrans Traffic Ops contact information. DLAE contact information can be found at http://www.dot.ca.gov/hq/LocalPrograms/dlae.htm

04-OAKLAND-1

STATE OF CALIFORNIA ● DEPARTMENT OF TRANSPORTATION

ATP PROJECT PROGRAMMING REQUEST

Date:	26-May-15

Project Information:

Project Title:	20th Street Urban Greenway				
District	County	Route	EA	Project ID	PPNO
04	Alameda	20th Street			

Funding Information:

DO NOT FILL IN ANY SHADED AREAS

Proposed Total Project Cost ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)				150				150
PS&E					550			550
R/W								
CON						3,983		3,983
TOTAL				150	550	3,983		4,683

Notes:

ATP Funds	Infrastructure Cycle 2							
Proposed Funding Allocation ($1,000s)								
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)				150				150
PS&E					550			550
R/W								
CON						3,883		3,883
TOTAL				150	550	3,883		4,583

Program Code

Funding Agency

Notes:

ATP Funds	Non-infrastructure Cycle 2							
Proposed Funding Allocation ($1,000s)								
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Program Code

Funding Agency

Notes:

ATP Funds	Plan Cycle 2							
Proposed Funding Allocation ($1,000s)								
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Program Code

Funding Agency

Notes:

ATP Funds	Previous Cycle							
Proposed Funding Allocation ($1,000s)								
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Program Code

Funding Agency

Notes:

ATTACHMENT B

04-OAKLAND-1

STATE OF CALIFORNIA ● DEPARTMENT OF TRANSPORTATION

ATP PROJECT PROGRAMMING REQUEST

Date:	26-May-15

Project Information:

Project Title:	20th Street Urban Greenway				
District	**County**	**Route**	**EA**	**Project ID**	**PPNO**
04	Alameda	20th Street			

Funding Information:

DO NOT FILL IN ANY SHADED AREAS

ATP Funds	Future Cycles								Program Code
	Proposed Funding Allocation ($1,000s)								
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									
PS&E									Notes:
R/W									
CON									
TOTAL									

ATTACHMENT B

04-OAKLAND-1

STATE OF CALIFORNIA ● DEPARTMENT OF TRANSPORTATION

ATP PROJECT PROGRAMMING REQUEST

Date:	26-May-15

Project Information:

Project Title:	20th Street Urban Greenway				
District	County	Route	EA	Project ID	PPNO
04	Alameda	20th Street			

Funding Information:

DO NOT FILL IN ANY SHADED AREAS

Fund No. 2: Local Funds - Transportation Sales Tax

Program Code:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON						100		100
TOTAL						100		100

Funding Agency: City of Oakland

Notes: Local transportation sales tax funds

Fund No. 3:

Program Code:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Funding Agency:

Notes:

Fund No. 4:

Program Code:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Funding Agency:

Notes:

Fund No. 5:

Program Code:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Funding Agency:

Notes:

Fund No. 6:

Program Code:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								

Funding Agency:

Notes:

ATTACHMENT B

04-OAKLAND-1

STATE OF CALIFORNIA ● DEPARTMENT OF TRANSPORTATION

ATP PROJECT PROGRAMMING REQUEST

Date:	26-May-15

Project Information:

Project Title:	20th Street Urban Greenway				
District	County	Route	EA	Project ID	PPNO
04	Alameda	20th Street			

Funding Information:

DO NOT FILL IN ANY SHADED AREAS

TOTAL									

Fund No. 7:									Program Code
Proposed Funding Allocation ($1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									
PS&E									Notes:
R/W									
CON									
TOTAL									

ATTACHMENT B

04-OAKLAND-1

ATP Engineer's Checklist for Infrastructure Projects

Required for "Infrastructure" applications ONLY

This application checklist is to be used by the engineer in "responsible charge" of the preparation of this ATP application to ensure all of the primary elements of the application are included as necessary to meet the CTC's requirements for a PSR-Equivalent document (per CTC's ATP Guidelines and CTC's Adoption of PSR Guidelines - Resolution G-99-33) and to ensure the application is free of critical errors and omissions; allowing the application to be accurately ranked in the statewide ATP selection process.

Special Considerations for Engineers before they Sign and Stamp this document attesting to the accuracy of the application:

Chapter 7; Article 3; Section 6735 of the Professional Engineer's Act of the State of California requires engineering calculation(s) or report(s) be either prepared by or under the responsible charge of a licensed civil engineer. Since the corresponding ATP ***Infrastructure****-application defines the scope of work of a future civil construction project and requires complex engineering principles and calculations which are based on the best data available at the time of the application, the application must be signed and stamped by a licensed civil engineer.*

By signing and stamping this document, the engineer is attesting to this application's technical information and engineering data upon which local agency's recommendations, conclusions, and decisions are made. This action is governed by the Professional Engineer's Act and the corresponding Code of Professional Conduct, under Sections 6775 and 6735.

The following checklist is to be completed by the engineer in "responsible charge" of defining the projects Scope, Cost and Schedule per the expectations of the CTC's PSR Equivalent. The checklist is expected to be used during the preparation of the documents, but not initialed and stamped until the final application and application attachments are complete and ready for submission to Caltrans.

1. **Vicinity map /Location map** **Engineer's Initials:** RM
   a. The project limits must be clearly depicted in relationship to the overall agency boundary

2. **Project layout-plan/map** showing existing and proposed conditions must: **Engineer's Initials:** RM
   a. Be to a scale which allows the visual verification of the overall project "construction" limits and limits of each primary element of the project
   b. Show the full scope of the proposed project, including any non-participating construction items
   c. Show all changes to existing motorized/non-motorized lane and shoulder widths. Label the proposed widths
   d. Show agency's right of way (ROW) lines when permanent or temporary ROW impacts are possible. (As appropriate, also show Caltrans', Railroad, and all other government agencies ROW lines)

3. **Typical cross-section(s)** showing existing and proposed conditions. **Engineer's Initials:** RM
   (Include cross-section for each controlling configuration that varies significantly from the typical)
   a. Show and dimension: changes in lane widths, ROW lines, side slopes, etc.

4. **Detailed Engineer's Estimate** **Engineer's Initials:** RM
   a. Estimate is reasonable and complete.
   b. Each of the main project elements are broken out into separate construction items. The costs for each item are based on calculated quantities and appropriate corresponding unit costs
   c. All non-participating costs in relation to the ATP funding are clearly identified and accounted for separately from the eligible costs.
   d. All project elements the applicant intends to utilize the CCC (or a certified community conservation corps) on need to be clearly identified and accounted for
   e. All project development costs to be funded by the ATP need to be accounted for in the total project cost

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5. **Crash/Safety Data, Collision maps and Countermeasures**: **Engineer's Initials:** RM
   a. Confirmation that crash data shown occurred within influence area of proposed improvements.

6. **Project Schedule and Requested programming of ATP funding** **Engineer's Initials:** RM
   a. All applicants must anticipate receiving federal ATP funding for the project and therefore the project schedules and programming included in the application must account for all applicable requirements and timeframes.
   b. "Completed Dates" for project Milestone Dates shown in the application have been reviewed and verified
   c. "Expected Dates" for project Milestone Dates shown in the application account for all reasonable project timetables, including: Interagency MOUs, Caltrans agreements, CTC allocations, FHWA authorizations, federal environmental studies and approvals, federal right-of-way acquisitions, federal consultant selections, project permits, etc.
   d. The fiscal year and funding amounts shown in the PPR must be consistent with the values shown in the project cost estimate(s), expected project milestone dates and expected matching funds.

7. **Warrant studies/guidance (Check if not applicable)** **Engineer's Initials:** RM

   ☐ N/A

   a. For new Signals – Warrant 4, 5 or 7 must be met (CA MUTCD): Signal warrants must be documented as having been met based on the CA MUTCD

8. **Additional narration and documentation:** **Engineer's Initials:** RM
   a. The text in the "Narrative Questions" in the application is consistent with and supports the engineering logic and calculations used in the development of the plans/maps and estimate
   b. When needed to clarify non-standard ATP project elements (i.e. vehicular roadway widening necessary for the construction of the primary ATP elements); appropriate documentation is attached to the application to document the engineering decisions and calculations requiring the inclusion of these non-standard elements.

Licensed Engineer:

Name *(Last, First)*: McClain, Ryan

Title: Associate

Engineer License Number 67002

Signature: R. McClain

Date: 5/28/2015

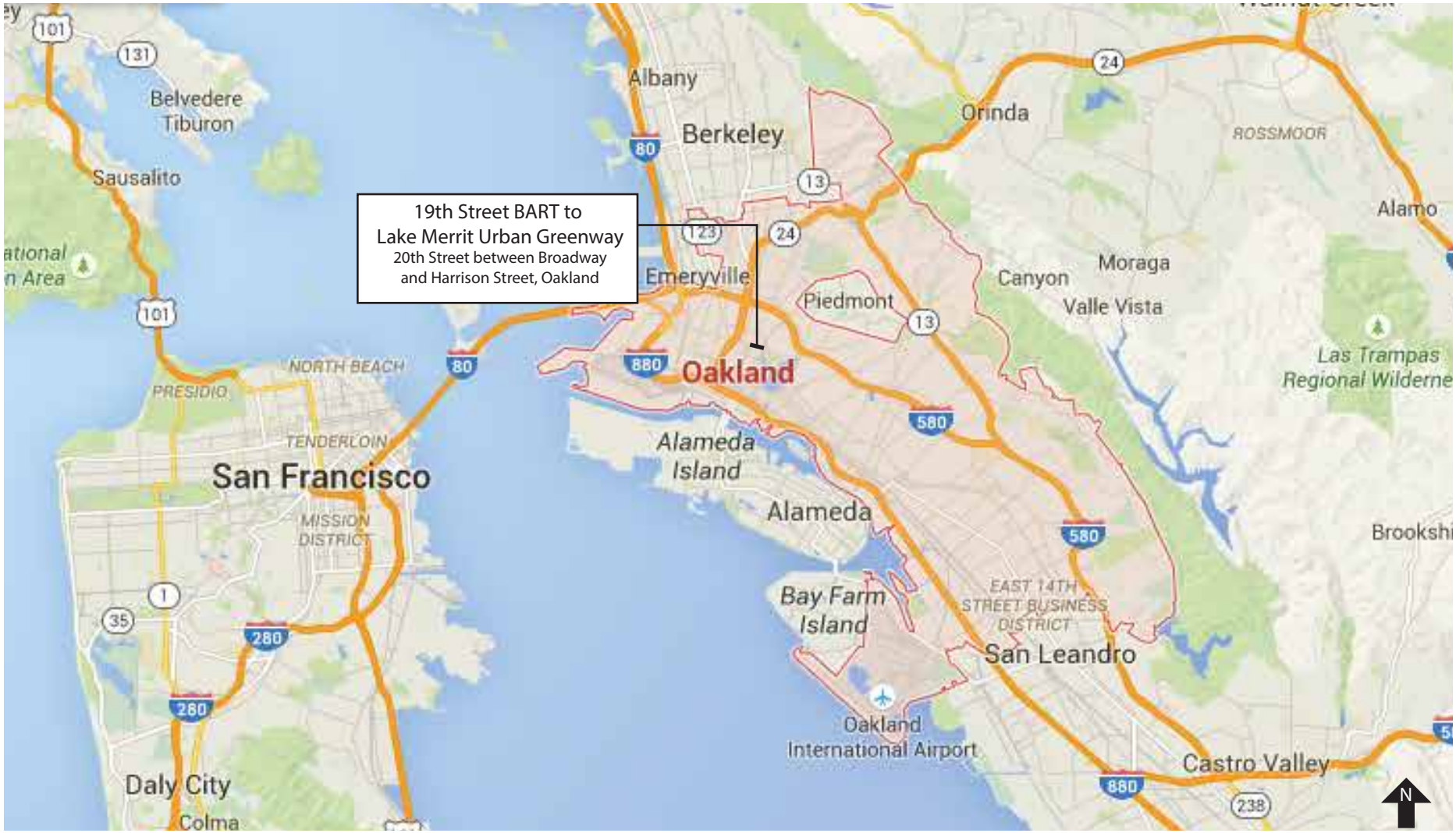
Email: r.mcclain@fehrandpeers.com

Phone: (925) 357-3384

Engineer's Stamp:

REGISTERED PROFESSIONAL ENGINEER
RYAN JAMES McCLAIN
C 67002
EXP. 9/30/16
CIVIL
STATE OF CALIFORNIA

04-OAKLAND-1

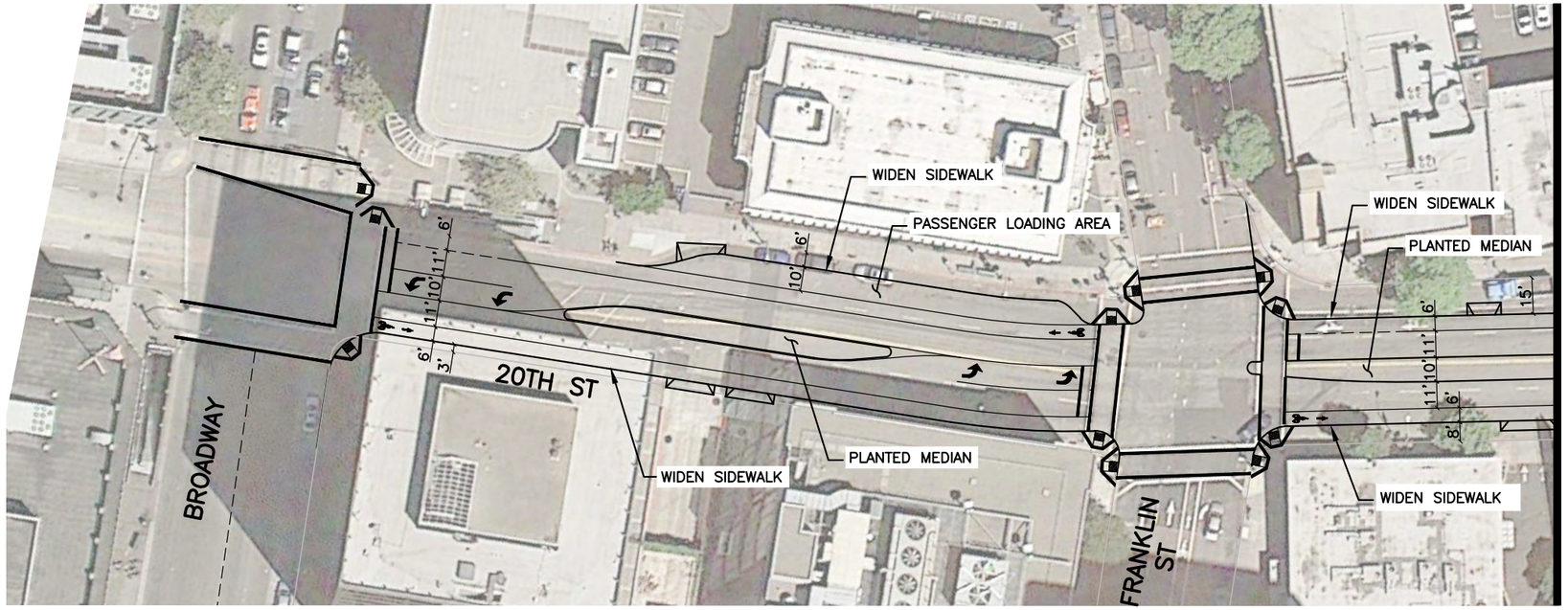


Source: Google Maps

FEHR & PEERS

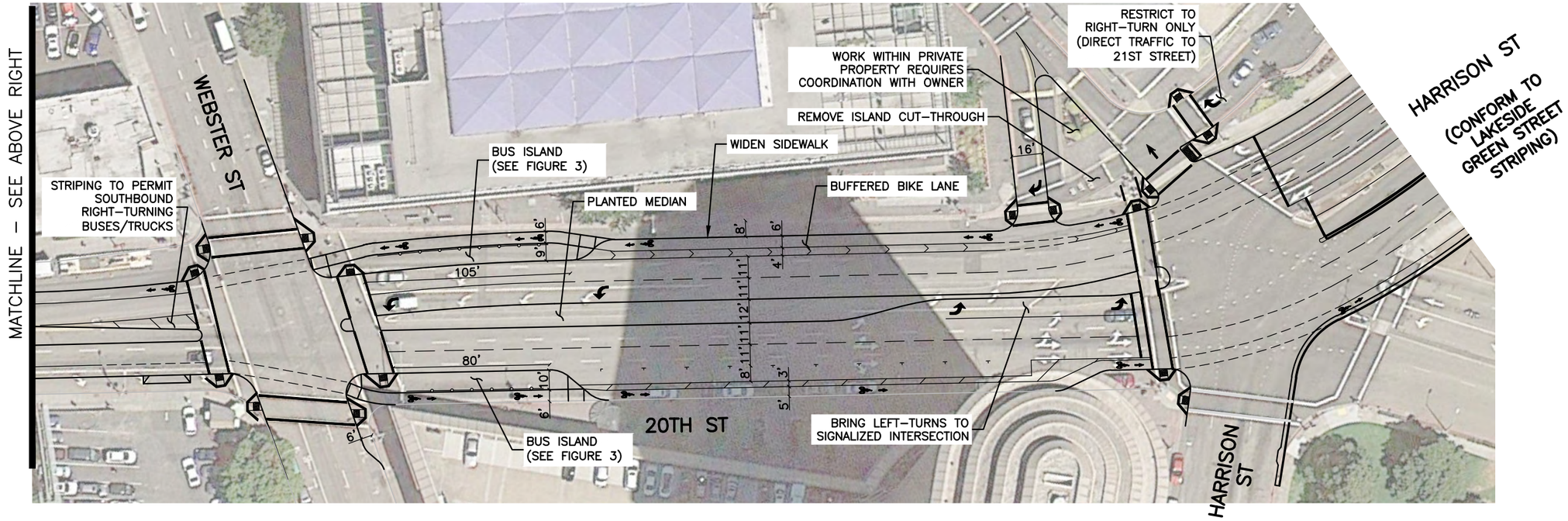
Attachment D Project Location Map
19th Street BART to Lake Merritt Urban Greenway

04-OAKLAND-1



60 0 60 120
30 0 30 60

SCALE: HALF SIZE 11x17 (1"=60')
FULL SIZE 22x34 (1"=30')



FEHR PEERS

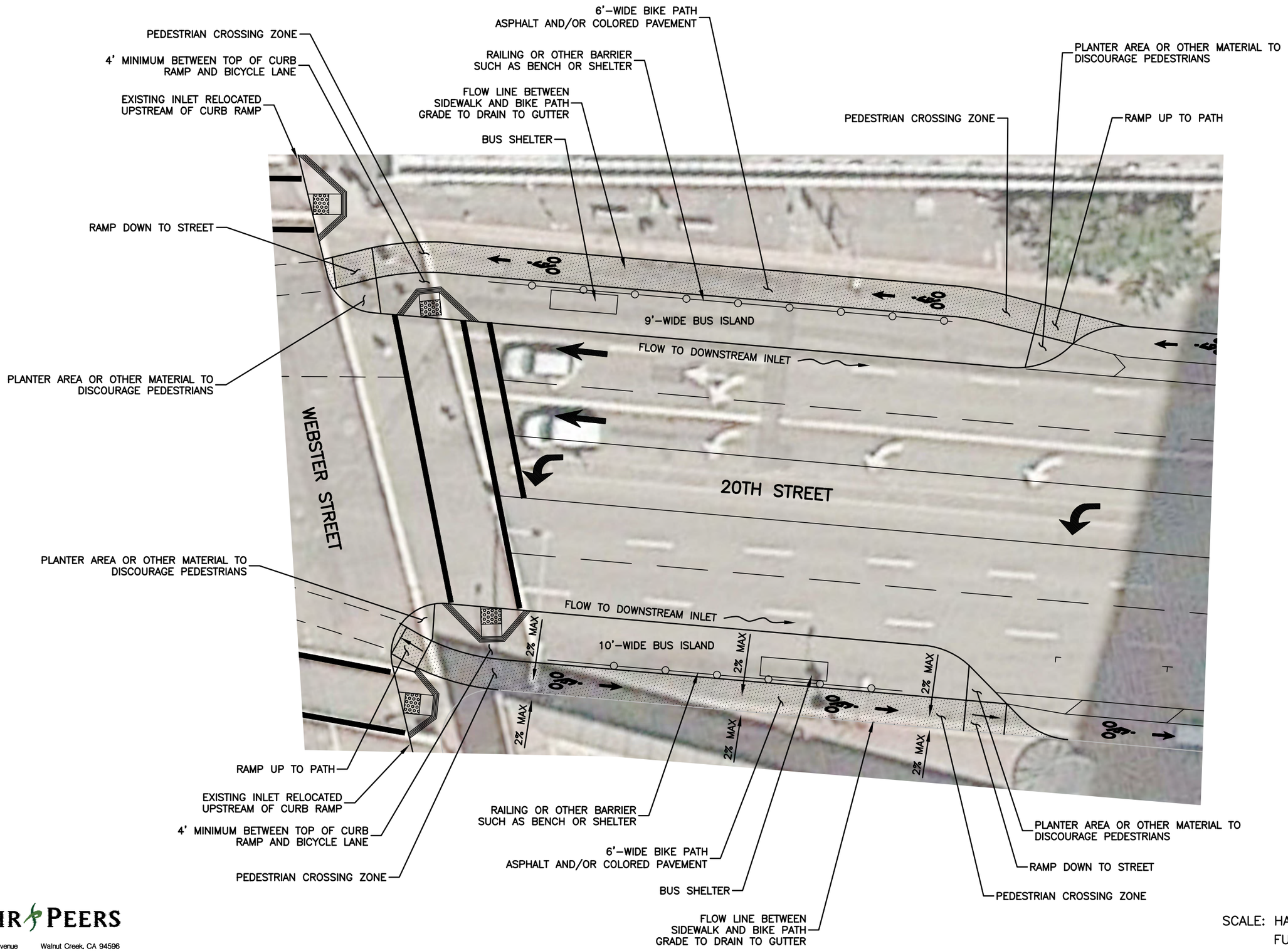
100 Pringle Avenue Walnut Creek, CA 94596
Suite 600 (925) 930–7100

ATTACHMENT E-1

Oct 13, 2013
N:\PROJECTS_WC10\WC10–2732.C0_20th_Street_Complete_Street_Project\CAD\20thStreet_CN\FINAL_08132013\20thStreet_101113.dwg

20TH STREET: BROADWAY TO HARRISON STREET
FIGURE 8

04-OAKLAND-1



ATTACHMENT E-2

SCALE: HALF SIZE 11x17 (1"=40')
FULL SIZE 22x34 (1"=20')

FEHR & PEERS
100 Pringle Avenue Suite 600
Walnut Creek, CA 94596 (925) 930-7100

Nov 19, 2013
N:\PROJECTS_WC10\WC10-2732.C0_20th_Street_Complete_Street_Project\CAD\20thStreet_CN\FINAL_08132013\20thStreet_101513.dwg

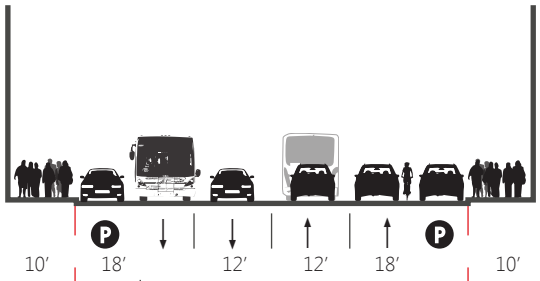
20TH STREET: BUS ISLANDS
FIGURE 3

04-OAKLAND-1

BROADWAY TO FRANKLIN STREET

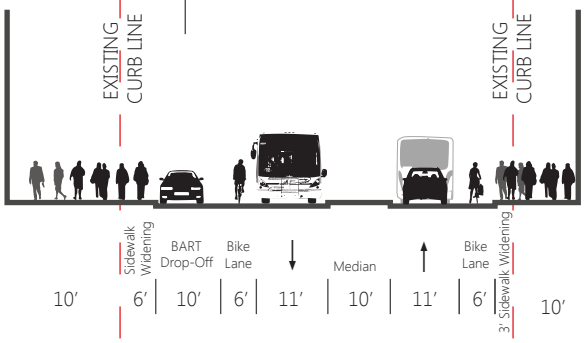
Existing Cross-Section

4 Travel Lanes + Parking



Proposed Cross-Section

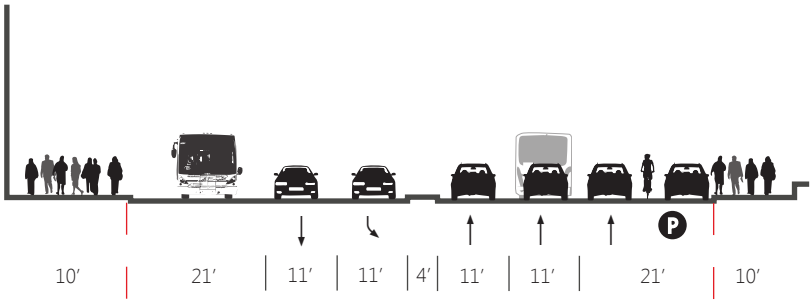
2 Travel Lanes + Median + Class II Bicycle Lanes + Widened Sidewalks + BART Drop-Off



FRANKLIN STREET TO HARRISON STREET

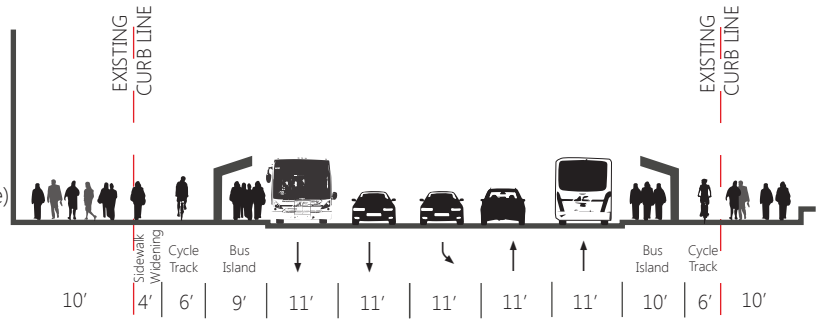
Existing Cross-Section

6 Travel Lanes + Parking (south side)



Proposed Cross-Section

4 Travel Lanes + Median + Class IV Cycle Tracks + Widened Sidewalk (north side) + Parking (south side)



0′ 10′ 20′ 30′

FEHR PEERS

Controlling Cross-Sections

19th Street BART to Lake Merritt Urban Greenway

ATTACHMENT E-3
CONTROLLING CROSS-SECTIONS

Figure 1 View of Lake Merritt and surrounding parks from Harrison Street and 20th Street.

Figure 2: Recently opened Bike Station provides secured, all-day bike parking as of Spring 2015. This provides a new end of trip facility for bicyclists using the 20th Street corridor. It is located at Broadway/19th Street (one block from Project Site).

Figure 3: Image showing BART's recent reconstruction of the station portal at 20th Street. The north side of roadways is the most crowded with pedestrians. Sidewalk is narrow in the blocks between Broadway and Webster in particular, with obstructions from street furniture, poles, and bus stops. Photo taking during the evening commute. Pedestrian volumes higher on north side of street, typically because of BART Portal location.

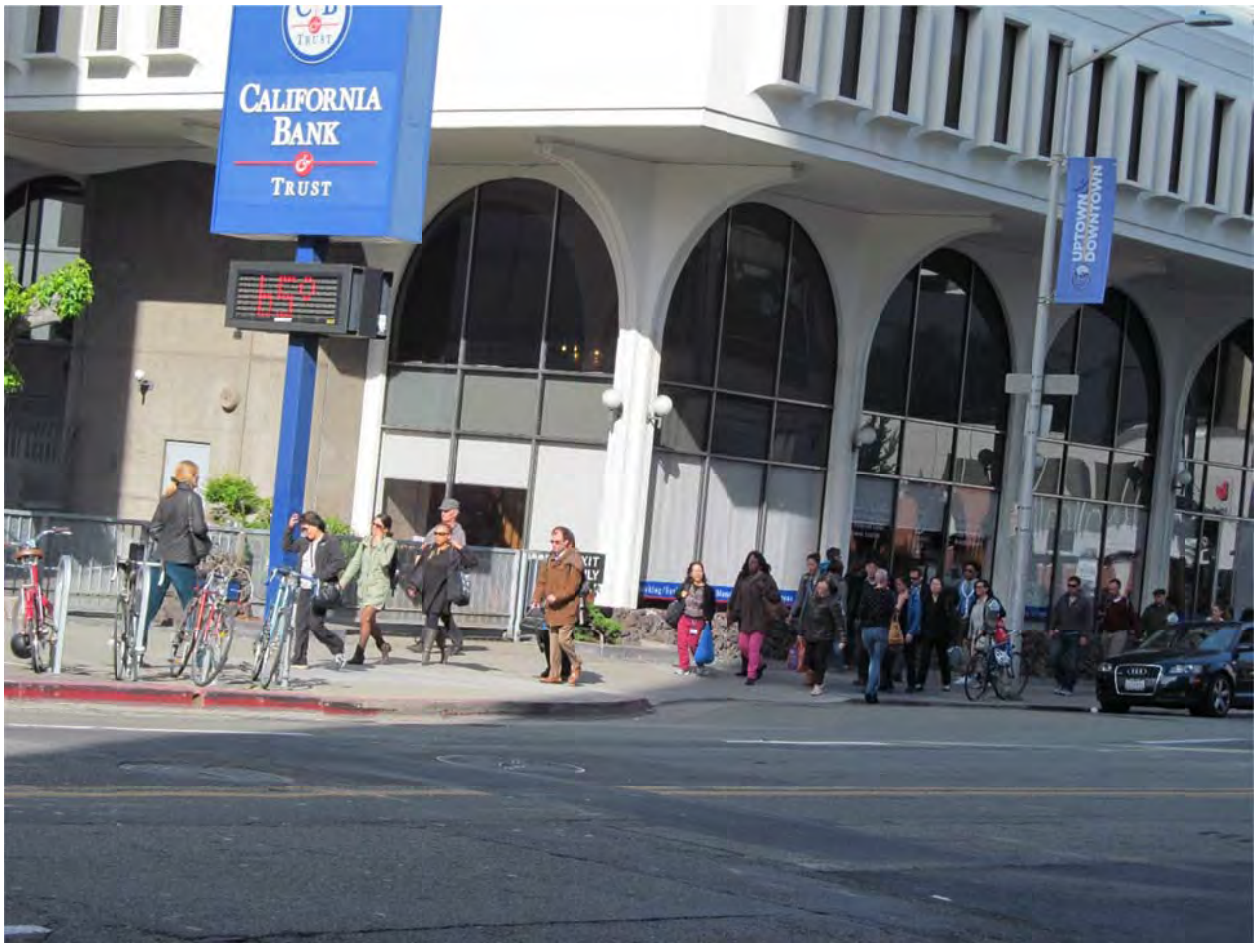


Figure 4: High pedestrian volumes on north side of 20th Street between Franklin Street and Broadway.

Figure 5: Curb ramps need upgrading and are not direction at Franklin Street/20th Street Intersection (southeast corner)

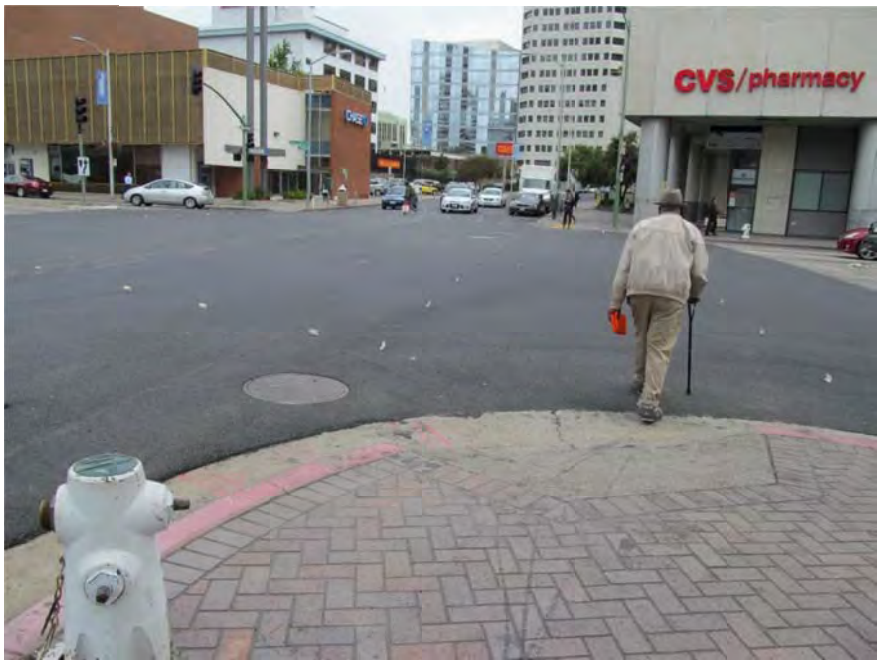


Figure 6: Webster Street and 20th Street intersection curb ramp require accessibility upgrades. Note Franklin and Webster were recently repaved and striping had not yet been replaced when this photo was taken.

Figure 7: Pedestrians navigate narrow refuge island at 20th Street and Harrison Street (heading north toward Kaiser).

Figure 8: Damaged sidewalk on 20th Street between Franklin Street and Webster Street on 20th Street.

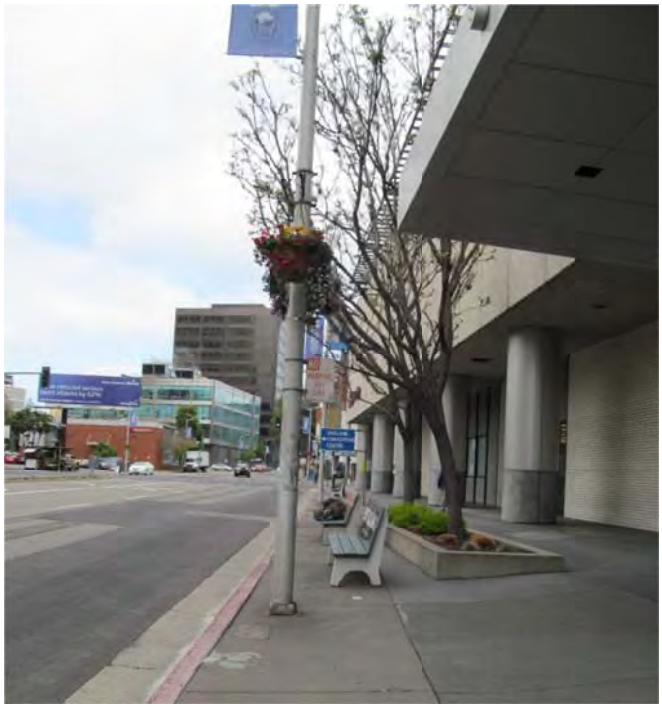


Figure 9 Unused bus stop on 20th Street between Webster Street and Harrison Street to be removed as part of the Project to add space for widened sidewalk.

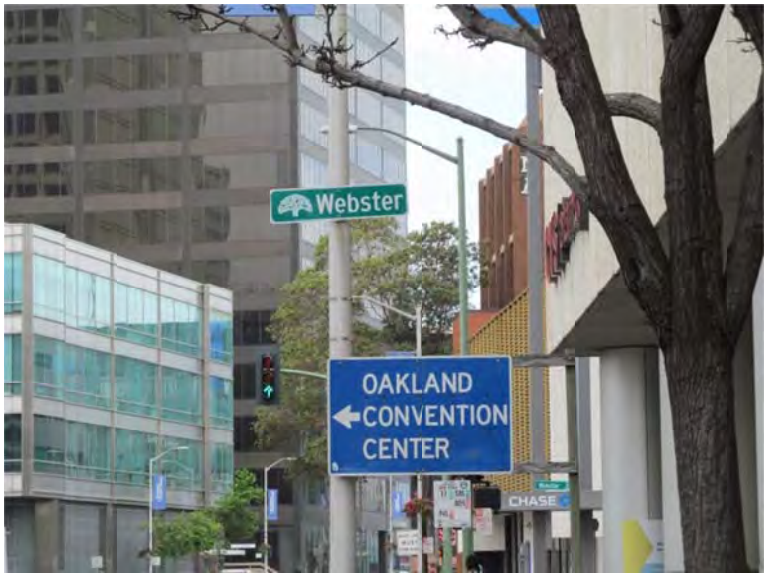


Figure 10: Highway Style convention sign on 20th Street between Webster Street and Harrison Street to be removed as part of the Project to add space for widened sidewalk.

Figure 11: Several "pinch points" existing in the sidewalk that create usable sidewalk space as narrow as 6' in width, such as the driveways between Franklin and Webster Streets.

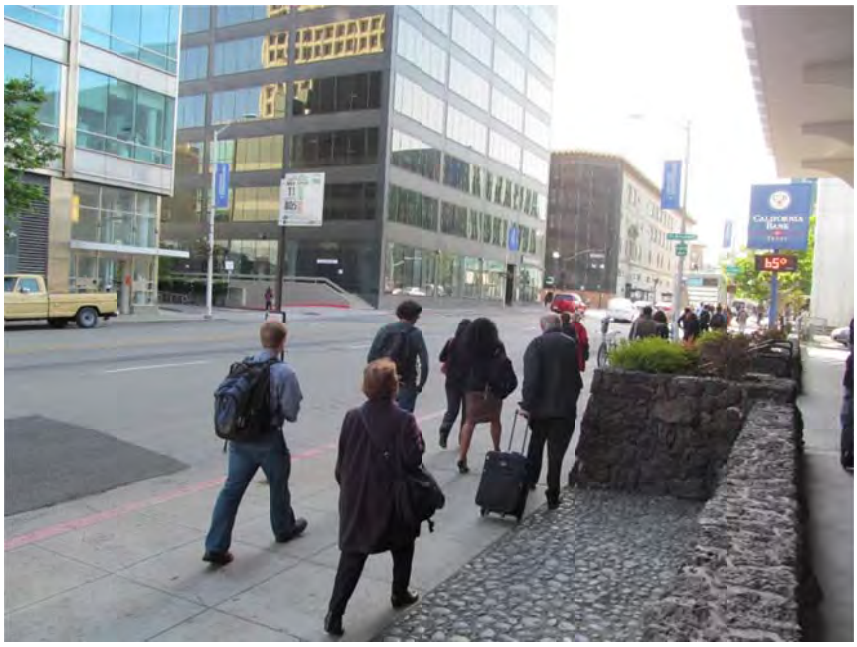


Figure 12: HIgh pedestrian volumes on narrow sidewalk with pinch points at 20th Street between Franklin Street and Broadway

Figure 13: Cyclist on 20th Street south of the BART station

Figure 14: Bicyclist crossing the 20th Street/ Webster Street intersection (in a shared lane?)

Figure 15: Pedestrians spill out of the narrow crosswalk at 20th Street and Franklin Street

Figure 16: Lack of pedestrian countdown signal on the south leg of the intersection of 20th and Franklin Streets

Detailed Engineer's Estimate and Total Project Cost

Important: Read the Instructions in the other sheet (tab) before entering data. Do not enter in shaded fields (with formulas).

Project Information:

Agency:	City of Oakland				
Application ID:	04-OAKLAND-1	**Prepared by:**	R. McClain	**Date:**	5/29/2015
Project Description:	19th Street BART to Lake Merritt Urban Greenway				
Project Location:	20th Street between Broadway and Harrison Street, Oakland				

Engineer's Estimate and Cost Breakdown:

Engineer's Estimate (for Construction Items Only)						Cost Breakdown							
						Note: Cost can apply to more than one category. Therefore may be over 100%.							
						ATP Eligible Items		Landscaping		Non-Participating Items		To be Constructed by Corps/CCC	
Item No.	**Item**	**Quantity**	**Units**	**Unit Cost**	**Total Item Cost**	**%**	**$**	**%**	**$**	**%**	**$**	**%**	**$**
1	Mobilization	1	LS	$100,000.00	$100,000	100%	$100,000						
2	Traffic Control	1	LS	$50,000.00	$50,000	100%	$50,000						
1	Install New Sign on New Post	6	EA	$800.00	$4,800	100%	$4,800						
2	Install New Sign Panel on Existing Post	17	EA	$500.00	$8,500	100%	$8,500						
3	Detail 8 - 4" White Skid	775	LF	$1.00	$775	100%	$775						
4	Detail 24 - 4" Solid Yellow	725	LF	$1.25	$906	100%	$906						
5	Detail 38A - Channelizing Line	395	LF	$5.00	$1,975	100%	$1,975						
6	12" Limit Line/Crosswalk	1674	LF	$6.60	$11,048	100%	$11,048						
7	Detail 39 - Bike Lane	2180	LF	$1.00	$2,180	100%	$2,180						
8	Detail 39A - Bike Lane Intersection Line	400	LF	$1.00	$400	100%	$400						
9	Type IV Arrow	255	SF	$8.50	$2,168	100%	$2,168						
10	Bike Lane Legend (Bike Symbol and Arrow)	16	EA	$200.00	$3,200	100%	$3,200						
11	Modify Signal (20th Street/Broadway)	1	LS	$150,000.00	$150,000	100%	$150,000						
12	New Signal (20th Street/Franklin Street)	1	LS	$300,000.00	$300,000	100%	$300,000						
13	New Signal (20th Street/Webster Street)	1	LS	$300,000.00	$300,000	100%	$300,000						
14	Modify Signal (20th Street/Harrison Street)	1	LS	$150,000.00	$150,000	100%	$150,000						
15	Street Light With Foundation	20	EA	$10,000.00	$200,000	100%	$200,000						
16	Roadway Grading/Paving	9000	SF	$15.00	$135,000	100%	$135,000						
17	Concrete Curb & Gutter	3110	LF	$40.00	$124,400	100%	$124,400						
18	Bus Stop Island/Amenities	2300	SF	$20.00	$46,000	100%	$46,000						
19	Concrete Driveway	2264	SF	$15.00	$33,960	100%	$33,960						
20	Concrete Sidewalk	31615	SF	$15.00	$474,225	100%	$474,225						
21	Curb Ramp	28	EA	$4,000.00	$112,000	100%	$112,000						
22	Concrete Curb (Median)	1440	LF	$15.00	$21,600	100%	$21,600						
23	Storm Drainage Drop Inlet - Relocation	10	EA	$15,000.00	$150,000	100%	$150,000						
24	Manhole - Relocation	2	EA	$25,000.00	$50,000	100%	$50,000						
25	Manhole - Adjust Grade	20	EA	$3,000.00	$60,000	100%	$60,000						
26	Remove/Salvage Existing Street Electrolier	20	EA	$1,000.00	$20,000	100%	$20,000						
27	Demo Pavement/Median/Sidewalk	110440	SF	$2.00	$220,880	100%	$220,880						
28	Remove Tree	1	EA	$800.00	$800	100%	$800						
29	Planting Area	6830	SF	$12.00	$81,960	100%	$81,960	100%	$81,960				
30	Additional Streetscape Elements	1	LS	$50,000.00	$50,000	100%	$50,000						
				Subtotal of Construction Items:	**$2,866,777**		**$2,866,777**		**$81,960**				
	Construction Item Contingencies (% of Construction Items): **Enter in the cell to the right**			**25.00%**	**$716,694**								
	Total (Construction Items & Contingencies) cost:				**$3,583,471**								

Project Cost Estimate:

Type of Project Delivery Cost	Cost $		
Preliminary Engineering (PE)			
Environmental Studies and Permits(PA&ED):	$ 150,000		
Plans, Specifications and Estimates (PS&E):	$ 550,000		
Total PE:	**$ 700,000**	**19.53%**	25% Max

Right of Way (RW)	
Right of Way Engineering:	$ -
Acquisitions and Utilities:	$ -
Total RW:	**$ -**

ATTACHMENT G

Engineer's Estimate (for Construction Items Only)						Note: Cost can apply to more than one category. Therefore may be over 100%.							
						ATP Eligible Items		Landscaping		Non-Participating Items		To be Constructed by Corps/CCC	
Item No.	Item	Quantity	Units	Unit Cost	Total Item Cost	%	$	%	$	%	$	%	$
Construction (CON)													
	Construction Engineering (CE):			$	400,000	**10.04%**	15% Max						
	Total Construction Items & Contingencies:				$3,583,471								
	Total CON:			**$**	**3,983,471**								
Total Project Cost Estimate:				**$**	**4,683,471**								

ATTACHMENT G

Establishing a Performance Framework

What are we aiming for in Plan Bay Area, and how can we measure our success in achieving it? New mandates answer those questions to some degree. California Senate Bill 375, enacted in 2008, requires that we plan for future housing needs and complementary land uses, which in turn must be supported by a transportation investment strategy. And we must do this in a way that reduces emissions of greenhouse gases from cars and light-duty trucks. A fully integrated land use and transportation planning approach is needed to meet these requirements, and Plan Bay Area embraces and embodies such an approach.

Combining these mandated objectives with a careful assessment of the long-range needs of the Bay Area and an understanding of the desires and aspirations of its residents — communicated loudly and diversely through the many avenues provided for public participation (see sidebar on page 28) — we can begin to structure a serious plan for the region. But before proposing a land use distribution approach or recommending a transportation investment strategy, planners must formulate in concrete terms the hoped-for outcomes we seek. For Plan Bay Area, performance targets are an essential element of this regional planning process, allowing for rational discussion of quantitative metrics. Establishing targets allows for various alternative strategies to be assessed and compared using a consistent set of metrics.

Collaborative Process

MTC and ABAG engaged a broad spectrum of regional stakeholders in order to make the targets as meaningful as possible in measuring the plan's success. This collaborative process in the latter half of 2010 involved reviewing nearly 100 possible performance targets, which were critically examined using a set of evaluation criteria. These criteria emphasized targets that could be forecasted by modeling tools and potentially influenced by policies and investments in the future plan. After six months of discussion and debate reflecting input from local stakeholders, equity, environment and business advocates, and concerned members of the public, a list of the preferred targets took shape. These targets went beyond traditional transportation concerns, such as metrics for regional mobility, and instead embraced broader regional concerns, including land use, environmental quality and economic vitality.

Noah Berger

The Plan Bay Area targets, adopted in January 2011, reflect this plan's emphasis on sustainability. Sustainability encapsulates a broad spectrum of concerns, including environmental impacts from greenfield development and vehicle emissions, equity impacts from displacement and low-income household affordability, and economic impacts from regional competitiveness. By integrating these three E's — environment, equity and economy — throughout the targets, Plan Bay Area truly aims to measure the success of creating sustainable communities. We paid special attention to the equity component of the three E's triad, as detailed later in this chapter.

Of course, adopting these voluntary targets is not the same as achieving them. Many are extremely ambitious. But two of the targets are not only ambitious, but also mandatory and vitally important. Plan Bay Area must reduce greenhouse gas emissions by specified amounts, and it must plan for housing in a quantity sufficient for the region's population. These targets are critical to achieving state and regional goals in combating climate change — and the plan meets those major milestones.

The Plan Bay Area targets adopted by MTC and ABAG are displayed in Table 4; information on how the plan performs against the targets can be found in Chapter 5, "Performance."

TABLE 4: Adopted Plan Bay Area Performance Targets*

Goal/Outcome		Performance Target
Required		
Climate Protection	1	Reduce per-capita CO_2 emissions from cars and light-duty trucks by 15 percent (Statutory requirement is for year 2035, per SB 375)
Adequate Housing	2	House 100 percent of the region's projected growth (from a 2010 baseline year) by income level (very-low, low, moderate, above-moderate) without displacing current low-income residents (Statutory requirement, per SB 375)
Voluntary		
Healthy and Safe Communities	3	Reduce premature deaths from exposure to particulate emissions: • Reduce premature deaths from exposure to fine particulates ($PM_{2.5}$) by 10 percent • Reduce coarse particulate emissions (PM_{10}) by 30 percent • Achieve greater reductions in highly impacted areas
	4	Reduce by 50 percent the number of injuries and fatalities from all collisions (including bike and pedestrian)
	5	Increase the average daily time walking or biking per person for transportation by 70 percent (for an average of 15 minutes per person per day)
Open Space and Agricultural Preservation	6	Direct all non-agricultural development within the urban footprint (existing urban development and urban growth boundaries) (Note: Baseline year is 2010.)
Equitable Access	7	Decrease by 10 percentage points (to 56 percent, from 66 percent) the share of low-income and lower-middle income residents' household income consumed by transportation and housing
Economic Vitality	8	Increase gross regional product (GRP) by 110 percent — an average annual growth rate of approximately 2 percent (in current dollars)
Transportation System Effectiveness	9	• Increase non-auto mode share by 10 percentage points (to 26 percent of trips) • Decrease automobile vehicle miles traveled per capita by 10 percent
	10	Maintain the transportation system in a state of good repair: • Increase local road pavement condition index (PCI) to 75 or better • Decrease distressed lane-miles of state highways to less than 10 percent of total lane-miles • Reduce share of transit assets past their useful life to 0 percent (Note: Baseline year is 2012.)

*Unless noted, the Performance Target increases or reductions are for 2040 compared to a year 2005 baseline.

Existing (2013) Bicycle and Pedestrian PM Peak Hour Volumes
Figure 2

FEHR PEERS

04-OAKLAND-1

QUALITY COUNTS REPORT
==========

Intersectio Franklin St 20th St
City/State: Oakland CA
QCJobNo: 10956405
ClientID:
Date: 5/8/2013
Comments:

PEAK HOUI 4:45 PM
PEAK HOUI 5:45 PM
PEAK 15-M 5:15 PM
PEAK 15-M 5:30 PM
PHF 0.95

Lane Configuration:

	SIGNAL	SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7				SIGNAL
EBLane7										TR		WBLane1
EBLane6										T		WBLane2
EBLane5												WBLane3
EBLane4												WBLane4
EBLane3												WBLane5
EBLane2	LT											WBLane6
EBLane1	T											WBLane7
SIGNAL						LT	T	R				
		NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1	SIGNAL			

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
54	286	205	0	0	0	34	220	0	0	253	90	545	0	254	343	410	0	425	307

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
9.3	0.7	1	0	0	0	2.9	4.5	0	0	5.5	2.2	1.7	0	4.3	4.7	1.2	0	2.8	6.2

PEAK-HOUR VOLUMES - PEDESTRIANS

North	South	East	West
902	176	156	122

PEAK-HOUR VOLUMES - BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
2	45	10	2	0	1	7	15	0	2	11	2

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBUTurn	NBRTOR	SBLeft	SBThru	SBRight	SBUTurn	SBRTOR	EBLeft	EBThru	EBRight	EBUTurn	EBRTOR	WBLeft	WBThru	WBRight	WBUTurn	WBRTOR	Total
All Vehicles	80	300	196	0	0	0	0	0	0	0	48	232	0	0	0	0	252	96	0	0	1204
Heavy Truc	4	4	0			0	0	0			0	12	0			0	12	4			36
Pedestrians		196					920					132					160				1408
Bicycles	0	12	2			1	0	0			1	2	0			1	4	2			25

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turn	WB RTOR	Total	Hourly Totals
4:00 PM	11	55	49	0	0	0	0	0	0	0	9	49	0	0	0	0	40	34	0	0	247	
4:15 PM	9	51	35	0	0	0	0	0	0	0	4	43	0	0	0	0	51	19	0	0	212	
4:30 PM	14	59	46	0	0	0	0	0	0	0	5	54	0	0	0	0	49	21	0	0	248	
4:45 PM	11	69	57	0	0	0	0	0	0	0	7	52	0	0	0	0	61	22	0	0	279	986
5:00 PM	12	71	50	0	0	0	0	0	0	0	9	62	0	0	0	0	63	24	0	0	291	1030
5:15 PM	20	75	49	0	0	0	0	0	0	0	12	58	0	0	0	0	63	24	0	0	301	1119
5:30 PM	11	71	49	0	0	0	0	0	0	0	6	48	0	0	0	0	66	20	0	0	271	1142
5:45 PM	14	52	50	0	0	0	0	0	0	0	6	63	0	0	0	0	58	18	0	0	261	1124
5:00-6:00P	57	269	198	0	0	0	0	0	0	0	33	231	0	0	0	0	250	86	0	0		

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
4:00 PM	1	2	0	0	0	0	0	1	0	0	3	0	7
4:15 PM	1	1	0	0	0	0	0	2	0	0	3	0	7
4:30 PM	1	0	1	0	0	0	0	3	0	0	2	0	7
4:45 PM	2	0	1	0	0	0	0	4	0	0	5	0	12
5:00 PM	1	0	1	0	0	0	1	1	0	0	3	1	8
5:15 PM	1	1	0	0	0	0	0	3	0	0	3	1	9
5:30 PM	1	1	0	0	0	0	0	2	0	0	3	0	7
5:45 PM	1	1	0	0	0	0	0	7	0	0	4	0	13
5:00-6:00P	7%	1%	1%	#DIV/0!	#DIV/0!	#DIV/0!	3%	6%	#DIV/0!	#DIV/0!	5%	2%	

PEDESTRIAN VOLUMES

Time Perio	North	South	East	West	Total					
4:00 PM	158	38	38	40	274					
4:15 PM	151	39	32	31	253			WBR		
4:30 PM	152	22	29	19	222			912		
4:45 PM	176	44	36	30	286	SBR	122		134	nbr
5:00 PM	281	46	31	28	386			163		
5:15 PM	230	49	40	33	352			EBR		
5:30 PM	215	37	49	31	332					
5:45 PM	186	31	14	30	261					

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
4:00 PM	0	11	1	0	0	0	0	4	0	0	5	0	21
4:15 PM	0	5	2	0	0	0	0	3	0	0	2	1	13
4:30 PM	1	8	3	0	0	1	1	3	0	0	1	0	18
4:45 PM	2	7	0	0	0	0	2	6	0	1	4	0	22
5:00 PM	0	16	4	1	0	1	1	2	0	0	0	0	25
5:15 PM	0	12	2	1	0	0	1	2	0	1	4	2	25
5:30 PM	0	10	4	0	0	0	3	5	0	0	3	0	25
5:45 PM	0	10	1	0	2	0	6	7	0	0	2	2	30
5:00-6:00P	0	48	11	2	2	1	11	16	0	1	9	4	

ATTACHMENT I-1-2

04-OAKLAND-1

QUALITY COUNTS REPORT
==========

Intersectio Webster St 20th St
City/State: Oakland CA
QCJobNo: 10956406
ClientID:
Date: 5/8/2013
Comments:

PEAK HOUI 4:45 PM
PEAK HOUI 5:45 PM
PEAK 15-M 5:00 PM
PEAK 15-M 5:15 PM
PHF 0.92

Lane Configuration:

	SIGNAL	SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7				
		TR	T	LT								SIGNAL
EBLane7										T		WBLane1
EBLane6										LT		WBLane2
EBLane5										L		WBLane3
EBLane4												WBLane4
EBLane3	T											WBLane5
EBLane2	T											WBLane6
EBLane1	R											WBLane7
SIGNAL												
		NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1	SIGNAL			

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0	0	0	56	360	88	2	329	123	130	250	0	0	504	454	380	0	599	399	340

PERCENT HEAVY VEHICLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEntering	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0	0	0	7.1	1.7	6.8	0	2.7	0.8	0	4	0	0	3.2	2.2	2.6	0	1.2	3.3	4.7

PEAK-HOUR VOLUMES - PEDESTRIANS

North	South	East	West
819	226	192	133

PEAK-HOUR VOLUMES - BICYCLES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
1	0	0	3	9	1	0	24	2	1	12	0

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBUTurn	NBRTOR	SBLeft	SBThru	SBRight	SBUTurn	SBRTOR	EBLeft	EBThru	EBRight	EBUTurn	EBRTOR	WBLeft	WBThru	WBRight	WBUTurn	WBRTOR	Total
All Vehicle:	0	0	0	0	0	40	384	116	0	0	0	408	132	0	0	112	252	0	4	0	1448
Heavy Truc	0	0	0			4	4	12			0	8	0			0	4	0			32
Pedestrians		284					1012					180					192				1668
Bicycles	0	0	0			1	2	0			0	4	1			1	1	0			10

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turn	WB RTOR	Total	Hourly Totals
4:00 PM	0	0	0	0	0	12	69	27	0	0	0	67	44	0	0	32	48	0	5	0	304	
4:15 PM	0	0	0	0	0	8	80	14	0	0	0	63	27	1	0	27	54	0	5	0	279	
4:30 PM	0	0	0	0	0	14	78	14	0	0	0	75	34	0	0	33	51	0	2	0	301	
4:45 PM	0	0	0	0	0	24	68	19	0	0	0	76	31	1	0	38	58	0	6	0	321	1205
5:00 PM	0	0	0	0	0	10	96	29	0	0	0	102	33	0	0	28	63	0	1	0	362	1263
5:15 PM	0	0	0	0	0	11	103	16	0	0	0	79	31	0	0	23	71	0	5	0	339	1323
5:30 PM	0	0	0	0	0	11	93	24	0	0	0	72	28	1	0	27	58	0	2	0	316	1338
5:45 PM	0	0	0	0	0	11	82	18	0	0	0	79	34	0	0	23	56	0	0	0	303	1320
5:00Pm	0	0	0	0	0	43	374	87	0	0	0	332	126	1	0	101	248	0	8	0		

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
4:00 PM	0	0	0	1	2	1	0	1	0	0	2	0	7
4:15 PM	0	0	0	0	2	1	0	2	0	0	2	0	7
4:30 PM	0	0	0	1	0	2	0	2	2	1	0	0	8
4:45 PM	0	0	0	1	0	1	0	4	0	0	4	0	10
5:00 PM	0	0	0	1	1	3	0	2	0	0	1	0	8
5:15 PM	0	0	0	1	2	1	0	2	0	0	4	0	10
5:30 PM	0	0	0	1	3	1	0	1	1	0	1	0	8
5:45 PM	0	0	0	1	0	2	0	3	1	0	2	0	9
5:00Pm	#DIV/0!	#DIV/0!	#DIV/0!	9%	2%	8%	#DIV/0!	2%	2%	0%	3%	#DIV/0!	

PEDESTRIAN VOLUMES

Time Perio	North	South	East	West	Total
4:00 PM	139	41	37	23	240
4:15 PM	131	39	43	17	230
4:30 PM	149	30	41	26	246
4:45 PM	168	35	32	26	261
5:00 PM	253	71	48	45	417
5:15 PM	215	59	55	34	363
5:30 PM	183	61	57	28	329
5:45 PM	158	35	48	26	267

		WBR		
		809		
SBR	133		208	NBR
		226		
		EBR		

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
4:00 PM	0	0	0	0	3	0	0	2	0	0	2	0	7
4:15 PM	0	0	0	1	2	2	1	2	0	0	2	1	11
4:30 PM	0	0	0	0	2	0	0	5	0	0	2	0	9
4:45 PM	1	0	0	0	0	1	0	7	1	0	1	0	11
5:00 PM	0	0	0	1	2	0	0	4	1	1	1	0	10
5:15 PM	0	0	0	1	2	0	0	6	0	0	8	0	17
5:30 PM	0	0	0	1	5	0	0	7	0	0	2	0	15
5:45 PM	0	0	0	0	4	2	0	10	0	0	3	0	19
	0	0	0	3	13	2	0	27	1	1	14	0	

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19th Street BART Station Portals

Senior Center/Housing

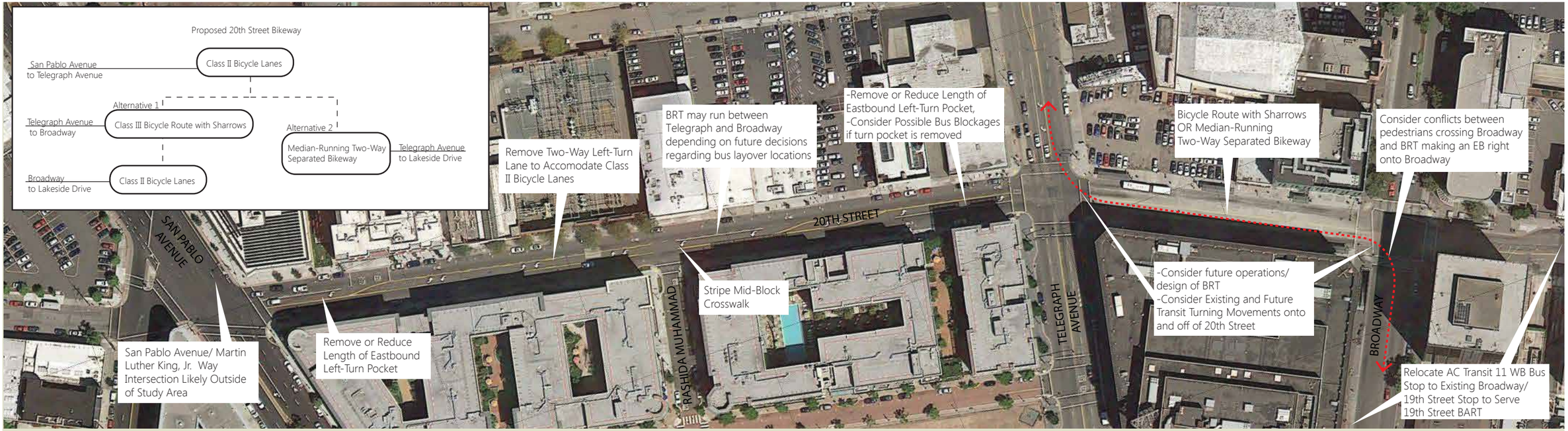
Existing Bikeways
- Path
- Bike Lanes
- Arterial Bicycle Route
- Bicycle Route

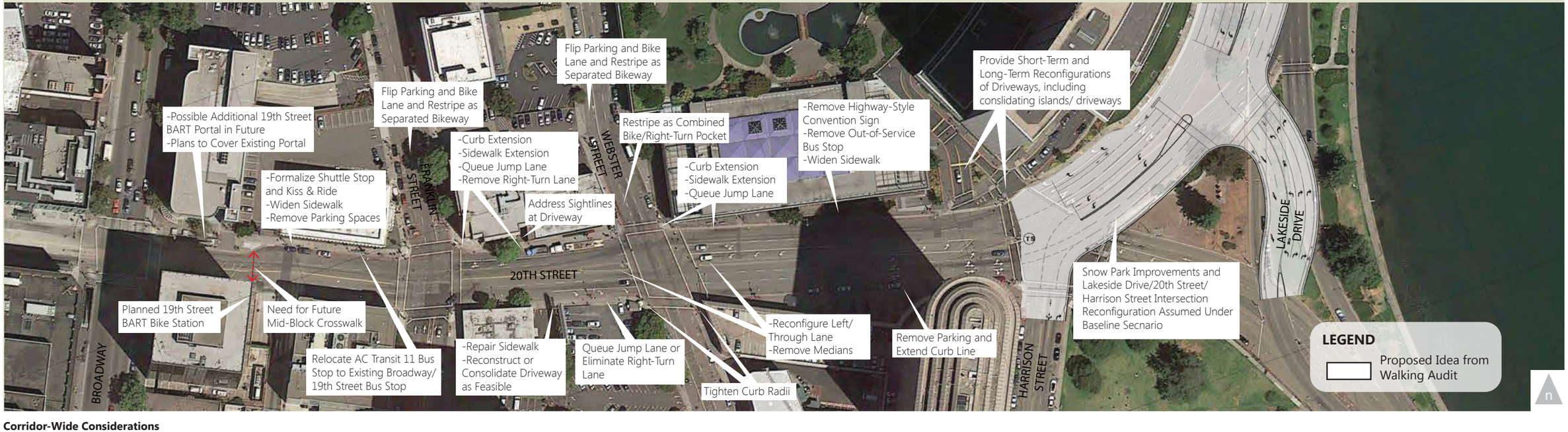
Proposed Bikeways
- Path
- Bike Lanes
- Arterial Bicycle Route
- Bicycle Route

FEHR & PEERS

Key Destinations and Proposed Projects
19th Street BART to Lake Merritt Urban Greenway

ATTACHMENT I-1-4





Corridor-Wide Considerations

-Upgrade Curb Ramps, As Needed

-Consider 17th and 19th Streets Couplet as an Alternative Bikeway

-Consider transportation impacts of potential redevelopment of parcels along and adjacent to the corridor

Walking Audit Summary

Figure 1

FEHR PEERS

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II. LEVELS OF TRAFFIC STRESS

CLASSIFYING POPULATIONS BY TOLERANCE FOR TRAFFIC STRESS

There are two popular schemes for classifying cyclists and potential cyclists according to their affinity for different kinds of bicycling facilities. One is the A, B, C scheme based on cyclist skill, first published by FHWA[2] and used implicitly in the AASHTO *Guide for the Development of Bicycling Facilities*:[3]

> A = Advanced cyclists whose greater skill enables them to share roads with motor traffic. Moreover, they are unwilling to sacrifice speed for separation from traffic stress.
>
> B = Basic adult cyclists, who lack the "skill" to confidently integrate with fast or heavy traffic.
>
> C = Children cyclists, less capable than class B at negotiating with traffic and more prone to irrational and sudden movements.

Classes A and B are assumed to be very different, in that class B seeks separation from traffic, while class A welcomes integration with traffic, and often sees separation from traffic as a challenge to their right to ride in the road. The AASHTO Guide asserts a dichotomy between the needs of classes A and B, declaring that facilities serving one group will not serve the other because separation from traffic (in their view) almost always involves a compromise in speed, which class A cyclists hold paramount.

The AASHTO and FHWA publications that advance this scheme offer no estimates of the fraction of the population belonging to each class, though simple observation of the low bicycle ridership in America suggests that class A represents a very small fraction of the overall population. In keeping with the label "advanced" and a classification based on "skill," the AASHTO Guide asserts that with education and experience riding a bike, people in class B will migrate to class A, suggesting that facilities developed for class B may be a poor investment.

Another classification scheme has been developed by Roger Geller, Portland's bicycle coordinator.[4] Based on a survey of residents' attitudes both in general and toward bicycle facilities available in the Portland area, it divides the population into 4 classes, as illustrated in Figure 3.

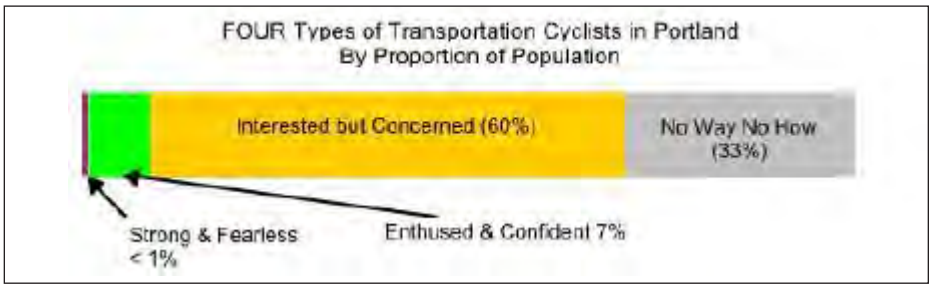

Figure 3. Portland's Classification Scheme for the Population

Source: Geller, n.d.

ATTACHMENT I-1-6

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Geller also estimates the fraction of the population belonging to each class, as shown in the figure. The "strong and fearless" respond well to riding in almost any traffic conditions and correspond to the class A riders of the FHWA scheme; they are said to represent less than one percent of the population. The "enthused and confident" don't show that same tolerance for mixing with fast, turbulent traffic, but respond well to riding in bike lanes along arterial streets and to sharing smaller roads with traffic. The "interested but concerned" find situations in which they have to negotiate with traffic streams uncomfortable, but respond well to standalone paths and streets with little and slow traffic. The "No Way No How" group is not interested in riding a bicycle at all.

A classification based on tolerance for traffic stress (such as Geller's) rather than skill seems more fruitful for bicycle network planning. Judging from the very small fraction of Americans who ride bikes (except in cities with low-stress bikeways), the skill-based classification scheme would leave all but one or two percent of adults in Class B, rendering such a classification almost useless. Classification by level of tolerance for traffic stress is consistent with studies that show people's increasing affinity for lower-stress bicycling environments and indicate that traffic danger is the chief impediment to bicycling.[5] The concept of intolerance for traffic stress also explains the enormous difference in bicycle use between the U.S. and European countries such as the Netherlands and Denmark,[6] where separation from traffic is a fundamental principle of bicycle facility design. It also explains the rapid growth in bicycling seen in cities such as Portland that have invested heavily in low-stress bicycling facilities.[7] A recent study of large American cities confirms that bicycling rates are higher in cities with more bike paths and bike lanes.[8]

This research adopts Geller's classification scheme based on tolerance for traffic stress, but with the large "interested but concerned" class divided into two, one for children and one for adults. The more limited ability of children to make difficult crossings, their lower speed (which increases the speed differential to motor traffic), and their limited ability to interact with streams of traffic (as opposed to dealing with isolated motor vehicles) demands a greater degree of separation from traffic stress than that required by adults. Thus, ignoring the "No Way No How" segment of the population, our adopted scheme has four classes of bicycle users.

LEVELS OF TRAFFIC STRESS FOR FACILITIES

Related to research on classifying people by their tolerance for traffic stress has been research on classifying bicycling facilities – links and intersections – by the degree of traffic stress they impose on cyclists. Best known is the Bicycle Level of Service (BLOS) model for on-street facilities.[9] It is based on level of comfort ratings given by subjects who rode a course that included a variety of bikeway and traffic situations. By relating those comfort ratings to the characteristics of the various sites, they developed a formula for predicting the comfort rating that a person would assign to a roadway link based on such characteristics as the traffic speed, traffic volume, presence of a bike lane, presence of a parking lane, whether the area is residential or not, and amount of operating space afforded to bikes (through a bike lane, shoulder, or an extra-wide outside travel lane). The predicted ratings are then indexed to six levels of service, from A (the best) to F (the worst). A similar effort to rate bicyclist comfort at intersections was not as successful.[10] The BLOS

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model for links has been adopted as a method for determining multimodal Level of Service in the Highway Capacity Manual[11] and is often used in bicycle network planning studies to identify streets with higher and lower levels of traffic stress.

A parallel research effort developed the Bicycle Compatibility Index or BCI.[12] Like the BLOS, it results in a formula for a comfort index based on bikeway, road, and traffic characteristics. While the BCI and BLOS formulas differ in form, their results are similar.

The BLOS and BCI classification schemes were deemed inadequate for this research for several reasons. First, they require data that is not readily available – particularly, traffic volumes and lane widths. Second, their complicated formulas are "black boxes" that conceal the relationship between level of service and attributes of a street such as traffic speed or volume. That is, not even a knowledgeable person could look at a street, or see all the data that applies to a street, and recognize or know what its BLOS or BCI score is without resorting to complex calculations. Third, the levels of service these models refer to have no meaning either to roadway managers or to the general public, other than "A is better than B, which is better than C," and so forth.

We propose in this research a new classification scheme with four levels of traffic stress (LTS), corresponding directly to the four classes of the population described earlier. They are defined in general terms in Table 1. Specific criteria for these four levels of traffic stress are given in Sections III-V.

The proposed four-level classification scheme is anchored by LTS 2, whose criteria essentially mimic Dutch standards for bicycle traffic facilities.[13] This is the level of tolerance that is mapped to the mainstream, traffic-intolerant adult population, those who are "interested but concerned." Dutch standards have been proven on a population basis to be acceptable to the mainstream population, since bikeways built according to those standards attract essentially equal male/female shares and high levels of bicycle use for all age groups.[14] (By contrast, cycling in the U.S. is about 70 percent male, with very low participation rates by older people). LTS 1, mapped to children cyclists, demands greater separation from traffic turbulence and easier crossings, while LTS 3, mapped to Geller's "enthused and confident" group, allows increased traffic stress comparable to bike lanes on many American arterials. LTS 4, mapped to the "strong and fearless," corresponds to riding in mixed traffic at 35 mph or more, or in bike lanes or shoulders next to traffic at highway speeds.

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Table 1. Levels of Traffic Stress (LTS)

LTS 1	Presenting little traffic stress and demanding little attention from cyclists, and attractive enough for a relaxing bike ride. Suitable for almost all cyclists, including children trained to safely cross intersections. On links, cyclists are either physically separated from traffic, or are in an exclusive bicycling zone next to a slow traffic stream with no more than one lane per direction, or are on a shared road where they interact with only occasional motor vehicles (as opposed to a stream of traffic) with a low speed differential. Where cyclists ride alongside a parking lane, they have ample operating space outside the zone into which car doors are opened. Intersections are easy to approach and cross.
LTS 2	Presenting little traffic stress and therefore suitable to most adult cyclists but demanding more attention than might be expected from children. On links, cyclists are either physically separated from traffic, or are in an exclusive bicycling zone next to a well-confined traffic stream with adequate clearance from a parking lane, or are on a shared road where they interact with only occasional motor vehicles (as opposed to a stream of traffic) with a low speed differential. Where a bike lane lies between a through lane and a right-turn lane, it is configured to give cyclists unambiguous priority where cars cross the bike lane and to keep car speed in the right-turn lane comparable to bicycling speeds. Crossings are not difficult for most adults.
LTS 3	More traffic stress than LTS 2, yet markedly less than the stress of integrating with multilane traffic, and therefore welcome to many people currently riding bikes in American cities. Offering cyclists either an exclusive riding zone (lane) next to moderate-speed traffic or shared lanes on streets that are not multilane and have moderately low speed. Crossings may be longer or across higher-speed roads than allowed by LTS 2, but are still considered acceptably safe to most adult pedestrians.
LTS 4	A level of stress beyond LTS3.

ACCEPTABLE LEVEL OF DETOUR

Cyclists have a limited willingness to go out of their way to find a lower-stress bike route. If the shortest route that avoids high-stress links involves too much detour, many cyclists will not consider that route acceptable.

One study[15] of nonrecreational cyclists in Vancouver, B.C., found that 75 percent of cyclist trips were within 10 percent of the shortest distance possible on the road network, and 90 percent were within 25 percent. (They found virtually identical results for automobile trips.) This small level of average detour is consistent with a 1997 study of bicycle commuters.[16] However, they also found that people were more likely to go out of their way to take a route with more green cover and more bicycle-actuated signals. Broach, Glebe, and Dill[17] found that commuting cyclists in Portland, Oregon were willing to add 16 percent on average to their trip length to use a bike path, and to add 11 percent to use a low-stress route using local streets (a “bike boulevard”). For non-commuting cyclists, those figures are 26 percent and 18 percent, respectively.

The detour criterion used in this study specifies that an acceptable lower-stress route should not be more than 25 percent longer that the shortest possible route using links of any level of stress. For short trips, the criterion was that a lower-stress route should be no more than 0.33 miles longer than the shortest route (0.33 miles require two minutes travel time at the relaxed pace of 10 mph). More formally, a route between two points limited to links with traffic stress level of *k* or less and having length L_k is acceptable with respect to detour if either of the follow conditions are true:

- $L_k / L_4 \leq 1.25$; OR
- $L_k - L_4 \leq 1760$ ft. (note: 1760 ft. = 1/3 of a mile, and takes about two minutes travel time)

ATTACHMENT I-1-6

StreetScore+ Powered by FEHR PEERS

Input instructions:

1	Enter the name of the roadway segment below.
2	All input Fields 1-8 (marked in green) are required. Fields 9 and 10 will activate when the bicycle lane is selected for the mode separation in Field 2.
3	The Segment LTS output is provided below the input fields.
4	Refer to "Streetscore+ Tool Overview" and "About" tabs detailed descriptions of inputs and calculations.

Segment (Two-Way Roadway) LTS

Segment:	

Field	Category	Direction 1	Direction 2
		Input	Input
1	Direction	EB	WB
2	Mode separation	Bicycle Lane	Bicycle Lane
3	Is this a residential street?	No	
4	Adjacent parking	No	No
5	Lanes in analysis direction	1	2
6	Is there a median?	Raised	
7	Is there a center line?		
8	What is the prevailing speed? (Use speed limit if prevailing speed not available)	25	30
9	Bike Lane + Parking Width (if bike lane present)	6	6
10	How often do bike lane blockages occur?	Rare	Rare
	Segment LTS Output	**1**	**2**

StreetScore+ Powered by FEHR PEERS

Input instructions:

1	Enter the name of the roadway segment below.
2	All input Fields 1-8 (marked in green) are required. Fields 9 and 10 will activate when the bicycle lane is selected for the mode separation in Field 2.
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Segment (Two-Way Roadway) LTS

Segment:

Field	Category	Direction 1	Direction 2
		Input	Input
1	Direction	EB	WB
2	Mode separation	Bicycle Lane	Bicycle Lane
3	Is this a residential street?	No	
4	Adjacent parking	No	Yes
5	Lanes in analysis direction	1	1
6	Is there a median?	Raised	
7	Is there a center line?		
8	What is the prevailing speed? (Use speed limit if prevailing speed not available)	25	25
9	Bike Lane + Parking Width (if bike lane present)	6	16
10	How often do bike lane blockages occur?	Rare	Rare
	Segment LTS Output	**1**	**1**

Existing 19th Street BART Entrance

Bike Lanes

Convert 3 Parking Spaces to Drop-Off Area for BART Station

Widen Existing 10' Sidewalk

Relocate Existing Bus Stop to Broadway/19th Street

Sidewalk Bulb-Outs to Reduce Pedestrian Crossing Distances

Repurpose One Travel Lane Westbound to Provide Bike Lanes and Median/Left-Turn Pockets

Widen Existing 8'Sidewalk

Sidewalk Bulb-Outs to Reduce Pedestrian Crossing Distances

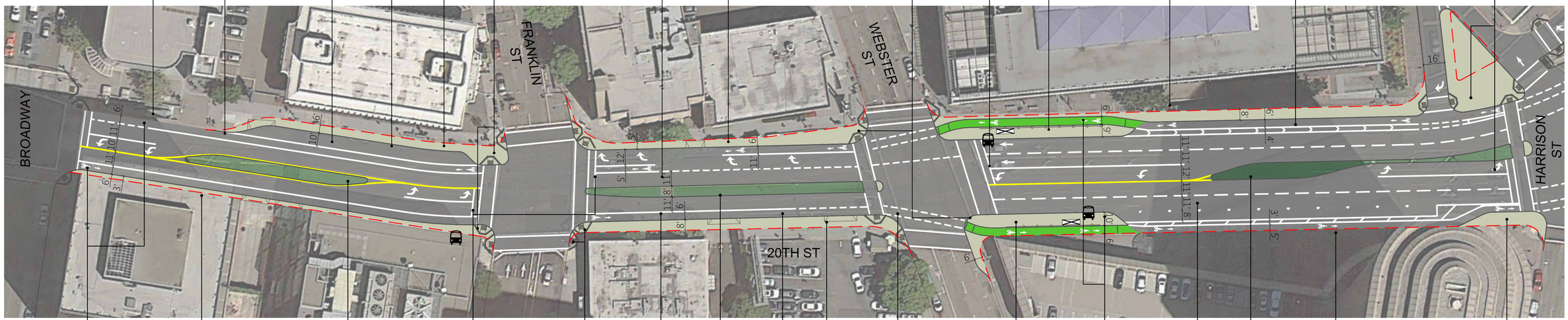
Advanced Stop Bar

Bus Island Allows Buses to Stop in Travel Lane

Widen Existing 6-10'Sidewalk

Parking Separated Cycle Track

Work with Property Owners to Enhance Pedestrian Circulation near Driveways and Bring Left-Turns into Intersection



Repurpose One Travel Lane in Each Direction to Provide Bike Lanes and Median/Left-Turn Pockets

Widen Existing 10' Sidewalk

Landscaped Median

Advanced Stop Bars

Directional Curb Ramps

Repurpose One Travel Lane and Right-Turn Pocket to Provide Median, Bike Lane, and Sidewalk Widening

Landscaped Median

Bike Lanes

Widen Existing 10' Sidewalk

Extend Bike Lanes through Intersection

Bus Island Allows Buses to Stop in Travel Lane

Green Bike Lanes behind Bus Island

Repurpose One Travel Lane Eastbound to Provide Median, Bike Lane, and Sidewalk Widening

Landscaped Median

Parking Separated Cycle Track

Sidewalk Bulb-Outs to Reduce Pedestrian Crossing Distances

LEGEND

- EXISTING CURB LINE
- EXISTING BUS STOP TO REMAIN
- BUS SHELTER
- LANDSCAPE AREA
- SIDEWALK EXTENSION
- NEW RAMP
- BIKE LANE

CITY OF OAKLAND

FEHR PEERS

20th Street BART to Lake Merritt Urban Greenway

Proposed Bicycle and Pedestrian Improvements on 20th Street between Broadway and Harrison Street

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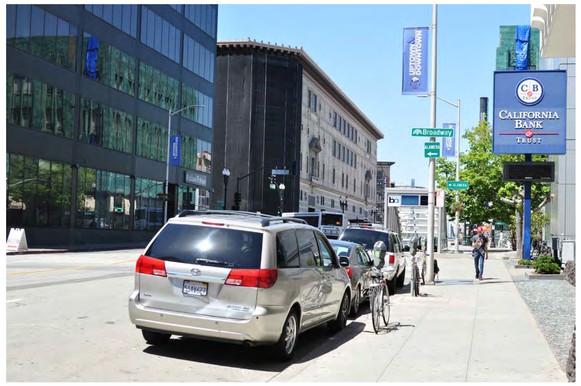
20th Street BART to Lake Merritt Urban Greenway

Detail of Proposed Sidewalk Extension, Bike Lanes, and Landscaped Median



ABOVE: Image of 20th Street looking toward Broadway as it appears today.

LEFT: Photosimulation of what the proposed bicycle and pedestrian improvements will look near the 19th Street BART portal at Broadway. The sidewalk will be widened by 6'-10' on the corridor. The existing parking spaces on the north side of the street will be coverted to a drop-off area for BART. Bike lanes will be installed as well as a landscaped median.

CITY OF OAKLAND

FEHR & PEERS

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20th Street BART to Lake Merritt Urban Greenway

Proposed Bicycle and Pedestrian Improvements on 20th Street between Broadway and Harrison Street

20th Street BART to Lake Merritt Urban Greenway

Detail of Proposed Bus Islands/Sidewalk Extension and Protected Bike Lane/ Cycle Track

ABOVE: Image of 20th Street at Webster Street, looking toward Lake Merritt, as it appears today.

LEFT: Photosimulation of what the proposed bicycle and pedestrian improvements will look at the existing AC Transit bus stop at 20th and Webster Streets. The drawing shows a new bus boarding island with a protected bike lane ("cycle track") wrapping behind the bus stop to remove bicycle/bus conflicts. Pedestrian crossing distances are shortened by providing the sidewalk extension/bus island.

CITY OF OAKLAND

FEHR PEERS

20th Street BART to Lake Merritt Urban Greenway

Proposed Bicycle and Pedestrian Improvements on 20th Street between Broadway and Harrison Street

Major Employers

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Employers within 1/2 mile of the 20th Street/Broadway 19th Street BART Portal are highlighted

Top 20 Employers in Oakland	Oakland Employees	Business Type
Kaiser Permanente	10,914	Health Care
Oakland Unified School District	7,664	School district
State of California	7,480	Government
Alameda County	6,218	Government
City of Oakland	5,082	Government
Alta Bates Summit Medical Center	3,623	Health Care
Children's Hospital & Research Center	2,600	Health Care
Internal Revenue Service	2,500	Government
Southwest Airlines	2,100	Airline
Peralta Community College District	1,420	Education
FedEx	1,300	Logistics
Bay Area Rapid Transit	1,158	Public Transit
California Dept of Transportation	1,190	Transportation
Clorox Co.	1,004	Consumer Goods
Alameda Contra-Costa Transit District	1,000	Public Transit
AT & T	880	Tele-communications
Wells Fargo Bank	667	Financial Services
East Bay Municipal Utility District	680	Utilities
US Postal Service	646	Mailing & Shipping
Safeway Inc.	596	Retail/Grocery

As at Aug 2013

Other Significant Oakland Businesses

- ABC Security Service
- Alaska Airlines
- American Brass and Iron
- Aramark Corporation
- Ask
- Bay Area News Group
- BrightSource Energy
- California Waste Solutions
- CH2M Hill California, Inc.
- Colombo/S.F. French Bread
- Cost Plus World Market
- Custom Alloy Scrap Sales
- Dobake Bakeries
- Dreyer's Grand Ice Cream
- East Bay Regional Parks District

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- East Bay Regional Parks District
- Friant Associates
- Golden State Warriors
- HealthNet of California
- Hilton Oakland Airport
- Holy Names University
- Itron Inc.
- KEMA
- KTVU/Fox Channel 2
- La Clinica De La Raza
- Lucky (6 stores)
- Matson Navigation
- McGuire and Hester
- Mills College
- Oakland Marriott City Center
- Owens Brockway Glass
- Pandora
- PG&E
- Pinkerton
- Port of Oakland
- Claims Instruments
- Revolution Foods
- Rolls Royce Engine Services
- Schnitzer Steel
- Sungevity
- Svenhards Swedish Bakery
- University of California, Office of the President
- U.S. Government
- United Parcel Service
- United Terminal Leasing
- URS
- Walgreens (8 stores)
- Waste Management
- Zhone Technologies

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ATTACHMENT I-1-13

Metropolitan Transportation Commission
2014 Active Transportation Program (ATP)
Cycle 1
FY 2014-15 and FY 2015-16
Regional ATP Cycle 1 list of Projects

				CTC Program Information			CTC Program Information				CTC Program Information			
				Fed/State Funds Source			FY 2014-15				FY 2015-16			
County	**Implementing Agency**	**Project**	**Regional ATP**	**Federal**	**State**	**Total ATP**	**PA&ED**	**PSE**	**ROW**	**CON**	**PA&ED**	**PSE**	**ROW**	**CON**
Regional ATP Cycle 1 Projects														
Alameda	Alameda (City)	Cross Alameda Trail (includes SRTS component)	$2,231,000	$2,005,000	$226,000	$2,231,000		$226,000						$2,005,000
Alameda	Alameda County PWA	Be Oakland, Be Active: A Comprehensive SRTS Program	$988,000		$988,000	$988,000				$988,000				
Alameda	Berkeley	LeConte Elementary Schools SRTS Imps.	$682,000	$600,000	$82,000	$682,000		$82,000						$600,000
Alameda	Livermore	Marylin Avenue Elementary Safe Routes to School	$358,000		$358,000	$358,000						$83,000		$275,000
Alameda	Oakland PWD	Lake Merritt to Bay Trail Bike/Ped Gap Closure (PS&E/ROW)	$3,210,000		$3,210,000	$3,210,000						$2,885,000	$325,000	
Contra Costa	CCTA	Riverside Ave Ped Overcrossing Replacement	$682,000	$682,000		$682,000								$682,000
Contra Costa	EBRPD	San Francisco Bay Trail, Pinole Shores to Bay Front Park	$4,000,000	$4,000,000		$4,000,000								$4,000,000
Regional	MTC	Bay Area Bike Share Expansion	$7,713,000	$5,713,000	$2,000,000	$7,713,000								$7,713,000
San Mateo	San Mateo (City)	City of San Mateo Safe Routes to School Program	$2,515,000	$1,720,000	$795,000	$2,515,000		$405,000		$390,000				$1,720,000
Santa Clara	Santa Clara VTA	Central and South County Bicycle Corridor Plan	$443,000		$443,000	$443,000				$443,000				
Sonoma	Santa Rosa	Jennings Ave Bike/Ped Crossing at SMART Railroad Tracks	$8,157,000	$8,157,000		$8,157,000						$786,000		$7,371,000
		TOTAL:	**$30,979,000**	**$22,877,000**	**$8,102,000**	**$30,979,000**	**$0**	**$713,000**	**$0**	**$1,821,000**	**$0**	**$3,754,000**	**$325,000**	**$24,366,000**
										$2,534,000				**$28,445,000**

J:\PROJECT\Funding\T4-MAP21\MAP21 - TAP and ATP\ATP\[RES-4132_Attachment-B REVISED Jan 2015.xlsx]ATP Cycle 1 09-24-14

Bike to Work Day, the *Bicycle Master Plan*, and other city programs that affect bicyclists and pedestrians.

`www.511.org`: The Metropolitan Transportation Commission provides bicycling information as part of its comprehensive web site on transportation for the San Francisco Bay Area. Bicycle-specific information includes maps, transit, parking, local bridges, organizations, and promotional materials. The site also includes the interactive BikeMapper described under "Maps."

California Vehicle Code

The California Vehicle Code (CVC) specifies the legal requirements for riding a bicycle in the public right-of-way. The operation of bicycles is addressed in Sections 21200-21212 while the registration and licensing of bicycles is addressed in Sections 39000-39011. Opening a vehicle's door in the path of an oncoming bicyclist is prohibited by Section 22517. In general, Section 21200(a) states, "Every person riding a bicycle upon a highway has all the rights and is subject to all the provisions applicable to the driver of a vehicle. . . "

The CVC is available on-line at `www.dmv.ca.gov/pubs/vctop/vc/vc.htm`.

The California Vehicle Code does not regulate bicycle riding on sidewalks. However, the Oakland Municipal Code (OMC) does prohibit sidewalk riding in OMC 10.16.150 (Appendix E).

2.7 Community Outreach

This update of Oakland's *Bicycle Master Plan* included outreach to and coordination with neighborhood groups and merchant associations, local transit operators, adjoining jurisdictions, and countywide and regional agencies. The following bullets list the key components of this outreach process:

- *Citizens Advisory Committee (CAC)*: This committee was composed of residents from each council district, representatives of community-based organizations, and interested individuals. It met monthly to provide public input and oversight for each stage of the process.
- *Meetings with community-based organizations*: The project manager and members of the CAC gave presentations to neighborhood groups and merchants associations as part of those groups' regularly scheduled meetings. The process included 52 meetings that reached over 850 people.

- *Public meetings*: Three large format, open invite public meetings were held over the course of the project. The first two meetings were held at the beginning of the project and the third meeting was held after the release of the Draft Plan.

- *Technical Advisory Committee (TAC)*: This committee facilitated cooperation with outside agencies and had a primary focus on AC Transit and the adjoining jurisdictions of Alameda, Berkeley, Emeryville, Piedmont, and San Leandro. A full listing of TAC participants is included in the Acknowledgements.

- *EIR and General Plan Amendment*: The preparation of the associated Environmental Impact Report (EIR) and the adoption of this document through a General Plan amendment included public hearings and actions by the Planning Commission, Community and Economic Development Committee, and City Council.

This public outreach noted the following issues that were subsequently addressed through the planning process and integrated into this document. Many Oakland residents would like to bicycle (or bicycle more often) but they do not feel safe given the current traffic conditions on many of Oakland's streets. Merchants in the neighborhood commercial districts are concerned that bikeways on their streets could cause localized congestion that would negatively affect their businesses. Some bicyclists are seeking the most direct routes (regardless of traffic conditions) while others (including parents with children) are seeking residential streets and bicycle paths. Bicyclists are very interested in ensuring that Oakland's bikeways provide seamless connections to the bikeways in adjoining jurisdictions. Bus and shuttle operators are concerned that some bikeways may cause localized congestion that would adversely affect their transit operations. Especially at night, many cyclists ride on busier streets because of their concerns for personal security on the quieter side streets. People's priorities for improvements include developing bikeway connections to transit stations, the downtown, Oakland's waterfront, and connecting Lake Merritt to the surrounding neighborhoods.

Additional details on the outreach process are included in Section C.1. The ongoing role of community outreach and public participation for implementation of the *Bicycle Master Plan* is described in Section 6.6.

04-OAKLAND-1

20th Street Complete Street Study

Walking Audit

May 29th, 2013 at 8:00 AM

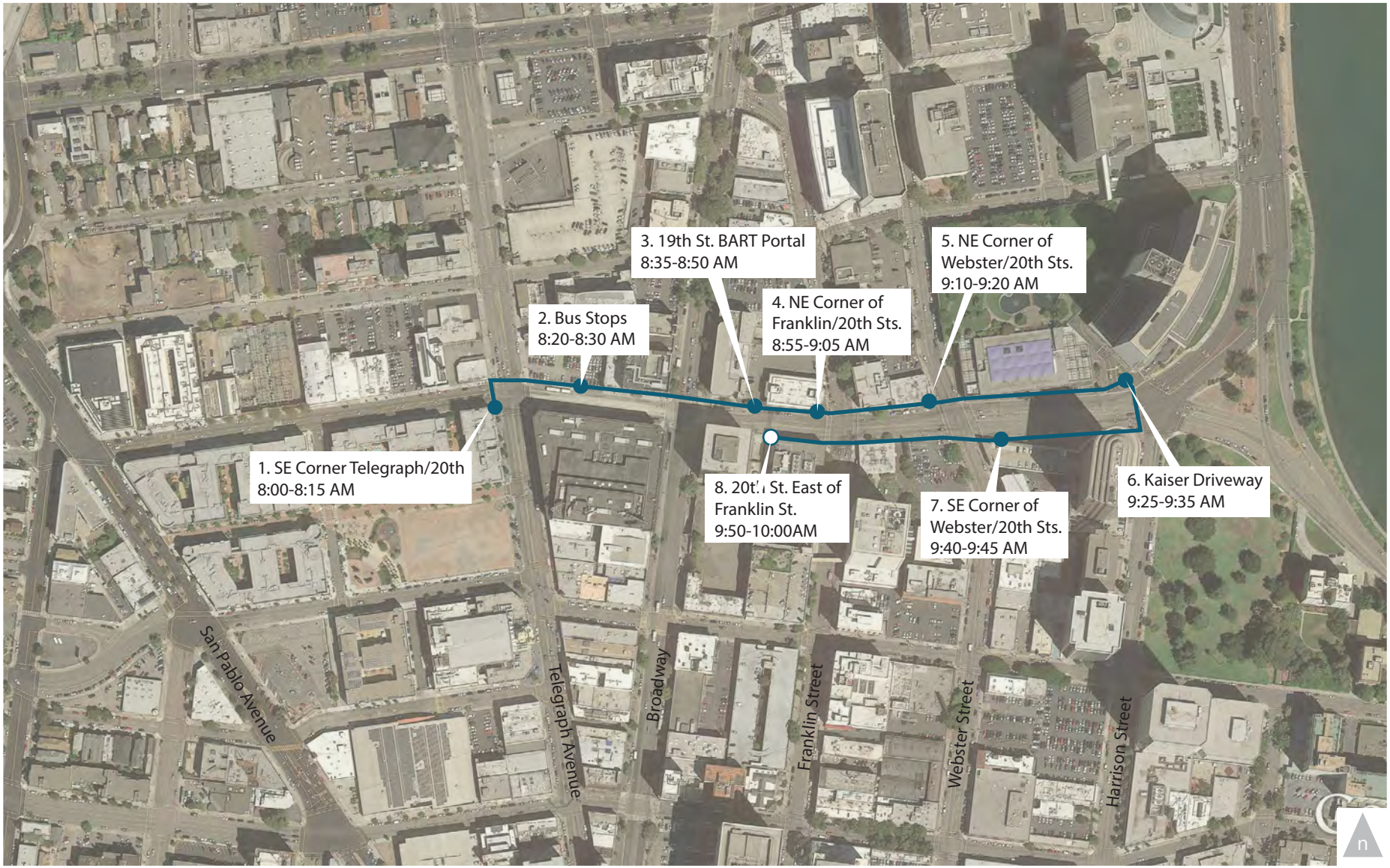
At the intersection of 20th St and Telegraph Av in Oakland

Sign-In

Name	Agency	Phone #	Email Address
Tim Chan	BART	510.287.4705	tchan1@bart.gov
Isaac Lim	BART	510 464-6150	ilim@bart.gov
STEPHEN NEWHOUSE	AC TRANSIT	510-891-4867	SNEWHOUSE@ACTRANSIT.ORG
Jamie Parks	Oakland	510.238.6613	jparks@oaklandnet.com
Andrew Jones	CBD	510.384.7874	andrew@DowntownOakland.org
WLADMIR WLASSOWSKY	OAKLAND	510 238-6383	wwlassowsky@oaklandnet.com
JOE WANG	"	238-6107	jswang@oaklandnet.com
Matthew Ridgway	Fehr & Peers	587-9421	m.ridgway@fehrandpeers.com
Carrie Nielson	Fehr & Peers	925 930 7100	c.nielson@fehrandpeers.com
Si Lau	Oakland	510 238 6105	slau@oaklandnet.com
Rob REES	FEHR&PEERS	510 834 3200	R.REES@FEHRANDPEERS.COM

ATTACHMENT I-3-2

04-OAKLAND-1



ATTACHMENT I-3-3

Walking Audit Route - May 2013

N:\PROJECTS_WC10\WC10-2732.C0_20th_Street_Complete_Street_Project\Graphics\FigX_WalkAuditRoute

FEHR PEERS

04-OAKLAND-1

20th Street Complete Street Study

Stakeholder Meeting

Date/Time: September 10, 2:00 PM

AGENDA

Objective: Discuss and select preferred alternatives for proposed 20th Street concepts

I. Introductions

II. Summary of Work Completed to Date

1. Data Collection
2. Walking Audit
3. Concept Development
4. Traffic Operations Analysis

III. Review 20th Street Alternatives

1. San Pablo Avenue to Telegraph Avenue
    - i. Bicycle Lanes
    - ii. Implications for multi-modal operations
2. Telegraph Avenue to Broadway
    - i. Transit mall
        1. Advisory bike lanes vs. sharrows
    - ii. Implications for multi-modal operations
3. Broadway to Harrison Street
    - i. Median bike lanes
    - ii. Shoulder bike lanes
    - iii. Implications for multi-modal operations

IV. Discussion of Preferred Alternative

1. Input from Key Stakeholders:
    - i. City of Oakland
    - ii. AC Transit Concerns
    - iii. BART Concerns

V. Next steps

1. 30% Concept Design

VI. Schedule

ATTACHMENT I-3-4

04-OAKLAND-1

20th Street Complete Street Study

Kick-off Meeting Minutes

Date/Time: May 14 3:00-5:00PM

Objective: Review scope of the study and establish next steps

I. Introductions

Attendees: City of Oakland (Wladimir Wlassowsky, Si Lau, Shirley Kwan, Ade Oluwasogo, Jamie Parks), BART (Val Menotti, Tim Chen), AC Transit (Nathan Landau, Will Buller, Stephen Newhouse), Fehr & Peers (Rob Rees, Ryan McClain, and Carrie Nielson)

Si Lau will be the project manager for the City of Oakland. Ryan McClain will be the project manager for Fehr & Peers. Rob Rees will be the principal-in-charge.

II. Study Overview

The study will look at opportunities to widen sidewalks, provide dedicated bicycle facilities, improve bus stops and bus circulation, and improve connections to 19th Street BART on 20th Street. This effort will include 30% design plans and operations analysis along the corridor. The focus of the study will be on improvements between Broadway and Lakeside Drive. Between San Pablo and Telegraph Avenues, the project will primarily propose striping improvements, as the sidewalk in this area was recently constructed. The segment between Telegraph Avenue and Broadway will be considered in the study, particularly with regard to bus and bicycle connections; however, it is acknowledged that substantial sidewalk improvements have recently been constructed on this segment.

III. Review Work Plan

1. Document Review
    i. Kaiser Center Expansion - This project will be studied as an additional scenario for operations testing but is not assumed under the baseline conditions.
    ii. Lakeside Green Streets – This project will be assumed as part of the baseline scenario for design and operations testing.
    iii. AC Transit routes and schedules – Fehr & Peers has request boarding and alighting data, route, and schedule information from AC Transit.
2. Data Collection and Operations Analysis
    i. Traffic Counts and Queuing Observations – Fehr & Peers collected PM multi-modal turning movement counts on May 8, 2013.
        1. <u>Action Item:</u> Fehr & Peers will do spot counts of pedestrian activity and platooning in the AM peak hours during subsequent fieldwork to supplement the PM analysis.
        2. <u>Action Item:</u> City to follow up with status of Emerald Views project to determine if any of the traffic information may be worth including moving forward.
3. Walking Audit – Scheduled for Wednesday, May 29 at 8 AM. Si will send an invite. Attendees include:

ATTACHMENT I-3-5

- City Staff
- BART
- AC Transit
- Fehr & Peers
- Business Improvement District
- Kaiser Center Representative

4. Operational Analysis
   i. No Project (without Kaiser)
   ii. No Project (with Kaiser)
   iii. Plus Project (without Kaiser)
   iv. Plus Project (with Kaiser)
   v. Signal Improvement – City indicate that fiber upgrades are planned on 20th Street and have been installed along Harrison Street up to West Grand Avenue.
   vi. Synchro 7 and HCM 2000 will be used on this project
5. Concept Plan
   i. Existing CAD and Lakeside Green CAD files are available from the City.
      1. Action Item: Fehr & Peer will supplement this with spot grade measurements and right-of-way dimensions. Basements will be noted and verified with the Building Department

IV. Stakeholder Input

1. BART Concerns
   i. Existing private shuttles and passenger cars use the northeast corner of Broadway/20th Street for passenger pick-up/drop-off. This should be considered during development of the concept plan.
   ii. Broadway Valdez Specific Plan– BART raised the issue that the Broadway Valdez Specific Plan may decide to incorporate 20th Street into their Plan Area, which may warrant further coordination.
      1. Action Item: Fehr & Peers will follow up on whether or not shuttles have been proposed under the Specific Plan and how to deal with relevant Plan coordination.
   iii. 19th Street Portal Improvements – BART raised concerns about future passenger demand at the 19th Street Station and capacity of the portals on 20th Street, specifically the portal on the northeast corner of Broadway/20th Street.
      1. Action Item: Fehr & Peers will coordinate with AECOM on the 19th Street BART canopy and portal design and planning processes. This may include providing enough space for future portal expansion.

2. AC Transit Concerns
   i. Action Item: Fehr & Peers will work with AC Transit to provide a figure summarizing existing transit on 20th Street, including bus stops and ridership data, to solicit initial feedback on existing bus service.
   ii. AC Transit is considering a new bus stop in front of the Tribune Building (eastbound). This would be adjacent to the proposed Bike Station for 19th Street BART.
   iii. Consideration of impact of proposed Telegraph closure at Broadway should be considered relative to AC Transit Bus Rerouting (58L + night bus).

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V. Proposed Schedule

Wednesday, May 29 8:00AM – Walking Audit
Monday, June 17 – Draft Plan
Monday, July 1 – Receive consolidated comments from City
Monday, July 15 – Finalized Study submitted to City

Attachment C

04-OAKLAND-1

Response to Comments Received on the 20th Street Bike Lane Project

On August 7, 2014, the City published notice of a public hearing on August 21, 2014, to consider the proposed restriping of travel lanes to remove a travel lane and install bike lanes on 20th Street. No written comments were received in response to the August 7 notice. The public hearing on August 21 was held in City Hall at the monthly meeting of the City of Oakland's Bicycle and Pedestrian Advisory Committee (BPAC). Staff presented the projects as described in the agenda report. The following provides a summary of the comments received and responses given at the meeting.

Carol Levine (BPAC member): The drop off zone on westbound 20th St between Franklin St and Broadway, is likely to cause a conflict with the bike lane.

Response: Parking is currently prohibited in this location and will remain prohibited with the 20th St Bike Lane project. There is demand for a pick-up/drop-off area serving 19th St BART. However, it is difficult to accommodate this in the central business district due to the multiple demands for curb space.

Kenya Wheeler (BPAC member): Recommends that the conflict Ms Levine outlined be addressed, perhaps by removing the curb cut.

Response: The curb cut serves the parking lot of the California Bank & Trust and the removal of the curb cut would require the consent of the property owner. The curb cut works well with the 20th St Bike Lane project by enabling bicyclists to exit the roadway and access the nearby BART entrance.

Robert Prinz (BPAC member): Consider adding sharrows on 20th St in the westbound left turn lane onto southbound Webster St.

Response: The City will add sharrows to this left turn lane to support the connection to Webster St, a designated bikeway.

Robert Prinz (BPAC member): On eastbound 20th St, Franklin St to Webster St, the Union Bank driveway is hard to see. The bike lane treatment needs more emphasis here.

Response: The City will add a bike lane symbol and arrow in the bike lane at this driveway.

Robert Prinz (BPAC member): On 20th St, consider a bike box treatment for the left turn onto Webster St; there is no right turn conflict here.

Response: The bike box is an experimental treatment that's use requires approval from the Federal Highway Administration (FHWA) and the California Traffic Control Devices Committee (CTCDC). The effort required for approval is beyond the scope of the current project.

ATTACHMENT I-3-6

Christopher Kidd (BPAC Vice-Chair): Clarify the purpose of the hearing regarding AB 2245.

Response: Assembly Bill No. 2245 added Section 21080.20.5 to the California Public Resources Code. It provides and exemption to the California Environmental Quality Act for the restriping of streets and highways for bicycle lanes in an urbanized area that is consistent with a bicycle transportation plan. One of the requirements of Section 21080.20.5 is that the agency hold a noticed public hearing in the area affected by the project to hear and respond to public comments.

Christopher Kidd (BPAC Vice-Chair): On 17th St, the striping design should address the conflict between bicyclists and drivers turning right onto San Pablo Ave.

Response: Westbound motorists on 17th St at the intersection with Clay St and San Pablo Ave may make a hard right turn onto Clay St or a soft right turn onto San Pablo Ave. This configuration may create conflicts with westbound bicyclists on 17th St who are proceeding straight. To resolve the conflict, the City will mark the bike lane through the intersection.

Christopher Kidd (BPAC Vice-Chair): Why is no bike lane included on 17th St, Castro St to Martin Luther King Jr Wy?

Response: Martin Luther King Jr Wy is an intersecting bikeway whereas there is no intersecting bikeway on Castro St. Additionally, the alignment of 17th St shifts at Martin Luther King Jr Wy, creating a geometric condition that is favorable to transitioning 17th St from four lanes to three lanes at Martin Luther King Jr Wy.

Stephanie Jim (BPAC member): On westbound 20th St approaching Franklin, is the middle lane currently through/right?

Response: Yes. Currently there is one through travel lane, one through/right travel lane, and one right-only lane. With the 20th St Bike Lane project, there will be two through lanes and one bike lane.

04-OAKLAND-1

CITY OF OAKLAND

City of Oakland, Bicyclist & Pedestrian Advisory Commission
Draft Minutes from the May 21, 2015 meeting
City Hall, 2nd Floor, Sgt Daniel Sakai Hearing Room (aka Hearing Room 4)

Meeting agenda at http://www2.oaklandnet.com/oakca1/groups/pwa/documents/agenda/oak050723.pdf

Meeting called to order at 6:05pm by Chair Christopher Kidd

Item 1. Roll Call/Determination of Quorum/Introductions
At roll call, Commissioners Chan, Kidd, McWilliams, Prinz, Tabata, and Hwang were present (quorum established).

Commissioners Taylor and Wheeler arrived shortly thereafter.

Commissioner Villalobos was excused.

Item 2. Approval of meeting minutes

→ A motion to ***adopt the Bicyclist & Pedestrian Advisory Commission meeting minutes from April 16, 2015 and the special meeting minutes from May 6, 2015*** was made (Tabata), seconded (Hwang), and passed unanimously. (Adopted minutes online at www.oaklandbikes.info/BPAC.)

Item 3. Open Forum / Public Comment

- Eric Fischer expressed thanks to the City for reconfiguring the traffic signals at Piedmont Ave and Linda Ave to better serve pedestrians. Wlad Wlassowsky, Transportation Services Division Manager, explained this was done based on a new traffic signal policy to put signals in busy pedestrian areas on pedestrian "recall" so the walk signal comes up with every cycle during busy pedestrian times.

Item 4. 20th St Bicycle/Pedestrian Project/ATP Grant Proposal
Wlad Wlassowsky, Transportation Services Division Manager, introduced Carrie Nielson (Fehr & Peers) who presented the item. 20th St from Broadway to Harrison St is an important downtown corridor because it connects to 19th St BART, Lake Merritt, and a number of large office buildings. In its current form, most of the right-of-way is dedicated to motor vehicle use, even though traffic volumes are light. The proposed project converts underused travel lanes to widened sidewalks and bike lanes. The proposal includes bus islands to eliminate the cross-over conflict between bicyclists and buses at bus stops. The project cost estimate is on the order of $5 million. If the grant application is successful, there will be additional opportunities to refine and enhance the conceptual design.

Comments

- What changes are proposed at the Kaiser entrance? It does include some access modifications to simplify ingress/egress and reduce conflicts with pedestrians.
- Did the project consider having the bike lane at the bus stop being raised halfway between the roadbed and the sidewalk? Yes. The factors to consider include sweeping and drainage as well as ADA access between the sidewalk and the boarding island.
- In locations with loading (westbound 20th St west of Franklin St), can the bike lane be kept curbside with the loading in the street? The BART portal creates a geometric issue. At some point, bicyclists need to be brought out along the travel lane.

ATTACHMENT I-3-7

- Consider replacing the advance limit lines with bike boxes. Give design attention to the bicyclist turns between 20th St and both Franklin St and Webster St.
- All of the extra sidewalk space is very important because the pedestrian volumes are high and the existing condition is very constrained. Consider high visibility crosswalks (even with the traffic signals) due to the high pedestrian volumes.
- Give more attention to bicyclists at the right turn trap lane from westbound 20th St onto northbound Franklin St.
- Consider relocating the bike racks near the BART entrance to free up space for the pedestrian flows.

Item 5. Resurfacing Overview

Gus Amirzehni, Engineering Design Division Manager, introduced Jimmy Mach, Supervising Civil Engineer for the Pavement Management Program, who presented the item. The program is responsible for "capital paving projects": the curb-to-curb rehabilitation of street pavement. (Another bureau is responsible for pothole repairs.) Mr. Mach's presentation emphasized the following points. Like many older cities across the state, Oakland's pavement is in poor condition (in comparison to the roughly 100 jurisdictions in the Bay Area). Cost-effective pavement maintenance addresses deterioration early in the pavement's life cycle. Once a street deteriorates significantly, it is no longer cost-effective to repair. There is a large backlog in maintenance, and the recent investments are less than what is needed to keep the overall network in its current (at risk) state of repair. As a result, City policy directs 80% of funds to preservation (the cost-effective streets to repair) and 20% to reconstruction (the severely deteriorated streets). Based on information from the City's proposed FY2015-2017 budget, funding for paving over the coming five years is anticipated to be less (by roughly 25%) than over the past five years. As a matter of course, paving projects include ADA improvements and bikeway implementation. The City now has a Complete Streets policy that will be implemented through the City's paving projects.

Comments

- How are streets chosen to be paved? The condition of all streets is surveyed on a periodic basis. Arterial and collector streets are chosen over local streets. Within these classifications, the streets within certain ranges of deterioration are chosen because they are the most cost-effective to repair.
- Are additional grant funds available? Generally not. The City goes after everything that is available. Most of the external funds come by formula. There are very few competitive grants that allow for paving as a major project component.
- Is a map available showing the condition (PCI) of the City's streets? Yes, the map is available on the web page of the Pavement Management Program: http://www2.oaklandnet.com/Government/o/PWA/o/EC/s/STS/OAK030328.
- Will paving projects consider adding bike lanes to streets that aren't on the Bicycle Master Plan? Yes, but it is a question of resources and priorities. We are trying to match the available resources to the highest priorities, and that may not realize all of the opportunities that present themselves.
- The City is working to take a stronger position with utility companies, in recognition that trenching does compromise the life of the pavement. The intent is to have utility companies do their part to maintain and preserve the life of the pavement that they affect.
- Can more coordination be done with the railroads? Yes, but the coordination is challenging. Two recent successes are Embarcadero (in Jack London Square) and 26th St (at Mandela Pkwy).
- Is it feasible to do paint-and-bollard bulbouts to get greater benefit in conjunction with curb ramp upgrades? The main mandate is satisfying ADA, but staff will follow up with the Transportation Services Division.
- What's the best way to coordinate improvements with paving projects, given that some recent opportunities have been missed? The Five Year Paving Plan provides a good forward-looking time

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20th St Bikeway Project, Broadway to Harrison St

DESCRIPTION

The City of Oakland is upgrading the existing, signage-only bikeway on 20th St between Broadway and Harrison St. The upgrade features bikeway pavement stripes and markings, which will be installed in late 2014 as part of a multi-street paving contract. The paving contract is funded by Oakland's share of Measure B, Alameda County's half-cent transportation sales tax, and Vehicle Registration Fees, both administered by the Alameda County Transportation Commission.

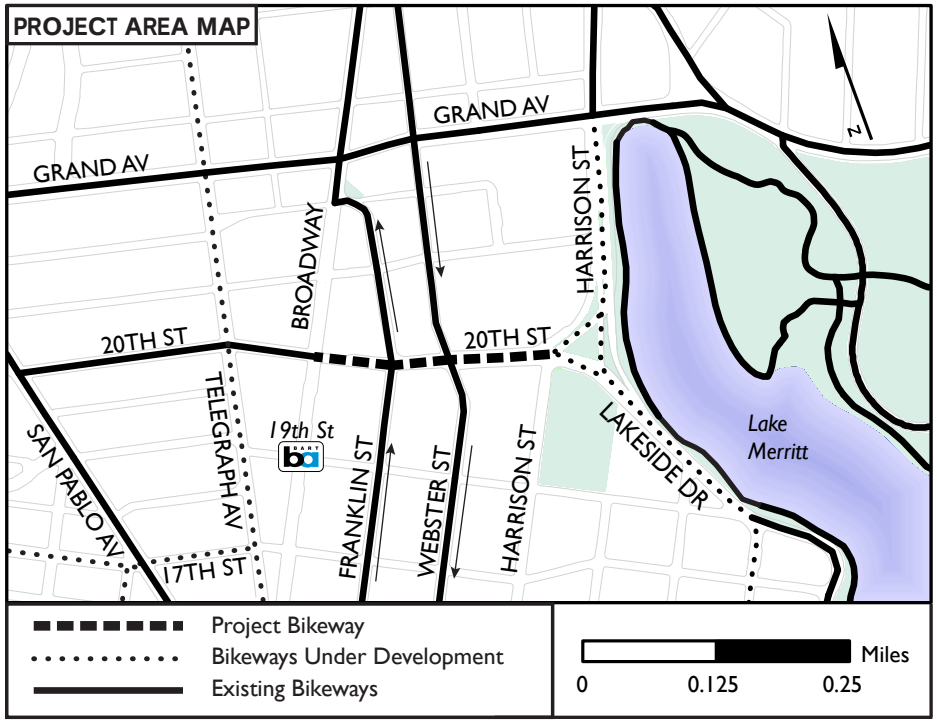
The bikeway project is recommended in the City's Bicycle Master Plan (BMP). The BMP calls for the installation of bikeways throughout Oakland to encourage bicycling as a healthy, non-polluting and affordable transportation option, helping Oakland achieve City Council-adopted sustainability and livability goals.

GEOGRAPHIC CONTEXT

The bikeway striping will be installed along three blocks in downtown Oakland. The 20th St route links downtown workplaces, Uptown, the 19th St BART Station (with access on 20th St), and the AC Transit bus mall on 20th St (Broadway to Telegraph Ave), to Lake Merritt and neighborhoods to the east, including Harrison/Oakland, Adams Point, and Grand-Lake. A Measure DD-funded project, currently in design, will expand Snow Park and reconfigure the roadway, completing the intersecting bikeway on Harrison St/Lakeside Dr.

DESIGN

The bikeway design features bike lanes and shared roadway bicycle markings (aka "sharrows"). The typical cross section includes two travel lanes in each direction. Between Franklin and Harrison Sts, the project includes bike lanes with buffers to provide additional separation between cyclists and motorists. Between Broadway and Franklin St, there will be some shared lanes with sharrows due to the narrower right-of-way. On this block, one bus stop will be relocated and some parking stalls consolidated to make the most efficient use of available roadway width. The number of on-street parking spaces will remain the same.



SUBMIT COMMENTS

Please provide your input by Thursday, July 24, 2014. To use this form, write your comments below and your return address on the reverse, cut along the dotted line, stamp and mail. Or, you may e-mail (bikeped@oaklandnet.com) or fax (238-7415) your comments. Make sure to include your name and street address and indicate you are commenting on the 20th St Bikeway Project. For answers to frequently asked questions, please go to www2.oaklandnet.com/OAK024652#answers.

Please check one of the following three boxes, and then provide supporting comments.

- ☐ I support the bikeway project.
- ☐ I do not support the bikeway project.
- ☐ I have no opinion.

Signature: _____

(Also write name and address on reverse before mailing.)

I OAKLAND

By writing my email address below, I am requesting to have my name added to the bicycle program contact list so I can receive occasional updates on City of Oakland bikeway im

ATTACHMENT I-3-8

Email address: _____

REQUIRED INFORMATION

Name: _____

Address: _____

Oakland, CA _____

(Zip Code)

$0.49 stamp required

City of Oakland, Public Works Department

Attn: Bicycle & Pedestrian Facilities Program

250 Frank Ogawa Plaza, Suite 4344

Oakland, CA 94612

City of Oakland, Public Works Department
Bicycle & Pedestrian Facilities Program
250 Frank Ogawa Plaza, Suite 4344
Oakland, CA 94612

Welcome to Oakland
Bicycle Friendly Community
2010-2014

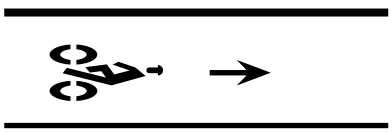
The City welcomes your input on the 20th St Bikeway Project by mail, e-mail, or fax by Thursday, July 24, 2014. Please feel free to share this flyer with others in your neighborhood. This flyer is available online at www2.oaklandnet.com/n/OAK047696.

04-OAKLAND-1

DESIGN DETAIL

The width of 20th Street in the project area varies from block to block. To maximize efficient use of space while maintaining traffic flow, both bike lanes and sharrows will be installed.

Bike lanes will be installed by striping the wide travel lanes to standard widths. Bike lanes help motorists and bicyclists to share the road and encourage bicyclists to ride in the street, not on the sidewalk. Narrower travel lanes provide better guidance to motorists and will also discourage speeding.



Sharrows encourage bicyclists to ride clear of the "door zone," and advise motorists to expect and share the road with bicyclists. The markings also help create continuously marked bikeways where bike lanes are not feasible. Learn more about sharrows at www2.oaklandnet.com/n/OAK025000.

ATTACHMENT I-3-8

I ♥ OAKLAND
City of Oakland, Public Works Department
(510) 238-3983
bikeped@oaklandnet.com
www.oaklandbikes.info

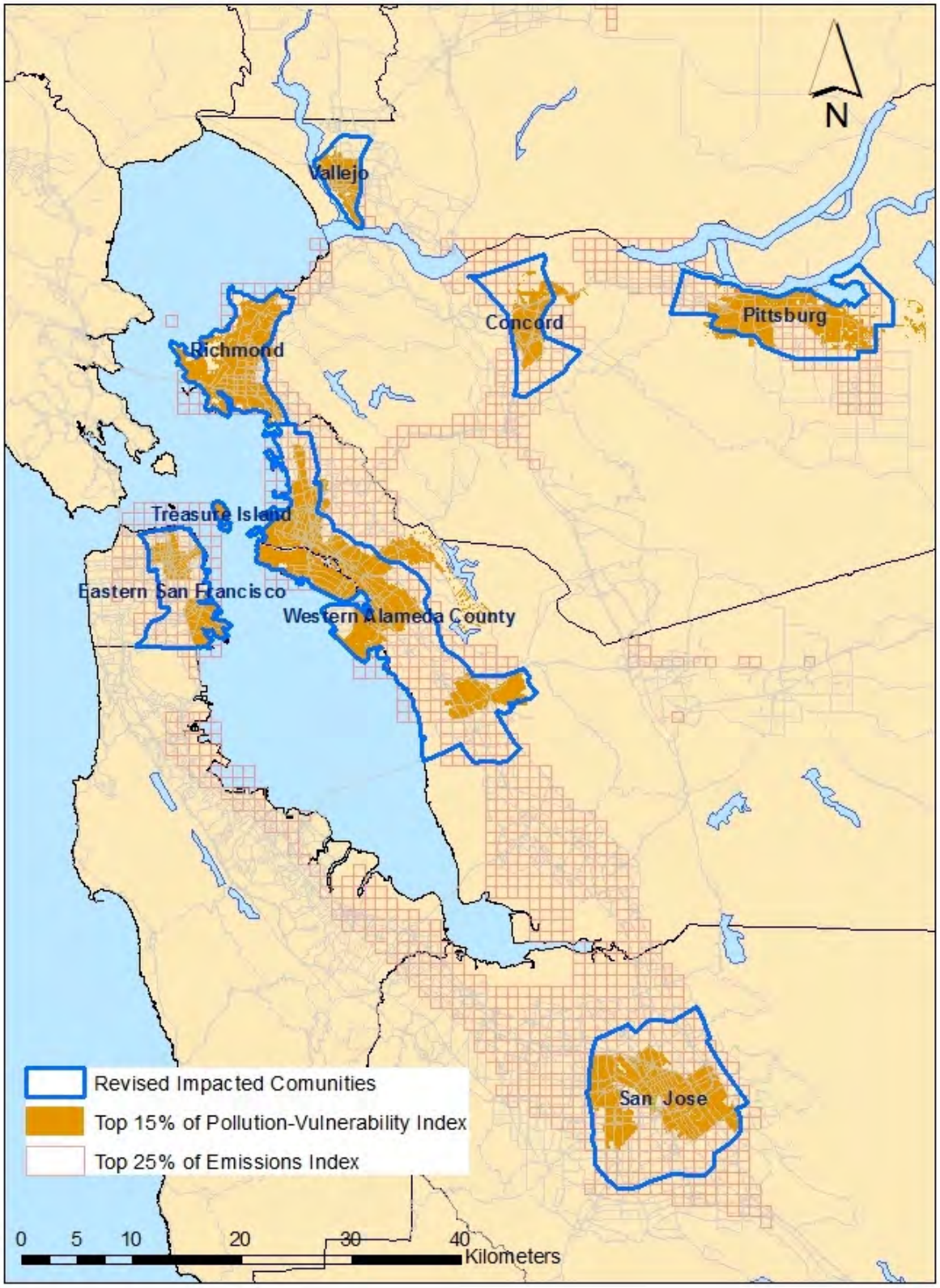


Figure 7. Revised (version 2) impacted communities (blue line) shown with the top 15% of the pollution-vulnerability index (brown) and the top 25% of the emissions index (red squares).

zip code area	zip code	zip code location	zip area population (2010)	mortality rate	total morbidity costs	pollutant mortality rate	pollutant morbidity costs	cancer risk per million	pollution-vulnerability index	pollution index	zip code area	PM2.5 (annual ug/m3)	Ozone (annual mean
94609	94609	Oakland	20596	768.7	680.2	40.1	6.5	384.7	92.7	77.6	94609	10.1	0.12
94612	94612	Oakland	14389	683.5	609.0	39.8	6.4	591.4	94.5	88.8	94612	10.7	0.13
94607	94607	Oakland	24978	702.8	585.6	40.9	6.3	689.2	94.7	89.2	94607	10.7	0.13
94618	94618	Oakland	16046	472.2	409.9	24.6	3.8	263.0	63.3	76.2	94618	10.1	0.13
94610	94610	Oakland	29287	580.6	420.7	33.8	4.4	398.3	78.8	88.0	94610	10.7	0.13
94611	94611	Oakland	36565	492.4	404.5	22.3	3.3	267.1	57.1	64.7	94611	9.4	0.14
94606	94606	Oakland	36672	660.1	552.1	38.4	5.9	543.0	91.6	89.3	94606	10.7	0.15
94602	94602	Oakland	28329	591.6	521.4	26.8	4.3	284.9	70.4	65.7	94602	9.4	0.17
94601	94601	Oakland	50294	714.1	713.9	41.6	7.6	443.4	96.3	89.6	94601	10.7	0.18
94619	94613	Oakland	24014	585.1	530.1	33.9	5.5	248.3	84.0	86.7	94619	10.7	0.19
94619	94619	Oakland	24014	585.1	530.1	33.9	5.5	248.3	84.0	86.7	94619	10.7	0.19
94621	94621	Oakland	29870	882.4	867.1	45.5	7.9	255.8	94.7	75.0	94621	10.0	0.20
94603	94603	Oakland	31403	881.0	889.1	43.9	8.0	224.9	93.4	71.4	94603	9.9	0.20
94605	94605	Oakland	39016	672.1	648.7	28.4	4.9	184.7	70.8	54.1	94605	9.1	0.20

04-OAKLAND-1

SMOKING

Zip	Est	LCL	UCL	Pop	ZipT	EstimateT	LCLT	UCLT	Bin
94539	6.1%	4.2%	8.0%	36000	94539	6.1%	4.2%	8.0%	1
94611, 94618	8.0%	6.2%	9.8%	39900	94611, 94618	8.0%	6.2%	9.8%	1
94588	8.4%	6.2%	10.6%	23900	94588	8.4%	6.2%	10.6%	1
95377	8.4%	4.8%	12.0%	22300	95377	8.4%	4.8%	12.0%	1
94704, 94705, 94720	8.5%	3.9%	13.2%	29221	94704, 94705, 94720	8.5%	3.9%	13.2%	1
94566	9.2%	6.9%	11.5%	26900	94566	9.2%	6.9%	11.5%	1
94550	9.3%	7.1%	11.5%	35900	94550	9.3%	7.1%	11.5%	1
94542, 94552	9.7%	7.9%	11.6%	21300	94542, 94552	9.7%	7.9%	11.6%	1
94707, 94708, 94709	9.7%	6.7%	12.7%	28900	94707, 94708, 94709	9.7%	6.7%	12.7%	1
94551	10.3%	7.9%	12.6%	35500	94551	10.3%	7.9%	12.6%	2
94587	10.4%	7.9%	12.9%	54500	94587	10.4%	7.9%	12.9%	2
94560	10.8%	8.3%	13.4%	35400	94560	10.8%	8.3%	13.4%	2
94555	11.0%	8.1%	13.8%	24000	94555	11.0%	8.1%	13.8%	2
94546	11.2%	8.5%	13.8%	32200	94546	11.2%	8.5%	13.8%	2
94545	11.6%	8.8%	14.3%	23400	94545	11.6%	8.8%	14.3%	2
94579	11.6%	8.7%	14.5%	15500	94579	11.6%	8.7%	14.5%	2
94536	11.8%	9.0%	14.5%	52500	94536	11.8%	9.0%	14.5%	2
94610	11.8%	8.6%	15.1%	25800	94610	11.8%	8.6%	15.1%	2
94568	12.0%	9.3%	14.7%	26600	94568	12.0%	9.3%	14.7%	2
94577	12.3%	9.5%	15.1%	37500	94577	12.3%	9.5%	15.1%	2
94538	12.6%	9.6%	15.5%	47800	94538	12.6%	9.6%	15.5%	2
94580	12.7%	9.6%	15.8%	21900	94580	12.7%	9.6%	15.8%	2
94602	12.8%	9.8%	15.7%	23900	94602	12.8%	9.8%	15.7%	2
94501	13.5%	10.6%	16.4%	46400	94501	13.5%	10.6%	16.4%	2
94544	13.6%	10.3%	16.8%	53900	94544	13.6%	10.3%	16.8%	2
94619	14.1%	10.8%	17.4%	18000	94619	14.1%	10.8%	17.4%	2
94541	14.2%	10.8%	17.6%	45500	94541	14.2%	10.8%	17.6%	2
94578	14.2%	10.8%	17.6%	26500	94578	14.2%	10.8%	17.6%	2
94605	14.7%	11.3%	18.1%	29500	94605	14.7%	11.3%	18.1%	2
94703	15.0%	11.2%	18.9%	17400	94703	15.0%	11.2%	18.9%	3
94702, 94710	15.3%	12.5%	18.2%	18600	94702, 94710	15.3%	12.5%	18.2%	3
94609, 94612	15.4%	12.1%	18.8%	26700	94609, 94612	15.4%	12.1%	18.8%	3
94601	15.5%	11.6%	19.5%	35800	94601	15.5%	11.6%	19.5%	3
94606	15.8%	12.0%	19.5%	26900	94606	15.8%	12.0%	19.5%	3
94621	15.9%	12.0%	19.8%	20600	94621	15.9%	12.0%	19.8%	3
94603	16.3%	12.3%	20.4%	22300	94603	16.3%	12.3%	20.4%	3
94608	17.7%	13.5%	22.0%	26400	94608	17.7%	13.5%	22.0%	3
94607	19.0%	13.9%	24.2%	20900	94607	19.0%	13.9%	24.2%	3
94502				12000	94502	NA	NA	NA	0
94505				6000	94505	NA	NA	NA	0
94514				900	94514	NA	NA	NA	0
94586				2900	94586	NA	NA	NA	0
94613				500	94613	NA	NA	NA	0
94706				12000	94706	NA	NA	NA	0
95391				900	95391	NA	NA	NA	0

ATTACHMENT I-4-3

04-OAKLAND-1

OBESITY

Zip	Est	LCL	UCL	Pop	ZipT	EstimateT	LCLT	UCLT	Bin
94704, 94705, 94720	9.1%	6.4%	11.7%	29221	94704, 94705, 94720	9.1%	6.4%	11.7%	1
94707, 94708, 94709	12.3%	10.4%	14.2%	28900	94707, 94708, 94709	12.3%	10.4%	14.2%	1
94539	14.1%	11.9%	16.2%	36000	94539	14.1%	11.9%	16.2%	1
94611, 94618	14.5%	12.7%	0.2%	39900	94611, 94618	14.5%	12.7%	0.2%	1
94555	15.9%	13.5%	18.2%	24000	94555	15.9%	13.5%	18.2%	2
94610	16.5%	14.0%	19.0%	25800	94610	16.5%	14.0%	19.0%	2
94703	17.3%	14.4%	20.2%	17400	94703	17.3%	14.4%	20.2%	2
94609, 94612	17.5%	15.2%	19.9%	26700	94609, 94612	17.5%	15.2%	19.9%	2
94501	18.1%	15.6%	20.6%	46400	94501	18.1%	15.6%	20.6%	2
94542, 94552	18.5%	16.7%	20.3%	21300	94542, 94552	18.5%	16.7%	20.3%	2
94607	19.0%	15.7%	22.4%	20900	94607	19.0%	15.7%	22.4%	2
94606	19.4%	17.0%	21.8%	26900	94606	19.4%	17.0%	21.8%	2
94588	19.5%	17.0%	22.0%	23900	94588	19.5%	17.0%	22.0%	2
94602	19.6%	17.1%	22.0%	23900	94602	19.6%	17.1%	22.0%	2
94702, 94710	19.6%	17.4%	21.8%	18600	94702, 94710	19.6%	17.4%	21.8%	2
94587	20.0%	17.6%	22.4%	54500	94587	20.0%	17.6%	22.4%	3
94536	20.6%	18.1%	23.2%	52500	94536	20.6%	18.1%	23.2%	3
94538	20.9%	18.3%	23.6%	47800	94538	20.9%	18.3%	23.6%	3
94566	21.0%	18.3%	23.6%	26900	94566	21.0%	18.3%	23.6%	3
94568	21.2%	18.5%	23.9%	26600	94568	21.2%	18.5%	23.9%	3
94608	21.2%	18.2%	24.3%	26400	94608	21.2%	18.2%	24.3%	3
94550	21.7%	19.2%	24.3%	35900	94550	21.7%	19.2%	24.3%	3
94551	22.0%	19.6%	24.5%	35500	94551	22.0%	19.6%	24.5%	3
94579	22.1%	19.3%	24.9%	15500	94579	22.1%	19.3%	24.9%	3
94546	22.3%	19.7%	25.0%	32200	94546	22.3%	19.7%	25.0%	3
94619	22.8%	20.2%	25.3%	18000	94619	22.8%	20.2%	25.3%	3
94560	22.9%	20.2%	25.6%	35400	94560	22.9%	20.2%	25.6%	3
94545	23.8%	21.0%	26.6%	23400	94545	23.8%	21.0%	26.6%	3
94577	24.9%	22.1%	27.8%	37500	94577	24.9%	22.1%	27.8%	3
94580	26.2%	23.1%	29.3%	21900	94580	26.2%	23.1%	29.3%	4
94601	26.4%	22.8%	30.1%	35800	94601	26.4%	22.8%	30.1%	4
94544	27.0%	24.4%	30.7%	53900	94544	27.0%	24.4%	30.7%	4
95377	28.3%	21.2%	35.5%	22300	95377	28.3%	21.2%	35.5%	4
94578	28.4%	25.1%	31.7%	26500	94578	28.4%	25.1%	31.7%	4
94541	28.9%	25.5%	32.2%	45500	94541	28.9%	25.5%	32.2%	4
94605	29.9%	26.5%	33.2%	29500	94605	29.9%	26.5%	33.2%	4
94621	31.5%	27.5%	35.5%	20600	94621	31.5%	27.5%	35.5%	4
94603	32.9%	29.1%	36.7%	22300	94603	32.9%	29.1%	36.7%	4
94502				12000	94502	NA	NA	NA	0
94505				6000	94505	NA	NA	NA	0
94514				900	94514	NA	NA	NA	0
94586				11500	94586	NA	NA	NA	0
94613				500	94613	NA	NA	NA	0
94706				12000	94706	NA	NA	NA	0
95391				900	95391	NA	NA	NA	0

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04-OAKLAND-1

DIABETES

Zip	Est	LCL	UCL	Pop	ZipT	EstimateT	LCLT	UCLT	Bin
94707, 94708, 94709	3.6%	2.7%	4.4%	28900	94707, 94708, 94709	3.6%	2.7%	4.4%	1
94611, 94618	4.3%	3.3%	5.3%	39900	94611, 94618	4.3%	3.3%	5.3%	1
94610	4.8%	3.5%	6.2%	25800	94610	4.8%	3.5%	6.2%	1
94703	5.2%	3.6%	6.7%	17400	94703	5.2%	3.6%	6.7%	2
94568	5.5%	4.2%	6.7%	26600	94568	5.5%	4.2%	6.7%	2
94608	5.9%	4.1%	7.6%	26400	94608	5.9%	4.1%	7.6%	2
94551	6.1%	4.8%	7.4%	35500	94551	6.1%	4.8%	7.4%	2
94501	6.2%	4.8%	7.6%	46400	94501	6.2%	4.8%	7.6%	2
94702, 94710	6.2%	4.8%	7.6%	18600	94702, 94710	6.2%	4.8%	7.6%	2
94550	6.3%	4.8%	7.7%	35900	94550	6.3%	4.8%	7.7%	2
94588	6.4%	4.9%	8.1%	23900	94588	6.4%	4.9%	8.1%	2
94602	6.4%	4.9%	8.0%	23900	94602	6.4%	4.9%	8.0%	2
94566	6.6%	5.0%	8.2%	26900	94566	6.6%	5.0%	8.2%	2
94546	6.7%	5.2%	8.2%	32200	94546	6.7%	5.2%	8.2%	2
94542, 94552	6.8%	5.6%	8.0%	21300	94542, 94552	6.8%	5.6%	8.0%	2
94536	6.9%	5.2%	8.5%	52500	94536	6.9%	5.2%	8.5%	2
94555	6.9%	5.1%	8.8%	24000	94555	6.9%	5.1%	8.8%	2
94538	7.0%	5.3%	8.7%	47800	94538	7.0%	5.3%	8.7%	2
94539	7.4%	4.9%	10.0%	36000	94539	7.4%	4.9%	10.0%	2
94609, 94612	7.4%	4.7%	10.1%	26700	94609, 94612	7.4%	4.7%	10.1%	2
94619	7.4%	5.7%	9.0%	18000	94619	7.4%	5.7%	9.0%	2
94607	7.6%	5.1%	10.1%	20900	94607	7.6%	5.1%	10.1%	3
94577	7.8%	6.0%	9.6%	37500	94577	7.8%	6.0%	9.6%	3
94541	7.9%	6.1%	9.7%	45500	94541	7.9%	6.1%	9.7%	3
94578	8.1%	6.1%	10.0%	26500	94578	8.1%	6.1%	10.0%	3
94560	8.2%	6.2%	10.1%	35400	94560	8.2%	6.2%	10.1%	3
94587	8.2%	6.2%	10.3%	54500	94587	8.2%	6.2%	10.3%	3
94606	8.3%	6.5%	10.1%	26900	94606	8.3%	6.5%	10.1%	3
94605	8.7%	6.8%	10.6%	29500	94605	8.7%	6.8%	10.6%	3
94545	8.9%	6.8%	11.1%	23400	94545	8.9%	6.8%	11.1%	3
94580	9.0%	6.8%	11.1%	21900	94580	9.0%	6.8%	11.1%	3
94544	9.1%	7.0%	11.1%	53900	94544	9.1%	7.0%	11.1%	3
94579	9.7%	7.3%	12.1%	15500	94579	9.7%	7.3%	12.1%	3
94603	10.0%	7.6%	12.3%	22300	94603	10.0%	7.6%	12.3%	4
94601	10.3%	8.1%	12.5%	35800	94601	10.3%	8.1%	12.5%	4
94621	10.5%	8.2%	12.8%	20600	94621	10.5%	8.2%	12.8%	4
95377	19.7%	9.3%	30.1%	22300	95377	19.7%	9.3%	30.1%	4
94704, 94705, 94720				29221	94704, 94705, 94720	NA	NA	NA	0
94502				12000	94502	NA	NA	NA	0
94505				6000	94505	NA	NA	NA	0
94514				900	94514	NA	NA	NA	0
94586				11500	94586	NA	NA	NA	0
94613				500	94613	NA	NA	NA	0
94706				12000	94706	NA	NA	NA	0
95391				900	95391	NA	NA	NA	0

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ASTHMA

Zip	Est	LCL	UCL	Pop	ZipT	EstimateT	LCLT	UCLT	Bin
94601	14.6%	11.6%	17.5%	35800	94601	14.6%	11.6%	17.5%	1
94579	14.7%	11.8%	17.5%	15500	94579	14.7%	11.8%	17.5%	1
94539	14.9%	11.5%	18.3%	36000	94539	14.9%	11.5%	18.3%	1
94606	15.1%	12.2%	18.0%	26900	94606	15.1%	12.2%	18.0%	2
94538	15.2%	12.6%	17.8%	47800	94538	15.2%	12.6%	17.8%	2
94544	15.2%	12.4%	18.0%	53900	94544	15.2%	12.4%	18.0%	2
94587	15.2%	12.5%	17.9%	54500	94587	15.2%	12.5%	17.9%	2
94621	15.3%	12.3%	18.3%	20600	94621	15.3%	12.3%	18.3%	2
94603	15.6%	12.5%	18.7%	22300	94603	15.6%	12.5%	18.7%	2
94611, 94618	15.6%	12.8%	18.5%	39900	94611, 94618	15.6%	12.8%	18.5%	2
94545	15.7%	12.9%	18.4%	23400	94545	15.7%	12.9%	18.4%	2
94578	15.8%	12.9%	18.7%	26500	94578	15.8%	12.9%	18.7%	2
94541	15.9%	13.1%	18.7%	45500	94541	15.9%	13.1%	18.7%	2
94555	15.9%	12.7%	19.0%	24000	94555	15.9%	12.7%	19.0%	2
94560	16.1%	13.2%	18.9%	35400	94560	16.1%	13.2%	18.9%	2
94577	16.1%	13.4%	18.9%	37500	94577	16.1%	13.4%	18.9%	2
94588	16.2%	13.1%	19.3%	23900	94588	16.2%	13.1%	19.3%	2
94607	16.2%	12.1%	20.4%	20900	94607	16.2%	12.1%	20.4%	2
94536	16.3%	13.4%	19.1%	52500	94536	16.3%	13.4%	19.1%	2
94501	16.7%	13.9%	19.5%	46400	94501	16.7%	13.9%	19.5%	2
94566	16.9%	13.7%	20.0%	26900	94566	16.9%	13.7%	20.0%	2
94568	16.9%	13.9%	20.0%	26600	94568	16.9%	13.9%	20.0%	2
94542, 94552	17.0%	14.6%	19.3%	21300	94542, 94552	17.0%	14.6%	19.3%	2
94610	17.2%	13.7%	20.7%	25800	94610	17.2%	13.7%	20.7%	2
94602	17.3%	14.3%	20.3%	23900	94602	17.3%	14.3%	20.3%	2
94609, 94612	17.4%	14.2%	20.5%	26700	94609, 94612	17.4%	14.2%	20.5%	2
94551	17.5%	14.4%	20.6%	35500	94551	17.5%	14.4%	20.6%	3
94550	17.8%	14.5%	21.0%	35900	94550	17.8%	14.5%	21.0%	3
94619	17.8%	14.8%	20.8%	18000	94619	17.8%	14.8%	20.8%	3
94702, 94710	17.8%	14.9%	20.7%	18600	94702, 94710	17.8%	14.9%	20.7%	3
94703	17.9%	14.1%	21.8%	17400	94703	17.9%	14.1%	21.8%	3
95377	17.9%	11.2%	24.7%	22300	95377	17.9%	11.2%	24.7%	3
94608	18.0%	14.7%	21.4%	26400	94608	18.0%	14.7%	21.4%	3
94605	18.1%	15.1%	21.1%	29500	94605	18.1%	15.1%	21.1%	3
94704, 94705, 94720	18.5%	11.8%	25.2%	29221	94704, 94705, 94720	18.5%	11.8%	25.2%	3
94707, 94708, 94709	18.5%	13.1%	24.0%	28900	94707, 94708, 94709	18.5%	13.1%	24.0%	3
94502				12000	94502	NA	NA	NA	0
94505				6000	94505	NA	NA	NA	0
94514				900	94514	NA	NA	NA	0
94546				32200	94546	NA	NA	NA	0
94580				21900	94580	NA	NA	NA	0
94586				11500	94586	NA	NA	NA	0
94613				500	94613	NA	NA	NA	0
94706				12000	94706	NA	NA	NA	0
95391				900	95391	NA	NA	NA	0

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04-OAKLAND-1

AskCHIS NE
Downloaded January 2015
All data for ages 18+

AC Rates	Est	LCL	UCL	Pop
Smoking	12.2%	9.6%	14.8%	1158300
Obesity	21.1%	18.9%	23.4%	1158300
Diabetes	7.0%	5.5%	8.6%	1158300
Asthma	16.4%	13.7%	19.1%	1158300

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B08101

MEANS OF TRANSPORTATION TO WORK BY AGE

Universe: Workers 16 years and over
2009-2013 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

	Census Tract 4029, Alameda County, California	
	Estimate	Margin of Error
Total:	582	+/-103
16 to 19 years	0	+/-12
20 to 24 years	29	+/-24
25 to 44 years	394	+/-98
45 to 54 years	95	+/-51
55 to 59 years	45	+/-33
60 to 64 years	10	+/-10
65 years and over	9	+/-11
Car, truck, or van - drove alone:	146	+/-67
16 to 19 years	0	+/-12
20 to 24 years	7	+/-12
25 to 44 years	105	+/-55
45 to 54 years	24	+/-31
55 to 59 years	6	+/-10
60 to 64 years	4	+/-6
65 years and over	0	+/-12
Car, truck, or van - carpooled:	59	+/-37
16 to 19 years	0	+/-12
20 to 24 years	14	+/-16
25 to 44 years	45	+/-35
45 to 54 years	0	+/-12
55 to 59 years	0	+/-12
60 to 64 years	0	+/-12
65 years and over	0	+/-12
Public transportation (excluding taxicab):	256	+/-82
16 to 19 years	0	+/-12
20 to 24 years	8	+/-9
25 to 44 years	154	+/-66
45 to 54 years	54	+/-44
55 to 59 years	29	+/-27
60 to 64 years	6	+/-8
65 years and over	5	+/-8
Walked:	79	+/-39
16 to 19 years	0	+/-12
20 to 24 years	0	+/-12
25 to 44 years	65	+/-37

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04-OAKLAND-1

	Census Tract 4029, Alameda County, California	
	Estimate	Margin of Error
45 to 54 years	10	+/-16
55 to 59 years	0	+/-12
60 to 64 years	0	+/-12
65 years and over	4	+/-7
Taxicab, motorcycle, bicycle, or other means:	5	+/-8
16 to 19 years	0	+/-12
20 to 24 years	0	+/-12
25 to 44 years	5	+/-8
45 to 54 years	0	+/-12
55 to 59 years	0	+/-12
60 to 64 years	0	+/-12
65 years and over	0	+/-12
Worked at home:	37	+/-29
16 to 19 years	0	+/-12
20 to 24 years	0	+/-12
25 to 44 years	20	+/-26
45 to 54 years	7	+/-11
55 to 59 years	10	+/-16
60 to 64 years	0	+/-12
65 years and over	0	+/-12

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Workers include members of the Armed Forces and civilians who were at work last week.

While the 2009-2013 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

Explanation of Symbols:

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8. An '(X)' means that the estimate is not applicable or not available.

ATTACHMENT I-5-1

DP05

ACS DEMOGRAPHIC AND HOUSING ESTIMATES

2009-2013 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

Subject	Census Tract 4029, Alameda County, California			
	Estimate	Margin of Error	Percent	Percent Margin of Error
SEX AND AGE				
Total population	1,254	+/-139	1,254	(X)
Male	610	+/-106	48.6%	+/-5.3
Female	644	+/-84	51.4%	+/-5.3
Under 5 years	37	+/-22	3.0%	+/-1.7
5 to 9 years	8	+/-9	0.6%	+/-0.7
10 to 14 years	0	+/-12	0.0%	+/-2.7
15 to 19 years	50	+/-30	4.0%	+/-2.3
20 to 24 years	85	+/-44	6.8%	+/-3.5
25 to 34 years	342	+/-108	27.3%	+/-7.4
35 to 44 years	179	+/-71	14.3%	+/-5.3
45 to 54 years	129	+/-56	10.3%	+/-4.6
55 to 59 years	65	+/-42	5.2%	+/-3.3
60 to 64 years	39	+/-26	3.1%	+/-2.0
65 to 74 years	121	+/-64	9.6%	+/-4.9
75 to 84 years	130	+/-56	10.4%	+/-4.7
85 years and over	69	+/-44	5.5%	+/-3.6
Median age (years)	40.9	+/-4.8	(X)	(X)
18 years and over	1,209	+/-129	96.4%	+/-1.7
21 years and over	1,151	+/-125	91.8%	+/-3.0
62 years and over	354	+/-66	28.2%	+/-5.3
65 years and over	320	+/-62	25.5%	+/-5.2
18 years and over	1,209	+/-129	1,209	(X)
Male	587	+/-107	48.6%	+/-5.7
Female	622	+/-78	51.4%	+/-5.7
65 years and over	320	+/-62	320	(X)
Male	122	+/-44	38.1%	+/-10.5
Female	198	+/-47	61.9%	+/-10.5
RACE				
Total population	1,254	+/-139	1,254	(X)

04-OAKLAND-1

Subject	Census Tract 4029, Alameda County, California			
	Estimate	Margin of Error	Percent	Percent Margin of Error
One race	1,198	+/-139	95.5%	+/-2.9
Two or more races	56	+/-37	4.5%	+/-2.9
One race	1,198	+/-139	95.5%	+/-2.9
White	369	+/-83	29.4%	+/-6.8
Black or African American	185	+/-73	14.8%	+/-5.9
American Indian and Alaska Native	21	+/-33	1.7%	+/-2.6
Cherokee tribal grouping	0	+/-12	0.0%	+/-2.7
Chippewa tribal grouping	0	+/-12	0.0%	+/-2.7
Navajo tribal grouping	0	+/-12	0.0%	+/-2.7
Sioux tribal grouping	0	+/-12	0.0%	+/-2.7
Asian	585	+/-130	46.7%	+/-7.8
Asian Indian	0	+/-12	0.0%	+/-2.7
Chinese	327	+/-104	26.1%	+/-8.0
Filipino	96	+/-67	7.7%	+/-5.1
Japanese	0	+/-12	0.0%	+/-2.7
Korean	60	+/-36	4.8%	+/-2.8
Vietnamese	0	+/-12	0.0%	+/-2.7
Other Asian	102	+/-71	8.1%	+/-5.3
Native Hawaiian and Other Pacific Islander	0	+/-12	0.0%	+/-2.7
Native Hawaiian	0	+/-12	0.0%	+/-2.7
Guamanian or Chamorro	0	+/-12	0.0%	+/-2.7
Samoan	0	+/-12	0.0%	+/-2.7
Other Pacific Islander	0	+/-12	0.0%	+/-2.7
Some other race	38	+/-36	3.0%	+/-2.8
Two or more races	56	+/-37	4.5%	+/-2.9
White and Black or African American	15	+/-15	1.2%	+/-1.2
White and American Indian and Alaska Native	0	+/-12	0.0%	+/-2.7
White and Asian	15	+/-19	1.2%	+/-1.5
Black or African American and American Indian and Alaska Native	0	+/-12	0.0%	+/-2.7
Race alone or in combination with one or more other races				
Total population	1,254	+/-139	1,254	(X)
White	425	+/-89	33.9%	+/-7.2
Black or African American	213	+/-73	17.0%	+/-5.9
American Indian and Alaska Native	29	+/-37	2.3%	+/-2.8
Asian	613	+/-130	48.9%	+/-7.6
Native Hawaiian and Other Pacific Islander	8	+/-13	0.6%	+/-1.0
Some other race	51	+/-43	4.1%	+/-3.3
HISPANIC OR LATINO AND RACE				
Total population	1,254	+/-139	1,254	(X)
Hispanic or Latino (of any race)	119	+/-57	9.5%	+/-4.3
Mexican	90	+/-47	7.2%	+/-3.6
Puerto Rican	0	+/-12	0.0%	+/-2.7
Cuban	0	+/-12	0.0%	+/-2.7
Other Hispanic or Latino	29	+/-28	2.3%	+/-2.2
Not Hispanic or Latino	1,135	+/-129	90.5%	+/-4.3
White alone	326	+/-79	26.0%	+/-6.2
Black or African American alone	185	+/-73	14.8%	+/-5.9
American Indian and Alaska Native alone	9	+/-14	0.7%	+/-1.1
Asian alone	572	+/-128	45.6%	+/-7.7
Native Hawaiian and Other Pacific Islander alone	0	+/-12	0.0%	+/-2.7
Some other race alone	0	+/-12	0.0%	+/-2.7
Two or more races	43	+/-30	3.4%	+/-2.4
Two races including Some other race	0	+/-12	0.0%	+/-2.7
Two races excluding Some other race, and Three or more races	43	+/-30	3.4%	+/-2.4

ATTACHMENT I-5-2

Subject	Census Tract 4029, Alameda County, California			
	Estimate	Margin of Error	Percent	Percent Margin of Error
Total housing units	858	+/-49	(X)	(X)

04-OAKLAND-1

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

The ACS questions on Hispanic origin and race were revised in 2008 to make them consistent with the Census 2010 question wording. Any changes in estimates for 2008 and beyond may be due to demographic changes, as well as factors including questionnaire changes, differences in ACS population controls, and methodological differences in the population estimates, and therefore should be used with caution. For a summary of questionnaire changes see http://www.census.gov/acs/www/methodology/questionnaire_changes/. For more information about changes in the estimates see http://www.census.gov/population/hispanic/files/acs08researchnote.pdf.

For more information on understanding race and Hispanic origin data, please see the Census 2010 Brief entitled, Overview of Race and Hispanic Origin: 2010, issued March 2011. (pdf format)

While the 2009-2013 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

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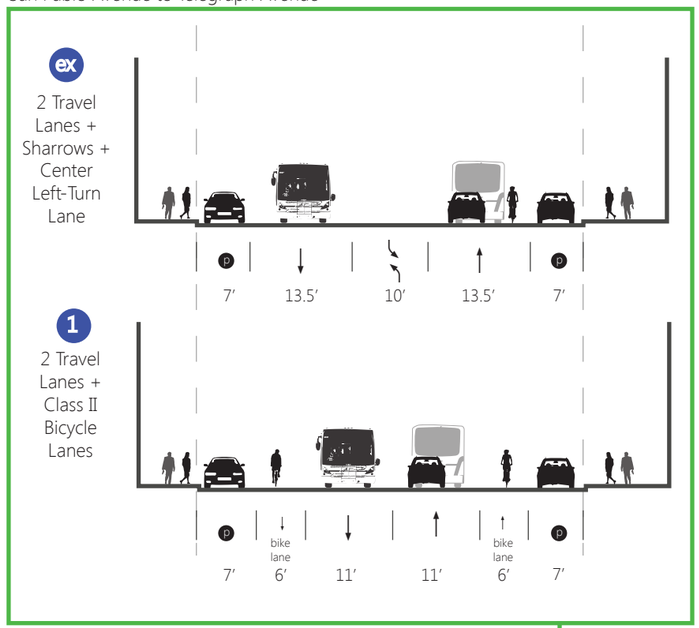
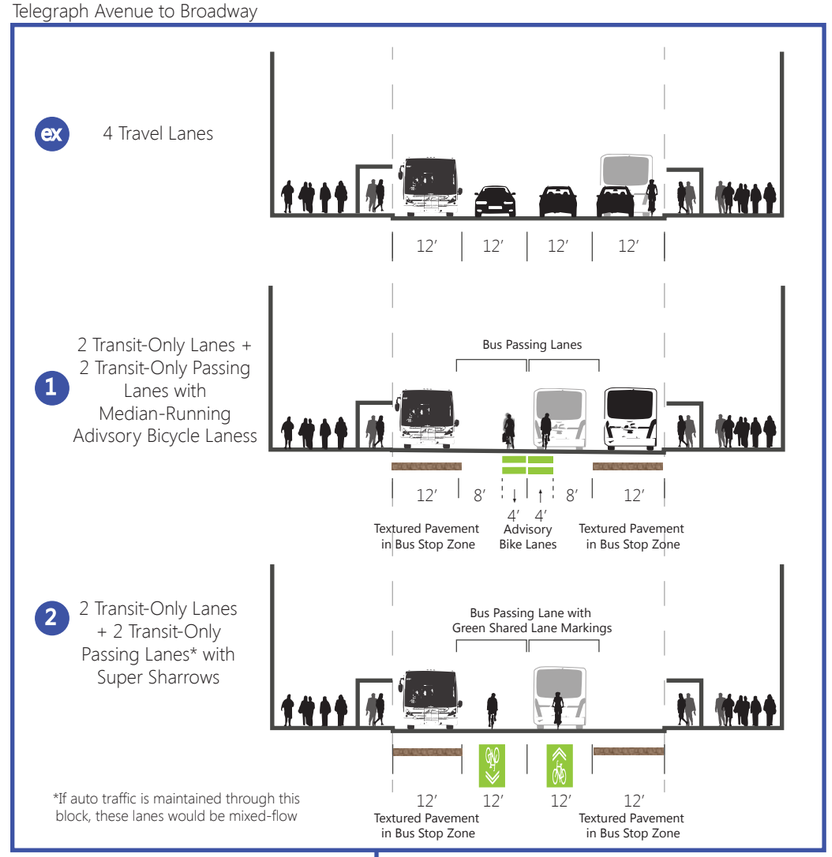
ATTACHMENT I-5-2

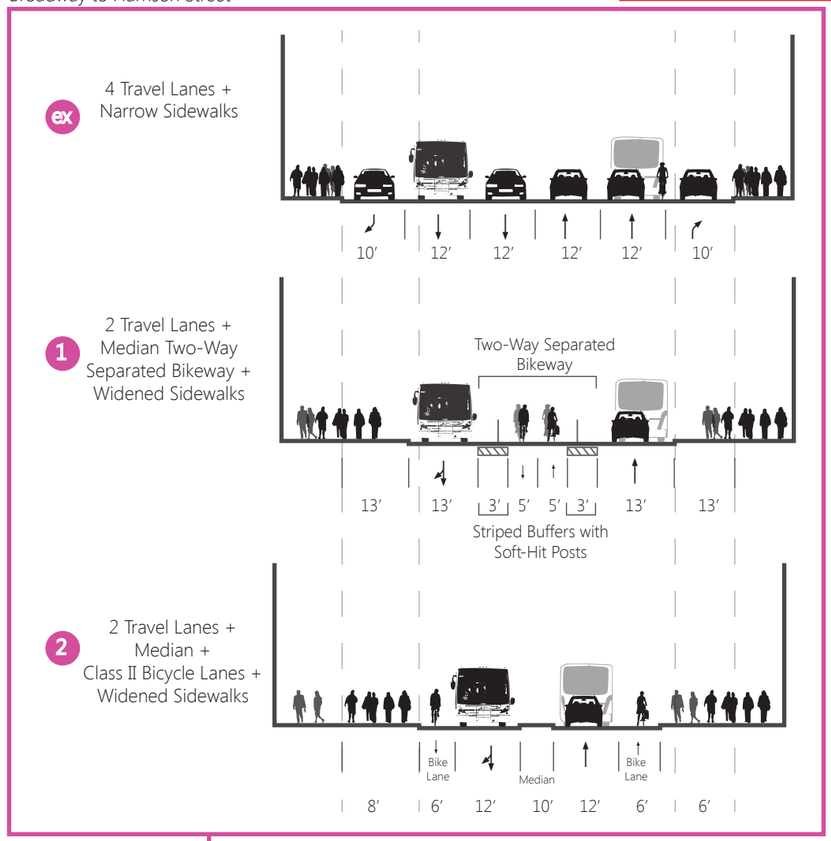
San Pablo Avenue to Telegraph Avenue

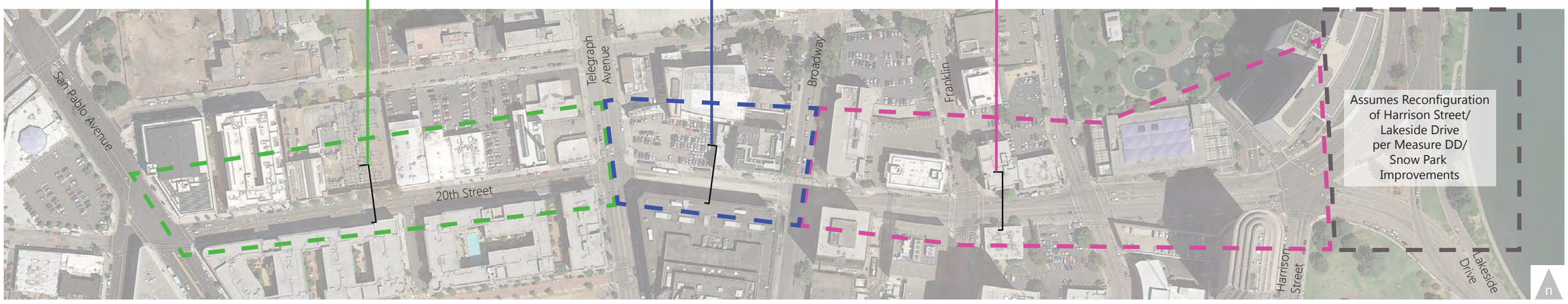


Telegraph Avenue to Broadway



Broadway to Harrison Street





FEHR & PEERS

Summary of 20th Street Complete Streets Proposed Concept Alternatives by Segment

04-OAKLAND-1

Project Name: City of Oakland 19th Street BART to Lake Merritt Urban Greenway

Project Location: 20th Street, Oakland

INFRASTRUCTURE

Bike Projects (Daily Person Trips for All Users) (Box1A)	Without Project	With Project
Existing	1329	
Forecast (1 Yr after completion)	1394	2390
	Commuters	Recreational Users
Existing Trips	731	438
New Daily Trips (estimate)	1315	789
(1 YR aftercompletion) (actual)	1315	789

Project Information- Non SR2S Infrastructure	
Bike Class Type	Bike Class II
Average Annual Daily Traffic (AADT)	11,420

Pedestrian Projects (Daily Person Trips for All Users) (Box 1B)	Without Project	With Project
Existing	18046	
Forecast (1 YR after project completion)	18932	19878
	Without Project	With Project
Existing step counts (600 steps=0.3mi=1 trip)		
Existing miles walked		

Safe Routes to School (SR2S) (Box 1C)	Total
Number of student enrollment	
Approximate no. of students living along school route proposed for improvement	
Percentage of students that currently walk or bike to school	
Projected percentage of students that will walk or bike to school after the project	

Project Costs (Box 1D)	
Non-SR2S Infrastructure Project Cost	$4,683,471
SR2S Infrastructure Project Cost	$0

ATP Requested Funds (Box 1E)	
Non-SR2S Infrastructure	$4,583,471
SR2S Infrastructure	$0

CRASH DATA (Box 1F)	Last 5 Yrs	Annual Average
Fatal Crashes	0	0
Injury Crashes	8	1.6
PDO	0	0

SAFETY COUNTERMEASURES (improvements) (Box 1G)		**Y or N** (Capitalized)
Signalized Intersection	Pedestrian countdown signal heads	Y
	Pedestrian crossing	Y
	Advance stop bar before crosswalk	N
	Install overpass/underpass	N
Unsignalized Intersection	Raised medians/refuge islands	N
	Pedestrian crossing (new signs and markings only)	N
	Pedestrian crossing (safety features/curb extensions)	N
	Pedestrian signals	N
Roadways	Bike lanes	N
	Sidewalk/pathway (to avoid walking along roadway)	N
	Pedestrian crossing (with enhanced safety features)	N
	Pedestrian crossing	N
	Other reduction factor countermeasures	N

ATTACHMENT 1-6-2
COST BENEFIT TOOL ANALYSIS

04-OAKLAND-1

Non Infrastructure- All

Projected New ATP Users	0	
Annual Mobility Benefits	$0	**Did not quantify mobility benefits.**
Annual Health Benefits	$0	
Annual Recreational Benefits	$0	**Did not quantify recreational benefits.**
Annual Safety Benefits	$0	**Safety benefits are assumed to be a reduction in Other R**

Fuel saved	$0
Emissions Saved	$0
Fuel and Emissions Saved	$0

Underlying assumptions for calculations:

1) 1 mile driven is ~ 0.05 gal ~ 1 lb of CO2 based on US average 20mpg.
Source: Active Transportation for America: The Case for Increased Federal Investment in Bicycling and Walking. Rails to Trails Conservancy, page 22.
http://www.railstotrails.org/resourcehandler.ashx?id=2948
2) Assume users travel 13,000 vehicle miles per year (U.S. DOT's FHWA-13,476 ave.)
3) Assume users divert half of their miles traveled each year.
3) Gasoline price per gallon is $3.41 (incl. tax)
4) Carbon price is $25 per ton (updated $2014 value)
6) 2,000 lbs = 1 ton

ESTIMATED SAFETY BENEFITS FROM POTENTIAL CRASH REDUCTION

Countermeasures			OTHER REDUCTION FACTOR
Crash Reduction Factors (CRFs)			10%
Service Life			5
	1st year		$0

	Fatal	Injury	PDO	Total
Frequency	0	0	0	0
Cost/crash	$3,750,837	$80,000	$6,924	

ATTACHMENT I-6-2
COST BENEFIT TOOL
ANALYSIS

04-OAKLAND-1

SAFE ROUTES TO SCHOOL

Infrastructure

Before Project

No. of students enrollment	0
Approximate no. of students living along school route proposed for improvement	0
Percent that currently walks/bikes to school	0%
Number of students that walk/bike to school	0

After Project

No. of students enrollment	0
Approximate no. of students living along school route proposed for improvement	0
Projected percentage of students that will walk or bike because of the project	0%
Number of students that will walk/bike to school after the project	0

ATP Shift	0
Fuels Saved	$0.00
Emissions Saved	$0.00

Assumptions:

1) 180 school days
2) 2 miles distance to school = 1 hour walk
3) Takes 1 hour back and forth to school grounds, used distance of 1 mile (
4) Approximate no. of students living along school route proposed for impr
before and after to get an actual increase number of ATP users or corresp
5) We used the value of time for adults for SR2S since we did not quantify
community in general. Value of time for adults $13.03 vs. $5.42 for kids.
6) Safety benefits are assumed to be the same as non-SRTS infrastructure

Annual Mobility Benefits	$0
Annual Health Benefits	$0
Annual Safety Benefits	$21,705
Fuel and Emissions Saved	$0
Recreational Benefits	$0

Did not quantify recreational benefits for SR2S Infrastructure projects.

ATTACHMENT I-6-2
COST BENEFIT TOOL
ANALYSIS

04-OAKLAND-1

20 Year Invest Summary Analysis	
Total Costs	$4,683,471.00
Net Present Cost	$4,503,337.50
Total Benefits	$142,277,052.10
Net Present Benefit	$94,227,177.06
Benefit-Cost Ratio	20.92

20 Year Itemized Savings	
Mobility	$108,399,076.34
Health	$10,287,552.31
Recreational	$20,155,634.07
Gas & Emissions	$2,380,056.76
Safety	$1,054,732.62

Funds Requested	$4,583,471.00
Net Present Cost of Funds Requested	$4,407,183.65
Benefit Cost Ratio	21.38

ATTACHMENT I-6-2
COST BENEFIT TOOL
ANALYSIS

04-OAKLAND-1

ESTIMATED DAILY MOBILITY BENEFITS FROM THE PROJECT

Current Walk Counts	
Total miles walked	0.00
Total person Trips walked	18,046.00
Total Steps walked	0.00

After the Project is Completed	
Total miles walked	0.00
Total person trips walked	19,878.00
Total Steps walked	0.00

Converted miles walked to trips	0
Difference of person trips walked	1,832
Converted steps walked to trips	0

Current Bike Counts	
Existing Commuters	731
New Commuters	1315

Benefits, 2014 values	
Annual Mobility Benefit (Walking)	$458,000
Annual Mobility Benefit (Biking)	$4,003,350.23

Total Annual Mobility Benefits	$4,461,350

Project Types

For M values:

20.38	min/trip	OFF STREET	Bike Class I
18.02	min/trip	ON STREET w/o parking benefit	Bike Class II
15.83	min/trip	ON STREET w/ parking benefit	Bike Class III

$13.03 Value of Time

600 steps=0.3mi=1 trip

$1 Value of Total Pedestrian Environmental Impacts per trip

Sources:
NCHRP 552 Methodology (Biking)
Heuman (2006) as reported by UK Dept of Transport and Guidance (walking)

ATTACHMENT 1-6-2
COST BENEFIT TOOL ANALYSIS

04-OAKLAND-1

YEARLY ESTIMATED HEALTH BENEFITS FROM THE PROJECT

INFRASTRUCTURE

Cycling:

New Cyclists	1061
Value of Health (ave.annual)	$146
Annual Health Benefits	$155,282

GDP Deflator

2006	0.9429
2014	1.0781

Walking:

New Walkers	1832
Value of Health	$146
Annual Health Benefits	$268,120

Total Annual Health Benefits	$423,402

Source: NCHRP 552- Guidelines for Analysis of Investments in Bicycle Facilities, Appendix G.
(Estimated annual per capita cost savings of direct and/indirect) of physical activity)

ATTACHMENT I-6-2
COST BENEFIT TOOL
ANALYSIS

04-OAKLAND-1

YEARLY ESTIMATED GAS AND EMISSION SAVINGS FROM THE PROJECT

INFRASTRUCTURE

New Pedestrians	1,832
New Bicyclists	1,061
Avoided VMT due to Walking	137,400
Avoided VMT due to Biking	397,875
Fuel Saved	$91,264
Emissions Saved	$6,691
Fuel and Emissions saved	$97,955

Underlying assumptions for calculations:

1) Bike miles traveled= 1.5 mi, walk miles traveled= .3 (CHTS)
2) Assume 50% of new walkers and cyclists choose not to drive their cars
3) 1 mile driven is ~ 0.05 gal ~ 1 lb of CO_2 based on US average 20mpg.
Source: Active Transportation for America: The Case for Increased Federal Investment in Bicycling and Walking. Rails to Trails Conservancy, page 22.
http://www.railstotrails.org/resourcehandler.ashx?id=2948
4) Gasoline price per gallon is $3.41 (incl. tax)
5) Carbon price is $25 per ton
6) 250 working days
7) 2,000 lbs = 1 ton

ATTACHMENT 1-6-2
COST BENEFIT TOOL ANALYSIS

04-OAKLAND-1

YEARLY ESTIMATED RECREATIONAL BENEFITS FROM THE PROJECT

Biking

New Recreational Users	789	$10 per trip
New Commuters	1,315	
ExistingRecreational Users	438	$4 per trip
Value of Spending Recreational Time for New Recreational Users	$978,360	
Valueof Spending Recreational Time for Existing Recreational Users	$217,248	
Potential number of recreational time outdoors	124	
Annual Biking Recreational Benefits	($434,992)	

Sources: NCHRP 552 for New Users and Commuters,
TAG (January 2010 UK's Department of Transport Guidance on the Appraisal of Walking and Cycling Schemes) for Existing Users,
World Health Organization's HEAT for cycling (124 days- the observed number of days cycled in Stockholm)

Walking

Total Recreational pedestrians	2,707	15%- See Misc. Tab
Value of Spending Recreational timefor all pedestrians	$988,019	$1 per trip
Potential number of recreational time outdoors	365	
AnnualWalking Recreational Benefits	$988,019	

Sources: Pedestrian and Bicycle Information Center.
TAG (January 2010 UK's Department of Transport Guidance on the Appraisal of Walking and Cycling Schemes) for Existing Users.

Total Annual Recreational Benefits	$553,027

ATTACHMENT I-6-2
COST BENEFIT TOOL ANALYSIS

04-OAKLAND-1

ESTIMATED SAFETY BENEFITS FROM POTENTIAL CRASH REDUCTION

	SIGNALIZED INTERSECTION COUNTERMEASURES				UNSIGNALIZED INTERESECTION COUNTERMEASURES				ROADWAY COUNTERMEASURES						
Countermeasures	Install pedestrian countdown signal heads	Install pedestrian crossing	Install advance stop bar before crosswalk (bicycle box)	Install pedestrian overpass/ underpass	Install raised medians/ refuge islands	Install pedestrian crossings (new signs and markings only	Install pedestrian crossing (with enhanced safety measures/ curb extensions	Install pedestrian signal	Install bike lanes	Install sidewalk/ pathway (to avoid walking along roadways	Install pedestrian crossing (with enhanced safety measures	Install Pedestrian crossing	OTHER REDUCTION FACTOR	Average of 3 highest countermeasures	Annual Benefits
Applicable Countermeasures	Y	Y	N	N	N	N	N	N	N	N	N	N	N		
Crash Reduction Factors (CRFs)	25%	25%	15%	75%	45%	25%	35%	55%	35%	80%	30%	35%	10%		
Service Life	20	20	10	20	20	10	20	20	20	20	10	10			
1st year	$32,557	$32,557	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$21,705	$21,705

	Fatal	Injury	PDO	Total
Frequency	0	1.6	0	1.6
Cost/crash	$4,130,347	$81,393	$7,624	

ATTACHMENT 1-6-2
COST BENEFIT TOOL ANALYSIS

04-OAKLAND-1

ECONOMIC EVALUATION (Constant Values)

Total Benefits	#########
Mobility Benefits	#########
Health Benefits	#########
Recreational Benefits	#########
Safety Benefits	$1,054,733
Gas & Emission Benefits	$2,380,057

Total Costs	$4,683,471
Benefit-Cost Ratio (BCR)	24.3

INFRASTRUCTURE - Non SR2S

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emissions Benefits	Total Benefits	Total Project Cost	Growth Factor
PROJECT OPEN								
1	$4,461,350	$423,402	$553,027	$21,705	$97,955	$5,557,439	$4,683,471	1.02
2	$4,550,577	$431,870	$564,087	$22,139	$99,914	$5,668,587		
3	$4,641,589	$440,507	$575,369	$22,582	$101,913	$5,781,959		
4	$4,734,421	$449,317	$586,876	$23,033	$103,951	$5,897,598		
5	$4,829,109	$458,304	$598,614	$23,494	$106,030	$6,015,550		
6	$4,925,691	$467,470	$610,586	$23,964	$108,151	$6,135,861		
7	$5,024,205	$476,819	$622,798	$24,443	$110,314	$6,258,579		
8	$5,124,689	$486,356	$635,254	$24,932	$112,520	$6,383,750		
9	$5,227,183	$496,083	$647,959	$25,430	$114,770	$6,511,425		
10	$5,331,727	$506,004	$660,918	$25,939	$117,066	$6,641,654		
11	$5,438,361	$516,125	$674,136	$26,458	$119,407	$6,774,487		
12	$5,547,128	$526,447	$687,619	$26,987	$121,795	$6,909,976		
13	$5,658,071	$536,976	$701,371	$27,527	$124,231	$7,048,176		
14	$5,771,232	$547,715	$715,398	$28,077	$126,716	$7,189,139		
15	$5,886,657	$558,670	$729,707	$28,639	$129,250	$7,332,922		
16	$6,004,390	$569,843	$744,301	$29,212	$131,835	$7,479,581		
17	$6,124,478	$581,240	$759,187	$29,796	$134,472	$7,629,172		
18	$6,246,967	$592,865	$774,371	$30,392	$137,161	$7,781,756		
19	$6,371,907	$604,722	$789,858	$31,000	$139,904	$7,937,391		
20	$6,499,345	$616,817	$805,655	$31,620	$142,702	$8,096,139		
					Sum Total Benefits	Total Project Cost		
Total	$108,399,076	$10,287,532	$13,437,089	$527,366	$2,380,057	$135,031,141	$4,683,471	

COMBO PROJECTS- Non SR2s Infrastructure and Noninfrastructure

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Total Project Cost
PROJECT OPEN							
1	$4,461,350	$423,402	$553,027	$10,852	$97,955	$5,546,586	$4,683,471
2	$4,550,577	$431,870	$564,087	$11,069	$99,914	$5,657,518	
3	$4,641,589	$440,507	$575,369	$11,291	$101,913	$5,770,668	
4	$4,734,421	$449,317	$586,876	$11,517	$103,951	$5,886,082	
5	$4,829,109	$458,304	$598,614	$11,747	$106,030	$6,003,803	
6	$4,925,691	$467,470	$610,586	$11,982	$108,151	$6,123,879	
7	$5,024,205	$476,819	$622,798	$12,221	$110,314	$6,246,357	
8	$5,124,689	$486,356	$635,254	$12,466	$112,520	$6,371,284	
9	$5,227,183	$496,083	$647,959	$12,715	$114,770	$6,498,710	
10	$5,331,727	$506,004	$660,918	$12,970	$117,066	$6,628,684	
11	$5,438,361	$516,125	$674,136	$13,229	$119,407	$6,761,258	
12	$5,547,128	$526,447	$687,619	$13,494	$121,795	$6,896,483	
13	$5,658,071	$536,976	$701,371	$13,763	$124,231	$7,034,413	
14	$5,771,232	$547,715	$715,398	$14,039	$126,716	$7,175,101	
15	$5,886,657	$558,670	$729,707	$14,319	$129,250	$7,318,603	
16	$6,004,390	$569,843	$744,301	$14,606	$131,835	$7,464,975	
17	$6,124,478	$581,240	$759,187	$14,898	$134,472	$7,614,274	
18	$6,246,967	$592,865	$774,371	$15,196	$137,161	$7,766,560	
19	$6,371,907	$604,722	$789,858	$15,500	$139,904	$7,921,891	
20	$6,499,345	$616,817	$805,655	$15,810	$142,702	$8,080,329	
					Sum Total Benefits	Total Project Cost	
Total	$108,399,076	#########	$13,437,089	$263,683	$2,380,057	$124,767,458	$4,683,471

COMBO PROJECTS- NonSR2S & SR2S Infrastructure

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Total Project Cost
PROJECT OPEN							
1	$2,230,675	$211,701	$553,027	$21,705	$48,978	$3,066,085	$4,683,471
2	$2,275,289	$215,935	$564,087	$22,139	$49,957	$3,127,407	
3	$2,320,794	$220,254	$575,369	$22,582	$50,956	$3,189,955	
4	$2,367,210	$224,659	$586,876	$23,033	$51,975	$3,253,754	
5	$2,414,554	$229,152	$598,614	$23,494	$53,015	$3,318,829	
6	$2,462,846	$233,735	$610,586	$23,964	$54,075	$3,385,205	
7	$2,512,102	$238,410	$622,798	$24,443	$55,157	$3,452,910	
8	$2,562,345	$243,178	$635,254	$24,932	$56,260	$3,521,968	
9	$2,613,591	$248,041	$647,959	$25,430	$57,385	$3,592,407	
10	$2,665,863	$252,002	$660,918	$25,939	$58,533	$3,664,255	
11	$2,719,181	$256,062	$674,136	$26,458	$59,703	$3,737,540	
12	$2,773,564	$261,224	$687,619	$26,987	$60,898	$3,812,291	
13	$2,829,035	$266,488	$701,371	$27,527	$62,116	$3,888,537	
14	$2,885,616	$271,858	$715,398	$28,077	$63,358	$3,966,308	
15	$2,943,328	$279,335	$729,707	$28,639	$64,625	$4,045,634	
16	$3,002,195	$284,922	$744,301	$29,212	$65,917	$4,126,547	
17	$3,062,239	$290,620	$759,187	$29,796	$67,236	$4,209,078	
18	$3,123,484	$296,432	$774,371	$30,392	$68,581	$4,293,259	
19	$3,185,953	$302,361	$789,858	$31,000	$69,952	$4,379,124	
20	$3,249,672	$308,408	$805,655	$31,620	$71,351	$4,466,707	
					Sum Total Benefits	Total Project Cost	
Total	$54,190,538	$5,143,776	$13,437,089	$527,366	$1,190,028	$74,487,798	$4,683,471

NON-INFRASTRUCTURE-Non-SR2S and SR2S

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Total Project Cost	Growth Factor
PROJECT OPEN								
1	$0	$0	$0	$0	$0	$0	$0	1.02
2	$0	$0	$0	$0	$0	$0		
3	$0	$0	$0	$0	$0	$0		
4	$0	$0	$0	$0	$0	$0		
5	$0	$0	$0	$0	$0	$0		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
						Sum Total Benefits	Total Project Cost	
Total	$0	$0	$0	$0	$0	$0	$0	

INFRASTRUCTURE- SR2S

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Total Project Cost	Growth Factor
PROJECT OPEN								
1	$0	$0	$0	$21,705	$0	$21,705	$0	1.02
2	$0	$0	$0	$22,139	$0	$22,139		
3	$0	$0	$0	$22,582	$0	$22,582		
4	$0	$0	$0	$23,033	$0	$23,033		
5	$0	$0	$0	$23,494	$0	$23,494		
6	$0	$0	$0	$23,964	$0	$23,964		
7	$0	$0	$0	$24,443	$0	$24,443		
8	$0	$0	$0	$24,932	$0	$24,932		
9	$0	$0	$0	$25,430	$0	$25,430		
10	$0	$0	$0	$25,939	$0	$25,939		
11	$0	$0	$0	$26,458	$0	$26,458		
12	$0	$0	$0	$26,987	$0	$26,987		
13	$0	$0	$0	$27,527	$0	$27,527		
14	$0	$0	$0	$28,077	$0	$28,077		
15	$0	$0	$0	$28,639	$0	$28,639		
16	$0	$0	$0	$29,212	$0	$29,212		
17	$0	$0	$0	$29,796	$0	$29,796		
18	$0	$0	$0	$30,392	$0	$30,392		
19	$0	$0	$0	$31,000	$0	$31,000		
20	$0	$0	$0	$31,620	$0	$31,620		
						Sum Total Benefits	Total Project Cost	
Total	$0	$0	$0	$527,366	$0	$527,366	$0	

COMBO PROJECTS- SR2S Infrastructure and Noninfrastructure

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Total Project Cost	Growth Factor
PROJECT OPEN								
1	$0	$0	$0	$10,852	$0	$10,852	$0	1.02
2	$0	$0	$0	$11,069	$0	$11,069		
3	$0	$0	$0	$11,291	$0	$11,291		
4	$0	$0	$0	$11,517	$0	$11,517		
5	$0	$0	$0	$11,747	$0	$11,747		
6	$0	$0	$0	$11,982	$0	$11,982		
7	$0	$0	$0	$12,221	$0	$12,221		
8	$0	$0	$0	$12,466	$0	$12,466		
9	$0	$0	$0	$12,715	$0	$12,715		
10	$0	$0	$0	$12,970	$0	$12,970		
11	$0	$0	$0	$13,229	$0	$13,229		
12	$0	$0	$0	$13,494	$0	$13,494		
13	$0	$0	$0	$13,763	$0	$13,763		
14	$0	$0	$0	$14,039	$0	$14,039		
15	$0	$0	$0	$14,319	$0	$14,319		
16	$0	$0	$0	$14,606	$0	$14,606		
17	$0	$0	$0	$14,898	$0	$14,898		
18	$0	$0	$0	$15,196	$0	$15,196		
19	$0	$0	$0	$15,500	$0	$15,500		
20	$0	$0	$0	$15,810	$0	$15,810		
						Sum Total Benefits	Total Project Cost	
Total	$0	$0	$0	$263,683	$0	$263,683	$0	

SUMMARY OF QUANTIFIABLE BENEFITS AND COSTS

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Total Project Cost	Benefit Cost Ratio
PROJECT OPEN								
1	$4,461,350	$423,402	$829,540	$43,409	$97,955	$5,855,657	$4,683,471	30.38
2	$4,550,577	$431,870	$846,131	$44,278	$99,914	$5,972,770		
3	$4,641,589	$440,507	$863,053	$45,163	$101,913	$6,092,225		
4	$4,734,421	$449,317	$880,314	$46,066	$103,951	$6,214,070		
5	$4,829,109	$458,304	$897,921	$46,988	$106,030	$6,338,351		
6	$4,925,691	$467,470	$915,879	$47,927	$108,151	$6,465,118		
7	$5,024,205	$476,819	$934,196	$48,886	$110,314	$6,594,420		
8	$5,124,689	$486,356	$952,880	$49,864	$112,520	$6,726,309		
9	$5,227,183	$496,083	$971,938	$50,861	$114,770	$6,860,835		
10	$5,331,727	$506,004	$991,377	$51,878	$117,066	$6,998,052		
11	$5,438,361	$516,125	$1,011,204	$52,916	$119,407	$7,138,013		
12	$5,547,128	$526,447	$1,031,428	$53,974	$121,795	$7,280,773		
13	$5,658,071	$536,976	$1,052,057	$55,054	$124,231	$7,426,388		
14	$5,771,232	$547,715	$1,073,098	$56,155	$126,716	$7,574,916		
15	$5,886,657	$558,670	$1,094,560	$57,278	$129,250	$7,726,414		
16	$6,004,390	$569,843	$1,116,451	$58,423	$131,835	$7,880,943		
17	$6,124,478	$581,240	$1,138,780	$59,592	$134,472	$8,038,562		
18	$6,246,967	$592,865	$1,161,556	$60,784	$137,161	$8,199,333		
19	$6,371,907	$604,722	$1,184,787	$61,999	$139,904	$8,363,319		
20	$6,499,345	$616,817	$1,208,483	$63,239	$142,702	$8,530,586		
						Sum Total Benefits	Total Project Cost	Benefit Cost Ratio
Total	$108,399,076	#########	$26,155,624	$1,054,733	$2,380,057	$142,277,052	$4,683,471	30.38

ATTACHMENT 1-6-2
COST BENEFIT TOOL ANALYSIS

04-OAKLAND-1

SUMMARY OF QUANTIFIABLE BENEFITS AND COSTS

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Present Value Benefit	Total Project Cost	Present Value Cost	Discount Rate	Net Present Value	BCA Ratio	Funds Requested	PV of Funds Requested
PROJECT OPEN										4.00%	$89,723,839.56	20.92		
1	$4,461,350	$423,402	$829,540	$43,409	$97,955	$5,855,657	$5,630,439	$4,683,471	$4,503,338				4,583,471	4,407,184
2	$4,550,577	$431,870	$846,131	$44,278	$99,914	$5,972,770	$5,522,161		$0					
3	$4,641,589	$440,507	$863,053	$45,163	$101,913	$6,092,225	$5,415,966		$0					
4	$4,734,421	$449,317	$880,314	$46,066	$103,951	$6,214,070	$5,311,813		$0					
5	$4,829,109	$458,304	$897,921	$46,988	$106,030	$6,338,351	$5,209,662		$0					
6	$4,925,691	$467,470	$915,879	$47,927	$108,151	$6,465,118	$5,109,477		$0					
7	$5,024,205	$476,819	$934,196	$48,886	$110,314	$6,594,420	$5,011,217		$0					
8	$5,124,689	$486,356	$952,880	$49,864	$112,520	$6,726,309	$4,914,848		$0					
9	$5,227,183	$496,083	$971,938	$50,861	$114,770	$6,860,835	$4,820,332		$0					
10	$5,331,727	$506,004	$991,377	$51,878	$117,066	$6,998,052	$4,727,633		$0					
11	$5,438,361	$516,125	$1,011,204	$52,916	$119,407	$7,138,013	$4,636,717		$0					
12	$5,547,128	$526,447	$1,031,428	$53,974	$121,795	$7,280,773	$4,547,549		$0					
13	$5,658,071	$536,976	$1,052,057	$55,054	$124,231	$7,426,388	$4,460,096		$0					
14	$5,771,232	$547,715	$1,073,098	$56,155	$126,716	$7,574,916	$4,374,325		$0					
15	$5,886,657	$558,670	$1,094,560	$57,278	$129,250	$7,726,414	$4,290,204		$0					
16	$6,004,390	$569,843	$1,116,451	$58,423	$131,835	$7,880,943	$4,207,700		$0					
17	$6,124,478	$581,240	$1,138,780	$59,592	$134,472	$8,038,562	$4,126,782		$0					
18	$6,246,967	$592,865	$1,161,556	$60,784	$137,161	$8,199,333	$4,047,421		$0					
19	$6,371,907	$604,722	$1,184,787	$61,999	$139,904	$8,363,319	$3,969,586		$0					
20	$6,499,345	$616,817	$1,208,483	$63,239	$142,702	$8,530,586	$3,893,248		$0					
	Total Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Sum Total Benefits	Sum Present Value Benefit	Sum Total Project Cost	Sum Present Value Cost				Sum Funds Requested	Sum PV Funds Requested
	$108,399,076	$10,287,552	$20,155,634	$1,054,733	$2,380,057	$142,277,052	$94,227,177	$4,683,471	$4,503,338				$4,583,471	$4,407,184

ATTACHMENT 1-6-2
COST BENEFIT TOOL ANALYSIS

04-OAKLAND-1

PARAMETERS

Mobility Parameters		
CA Statewide Houly Wage (2014)	$26.07	
Value of Time (VOT)- adult	$13.03	
Value of Time (VOT)- child	$5.42	
Bike Path (Class I)	20.38	min/trip
Bike Lane (Class II)	18.02	min/trip
Bike Route (Class III)	15.83	min/trip

Health Parameters		
Cycling	$146	annual$/person
Walking	$146	annual$/person

Accident Cost Parameters		
Cost of a Fatality (K)	$4,130,347	$/crash
Cost of an Injury	$81,393	$/crash
Costy of Property Damage (PDO)	$7,624	$/crash

Source: Appendix D, Local Roadway Safety: A manual for CA's Local Road Owners Caltrans. April 2013.

Recreational Values Parameters		
Biking		
New Users	$10	per trip
Existing Users	$4	per trip
Walking		
All Users	$1	per trip

VMT Reduction	
Price of gasoline (per gallon incl. tax)	$3.41
Price of CO2 (per ton)-adj to 2014$	$25
Price of Co2 (per lb)	$0.01
Working days	250

Average fuel price (November 2013-November 2014) based on EIA's Table 9.4: Retail Motor Gasoline and On_Highway Diesel Fuel Prices
http://www.eia.gov/totalenergy/data/monthly/pdf/sec9_6.pdf

Interagency Working Group on Social Cost of Carbon, United States Government, Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866, February 2010.

2%	Average CA Annual Growth of Population (1955-2011)
4%	Discount Rate used (same as Cal B/C Model)

ATTACHMENT 1-6-2
COST BENEFIT TOOL ANALYSIS

04-OAKLAND-1

Reasons for Bicycling	Percent
Recreation	33
Exercise or health	28
Personal errands	17
Vist a friend or relative	8
Commuting to/from work	7
Commuting to/from school	4

Reasons for Walking	Percent
Exercise or health	39
Personal errands	17
Recreation	15
Walk the dog	7
Visit a friend or relative	7
Commuting to/from work	5
Commuting to/from school	3
Required for my job	2

Source: The 2012 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, Highlights Report. Pedestrian & Bicycle Information Center.

Estimated Annual Per Capita Cost Savings (direct and/or indirect of physical activity)

Study/Agency	Per Capita Cost Savings ($)
Washington DOH	19
Garrett et al.	57
South Carolina DOH	78
Georgia Department of Human Resources	79
Colditz	91
Minnesota DOH	>100
Goetz et al.	172
Pronk et al.	176
Pratt	330
Michigan Fitness Foundation	1175

Source: NCHRP 552, Guidelines for Analysis of Investments in Bicycle Facilities, Appendix G.

Note: An annual per-capita cost savings from physical activity of $128 was determined by taking the median value of ten noted studies above for year 2006$. The updated 2014$ value is $13.03.

Gross Domestic Product (GDP Deflator)

Fiscal Year	Chained GDP Price Index
2006	0.9429
2007	0.9684
2008	0.9884
2009	1.0000
2010	1.0087
2011	1.0284
2012	1.0464
2013	1.0622
2014 (est.)	1.0781
2015 (est.)	1.0966
2016 (est.)	1.1170
2017 (est.)	1.1391
2018 (est.)	1.1619
2019 (est.)	1.1852

Source: Office of Management Budget, Budget of the United State
Table 10.1- Gross Domestic Product and Deflators in the Historical
http://www.whitehouse.gov/sites/default/files/omb/budget/fy20
page 217-218.

ATTACHMENT 1-6-2
COST BENEFIT TOOL ANALYSIS

04-OAKLAND-1

Carrie Nielson

From: Hsieh, Wei@CCC <Wei.Hsieh@CCC.CA.GOV> on behalf of ATP@CCC <ATP@CCC.CA.GOV>
Sent: Tuesday, May 26, 2015 3:18 PM
To: Williams, Bruce
Cc: Hsieh, Wei@CCC; ATP@CCC; inquiry@atpcommunitycorps.org; Arzaga, Frank@CCC; Notheis, Larry@CCC
Subject: RE: Oakland - 1 of 6 - BART to Lake Urban Greenway

Hi Bruce,

Thank you for contacting the CCC. Unfortunately, we are unable to participate in this project. Please include this email with your application as proof that you reached out to the CCC.

Thank you,

Wei Hsieh, Manager
Programs & Operations Division
California Conservation Corps
1719 24th Street
Sacramento, CA 95816
(916) 341-3154
Wei.Hsieh@ccc.ca.gov

From: Williams, Bruce [mailto:BWilliams@oaklandnet.com]
Sent: Friday, May 22, 2015 12:11 PM
To: ATP@CCC; inquiry@atpcommunitycorps.org
Subject: Oakland - 1 of 6 - BART to Lake Urban Greenway

Attached is additional information on the BART to Lake Urban Greenway (AKA Thomas L. Berkeley Way Transit to Parks Gap Closure Project):

The project includes:

Widened sidewalks –
Between Broadway and Harrison Street, the north side is widened by five toeight feet, and protins of the sout side are widened by 3 to 8 feet. This provides improved connections to/from the BART entrance at 20th/Broadway, Lake Merritt, Kaiser Center and other office buildings

Bicycle Lanes –
Bicycle Lanes are proposed toconnect to the bike lanes (funded for construction) east of Harrison Street. Between Broadway and Webster Street a six foot bike lane is proposed in each direction, with excess space proposed to provide a striped buffer east of Webster Street

Median –
A raised median is proposed between Broadway and Harrison Street. The median will be either hard surface or low water/maintenance plan material.

ATTACHMENT I-8-1

We propose to complete the design for the project in FY 16/17, and construct the project in FY 18/19. (We've budgeted some additional time for NEPA clearance, as the project is in a Historic District, and we've found the Caltrans NEPA process is very involved).

Per above, there is some minor landscaping that the Corps may be interested in, but it is a minor cost component. If you are interested I will forward a detailed estimate.

Thanks!

Bruce Williams
Funding Program Manager
Transportation Planning and Funding Division
Department of Engineering & Construction
City of Oakland
250 Frank Ogawa Plaza, Suite 4344
(510) 238-7229
bwiliams@oaklandnet.com

04-OAKLAND-1

Carrie Nielson

From: Active Transportation Program <inquiry@atpcommunitycorps.org>
Sent: Wednesday, May 27, 2015 10:40 AM
To: Williams, Bruce
Cc: atp@ccc.ca.gov
Subject: Re: Oakland ATP applications (6 total)

Hello,

Thank you for reaching out to the local conservation corps. Unfortunately, we are not able to participate in any of these projects. Please include this email with your application as proof that you reached out to the Local Corps.

Thank you

On Fri, May 22, 2015 at 11:50 AM, Williams, Bruce <BWilliams@oaklandnet.com> wrote:

Wei and Danielle,

The City of Oakland plans to submit six ATP applications. In this email I am submitting a summary of all six in one email. I will follow with emails providing more detail on each application. Because our applications are still coming together and I'm still awaiting some material from consultants, but I will provide as much information as I can for each project.

	Project	Brief Description	Cost
1	BART to Lake Urban Greenway	Widened Sidewalks, bicycle lanes along 20th Street between Broadway and Harrison in downtown Oakland	$4 million
2	Telegraph Avenue Complete Street Improvements	Continuous protected bike lane, crosswalk improvements, bicycle and ped signals, bus boarding islands between 20th and 41st Streets	$5 million
3	27th Street Gateway	Intersection and streetscape improvements along 27th from Broadway to 24th Street,adding bulbouts, pedestrian plazas, bike lanes and traffic calming	$4 million

ATTACHMENT I-8-2

		measures.	
4	Broadway Transformation: Mile-Long Freeway Onramp to Complete Street	Road Diet on Upper Broadway, adding bicycle lanes and high visibility crosswalks	$1.4 million
5	Park Boulevard Safe Routes to Schools Project	Ped crossing improvements at two intersections	$1.3 million
6	International Boulevard Pedestrian Refuges	adding mid-street pedestrian refuges at International/Hegenberger 73rd @ International and International @ 98th.	$949,000

Thank you!

Bruce Williams

Funding Program Manager

Transportation Planning and Funding Division

Department of Engineering & Construction

City of Oakland

250 Frank Ogawa Plaza, Suite 4344

(510) 238-7229

bwiliams@oaklandnet.com

--
Monica Davalos | Legislative Policy Intern
Active Transportation Program
California Association of Local Conservation Corps
1121 L Street, Suite 400

04-OAKLAND-1

436 14th Street, Suite 1001
Oakland, CA 94612
wobo.org

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Support Team
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Treasurer

Christopher Ulrich,
Kate Herr
Fellows

May 21, 2015

Mr. Carl Guardino, Chair
California Transportation Commission
1120 N Street, Room 2221 (MS-52)
Sacramento, CA 95814

RE: Support for Oakland's 20th Street Active Transportation Program Application

To Whom it May Concern:

I am writing to express Walk Oakland Bike Oakland's (WOBO) support for the City of Oakland's application for funding under the Caltrans Competitive Active Transportation Program (ATP) to improve the safety and comfort for bicycle and pedestrian transportation on 20th Street. 20th Street provides a critical three-block connection within downtown Oakland between BART, bus rapid transit, employment centers and the parks surrounding Lake Merritt. However, the current configuration of 20th Street disproportionately serves automobile traffic at the expense of other roadway users.

The grant will make significant improvements to 20th Street from approximately Broadway to Harrison Street. It includes funding for widening congested sidewalks, continuous bicycle facilities, pedestrian crossing improvements, and transit boarding islands.

This project sits squarely on a network of roadways used heavily by pedestrian as well as bicyclist approaching and leaving the 19th Street BART station and a dense web of bus service, accessing the newly revitalized downtown and uptown areas, and linking to destinations at Lake Merritt, the crown jewel of Oakland' parks and recreation system. Work performed under this grant will dramatically improve opportunities for walking and bicycling in and around downtown Oakland, and is consistent with Oakland's adopted Complete Streets policy.

WOBO has always and looks forward to working closely with the City of Oakland on this important project. Once again, we urge Caltrans to fully fund Oakland's application for 20th Street ATP. Thank you for your support of complete streets in Oakland.

Sincerely,

Chris Hwang
WOBO Board President
chris@wobo.org 510-282-0302

Walk Oakland Bike Oakland is a 501(c)3 member supported, non-profit organization. EIN: 20-8652475.

ATTACHMENT-J-1

SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
300 Lakeside Drive, P.O. Box 12688
Oakland, CA 94604-2688
(510) 464-6000

04-OAKLAND-1

2015

Thomas M. Blalock, P.E.
PRESIDENT

Tom Radulovich
VICE PRESIDENT

Grace Crunican
GENERAL MANAGER

DIRECTORS

Gail Murray
1ST DISTRICT

Joel Keller
2ND DISTRICT

Rebecca Saltzman
3RD DISTRICT

Robert Raburn, Ph.D.
4TH DISTRICT

John McPartland
5TH DISTRICT

Thomas M. Blalock, P.E.
6TH DISTRICT

Zakhary Mallett, MCP
7TH DISTRICT

Nicholas Josefowitz
8TH DISTRICT

Tom Radulovich
9TH DISTRICT

June 1, 2015

Mr. Carl Guardino, Chair
California Transportation Commission
1120 N Street, Room 2221 (MS-52)
Sacramento, CA 95814

RE: Support for Oakland's 20th Street Active Transportation Program Application

To Whom it May Concern,

I am writing to express San Francisco Bay Area Rapid Transit's (BART) support for the City of Oakland's application for funding under the Caltrans Competitive Active Transportation Program (ATP) to improve the safety and comfort for bicycle and pedestrian transportation on 20th Street. 20th Street provides a critical three-block connection within downtown Oakland between BART, bus rapid transit, employment centers and the parks surrounding Lake Merritt. However, the current configuration of 20th Street disproportionately serves automobile traffic at the expense of other roadway users.

The grant will make significant improvements to 20th Street from approximately Broadway to Harrison Street. It includes funding for widening congested sidewalks, continuous bicycle facilities, pedestrian crossing improvements, and transit boarding islands. Work performed under this grant will dramatically improve opportunities for walking and bicycling in and around downtown Oakland, and is consistent with Oakland's adopted Complete Streets policy. The improvements will also help to facilitate safe pedestrian and bicycle access to the 19th St/Oakland BART station and help BART to advance our goal of increasing the bicycle and pedestrian modes of access to our stations.

BART and the City of Oakland have partnered together on numerous transportation and land use projects, including the Broadway Valdez Specific Plan which encourages smart growth just north of the 20th Street corridor. Through these experiences, we recognize the clear benefits to a safer and more multimodal Oakland. The work products of this important project will allow Oakland to realize these goals on 20th Street.
BART looks forward to working closely with the City of Oakland on this important project. Once again, we urge Caltrans to fully fund Oakland's application for 20th Street ATP. Thank you for your support of complete streets in Oakland.

Sincerely,

Val Menotti

Val Joseph Menotti
Chief Planning & Development Officer
San Francisco Bay Area Rapid Transit

ATTACHMENT-J-2

04-OAKLAND-1

Alameda-Contra Costa Transit District

May 22, 2015

Mr. Carl Guardino, Chair
California Transportation Commission
1120 N Street, Room 2221 (MS-52)
Sacramento, CA 95814

RE: Support for Oakland's 20th Street Active Transportation Program Application

To Whom it May Concern,

I am writing to express AC Transit's support for the City of Oakland's application for funding under the Caltrans Competitive Active Transportation Program (ATP) to improve the safety and comfort for bicycle and pedestrian transportation on 20th Street.

20th Street provides an important three-block connection within downtown Oakland between BART, AC Transit's future Bus Rapid Transit, employment centers and the parks surrounding Lake Merritt, and is a critical transit corridor. The grant will make significant improvements to 20th Street from approximately Broadway to Harrison Street. It includes funding for widening congested sidewalks, continuous bicycle facilities, pedestrian crossing improvements, and innovative transit boarding islands.

AC Transit has identified the 20th Street corridor in its Major Corridors Study as a site for future capital investment, including transit priority treatments. AC Transit fully supports the City of Oakland's 20th Street project, provided that the City of Oakland continues to work jointly with AC Transit to ensure bicycle traffic, and future bicycle projects, do not impede bus operations through the Uptown/20th Street Transit Center between Broadway and Telegraph or preclude future capital improvements along the corridor.

AC Transit recognizes that the majority of transit riders begin their trips as pedestrians or bicyclists. Work performed under this grant will improve opportunities for walking and bicycling in and around downtown Oakland and mitigate bike and bus conflicts at bus stops. This is consistent with Oakland's adopted Complete Streets policy.

AC Transit looks forward to working closely with the City of Oakland on this important project. Once again, we urge Caltrans to fully fund Oakland's application for 20th Street ATP. Thank you for your support of complete streets in Oakland.

Sincerely,

Robert del Rosario
Director of Service Development
AC Transit

ATTACHMENT-J-3

04-OAKLAND-1

BIKE EAST BAY

BikeEastBay.org

May 28, 2015

Mr. Carl Guardino, Chair
California Transportation Commission
1120 N Street, Room 2221 (MS-52)
Sacramento, CA 95814

RE: Support for Telegraph Avenue Complete Street Project Oakland

Dear Mr. Guardino,

I am writing to express Bike East Bay's support for the City of Oakland's application for funding under the Caltrans Competitive Active Transportation Program (ATP) to improve the safety and comfort for bicycle and pedestrian transportation on 20th Street. In the heart of Downtown Oakland, 20th Street provides a critical three-block connection between BART, bus rapid transit, employment centers and the parks surrounding Lake Merritt. However, the current configuration of 20th Street disproportionately serves automobile traffic at the expense of other roadway users.

The grant will make significant improvements to 20th Street from approximately Broadway to Harrison Street. It includes funding for widening congested sidewalks, continuous bicycle facilities, pedestrian crossing improvements, and transit boarding islands. Work performed under this grant will dramatically improve opportunities for walking and bicycling in and around Downtown Oakland.

Bike East Bay, the City of Oakland and AC Transit have worked together on numerous transportation projects. Through these experiences, we recognize the clear benefits to a safer and more multimodal Oakland. The work products of this important project will allow Oakland to realize these goals on 20th Street. Bike East Bay looks forward to working closely with the City of Oakland to build this important project. Once again, we urge Caltrans to fully fund Oakland's application for 20th Street ATP. Thank you for your support of complete streets in Oakland.

Sincerely,

Advocacy Director
Bike East Bay

ATTACHMENT-J-4

PO Box 1736, Oakland, CA 94604
510 845 RIDE (7433) • info@bikeeastbay.org

04-OAKLAND-1

UPTOWN & DOWNTOWN

Downtown Oakland and Lake Merritt/Uptown Community Benefit Districts

June 1, 2015

CALTRANS
Division of Local Assistance, MS-1
Attn: Office of Active Transportation and Special Programs
P.O. Box 942874
Sacramento, CA 94274-0001

RE: Support for Oakland's 20th Street Active Transportation Program Application

To whom it May Concern,

I am writing to express Lake Merritt Uptown Association and the Downtown Oakland Associations support for the City of Oakland's application for funding under the Caltrans Competitive Active Transportation Program (ATP) to improve the safety and comfort for bicycle and pedestrian transportation on 20th Street. 20th Street provides a critical three-block connection within downtown Oakland between BART, bus rapid transit, employment centers and the parks surrounding Lake Merritt. However, the current configuration of 20th Street disproportionately serves automobile traffic at the expense of other roadway users.

The grant will make significant improvements to 20th Street from approximately Broadway to Harrison Street. It includes funding for widening congested sidewalks, continuous bicycle facilities, pedestrian crossing improvements, and transit boarding islands. Work performed under this grant will dramatically improve opportunities for walking and bicycling in and around downtown Oakland, and is consistent with Oakland's adopted Complete Streets policy.

Lake Merritt Uptown Association and the Downtown Oakland Association and the City of Oakland have worked together on numerous transportation and land uses like the permitting and reactivation of Franklin Square. Through these experiences, we recognize the clear benefits to a safer and more multimodal Oakland. The work products of this important project will allow Oakland to realize these goals on 20th Street.

Lake Merritt Uptown Association and the Downtown Oakland Associations look forward to working closely with the City of Oakland on this important project. Once again, we urge Caltrans to fully fund Oakland's application for 20th Street ATP. Thank you for your support of complete streets in Oakland.
Sincerely,

Andrew Jones

District Services Manager
Lake Merritt Uptown Association and the Downtown Oakland Associations

ATTACHMENT-J-5

Downtown Oakland and Lake Merritt/Uptown District Associations 388 19th Street Oakland, CA 94612
DOA Phone 510.238.1122 LMUDA Phone 510.452.4529 Fax 510.452.4530

04-OAKLAND-1

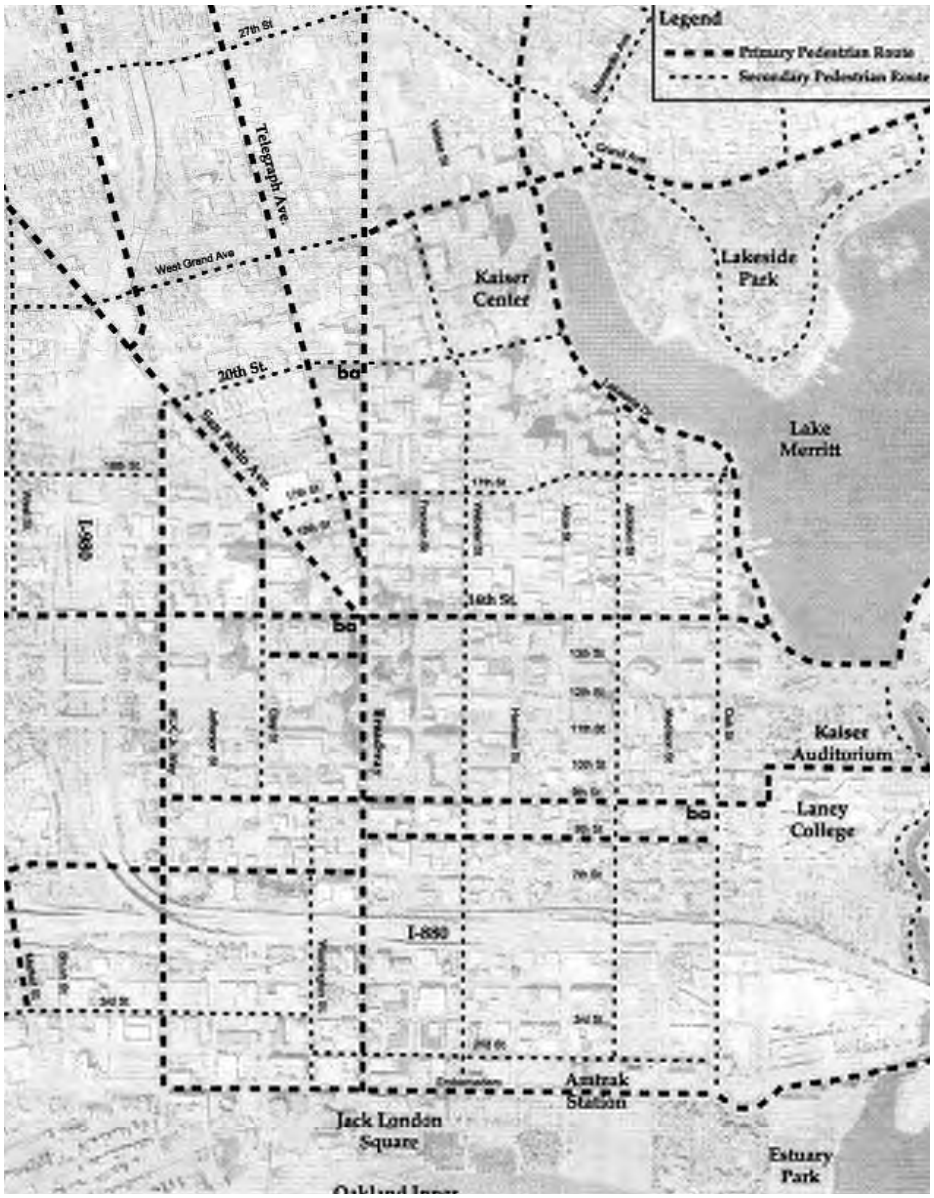
Pedestrian Master Plan

The City of Oakland

Part of the Land Use and Transportation Element
of the City of Oakland's General Plan
November 12, 2002

ATTACHMENT K-1
CITY OF OAKLAND PEDESTRIAN MASTER PLAN

04-OAKLAND-1



MAP 4 DOWNTOWN PEDESTRIAN DISTRICT

ATTACHMENT K-2
PEDESTRIAN MASTER
PLAN NETWORK MAP

04-OAKLAND-1

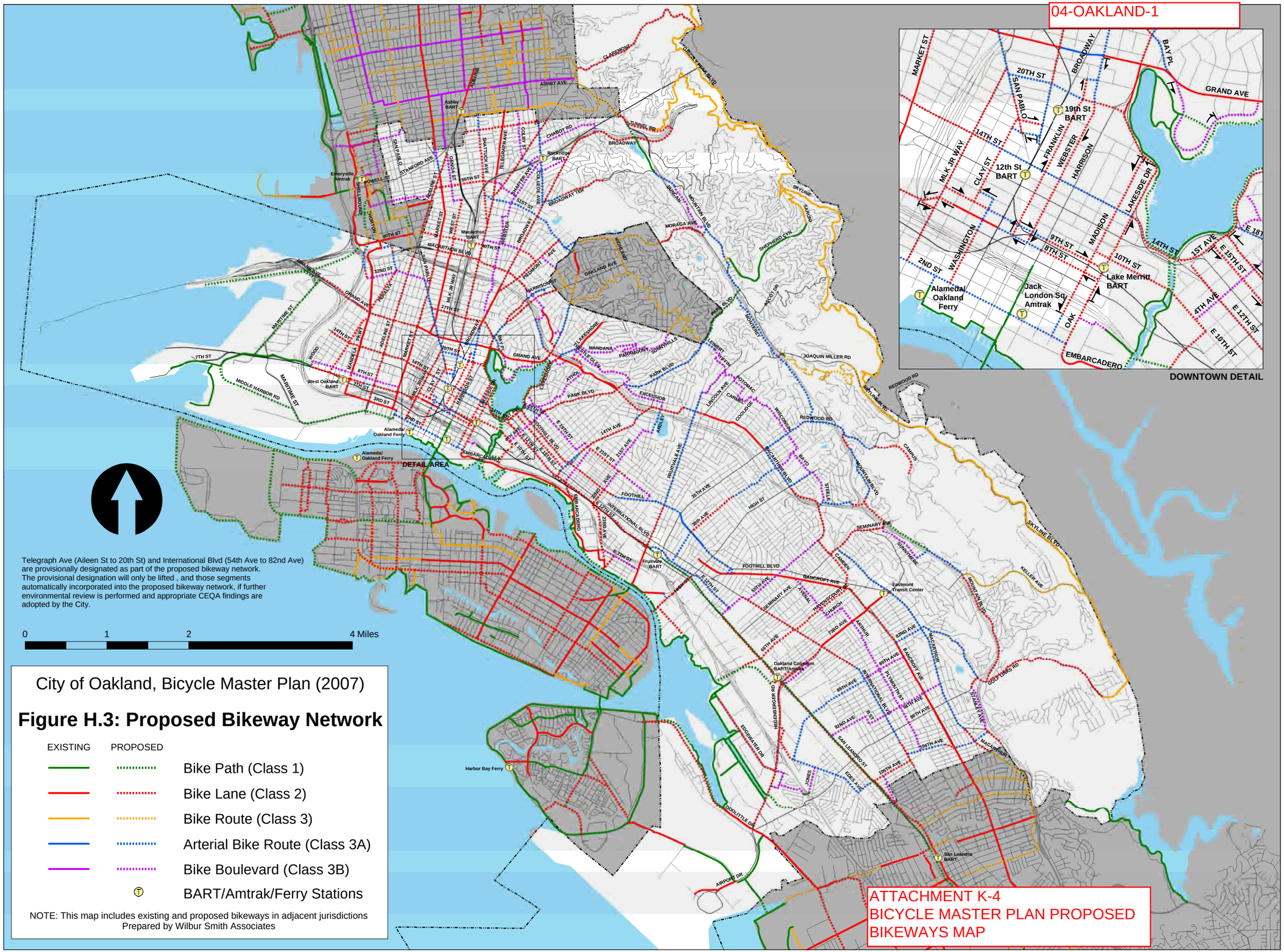
City of Oakland
Bicycle Master Plan

part of the ***Land Use & Transportation Element***
of the Oakland General Plan
December 2007 ▪ Oakland, California

CITY OF OAKLAND

ATTACHMENT K-3
CITY OF OAKLAND BICYCLE MASTER PLAN

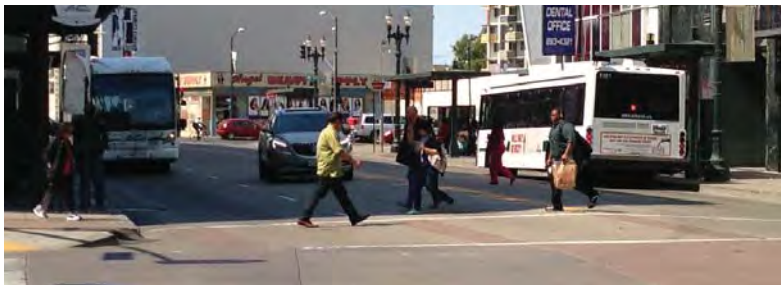
04-OAKLAND-1



ATTACHMENT K-4
BICYCLE MASTER PLAN PROPOSED BIKEWAYS MAP

04-OAKLAND-1

20th Street Complete Streets Study



Prepared by:

FEHR & PEERS

1330 Broadway, Suite 833

Oakland, CA 94612

Prepared for the:

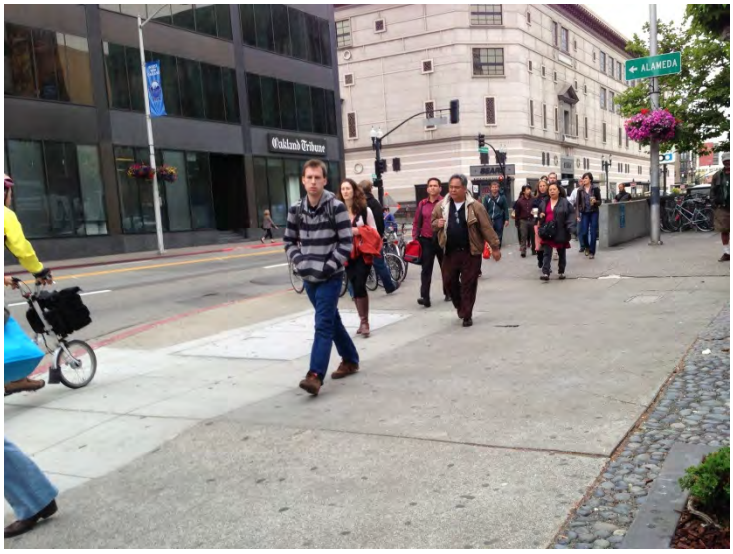
CITY OF OAKLAND

November 2013

ATTACHMENT K-5
20TH STREET COMPLETE STREETS STUDY

04-OAKLAND-1

farther north including Kaiser Permanente and Caltrans. **Figure 2** presents the pedestrian volumes. The corridor is also used by pedestrians traveling from their home to BART.



Existing sidewalk widths vary throughout the corridor, but in general, do not provide sufficient capacity for the high pedestrian volumes. Sidewalks are typically eight to ten feet in width between Broadway and Harrison. Development between Webster and Harrison has larger setbacks with pedestrian paths that functionally widen the sidewalk area; however, the sidewalk within public right-of-way is typically nine feet on the south side of the street and as narrow as six feet on the north side. In this block, several obstructions further reduce the functional width of the public sidewalk on the north side of the street, including an unused bus stop with bench and several large highway-scale wayfinding signs for the Oakland Convention Center on wooden posts. The City of Oakland's Pedestrian Master Plan (2002) designates 20th Street as part of the Secondary Pedestrian Network in the Downtown Pedestrian District, which recommends a "through passage zone" of six feet and a total sidewalk width of ten feet. However, given that it provides connections between major employers and transit, and based on the observed pedestrian demand, sidewalk widths recommended for primary routes are more appropriate.

Crosswalks are marked at all signalized intersection along the corridor, except at the Harrison Street/20th Street intersection, where pedestrian crossing is prohibited across the east leg. One side-street stop controlled intersection occurs on the corridor at the intersection with Rashida Muhammad Street, which does not have any marked crosswalks across 20th Street. Across 20th Street, crosswalks are typically 70 to 90 feet in length.

ATTACHMENT K-6
20TH STREET COMPLETE STREET STUDY
EXISTING CONDITIONS INFORMATION

04-OAKLAND-1

Bicycle Environment

The City of Oakland's *Bicycle Master Plan* (2007) designates 20th Street as a proposed bikeway between San Pablo Avenue and Lakeside Drive. 20th Street between San Pablo Avenue and Franklin Street is designated as a Class 3A Arterial Bicycle Route, signifying a Class 3 Bicycle Route with sharrows on a constrained urban corridor. 20th Street between Franklin Street and Lakeside Drive is designated as a proposed Class 2 Bicycle Lane. Currently, the roadway is marked with sharrows between San Pablo Avenue and Telegraph Avenue.

20th Street provides an important east-west connection within the bicycle network of the Downtown and Uptown districts. The corridor provides access to several major bicycle corridors, including San Pablo Avenue to the west, Telegraph Avenue, Broadway, and Harrison Street/Lakeside Drive, funneling bicycle traffic east-west to the 19th Street BART station and to the area's many employers. 20th Street also provides a connection to many of the restaurants and nightlife of the Uptown district, centered on Telegraph Avenue. The City has recently approved plans for Class 2 Bicycle lanes on Harrison Street/Lakeside Drive through to the 20th Street/Harrison Street intersection. Additionally, the City is currently studying bikeway concepts on Telegraph Avenue connecting to 20th Street.

Bicycle volumes are presented on **Figure 2**. According to the 2008 BART Station Area Profile, of the 2,485 19th Street BART home origin riders, 6 percent of those rode bicycles to transit.

Bicycle parking is provided at several locations on the corridor in the form of U-racks, which each hold two bicycles. At the 19th Street BART portal on the northeast corner of 20th Street/Broadway, four e-lockers are provided at the street level as well as two wave racks and nine staple racks. Additional short-term bicycle parking is provided in the BART station area below the street level. Four staple racks are also provided in the AC Transit bus stop area between Telegraph Avenue and Broadway.

ATTACHMENT K-6
20TH STREET COMPLETE STREET STUDY
EXISTING CONDITIONS INFORMATION

04-OAKLAND-1

Transit Environment

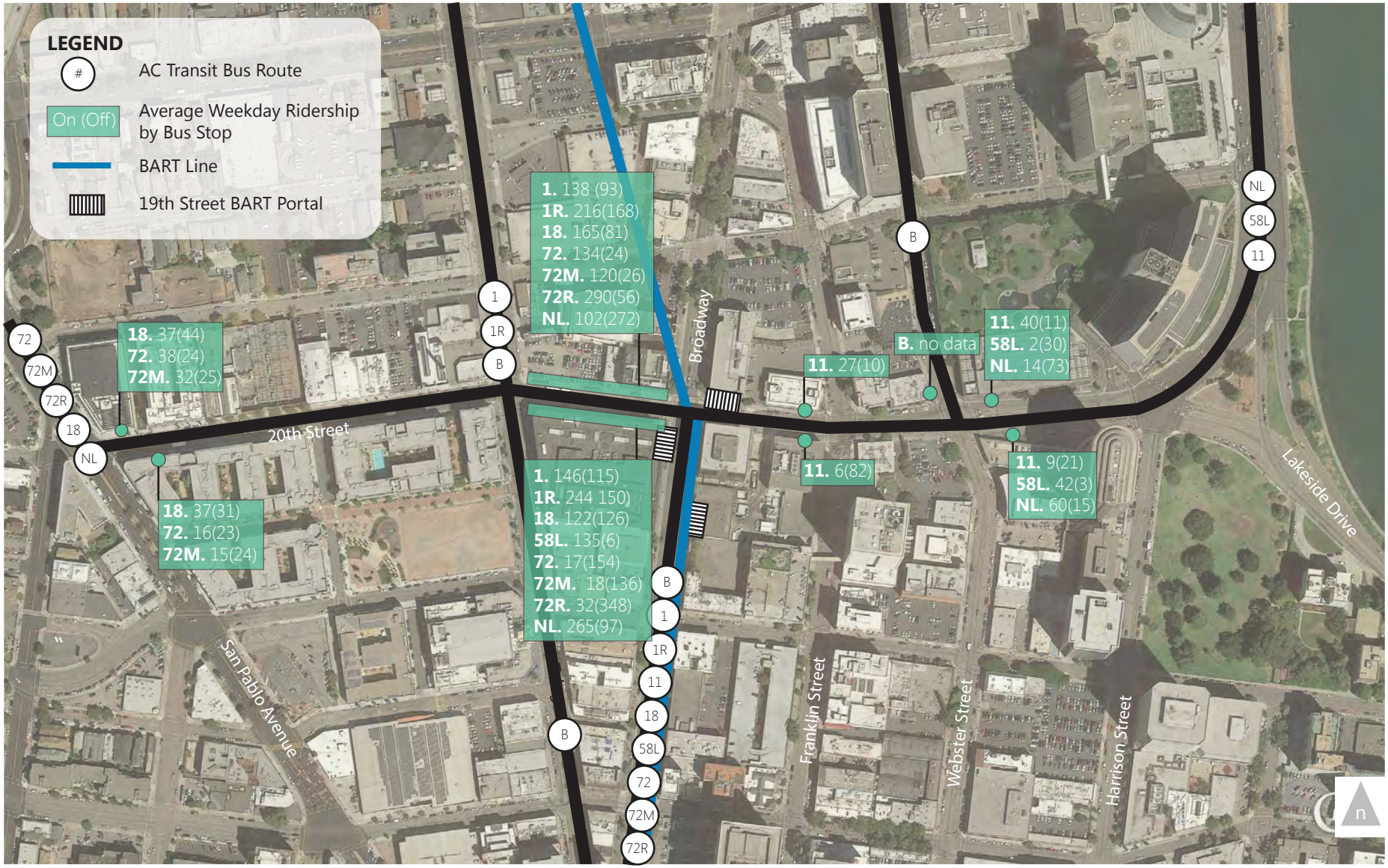
AC Transit provides bus service along 20th Street, and the 19th Street BART Station provides regional commuter rail access to the area. In addition to those services, several area residential and commercial developments provide shuttle service on 20th Street to the 19th Street BART station, utilizing the existing pull out area just east of the BART portal at the northeast corner of the 20th Street/Broadway intersection to pick up and drop off passengers.

AC Transit

AC Transit primarily operates the 1, 1R, 11, 18, 58L, 72, 72R, 611, 800, 805, NL, and the B on the corridor. Schedules and headways for each of those bus routes are presented in **Table 1**. The block of 20th Street between Telegraph Avenue and Broadway provides stops for all routes operating on 20th Street and provides a transfer point between AC Transit and BART service. Bus stops are staggered along the block, with three bus shelters with real-time travel information provided in each direction. The 18, 72, and 72R operate on 20th Street between San Pablo Avenue and Broadway. The 11, 58L, 611, and 805 provide service via Harrison Street to Downtown Oakland and operate between Harrison Street/Lakeside Drive intersection and Broadway. The NL stops on 20th Street and continues west to West Grand Avenue and provides service to the Transbay Terminal in San Francisco. Additionally, the B operates on 20th Street between Webster Street and Telegraph Avenue and stops on Webster Street at 20th Street. Ridership by route is presented on **Figure 3**.

ATTACHMENT K-6
20TH STREET COMPLETE STREET STUDY
EXISTING CONDITIONS INFORMATION

04-OAKLAND-1



ATTACHMENT K-6
20TH STREET COMPLETE STREET STUDY
EXISTING CONDITIONS INFORMATION

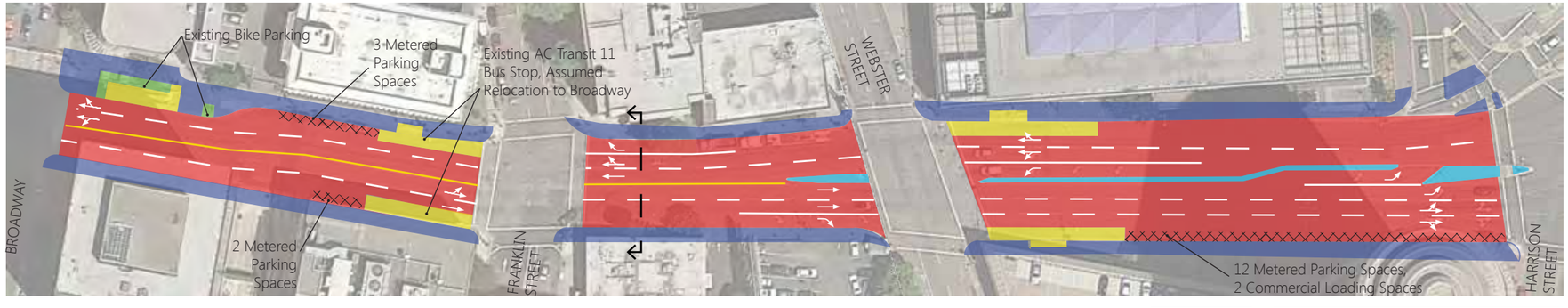
AC Transit Bus Routes and Average Weekday Ridership on 20th Street

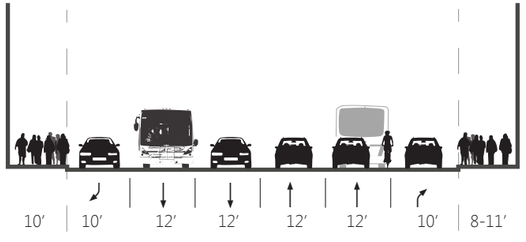
Figure 3

FEHR PEERS

04-OAKLAND-1

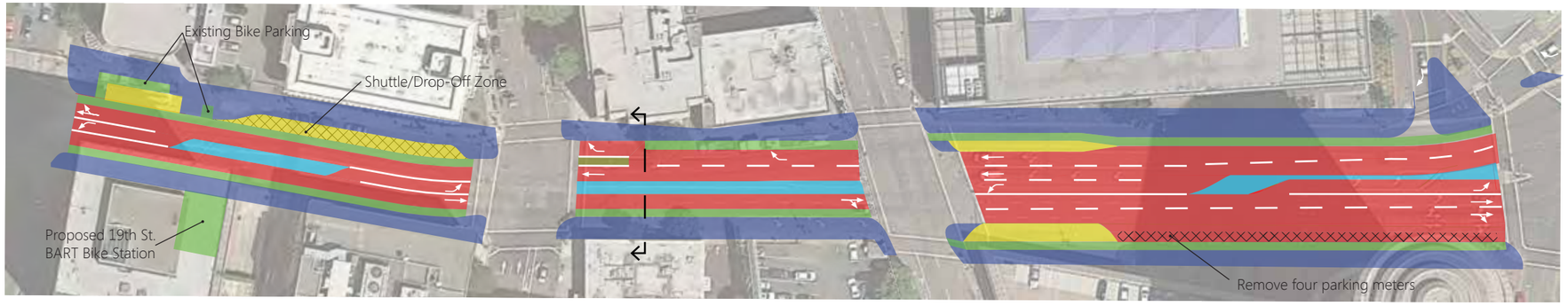
Existing Conditions

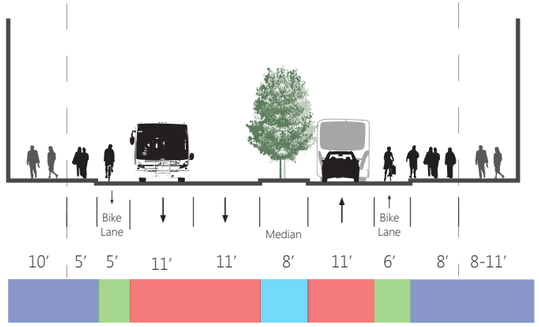


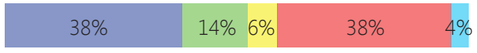


0% bicycles

Proposed Project Class II Bicycle Lanes with Sidewalk Widening







LEGEND

- Pedestrian Space
- Bicycle Space
- Transit Space
- Auto Space
- Median

ATTACHMENT K-7
PROPOSED REDESIGN OF 20TH STREET

Spatial Allocation of Public Right-of-Way by Mode for Existing and Proposed 20th Street Cross-Sections
Figure 6

FEHR PEERS

04-OAKLAND-1

Sidewalk Extensions

Between Broadway and Franklin Street, the north side of the sidewalk is widened by six feet at the formalized Kiss and Ride/Shuttle pullout area, and the south side is widened by three feet. Between Franklin and Webster Streets, the sidewalk is widened a minimum of five feet on the north side and eight feet on the south side. Between Webster and Harrison Streets, the north side is widened by eight feet. Where sidewalk could only be widened on one side of the roadway or the other, the north side was favored based on the existing higher pedestrian volumes on that side of the street, which are due in part to the 19th Street BART portal being located on the north side of the street. In addition, reconstruction of the existing sidewalk is recommended on the north side of 20th Street from Broadway to Harrison Street, and on the south side of 20th Street from Broadway to Webster Street to replace non-ADA compliant driveways, remove tripping hazards, and provide a uniform sidewalk where it is being extended.

Bicycle Lanes

Bicycle lanes are proposed between Broadway and Harrison Street, connecting to the proposed bike lanes east of Harrison Street. Between Broadway and Webster Street, a six foot bike lane is proposed in each direction. East of Webster Street, excess space is proposed as a striped buffer for the bicycle lanes. On the south side of the street east of Webster, it is recommended that the parking lane be to the left of the bicycle lane to create a one-way separated bikeway. The buffer would be located between the parking and bicycle lane and would provide for auto loading and unloading and passenger circulation.

Median

A raised median is proposed between Broadway and Harrison Street. The median varies between eight and 12 feet and ends at the left-turn pockets at intersections. The median provides a pedestrian refuge at Franklin and Webster Streets on the westbound and eastbound approaches respectively. The Oakland Fire Department requires a 26-foot clearance from curb to curb. There are locations where 26 feet would not be provided based on the current concept. The median should be designed to support the load of an outrigger at appropriate intervals along these pinch points. Further discussion with the Fire Department is needed during the design process.

Parking

Currently there are 17 metered parking spaces on 20th Street between Broadway and Harrison Street. The proposed design eliminates nine metered parking stalls at three locations. Three metered stalls are removed from the proposed Kiss and Ride/Shuttle drop-off area. This is to formalize this zone as short-term drop-off only. Two metered stalls would also be removed on the south side of 20th Street between

ATTACHMENT K-8
20TH STREET COMPLETE STREET STUDY
PROPOSED IMPROVEMENTS INFORMATION

04-OAKLAND-1

Broadway and Franklin to reduce roadway width on this block. Four metered parking stalls would also be removed on the south side of 20th Street between Webster Street and Harrison Street to accommodate the proposed bus bulb and buffered bike lane.

Broadway Intersection

A westbound left-turn pocket is proposed at Broadway to support buses turning onto Broadway toward Downtown Oakland.

Franklin Street Intersection

Directional curb ramps are proposed at all corners. A curb extension is proposed on the northwest corner to create a pull-out area to accommodate kiss and ride and shuttles that pick-up and drop-off at 19th Street BART. The ten foot median on the east side of the intersection allows for a median refuge for the east crosswalk. Curb radii are reduced on all corners. The existing westbound AC Transit bus stop, serving the 11, 611, and 805, would be removed, as all three routes already provide service to the 19th Street BART area, with an existing stop on Broadway at 19th Street. Two westbound lanes approaching Franklin Street would be maintained, with the outside lane becoming a trap right-turn lane at the intersection. The purpose of the second lane is needed to accommodate the bus stop at Webster Street (see below).

Webster Street Intersection

At Webster Street, sidewalk extensions shorten the crossing distance by approximately 32 feet. The raised median on the west leg of the intersection provides a median refuge. A curb extension on the southeast corner bulbs out six feet to provide directional curb ramp and increase pedestrian waiting area. Curb radii are reduced at all corners, particularly at the northeast corner of the intersection, where westbound right-turns are not permitted due to Webster Street being one-way southbound. Directional curb ramps are provided at each intersection.

Bus Bulbs at Webster Street

Figure 9 presents a detail of the proposed bus bulbs east of the 20th Street/Webster Street intersection. The westbound (near-side) and eastbound (far-side) bus stops areexisting stop locations that are proposed as bus bulbs. The bus bulbs extend out from the sidewalk area and allow for buses to stop in the travel lane, which can reduce delay for buses by allowing them to stop and load in the travel lane. The bicycle lane wraps around the backside of the bus bulb and ramps up to the sidewalk level, which removes bus-bicycle conflicts in the bus stop area. The bus bulbs provide space for bus shelters and reduce the crossing distance at intersections. The existing bus furnishings, including the additional out of

ATTACHMENT K-8
20TH STREET COMPLETE STREET STUDY
PROPOSED IMPROVEMENTS INFORMATION

04-OAKLAND-1

service bus stop on the north side of street, would be removed, as would the overhead Oakland Convention Center signs, which could be replaced with more context-sensitive signage.

To minimize pedestrian-bicycle conflicts, a decorative fence/railing is proposed behind the bus bulb to channelize pedestrians to the east and west ends of the bus bulb to clarify where bicyclists can expect pedestrian traffic. During the PM peak period, an average of six pedestrians per cycle was counted. Therefore, sufficient space should be provided between the curb and the bicycle lane such that six pedestrians can be queued at the signal and not block the bicycle lane. Not including the curb ramp itself, the area immediately adjacent to the ramp is approximately 120 square feet, providing approximately 20 square feet per pedestrian which is significantly higher than minimums required for transit platforms. Additionally, a minimum of four feet should be provided between the top of the ramp and the bike lane to allow space for wheelchairs.

ATTACHMENT K-8
20TH STREET COMPLETE STREET STUDY
PROPOSED IMPROVEMENTS INFORMATION