

STATION #1

PURPOSE STATEMENT

The Telegraph Avenue Complete Streets Implementation Plan will design Telegraph Avenue to be a better street for walking, bicycling, riding transit, and driving between 20th and the Berkeley border, with a focus on the area south of 57th Street.

In its current state, Telegraph Avenue has safety challenges for all users, including speeding, a lack of space for bicyclists, inadequately-sized bus stops, difficult pedestrian crossings, and public safety concerns. Addressing these issues is critical to enhancing the economic vitality of Telegraph Avenue neighborhoods, including Uptown, KONO and Temescal.

A redesign of Telegraph Avenue must improve the safety and accessibility of all modes, make the street more comfortable and enjoyable for walking and bicycling, and balance the needs and convenience of all users. The project will consider not only through-travel but also access to the businesses, residences, restaurants, and gathering spaces that make Telegraph Avenue a great destination.

The Complete Streets Implementation Plan will use an extensive outreach process including surveys, stakeholder interviews, and public meetings to create a design that meets the community's needs. When completed in late 2014, the Plan will provide a long-term design concept for the corridor, as well as a funding and phasing plan with near-term action items that the City can pursue immediately.

PUBLIC OPEN HOUSES – OBJECTIVE

The City of Oakland is soliciting community feedback on location-specific and corridor-wide issues along Telegraph Avenue, and the DRAFT Recommended Project design that has been developed to address them.

Please complete an Open House Comment Card!

The project team will use your community input to help determine refinements to the Recommended Project design.

TOPICS THAT PLAY A ROLE IN MAKING A GREAT STREET

The following topic areas are featured in the open house exhibits – we want to hear your opinion about them!



USER CONFLICTS



BUSINESS VITALITY



STREET LIFE



CROSSING SAFETY



BIKE FACILITIES



BUS STOPS



EXCESS ROADWAY CAPACITY



PARKING



TRANSIT SERVICE



CONGESTION



ACCESSIBILITY



PLACEMAKING



LOADING

STATION #1

TELEGRAPH AVENUE COMPLETE STREETS PLAN

OPPORTUNITY FOR ECONOMIC GROWTH

STRENGTHEN TELEGRAPH AS A DESTINATION

Complete Streets can help Telegraph Avenue's on-going transformation from a place people just want to **get through** to a place they want to **get to**.

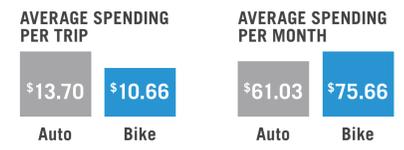
INCREASE RETAIL VISIBILITY AND SALES VOLUME

Complete Streets encourage more people to walk and ride bikes for everyday trips. When people walk and use bikes for errands, they're the ideal kind of retail customers: locals and regulars.

BIKE SHOPPING: SMALLER TRIPS, MORE VISITS

People who arrive to a business on bike spend less per visit but visit more often, resulting in more money spent overall per month.¹²

In Portland, OR, people who traveled to a shopping area by bike spent 24% more per month than those who traveled by car. Studies found similar trends in Toronto and three cities in New Zealand.



GROW BUSINESS WITHOUT GROWING CONGESTION

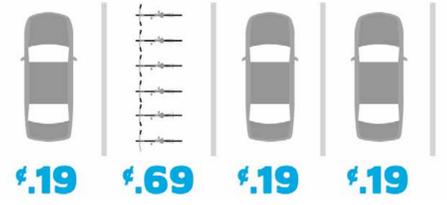
Complete Streets allow economic growth without creating debilitating congestion by providing convenient and safe non-auto transportation options.

- Economic growth without congestion growth
- For every one car parking space, you can fit six bicycles

SMALLER PARKING SPACE, MORE VALUE

19 cents: retail revenue per hour per square foot of on-street auto parking.
69 cents: retail revenue per hour per square foot of bike parking.¹³

Melbourne, Australia, 2008



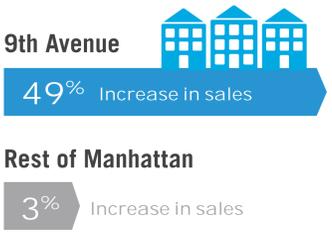
CASE STUDY: NEW YORK CITY, NINTH AVENUE (W. 23RD STREET TO W. 31ST STREET)

- **Conditions before:** A 70'-wide, one-way roadway with four travel lanes and curbside parking on both sides.
- **Approach to change:**
 - Installed a parking-protected bike lane and left turn lanes
 - Dedicated vehicular turn lanes and separate bicycle signals added at all cross streets
 - Landscaped pedestrian safety islands added to reduce crossing distances and enhance the corridor's aesthetics
- **Conditions after:** Local businesses were complemented by a greener streetscape, shorter crossings and a reduction in injuries.
- **9th Avenue improvements reduced injuries for all street users by 58%**



BIKE LANES PART OF SALES BOOST

In New York City, after the construction of a protected bike lane and other improvements on 9th Avenue, local businesses saw up to a 49% increase in retail sales, compared to 3% increases in the rest of Manhattan.¹⁵



BETTER BIKING, MORE CUSTOMERS

When San Francisco reduced car lanes and installed bike lanes and wider sidewalks on Valencia Street, two-thirds of merchants said the increased levels of bicycling and walking improved business. Only 4 percent said the changes hurt sales.¹⁴



TRANSPORTATION CHOICES

COMPLETE STREETS PROVIDE TRANSPORTATION OPTIONS ALLOWING PEOPLE TO TRAVEL MORE EFFICIENTLY, SUSTAINABLY & EQUITABLY



SAFETY

PEDESTRIAN IMPROVEMENTS TRANSFORM AN AUTO-ORIENTED STREET INTO A PLACE FOR PEOPLE

- Provide shorter crossing distances and more protection to accommodate people of all ages and abilities
- Calm traffic to create a more pleasant environment along the sidewalks
- Provide better separation of travel modes to reduce conflicts between buses, bicycles and motor vehicles



LOCAL TRANSPORTATION TRENDS

VEHICLE TRAVEL

- Travel by motor vehicle on the Telegraph Avenue corridor dropped by 5 - 10 percent from 2008 to 2013
- Traffic data collection throughout Oakland shows modest decline on most streets over past 5 - 10 years

PEDESTRIAN TRAVEL

- New businesses are creating a more walkable, enjoyable environment for pedestrians on Telegraph Avenue with new restaurants, cafes, bars, yoga and fitness studios, clothing shops, galleries, etc.

BICYCLE TRAVEL

- Telegraph Avenue = 1,200 average bicycle volume on weekdays, among the highest bicycle volumes in Oakland
- Parallel bicycle routes on streets with lower traffic volumes have roughly half the ridership of Telegraph Avenue
 - Webster Street / Shafter Avenue = 620; Genoa Street = 650 average bicycle volume on weekdays
- Bicycle volumes on Telegraph Avenue will likely increase as more businesses open on the corridor

TRANSIT TRAVEL

- Telegraph Avenue is one of the busiest transit corridors in Oakland
- AC Transit carries over 9,000 daily riders on the Telegraph Avenue corridor

NATIONAL TRANSPORTATION TRENDS

A SHIFT TO CAR-LITE LIFE

The average young person is driving less and biking and taking transit more. ⁴



4. Data from National Household Travel Survey 2001 and 2009

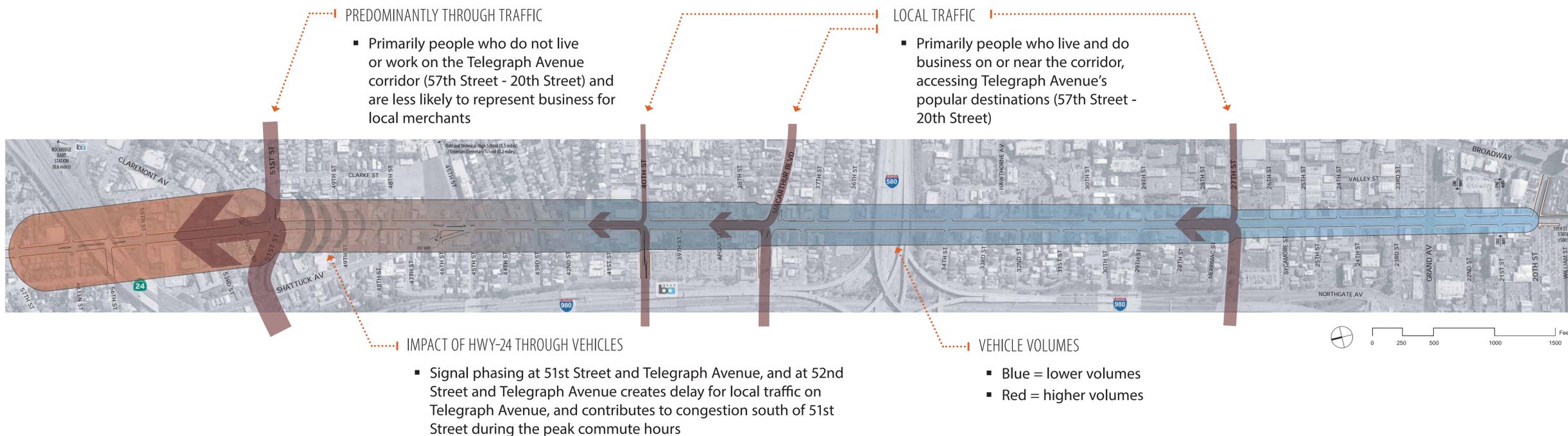


AMERICANS ARE DRIVING LESS

- Per-capita vehicle miles traveled (VMT) began to decline in 2004
- Total VMT began to decline in 2007

⁴"A New Direction: Our Changing Relationship with Driving and the Implications for America's Future" by Dutzik, Baxandall

LOCAL AND THROUGH TRAFFIC ON TELEGRAPH AVENUE



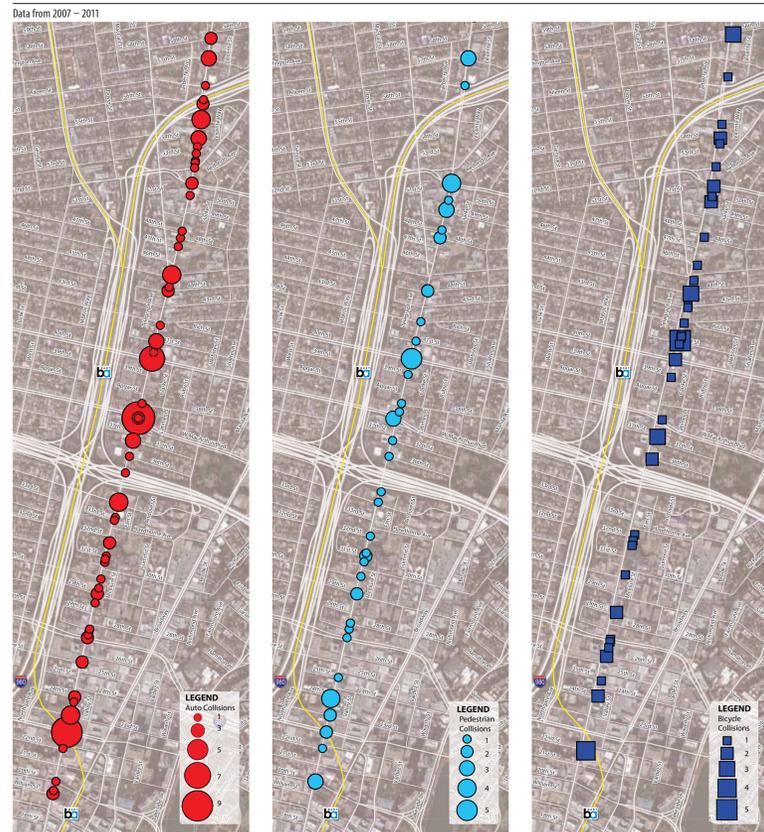
LOCAL TRAFFIC SUPPORTS LOCAL BUSINESSES

- Telegraph Avenue features many popular destinations from restaurants, bars, and shops to hospitals, schools, transit centers and other services
- The majority of vehicle traffic on Telegraph between 20th Street and 57th Street ("corridor") is local traffic - people who live and do business on or near the corridor, accessing these popular destinations
- Congestion on the corridor occurs during peak commute hours (8-9 AM and 5-6 PM) while the rest of the day exhibits low levels of congestion by City standards

PEAK HOUR CONGESTION IS DUE TO HWY-24 RELATED THROUGH TRAFFIC

- The northern end of the corridor, from 57th Street - 51st Street, experiences the highest vehicle volumes, due to the nearby HWY-24 on and off-ramps
- The majority of traffic entering Telegraph Avenue to access HWY-24 is not local traffic, and is less likely to represent business for local merchants
- HWY-24 related traffic enters Telegraph Avenue primarily from 51st Street, and continues north on Telegraph Avenue
- HWY-24 related traffic causes longer traffic signal phases to clear the larger volumes of through-vehicles, which creates delay down the Telegraph Corridor, south of 51st Street

CRASH LOCATIONS BY TRAVEL MODE



VEHICLES PEDESTRIANS BICYCLISTS

VEHICLE CONDITIONS

EXISTING CONDITIONS FAVOR MOTOR VEHICLES & ENCOURAGE SPEEDING:

- Wide lanes
- Limited congestion
- Unattractive streetscape
- Limited enforcement



EXISTING TELEGRAPH AVENUE SPEED LIMIT



The current Telegraph Avenue suggests vehicles have priority over other users.

BICYCLE CONDITIONS

EXISTING CONDITIONS ARE POOR FOR PEOPLE ON BICYCLES:

- High frequency of bicycle crashes
- No bicycle facilities
- No protection from vehicles or buses
- Lack of facilities contributes to non-compliance
 - Riding on sidewalk
 - Running red lights

EXISTING CONDITIONS ARE FRUSTRATING FOR MOTORISTS AND TRANSIT OPERATORS:

- Bicyclists may act unpredictably
- Bicyclists may weave through lanes to make turns
- Bicyclists may block turning movements
- Buses “leapfrog” over bicyclists between stops perpetuating conflict points along the Telegraph Avenue corridor

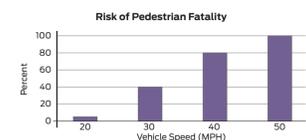
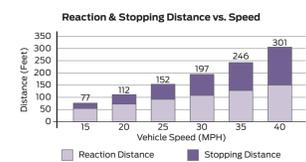


PEDESTRIAN CONDITIONS



MULTIPLE-THREAT COLLISIONS

- On multi-lane roads, pedestrians can be hidden by vehicles in the travel lane, and by parked cars.
- On Telegraph Avenue, a person crossing the street is at risk crossing two lanes in the same direction, which occurs twice on the five-lane roadway (two lanes in each direction).



TRANSIT CONDITIONS

TRANSIT STOPS ARE INADEQUATE:

- Difficult for operators to pull out of travel lane completely
- Difficult for operators to pull back into traffic
- Many bus stops are too short to accommodate buses
- Many bus stops lack shelters and NextBus displays
- Access for disabled and elderly riders can be difficult

TRANSIT SERVICE IS UNRELIABLE:

- “Bus bunching” is common
- Buses frequently delayed by traffic signals
- Weaving with bicyclists slows travel time
- Line 1 and 1R service can be duplicative



STATION #2

STATION #3

STAKEHOLDER GROUPS

City staff has conducted eight (8) stakeholder interviews to date with neighborhood associations, advocacy groups, and transit agencies to better understand the opportunities, challenges, and concerns of people who use and visit Telegraph Avenue. Stakeholder interview participants represented a variety of perspectives and experiences, including new and long time residents, business owners, transit drivers, and active transportation advocates.

PUBLIC SURVEY RESPONDENTS

The City developed an online survey to solicit input from the general public. Over 1,100 survey results were received. The survey ran from December 3rd, 2013 – February 7th, 2014. Stakeholder groups to whom the survey was circulated included:

- Longfellow Neighborhood Association
- KONO Community Benefits District
- Greater Mosswood Neighborhood Association
- Nextdoor.com neighborhood groups (Rockridge, Shafter, Temescal, Longfellow, Bushrod, Santa Fe, Piedmont Avenue)
- Rockridge Community Planning Council
- Temescal Business Improvement District
- Temescal Merchant's Association
- Walk Oakland/Bike Oakland (WOBO)
- Bike East Bay (formerly named the East Bay Bicycle Coalition)

The survey was also advertised via flyers that were distributed to local business and posters that were posted within view of bus stops and popular destinations along the corridor. Finally, *East Bay Express* published an article about the project and provided the survey link to its readers.

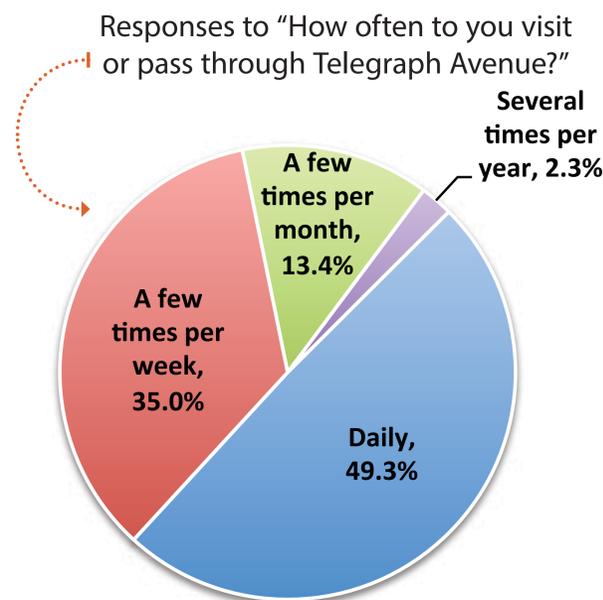
LOCAL SHOPS, RESTAURANTS, BARS & SERVICES ARE TELEGRAPH'S MOST BELOVED FEATURES

Responses to "What do you like best about Telegraph Avenue?"

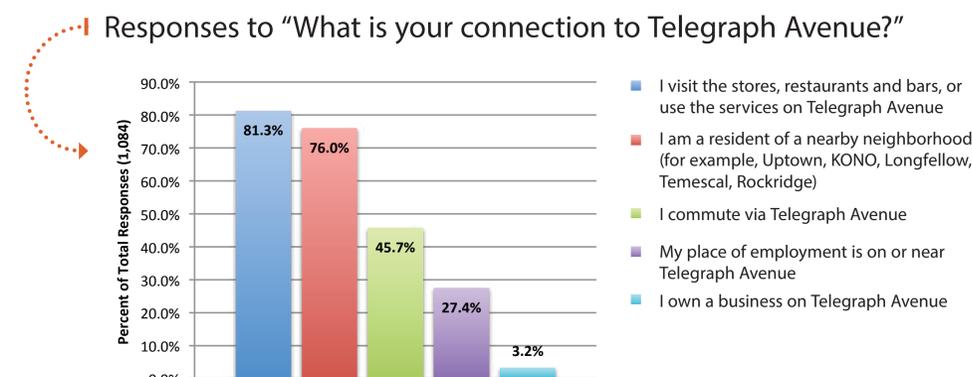
Response category	#	%
Wide variety of businesses and services available	690	73.0%
Good/direct connections to destinations	271	28.7%
Eclecticism/diversity of people and cultures	110	11.2%
Sense of place/street life and activity/architecture	100	10.6%
Walkable environment/wide sidewalks for pedestrians	71	7.5%
Good/convenient bicycle route	66	7.0%
Access to buses and BART	61	6.5%
Easy to drive/convenience vehicle route	41	4.3%
Feels safe	25	2.7%
Wide street	23	2.4%
Art Murrur/Events	21	2.2%
Trees/landscaping	19	2.0%

RESPONDENTS REPRESENT A BALANCED CROSS SECTION OF DIFFERENT USERS

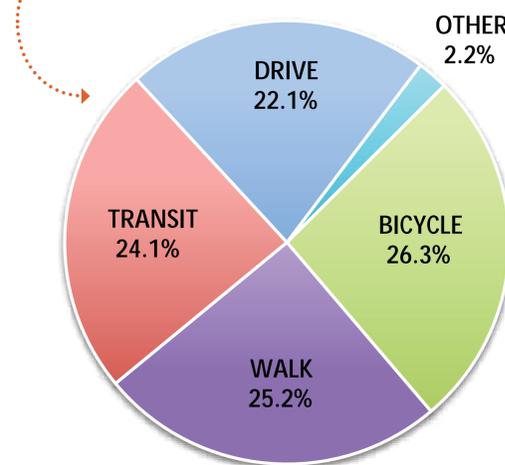
Over 1,100 survey results were received



Local people are coming to the businesses on Telegraph Avenue, not just passing through the corridor

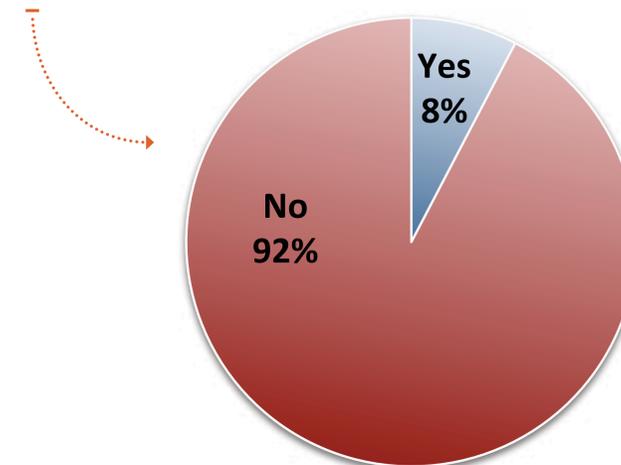


Respondents' most frequently used mode of transportation:



THE TELEGRAPH AVENUE CORRIDOR CURRENTLY DOES NOT SERVE ALL USERS EQUALLY

Responses to "Do you feel that the existing configuration of Telegraph Avenue adequately balances the needs of all users?"



STATION #3

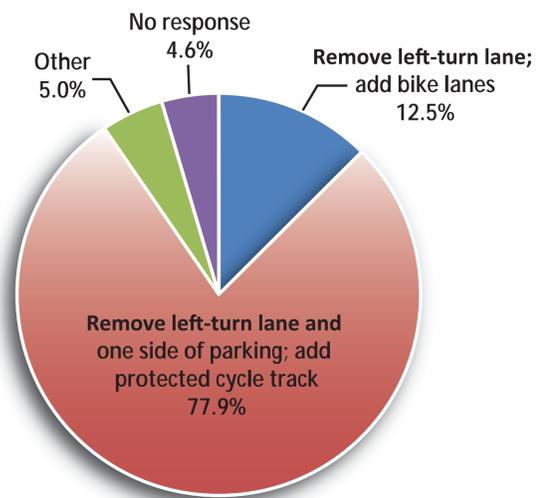
PEOPLE WANT A MORE PEDESTRIAN-FRIENDLY, BICYCLE-FRIENDLY TELEGRAPH AVENUE

Of 240 respondents, many dislike the auto-oriented nature of Telegraph Avenue and the conflicts that exist between transportation modes. They would like to see improvements for bicycling, walking, and riding transit prioritized over improvements for driving.

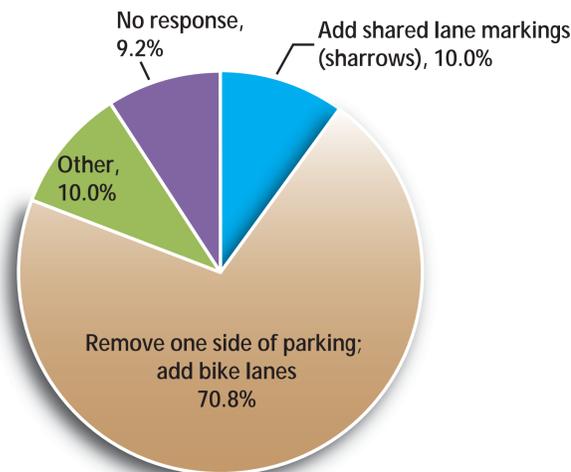
The most requested improvements include:

- **Continuous bicycle facilities**, specifically protected lanes and green paint to promote safety and visibility;
- **Pedestrian realm and safety improvements**, including better pedestrian lighting and crossing improvements;
- **Better bus service and stop amenities**, including greater reliability, shelters, NextBus displays;
- **Improvements to roadway conditions**, including better roadway lighting, repaired pavement and improved striping visibility; and,
- **Traffic calming and less vehicle speeding**, including traffic signal synchronization to reduce congestion and improve safety for all.

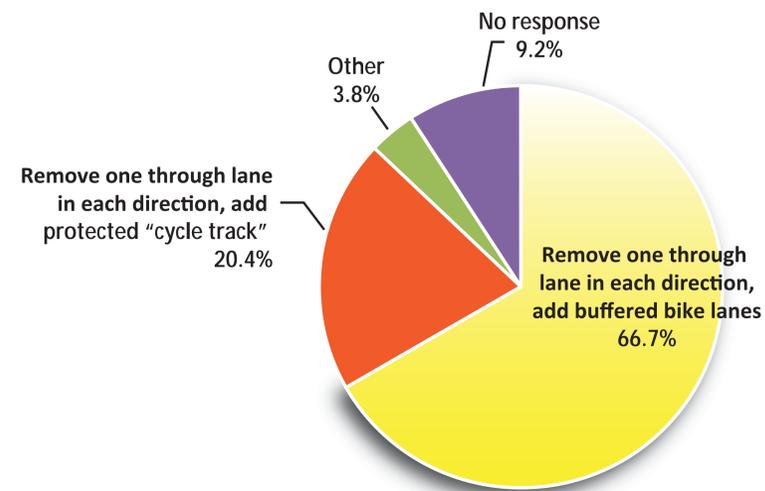
RESPONDENTS ON OPEN HOUSES' COMMENT CARDS WANT TO PRIORITIZE IMPROVEMENTS FOR BICYCLES, PEDESTRIANS AND TRANSIT



Summary of Responses to Segment A Design Options (52nd Street - 57th Street)



Summary of Responses to Segment B Design Options (46th Street - 52th Street)



Summary of Responses to Segment C Design Options (20th Street - 46th Street)

MOST POPULAR RESPONSES TO THE QUESTION "WHAT STREETS DO YOU WISH TELEGRAPH AVENUE MORE CLOSELY RESEMBLED?"

Valencia Street, San Francisco



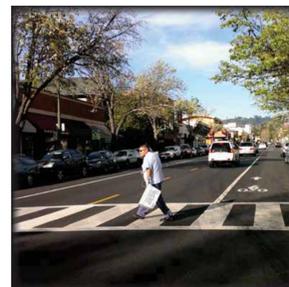
College Avenue, Oakland



Market Street, San Francisco



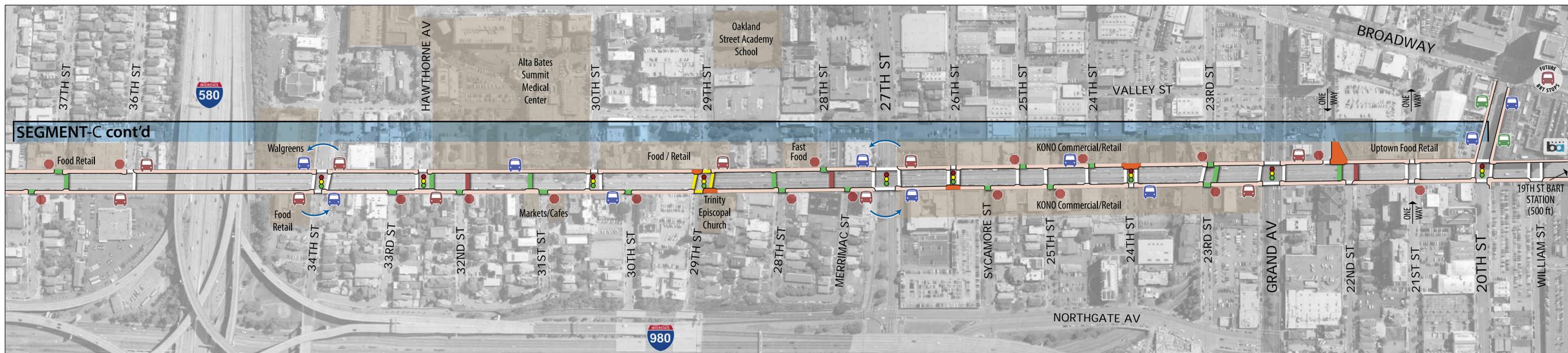
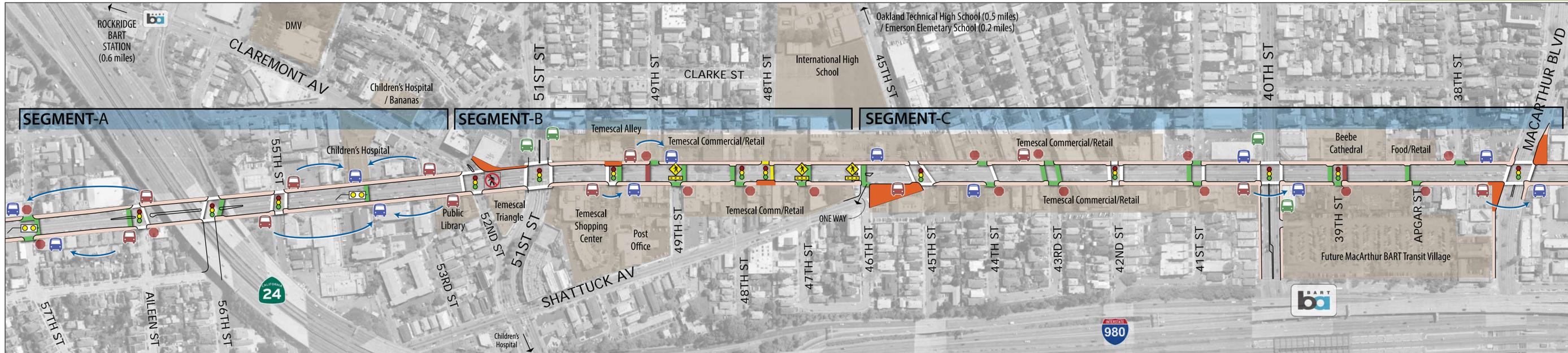
Piedmont Avenue, Oakland



Copenhagen, Denmark

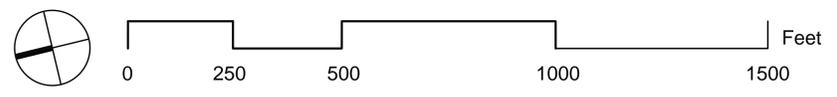


DRAFT RECOMMENDED PROJECT – PEDESTRIAN AND TRANSIT FACILITIES



SUMMARY OF PEDESTRIAN CROSSING TREATMENTS

LOCATION	RECOMMENDED OPTIONS
All	<ul style="list-style-type: none"> High-visibility crosswalk markings; AND Curb extensions (where feasible and cost-effective)
Segment A (52 nd - 57 th Street)	<ul style="list-style-type: none"> Pedestrian Hybrid Beacon
Segment B (46 th - 52 nd Street)	<ul style="list-style-type: none"> Rectangular Rapid Flashing Beacons (RRFB) with median refuge island
Segment C (20 th - 46 th Street)	<ul style="list-style-type: none"> Median refuge island; OR Rectangular Rapid Flashing Beacons (where refuge island is infeasible)



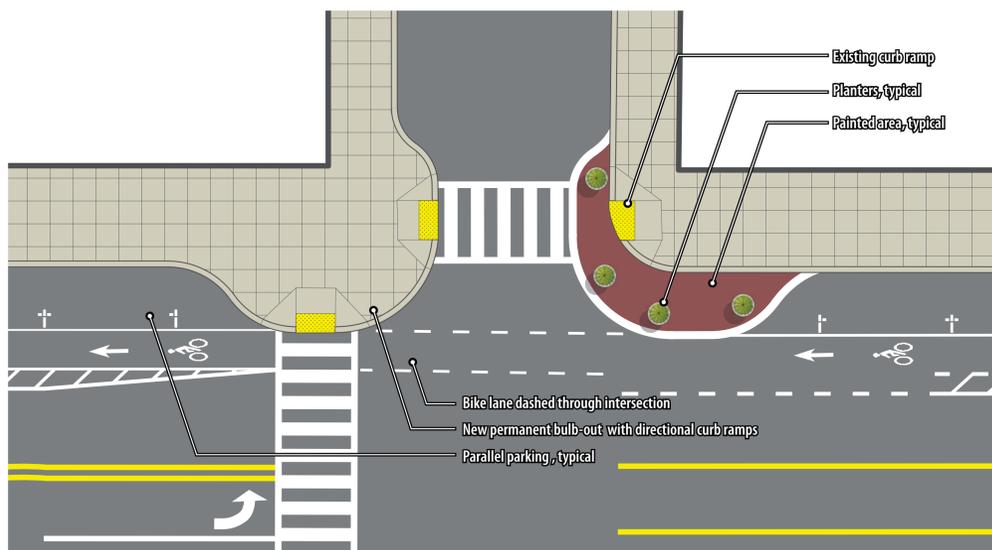
STATION #4

TELEGRAPH AVENUE COMPLETESTREETS PLAN

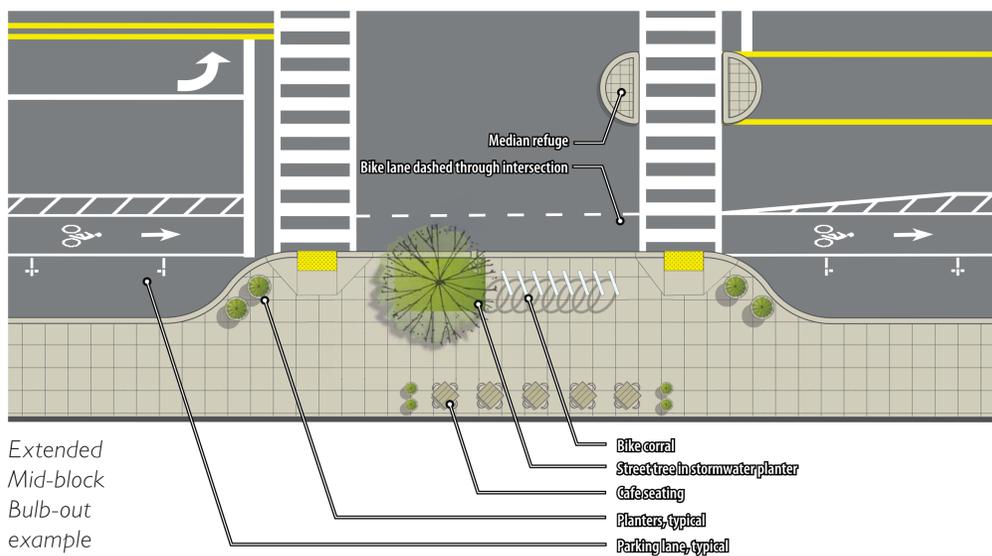
- Bus Stop (On cross street)
- Removed Bus Stops (On Telegraph Avenue)
- Proposed Consolidated Line 1 (On Telegraph Avenue)
- Stop Sign
- Traffic Signal
- Existing Standard Crosswalk
- Existing Ladder Crosswalk
- Pedestrian Crossing not allowed
- Sidewalks
- Pedestrian Hybrid Beacon
- Proposed New Crosswalk
- Proposed Crosswalk Removal
- Pedestrian generating / attracting uses
- Rectangular Rapid Flashing Beacon

SEGMENT-A Corridor Segment

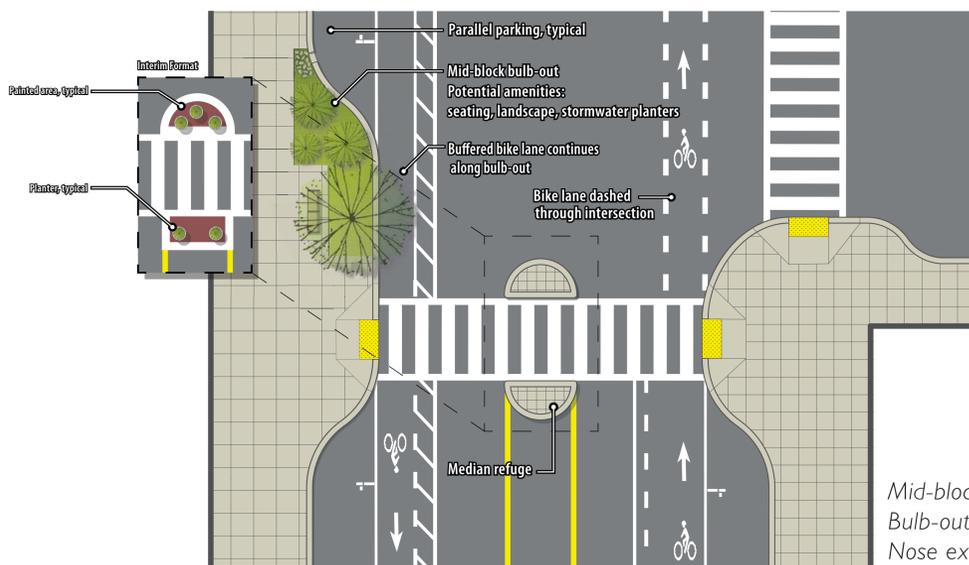
Pedestrian Open Space / Plaza



Permanent Bulb-out example configuration



Extended Mid-block Bulb-out example configuration



Mid-block Bulb-out and Intersection Nose example configuration

CORNER BULB-OUTS

A bulb-out provides better visibility between pedestrians and motorists, shortens the pedestrian crossing distance, and has the potential to reduce vehicle speeds around corners by reducing the effective turning radius, which further improves safety. Bulb-outs do not typically displace existing on-street parking, because they are typically close to intersections, where parking is already prohibited.

PERMANENT BULB-OUT

A permanent bulb-out expands the existing sidewalk and curb and gutter. They can provide:

- Room for curb ramps that are aligned with the pedestrian path of travel.
- Storm drains to manage the flow of storm water from the surface of the street.
- Landscape for green storm water management.
- Landscape and usable sidewalk space for pedestrians and adjacent business
- Can be extended along the curb at bus stops.
- Planters and other features can provide an identity for business districts and neighborhoods.

INTERIM BULB-OUT

Physical conditions and/or funding constraints may prevent construction of permanent corner bulb-outs. Interim “paint and planter” bulb-outs can be built to achieve many of the same benefits at a fraction of the cost. Features include:

- Existing curb ramp(s) and do not need construction of additional sidewalk or curb and gutter.
- Painted zones mirror the shape of a permanent bulb-out.
- Bollards or planters placed within the painted area create a physical barrier between pedestrians and moving traffic.
- Improves visibility between pedestrians and drivers or bicyclists that are approaching the crossing and slow drivers that are making right turns.
- Can provide an identity for business districts and neighborhoods.

T-INTERSECTION “MID-BLOCK” BULB-OUTS

At T-intersections, a bulb-out on the far side of the intersection can be extended the full width of the intersecting street. Additional features such as stormwater planters, seating, and street trees can be included where space permits. A mid-block bulb-out:

- Provides better visibility between pedestrians and motorists and shortens the pedestrian crossing distance.
- The City of Oakland does not typically allow parking on the far side of offset intersections.
- On-street parking may be affected by the placement of mid-block bulb-outs, particularly if a crosswalk was not previously in place.
- Bulb-outs can be extended to accommodate additional features such as bicycle corrals, stormwater planters, seating, and street trees to further enhance the quality of the pedestrian realm.

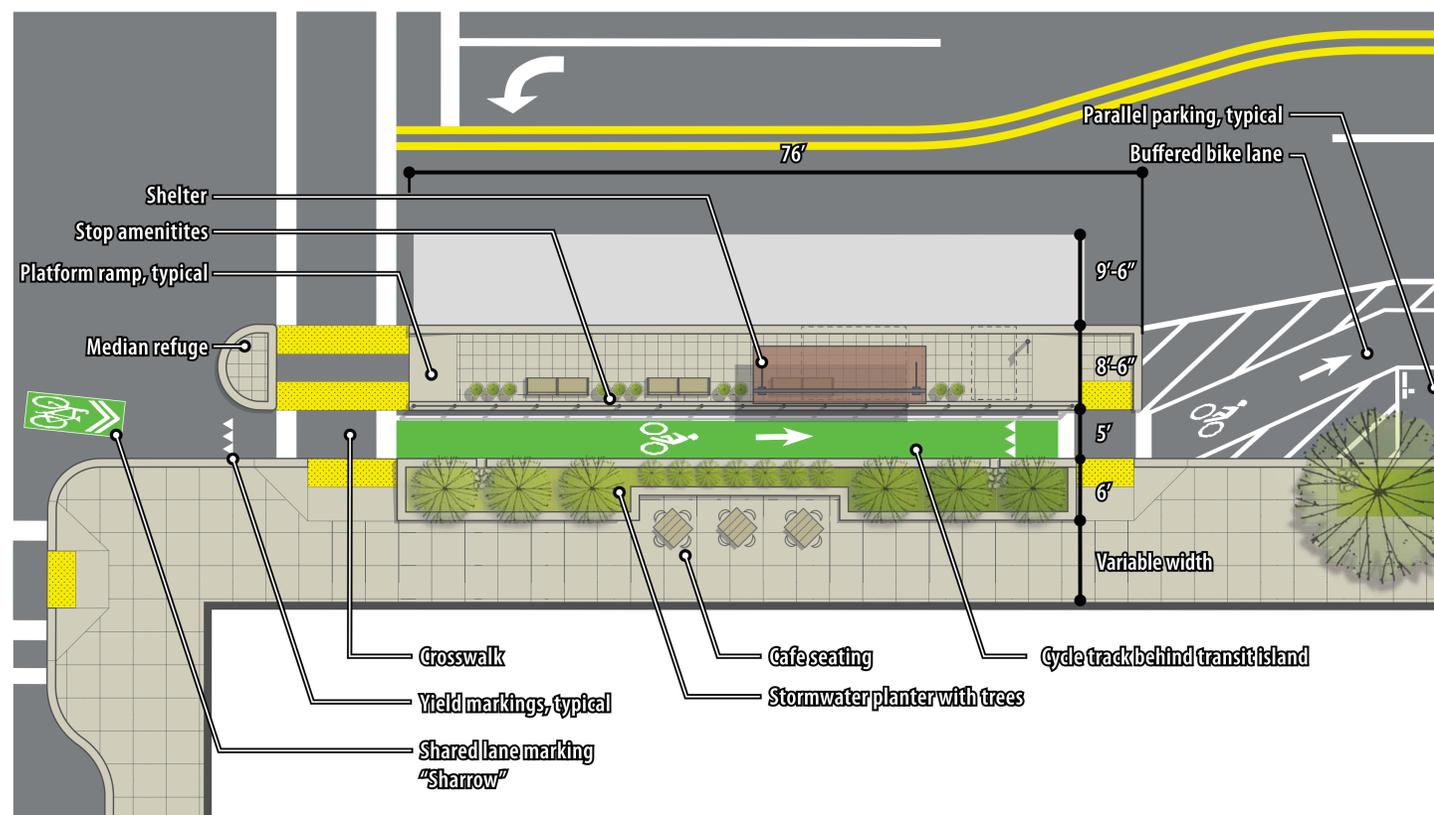
PEDESTRIAN MEDIAN REFUGE

At mid-block, T-intersection or one-way street intersections, left turn pockets are often unnecessary in at least one direction. As a result, a median refuge can be placed in the center turn lane adjacent to new or existing crosswalks. Median refuges:

- Provide safety benefits to pedestrians crossing Telegraph by allowing them to focus on crossing one direction of traffic at a time.
- Interim “paint and planter” median refuges can be constructed where budgets initially preclude permanent construction.

Median refuges can provide protection for delivery vehicle drivers who choose to park in the center turn lane. By positioning the loading area of their truck towards the median refuge, drivers are able to load and unload deliveries in an area protected from moving vehicles, and have access to the crosswalk to more safely reach destinations on either side of the street; delivery vehicle parking in the center turn lane is a behavior that exists along Telegraph today in both KONO and Temescal districts.

STATION #4



TRANSIT ISLAND

Transit islands place the bus stop adjacent to the travel lane on a roughly 9-foot by 70-foot “platform” or island similar to a bulb-out, but separated from the sidewalk. This separation provides space to allow bikes to continue in a dedicated lane behind the bus stop, eliminating the bus-bike conflicts that are common today at stop locations. Transit islands reduce the time it takes a bus to serve a stop by making it easier for operators to pull out of and back into the travel lane. Transit Islands utilize the following features:

- The bike lane behind the stop is colored green to differentiate it from the sidewalk and transit island.
- Yield markings in the path of bicyclists and standard crosswalk striping, as well as posted “Bikes Yield to Pedestrians” signs, indicate to bicyclists that pedestrians have right of way.
- A railing, benches, shelter and planters facilitate safe and convenient pedestrian access to transit islands. The stops are typically provided with two ADA-accessible curb ramps. One of the access points is typically aligned with a crosswalk and protected with a median nose, shortening the roadway crossing distance for pedestrians. A second access point is provided at the far end of the transit island.
- All transit islands provide a minimum clear boarding and alighting area of 60-feet, and allow bus operators to more easily align the full length of the bus parallel to the stop so that the bus pulls out of traffic and all doors are adjacent to the platform rather than just the front door.
- Separating the bus facility from the sidewalk in turn frees up space on the sidewalk for landscaping, including stormwater planters and café seating as shown in the illustration.



Seattle, WA

BUFFERED BIKE LANES



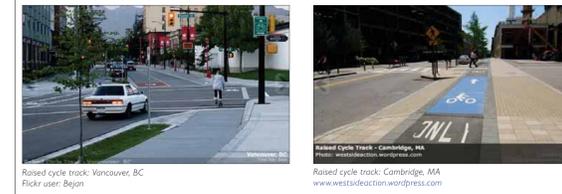
Source for all images:
 NACTO Urban Bikeway Design Guide - <http://nacto.org/cities-for-cycling/design-guide/bike-lanes/buffered-bike-lanes/>

BIKE LANES



Source for all images:
 NACTO Urban Bikeway Design Guide - <http://nacto.org/cities-for-cycling/design-guide/bike-lanes/conventional-bike-lanes/>

CYCLE TRACKS



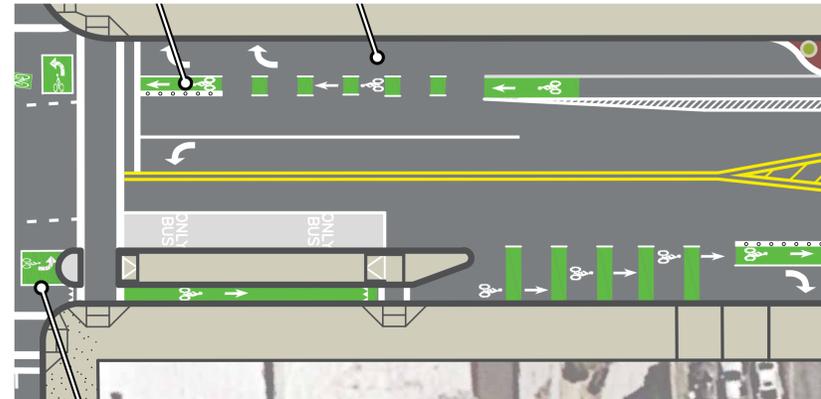
Source for all images:
 NACTO Urban Bikeway Design Guide - <http://nacto.org/cities-for-cycling/design-guide/cycle-tracks/raised-cycle-tracks/>



Example Buffered Bike Lanes in Recommended Project



Example Bike Lanes in Recommended Project



Example Protected Cycle Track in Recommended Project

Buffered bike lanes are used throughout the three segments of the project. They are used in a few locations in Segments A and B where space allows and where bicycles transition out of the cycle track behind bus islands. Buffered bike lanes are the primary bicycle feature in Segment C.

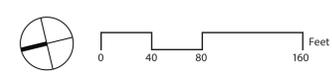
Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.

Bike lanes are used throughout the three segments of the project. Primarily in Segment A and in Segment C at approaches to intersections. Currently, there are bike lanes on both sides of Telegraph Avenue between 57th Street and Alcatraz Avenue.

A Bike Lane is defined as a portion of the roadway that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists. Bike lanes enable bicyclists to ride at their preferred speed without interference from prevailing traffic conditions and facilitate predictable behavior and movements between bicyclists and motorists.

The Draft Recommended Project has protected cycle tracks behind Transit Islands.

A protected cycle track is an exclusive bike facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. Protected cycle tracks have different forms but all share common elements—they provide space that is intended to be exclusively or primarily used for bicycles, and are separated from motor vehicle travel lanes, parking lanes, and sidewalks.



STATION #4

SUMMARY OF SEGMENT A ROADWAY DESIGN

SEGMENT-SPECIFIC DESIGN FEATURES

ROADWAY FEATURES

- Maintains two through lanes to accommodate peak hour vehicle volumes.
- Continuous center turn lane is removed for portions of Segment A, though left turn pockets are maintained as necessary at intersections and the SR-24 interchange.
- Parking is removed from one side under SR-24 and along portions of Telegraph Avenue between 52nd Street and 56th Street to provide buffered bike lanes matching those of existing North Telegraph.
- A new parking lot is recommended under SR-24 to minimize the impact of on-street parking removal, and provides 39 replacement parking spaces. The time frame and possibility for this parking lot is difficult to predict as an agreement with Caltrans and a planning approval process providing opportunity for public input would be needed.

BICYCLE INFRASTRUCTURE FEATURES

- In certain locations, buffered bike lanes can be accommodated to provide additional separation between moving vehicles and bicyclists.
- Transit islands allow bicycles to travel between the bus stop and the sidewalk to eliminate bus-bike conflicts.

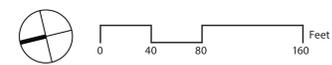
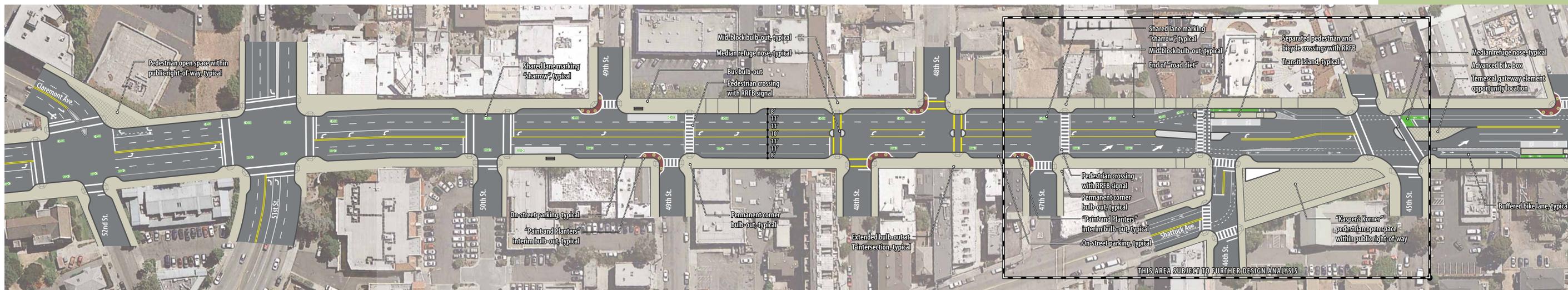
TRANSIT FEATURES

- Removal of the center turn lane provides space to construct new transit islands to and continues striped bike lanes, which are already present north of 57th Street.
- Transit islands allow buses to serve stops more efficiently and to help maintain bus speeds.



PEDESTRIAN HYBRID BEACON (PHB)

- Pedestrian Hybrid Beacon (PHB): is a pedestrian-activated warning device located on the roadside or on mast arms over midblock pedestrian crossings. The beacon head consists of two red lenses above a single yellow lens. The beacon head is “dark” until activated by the pedestrian desiring to cross the street, at which point the device flashes the yellow lens to warn drivers of the following stop display of a steady red indication to drivers and a “WALK” indication to pedestrians. This is followed by a flashing red phase during which drivers must stop before proceeding. These are also known as “HAWK” signals.



STATION #4

SUMMARY OF SEGMENT B ROADWAY DESIGN

ROADWAY FEATURES

- Segment B was extended to include the area between 46th Street and 48th Street, due to merchant and community member requests.
- Maintains two through lanes in each direction and also maintains a center turn lane to account for heavy traffic volume and queues at the Telegraph Avenue/51st Street intersection.
- A third northbound travel lane is provided between 51st Street and 52nd Street, which serves as a right-turn only lane onto Claremont Avenue, to help clear the intersection of 51st Street and Telegraph Avenue during the peak hour and remove the current high-speed "slip lane" onto northbound Claremont Avenue.
- A new plaza area can be created in the space formerly occupied by the slip lane and pedestrian refuge island on Telegraph at Claremont.

BICYCLE INFRASTRUCTURE FEATURES

- Shared lane markings, or "sharrows" are included through Segment B to increase awareness of bicyclists and to minimize impact to on-street parking and heavy traffic volumes as desired by area merchants.

TRANSIT FEATURES

- Transit bulb-outs are provided at relocated stops to improve transit performance and the transit passenger experience

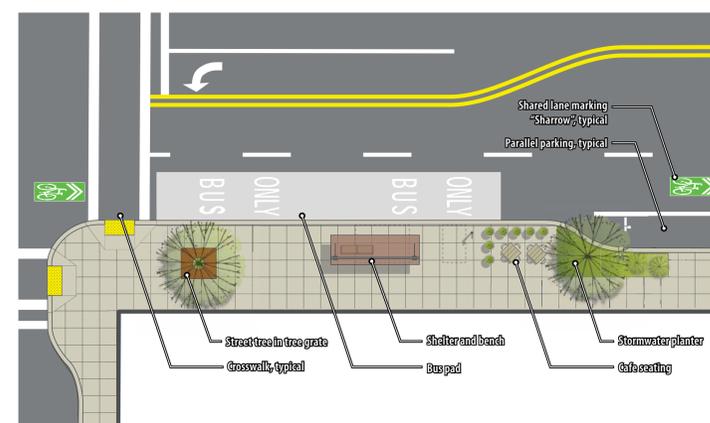
SEGMENT-SPECIFIC DESIGN FEATURES



Source for images:
NACTO Urban Bikeway Design Guide - <http://nacto.org/cities-for-cycling/design-guide/bikeway-signing-marking/shared-lane-markings/>

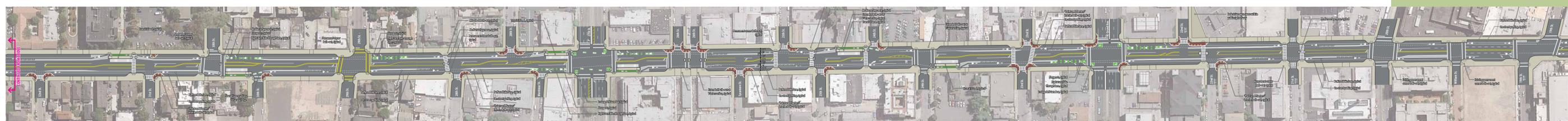
SHARED LANE MARKINGS

- Shared Lane Markings (SLMs), or 'sharrows,' are road markings used to indicate a shared lane environment for bicycles and automobiles. Among other benefits shared lane markings reinforce the legitimacy of bicycle traffic on the street and recommend proper bicyclist positioning. The shared lane marking is not a facility type, it is a pavement marking with a variety of uses to support a complete bikeway network.
- Desirable shared lane marking applications strengthen connections in a bikeway network where bike lanes are not desired by the merchant community and fill a gap in an otherwise continuous bike path or bike lane, generally for a short distance.



TRANSIT BULB-OUT

- Transit bulb-outs are effectively longer versions of regular sidewalk bulb-outs that accommodate a full 60-foot clear zone along the curb for boarding and alighting at bus stops.
- They reduce the time required to serve a bus stop and relocate pedestrians while freeing up space on the sidewalk for passers-by.
- As with typical bulb-outs, transit bulb-outs reduce pedestrian crossing distance where they are aligned with crosswalks.
- Without transit islands, buses stop in an outside travel lane that is also shared with bicycles and vehicles. The Draft Recommended Plan includes two transit bulb-outs to avoid this conflict in Segment B.



STATION #4

SUMMARY OF SEGMENT C ROADWAY DESIGN

ROADWAY FEATURES

- Segment C includes a “Road Diet” to calm traffic and increase safety for all roadway users, especially pedestrians crossing Telegraph Avenue, but also motorists and bicyclists.
- Removes one through lane in each direction, with remaining roadway space devoted to buffered bike lanes, transit islands, and right turn pockets for motorists at locations with high right turn demand.
- Smaller scale pedestrian open space improvements are recommended at the high-speed slip lanes (traffic lanes provided at the intersection to allow vehicles to turn without entering the intersection and interfering with through traffic) of Telegraph Avenue and MacArthur Boulevard, and the wide eastern leg of 22nd Street, which has an expansive area of road pavement for a minor one-way street.
- Grant funding is being provided in connection with the MacArthur Transit Village for the construction of improvements to “fill in” the slip lanes at Telegraph and MacArthur.

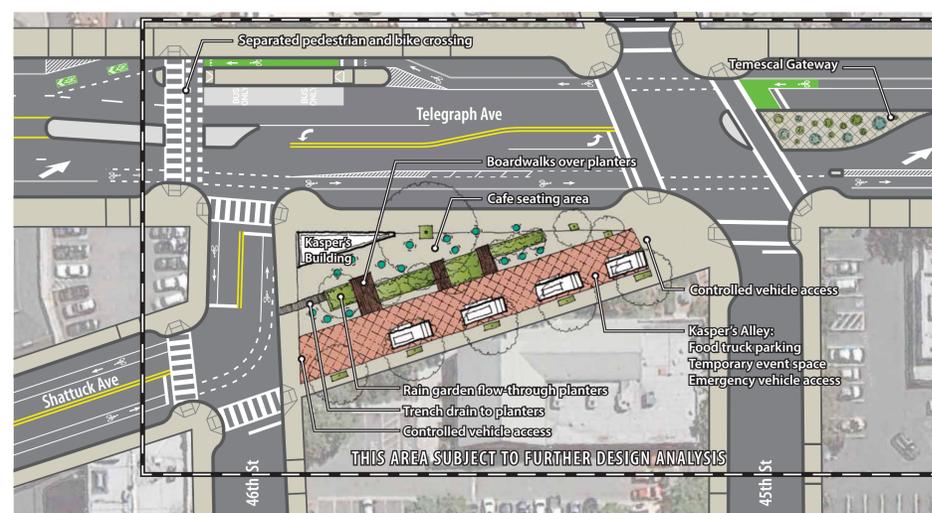
BICYCLE INFRASTRUCTURE FEATURES

- Buffered bike lanes are provided to separate bicyclists from motorists and transit vehicles.
- Transit islands allow bicycles to travel between the bus stop and the sidewalk to eliminate bus-bike conflicts.

TRANSIT FEATURES

- Transit islands make bus service more reliable and improve the transit passenger experience.
- The potential for future improvements such as bus queue jumps is maintained at key intersections by using painted, rather than permanent, bulbouts.

SEGMENT-SPECIFIC DESIGN FEATURES

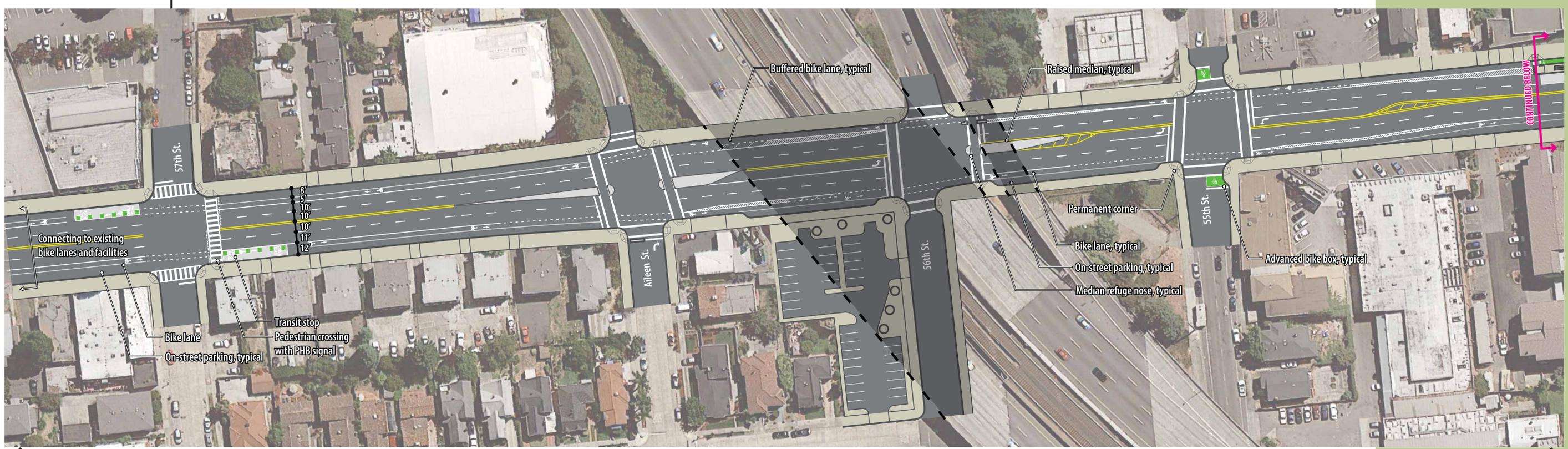


- Closing the last block of Shattuck Avenue between 45th and 46th Streets to standardize the intersection of Telegraph Avenue and 45th Street (carried over from the 2005 Pedestrian Streetscape Master Plan) is further developed to include a pedestrian plaza that could accommodate a new café use, outdoor seating and potentially stormwater management planters.
- A further targeted study of the Telegraph Avenue/Shattuck Avenue intersection is recommended to refine the design options in this area, due to the complexity of this intersection as well as the importance of the location as a Temescal gateway.

DRAFT RECOMMENDED PROJECT – 57TH STREET - 49TH STREET

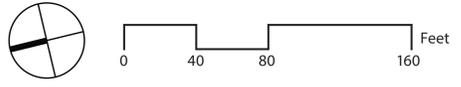
STATION #4

SEGMENT A

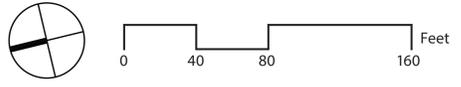
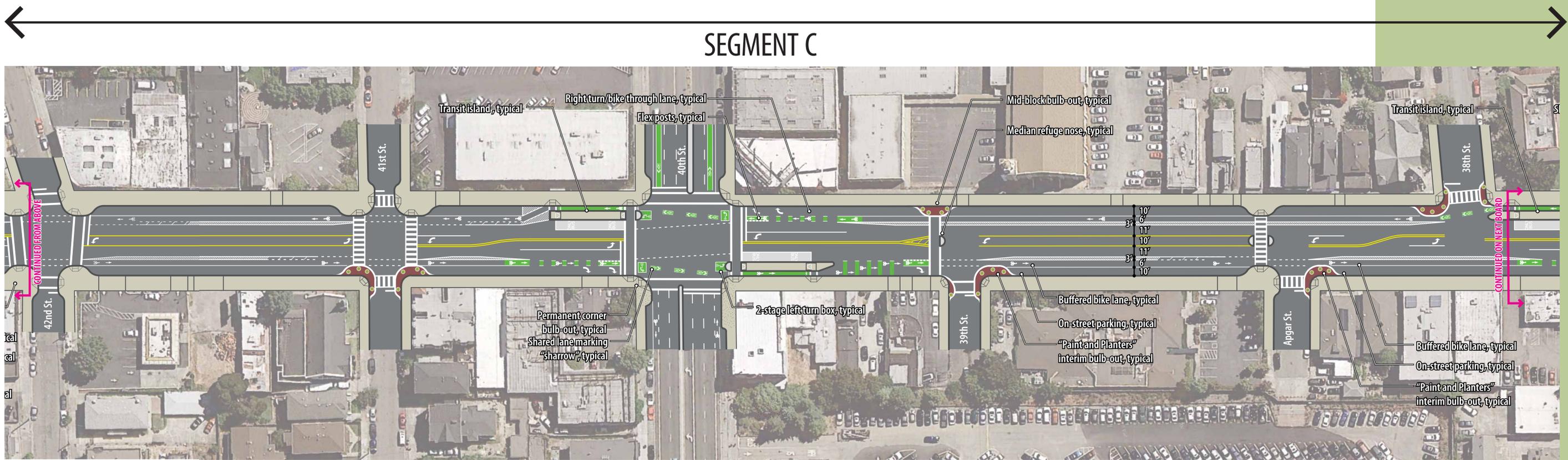
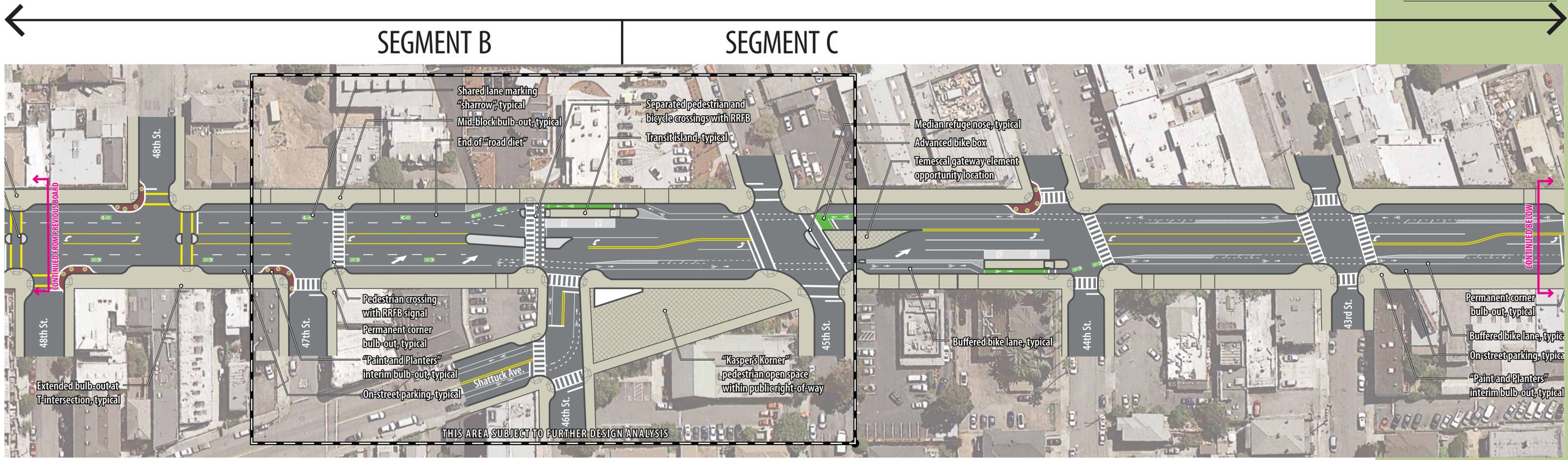


SEGMENT A

SEGMENT B



STATION #4



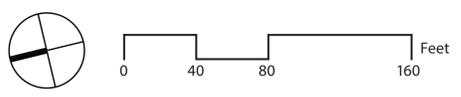
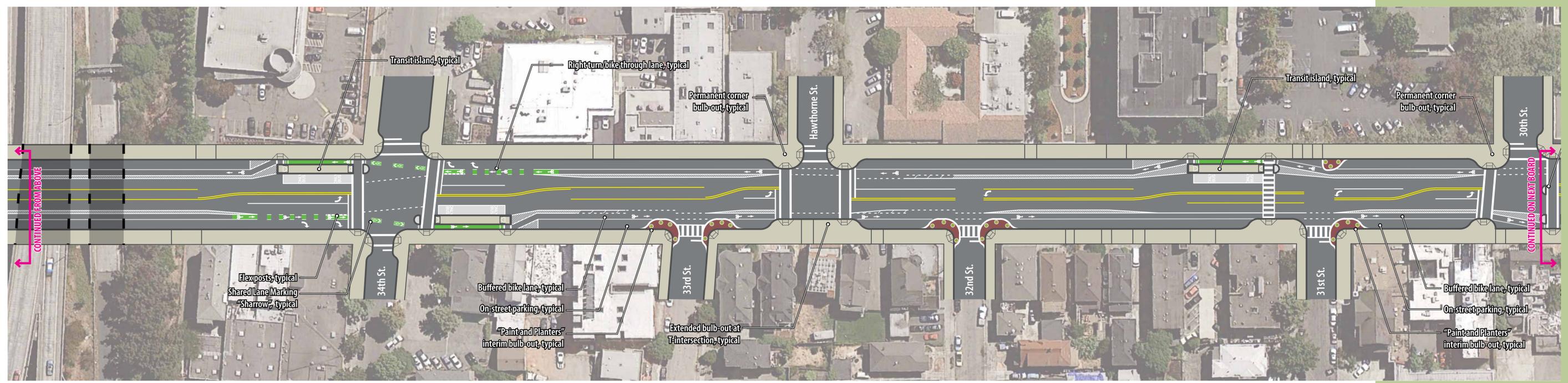
STATION #4



SEGMENT C

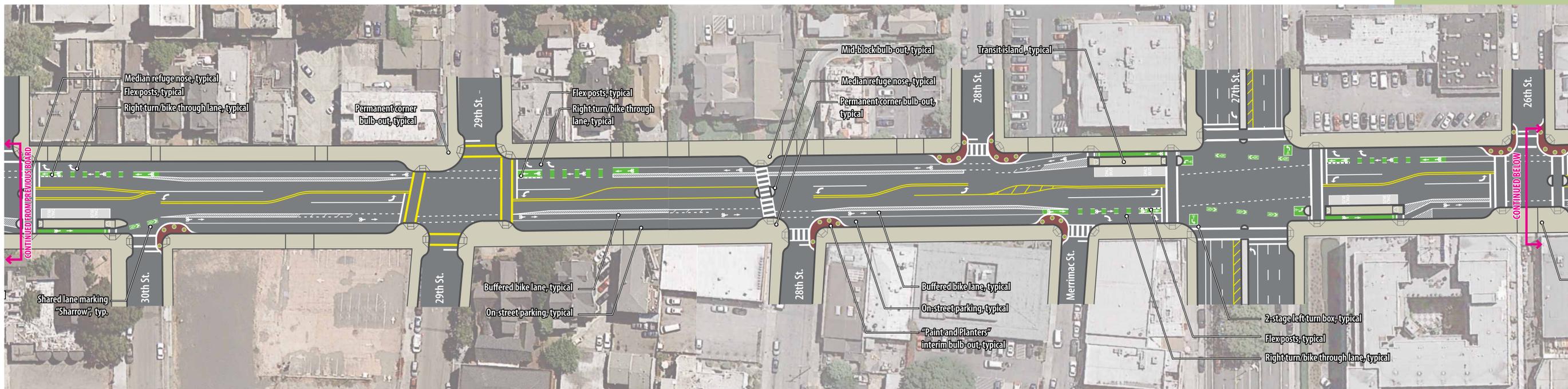


SEGMENT C

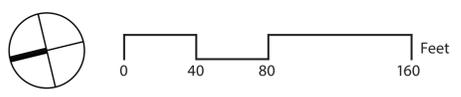


STATION #4

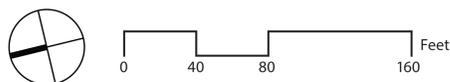
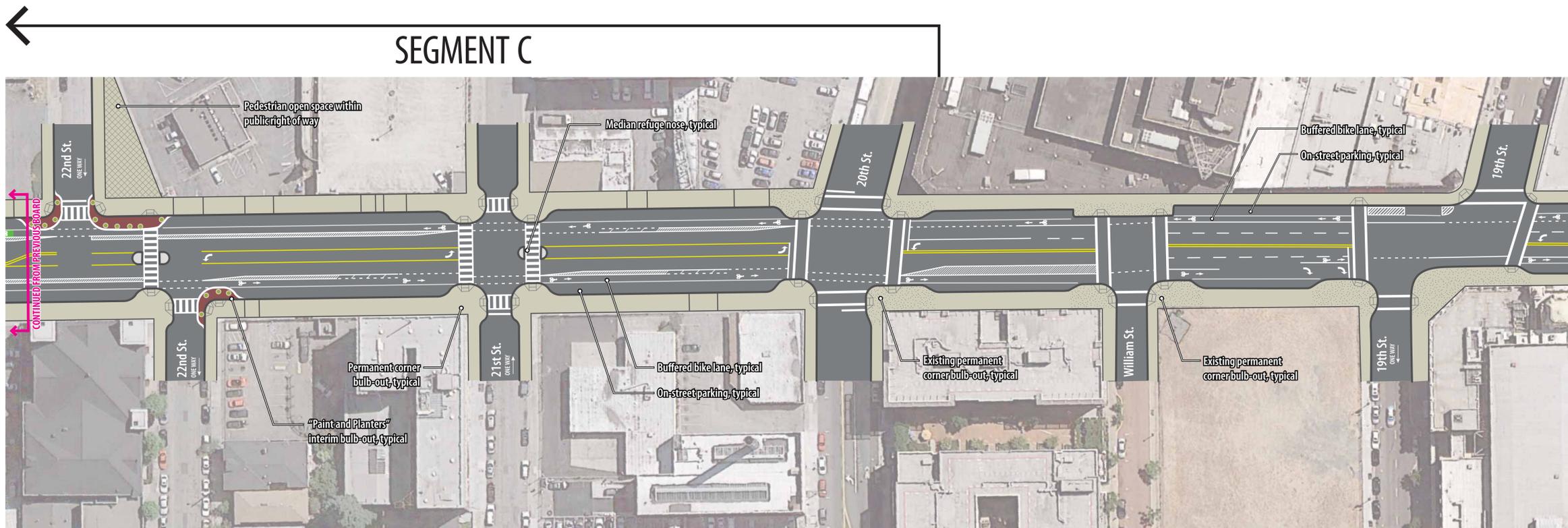
SEGMENT C



SEGMENT C



STATION #4



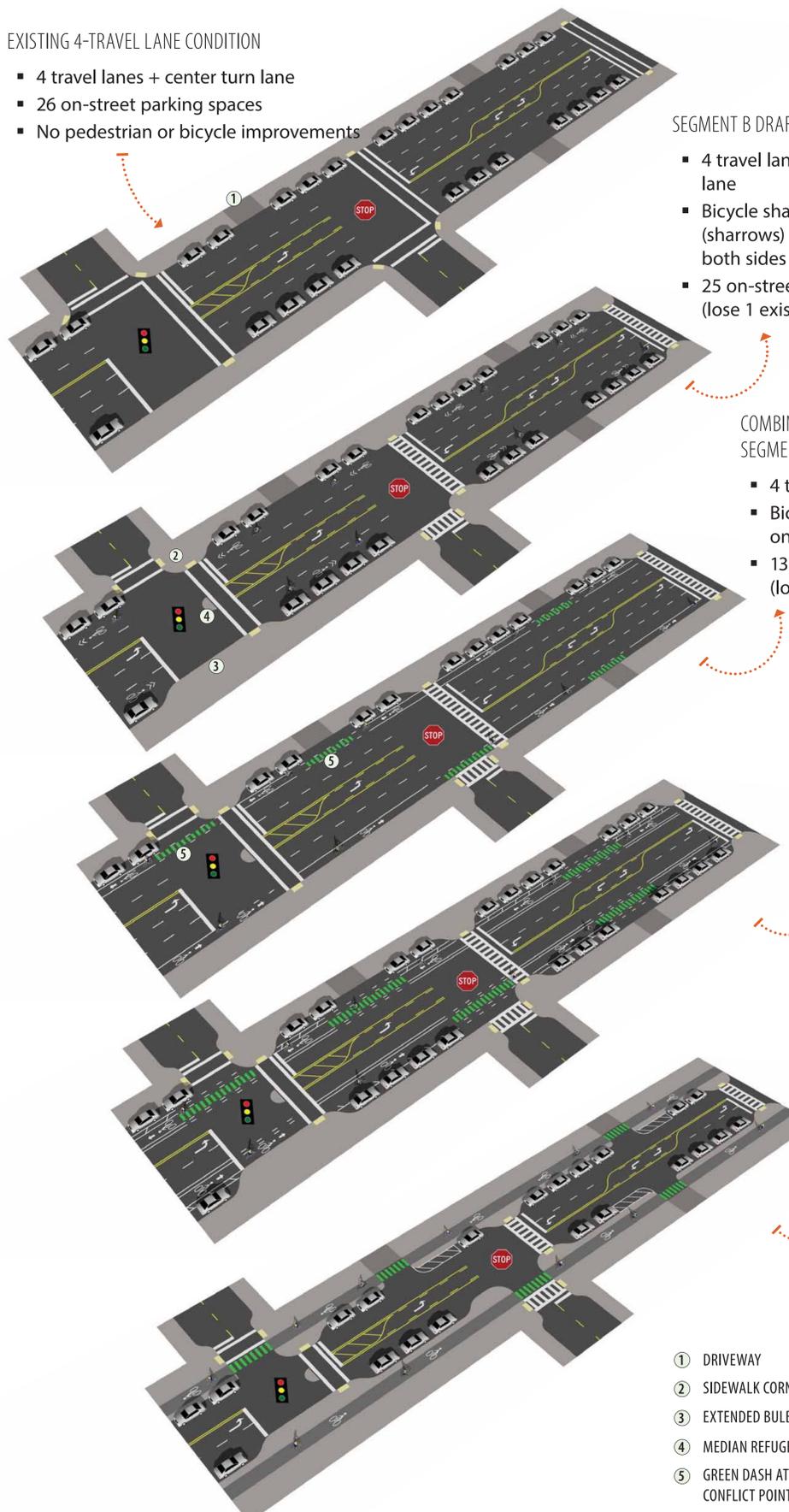
STATION #5

PARKING CONFIGURATIONS - OPTIONS FOR 2.5-BLOCK EXISTING CONDITION

This series of “prototype” blocks shows how various roadway design options will affect parking supply on Telegraph Avenue. Parking capacity will vary based on the number of driveways, intersections and crossings present on a given block.

EXISTING 4-TRAVEL LANE CONDITION

- 4 travel lanes + center turn lane
- 26 on-street parking spaces
- No pedestrian or bicycle improvements



SEGMENT B DRAFT RECOMMENDATION

- 4 travel lanes + center turn lane
- Bicycle shared lane markings (sharrows) with bulb-outs on both sides
- 25 on-street parking spaces (lose 1 existing space)

COMBINATION NOT RECOMMENDED FOR SEGMENT B

- 4 travel lanes + center turn lane
- Bicycle lanes with bulb-outs on one side
- 13 on-street parking spaces (lose 13 existing spaces)

SEGMENT C AND PORTIONS OF SEGMENT A DRAFT RECOMMENDATION

- 2 travel lanes + center turn lane
- Buffered bicycle lanes with bulb-outs on both sides
- 25 on-street parking spaces (lose 1 existing space)

COMBINATION NOT RECOMMENDED FOR ALL SEGMENTS

- 2 travel lanes + center turn lane
- Protected cycle tracks with bulb-outs on both sides
- 21 on-street parking spaces (lose 5 existing spaces)

- DRIVEWAY
- SIDEWALK CORNER BULB-OUTS
- EXTENDED BULB-OUTS (CAFE SEATING OR BIKE CORRAL, ETC.)
- MEDIAN REFUGE FOR PEDESTRIAN SAFETY
- GREEN DASH AT POTENTIAL BICYCLE-VEHICLE CONFLICT POINTS

2011 TEMESCAL PARKING STUDY*

* Study conducted as part of separate project from 2011. As shown, the 2011 Study encompasses Segments A, B and parts of Segment C.

SUMMARY OF STUDY RESULTS

- The study area was never more than 65 percent full (total area)
- 62% of drivers visiting Temescal found a parking space within 2 minutes
- 69% were able to park within 1 block of their destination
- These results indicate that parking availability was not a hindrance to customers visiting the study area

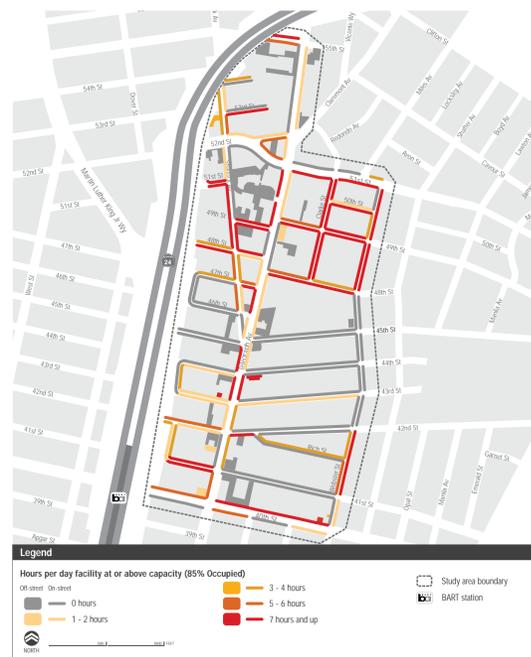
SUMMARY OF STUDY RECOMMENDATIONS

- Shared Parking: Businesses with off-street parking could share available capacity (e.g. daytime retail parking capacity is made available for evening users – as is planned for the Frazee Paint parking lot).
- Parking Management District: Coordinated supply of off-street parking that is managed by a committee of business owners, with signs to direct patrons to the nearest shared parking lots.
- Promote Alternatives: Supporting transit, walking and bicycling to local destinations in the Temescal will help to reduce parking demand, making more spaces available for customers that need to drive to local businesses.

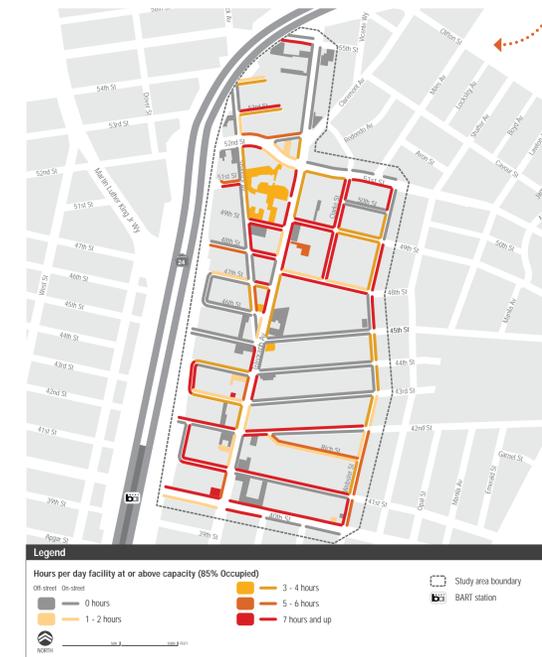
WITHIN THE STUDY AREA:

- 2,498 available public parking spaces
- 1,780 on-street spaces
- 697-718 off-street spaces in 32 parking lots

WEEKDAY PEAK UTILIZATION



WEEKEND PEAK UTILIZATION



Dark Gray, Yellow & Orange Zones show locations where parking is almost always available

LOADING FOR LOCAL BUSINESSES - OPTIONS

PARKING IN CURB-SIDE LOADING ZONES (DESIGNATED LOCATIONS AND/OR HOURS)



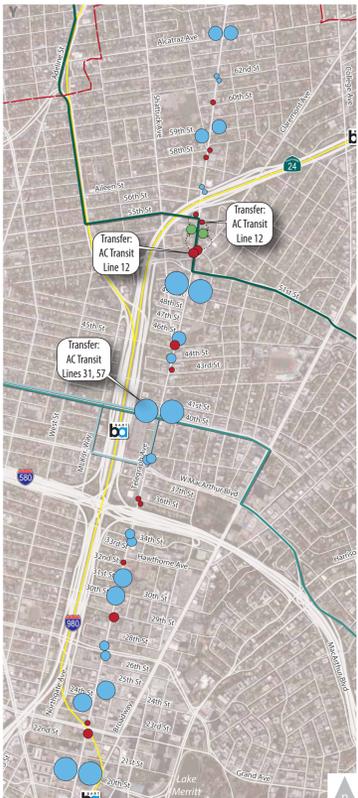
DOUBLE-PARKING IN OUTSIDE LANE



PARKING IN CENTER TURN LANE



LINE 1 & 1R CONSOLIDATION OPTION



KEY

- Existing Stop to Remain
- Stop Removed
- New Stop

Average Daily Ridership for Line 1 and Line 1R *

- 0 - 33
- 34 - 92
- 93 - 236
- 237 - 381
- 382 - 700

AC Transit Line 12
AC Transit Line 57
AC Transit Line 31

Notes: Size of circle shows magnitude of daily bus stop ridership
* = Daily Ridership (Ons + Offs)

Source: AC Transit, 2013.

MINIMIZING ROAD USER CONFLICTS, MAXIMIZING SPEED & EFFICIENCY

BENEFITS OF THE ROAD DIET, CONSOLIDATION & OTHER TREATMENTS

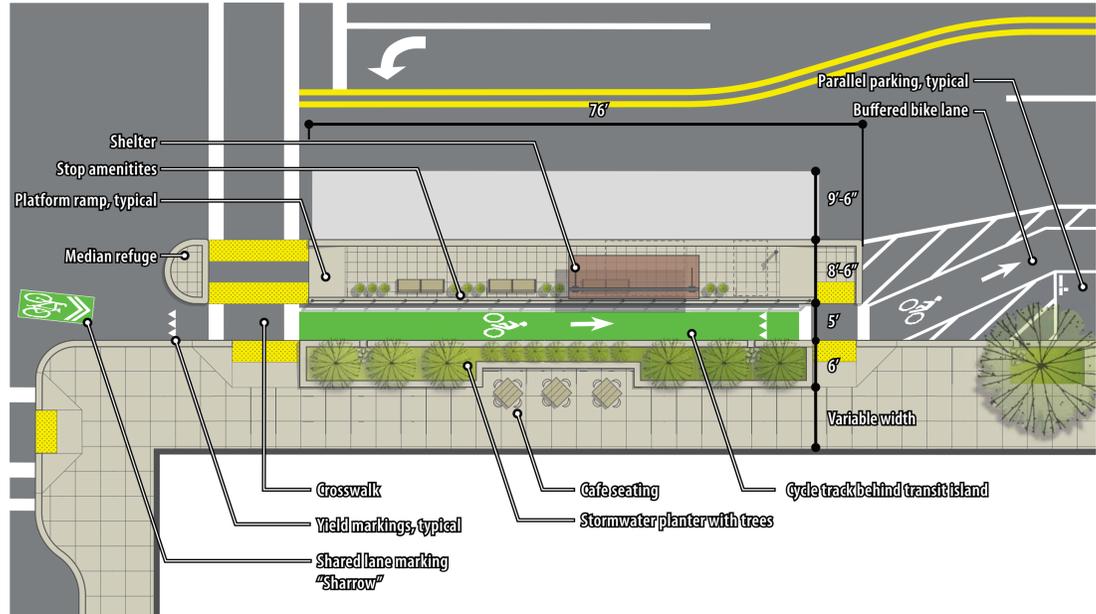
- **Minimize bus-bicycle conflict in roadway:** A road diet provides sufficient space for separate bicycle lanes or cycle tracks so that buses do not have to share the vehicle travel lane with cyclists.
- **Minimize bus-bicycle conflict at bus stops:** Bus bulbs provide opportunities to physically separate bicycles and buses at bus stops by routing bicycles behind the bulb (creating a “transit island”).
- **Enable more efficient transit service:** Bus bulbs provide a more convenient and efficient transit facility for bus operators to access and egress;
- **Improve transit passenger waiting environment:** Bus bulbs provide space for shelters, benches and signs, while freeing space from existing sidewalks for landscaping, bike parking, seating and other furnishings;
- **Improve bus speed and reliability:** Transit Signal Priority (TSP) combined with bus stop relocation to the far-side of signals, and queue bypass lanes improve service speed and reliability.

INCREASE TRANSIT SPEED WHILE IMPROVING THE TRANSIT RIDER EXPERIENCE

NORTHBOUND	BUS SPEED		SOUTHBOUND	BUS SPEED	
	AM	PM		AM	PM
Baseline	11.1	11.4	Baseline	12.0	11.0
Full Road Diet without Treatments	8.7	10.5	Full Road Diet without Treatments	6.0	3.9
Full Road Diet with Treatments	9.9	11.3	Full Road Diet with Treatments	11.8	10.4
Proposed Road Diet with Treatments	11.1	11.4	Proposed Road Diet with Treatments	12.2	11.0
Proposed Road Diet with Treatments and Queue Bypass Lanes	11.3	11.7	Proposed Road Diet with Treatments and Queue Bypass Lanes	12.4	11.3

URBAN DESIGN TO IMPROVE THE TRANSIT PASSENGER ENVIRONMENT

TRANSIT ISLAND WITH CYCLE TRACK AND PLANTERS



EXAMPLE OF TRANSIT ISLAND



Source for images: NACTO Urban Street Design Guide - <http://nacto.org/lusdg/street-design-elements/curb-extensions/bus-bulbs/>

STATION #6

PREFERRED CORRIDOR CONCEPT

Please complete an Open House Comment Card!

The project team will use your community input to inform the final Telegraph Avenue Complete Streets Plan.

PHASE I IMPLEMENTATION

Phasing of the design for Telegraph Avenue will be necessary because of the large scope of the project.

The project team will finalize the Telegraph Avenue Complete Streets Plan and present it to the City Council for adoption.

A striping plan for part of Segment C (approximately 20th – 27th Street) can be implemented through a scheduled Telegraph Avenue resurfacing project (scheduled for Spring 2015).

The Phase I Implementation Plan will allow the City of Oakland to quickly implement a striping only example and test a low-cost example of the proposed improvements. This is an important step in preparing for full implementation of the Telegraph Avenue Complete Streets Plan at a later date, when funding is secured.

STATION #7

EXAMPLES OF PHASE I IMPLEMENTATION LOW-COST TECHNIQUES

NOTE: ANY LANDSCAPING INCLUDED WITHIN A PHASE I IMPLEMENTATION WOULD BE CONDITIONED ON FUNDING AND REACHING APPROPRIATE MAINTENANCE AGREEMENTS

