O4 MOBILITY ELEMENT

A well-designed, safe, multimodal transportation system that meets the needs of all residents, visitors, and business owners, employees and customers, regardless of income, background, ability, neighborhood, or mode of travel, is essential to being a healthy, equitable and inclusive city and to protecting the environment and responding to the climate crisis.



THE GOALS OF THE MOBILITY ELEMENT ARE:

GOAL 1



EQUITY

Provide for the mobility needs of all Alameda residents, workers, and visitors regardless of income, age, ability, or neighborhood. GOAL 2



SAFETY

Eliminate fatalities and severe injuries on Alameda's streets, sidewalks, crosswalks and trails by 2035. GOAL 3



CHOICES

Expand and improve alternatives to low occupancy automobile trips to incentivize mode shift to more environmentally sustainable modes of transportation while recognizing the diverse needs for mobility.

GOAL 4



SUSTAINABILITY

Reduce the impacts of transportation systems on the environment, and transition to a more resilient transportation system to address the impacts of climate change.

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04



SPOTLIGHT

CLIMATE CHANGE AND TRANSPORTATION

Over 70% of Alameda's greenhouse gas emissions are from Alameda's vehicle trips, and over 50% of Alameda's commuters are driving alone in a fossil fuel burning automobile each day to work. For Alameda to achieve its greenhouse gas emission reduction goals, Alameda must transform its transportation system to give residents convenient and safe, climate-friendly transportation choices and alternatives to the single occupant vehicle.

As Alameda works to transform its transportation system to be more efficient, flexible, and safe, Alameda will also need to prepare the transportation system to adapt to the impacts of climate change, including rising seas and groundwater. Redesigning streets and roads to work in concert with the natural ecosystem will reduce the impact of the system on the physical environment and prepare the system for the impacts of climate change.

In September 2019, the Alameda City Council adopted the Climate Action and Resiliency Plan which emphasized the need for mode shift, alternative fuel use, and environmentally sound land use decisions.



MODE SHIFT

Mode shift is increasing the number of trips Alamedans take using low-carbon, low pollution forms of transportation, such as taking the bus, bicycling, or walking, over driving solo in conventional vehicles.



ALTERNATIVE FUEL USE

The second way to reduce transportation emissions is to reduce the carbon emissions from the vehicles we already use. This means driving alternative fuel vehicles such as all-electric, electric-gas hybrid, or hydrogen fuel cell vehicles.



LAND USE

Accommodating growth and housing needs with mixed-use, transit-oriented development, work-live development, allowing home offices and small neighborhood businesses in residential neighborhoods, and supporting telecommuting reduce the need for multiple daily automobile trips, which means less greenhouse gas emissions.

To accommodate a growing population and economy over the next 20 years, the City will expand and improve the transportation system to serve the needs of a growing population, address existing and long term transportation problems and congestion choke points, and address the increasing impacts of climate change. The Mobility Element of the General Plan establishes a policy framework and street classifications to guide the transformation of the city's transportation system to make more efficient use of the existing network of streets and bridges, introduce new ways to cross the estuary by boat or by bridge, increase the frequency and convenience of transit, make walking and biking a safer and more convenient choice for local trips, and embrace and support new modes of transportation. By doing so, Alameda can reduce its greenhouse gas emissions, reduce traffic congestion at well-known choke points and crossings, reduce fatalities and serious injuries, make Alameda's neighborhoods quieter, safer, and more livable, and provide for the mobility needs of all Alamedans, regardless of age, background, ability, income, or neighborhood.

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WHAT MAKES A COMPLETE STREET?

"Complete" streets are streets that are designed to serve not just automobiles, but also pedestrians, bicyclists and public transport users to improve the quality of life for all users by designing streets as "public spaces" which are safe and comfortable, and support high-performance, sustainable transportation networks.

COMPLETE STREETS **INCLUDE THE FOLLOWING:**

PEDESTRIAN-SCALE

Well-lit environments are important

motorists. Pedestrian-scale lighting

environment in terms of both traffic

provides a safer and more secure

for pedestrians, cyclists, and

LIGHTING

safety and crime.

CONNECTED NETWORK

A comprehensive, integrated, and connected mobility network is crucial to improving mobility for all types of users.

STREET FURNITURE AND SIGNAGE

Furnishing the street as well as providing for clear signage improves the experience of a public space and makes it more active and safe. Benches, bicvcle racks, trash bins. bollards, community kiosks, art installations and transit shelters all contribute to an activated street. Traffic signs ensure the safety for all road users - pedestrians, cyclists and motorists.

ACCESSIBILITY FOR ALL

Balanced design to accommodate the needs of pedestrians, cyclists, transit systems and motorists, including innovative solutions for parking and deliveries.

STREETS ARE **ECOSYSTEMS**

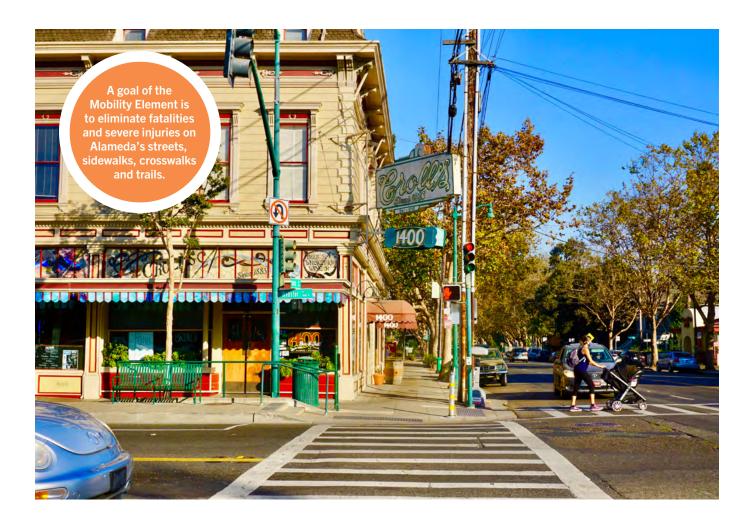
Streets should be designed as ecosystems where manmade systems interface with natural systems. From pervious pavements and bioswales that manage storm-water run-off to street trees that provide shade and climate amelioration, greenspaces are critical to the health of the city and for longterm sustainable design.

AN ACTIVE STREETSCAPE

A mix of interactive uses such as commercial, retail and food service encourages an active streetscape. A community where people share experiences and interact on a day-to-day basis tends to be a safer community.

WELL-MAINTAINED FACILITIES AND INFRASTRUCTURE

On-going investments and maintenance of the complete street network are critical in preserving and creating active, walkable neighborhoods and a healthier, more equitable and resilient community.





GOAL 1: EQUITY

Provide for the mobility needs of all Alameda residents, workers, and visitors regardless of income, age, ability, or neighborhood.

POLICIES:

ME-1

Community Participation. Educate the public on transportation issues and encourage, promote and facilitate active and diverse community participation in the development, evaluation, and prioritization of transportation improvements and investments. (See also Policies LU-1, HE-13, and OS-5).

Action:

a. Public Engagement. Seek out and facilitate input from community members, neighborhood organizations, business associations, interest groups, and transit providers. Ensure inclusion of underserved areas and socially vulnerable communities historically underrepresented in the transportation decision making process.

Equitable and Inclusive Transportation Planning. Create a transportation system that equitably serves all Alamedans. (See also Policies LU-1, HE-13 and HS-6).

Actions:

- a. Equity. Ensure that all neighborhoods are equitably served by the citywide transportation system.
- b. Procedural Justice. Ensure that traffic enforcement is implemented in a fair, respectful, and unbiased manner.
- **c.** Environmental Justice. Ensure the fair treatment and meaningful participation of all people regardless of age, ability, culture, ethnicity, gender, race, socioeconomic status, or geographic location when considering the environmental impacts of transportation facilities and services.

ME-3

Vulnerable Communities. Prioritize the transportation improvements needed to serve the most vulnerable communities, including youth, seniors, those with limited mobility, those with limited income, and historically underserved communities. (See also Policies LU-1 and ME-6).

Actions:

- **a. Engagement.** Evaluate and improve engagement with the most vulnerable communities by meeting people in their neighborhoods and providing translation services or other support when appropriate in order to reach communities often left out of the planning process.
- **b. Safe Path of Travel.** Continue to improve the transportation network to ensure a continuous and safe path of travel throughout the city for youth, seniors, and people with disabilities.
- **c. Equal Access.** Continue to improve the transportation network to ensure that residents with limited income have affordable and convenient access to transportation choices, such as AC Transit bus service and paratransit.
- **d. Costs.** When managing the transportation system through pricing (e.g. long term parking costs, congestion pricing, or other market based approaches to transportation system management), ensure that the pricing structure considers the impact of costs on lower income or other vulnerable communities and users.

ME-4

Public Annual Review. Conduct an annual public review of the performance of the transportation system and adjust transportation investment priorities as necessary to support equity objectives.

Action:

a. Annual Capital Improvement Program Review. Annually review the citywide Capital Improvement Program to prioritize investments in maintenance and improvement of existing facilities as well as the investments in new or expanded plans and programs to ensure that transportation services are being equitably distributed throughout the City.



SPOTLIGHT

WHAT IS VISION ZERO?

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. First implemented in Sweden in the 1990s, Vision Zero has proved successful across Europe — and it is now gaining momentum in major American cities. The City of Alameda is one of those cities that has committed to Vision Zero.

THE PROBLEM

From 2011 to 2018, 16 people died and 82 suffered severe, life-changing injuries on Alameda's streets, an average of 2 deaths and 10 severe injuries per year. Of the people who died using Alameda streets, two thirds were walking or riding a bicycle; and 75% of the pedestrians who died were 65 years old or older, and 100% were 59 years old or older.

A NEW VISION FOR SAFETY

Vision Zero starts with the belief that everyone has the right to move safely in their communities, and that system designers and policy makers share the responsibility to ensure safe systems. In 2019, the City Council adopted Alameda's Vision Zero Policy which establishes safety as the highest priority in all transportation plans, projects, and decisions with the goal of eliminating fatalities and serious injuries on Alameda streets.

TRADITIONAL (vs)



VISION ZERO

Traffic deaths are inevitable Perfect human behavior Prevent collisions Individual responsibility Saving lives is expensive

Traffic deaths are preventable Integrate human failing in approach Prevent fatal + severe crashes Systems approach Saving lives is not expensive



More information: visionzeronetwork.org



GOAL 2: SAFETY

Eliminate fatalities and severe injuries on Alameda's streets, avenues, sidewalks, crosswalks, paths and trails by 2035.

POLICIES:

ME-5

Vision Zero. Maintain and implement Vision Zero as the guiding principle for transportation planning, design of streets and sidewalks, and the maintenance of the public rights-of-way. (See also Policies LU-3, ME-6, ME-7 and HS-5).

- a. Action Plan. Complete, and regularly update, a Plan that summarizes specific changes to policies, practices, enforcement procedures, education efforts, infrastructure improvement priorities, and other action items that will reduce speeding, collisions, and collision severity.
- **b.** Institutional Commitment. Ensure that City staff and officials understand and work to support the City's commitment to Vision Zero; integrate Vision Zero into City driver policies and training; and focus on safety in City vehicle purchases and maintenance.
- c. Community Support. Foster community support and responsibility for the safety of people traveling within Alameda through outreach, communications, and partnerships.
- d. Data. Improve the use, collection, and organization of data to allow for evaluation and reporting that fosters transparency and creates trust with stakeholders and residents.
- e. Annual Report. Prepare an annual report on progress toward the Vision Zero goals, utilizing outcome metrics defined in the Vision Zero Action Plan.



Vulnerable Users. When designing, redesigning or resurfacing streets, provide safe and convenient access for vulnerable users, including children, seniors, people with disabilities, and people walking and bicycling. (See also Policies LU-2, LU-3, ME-5, ME-7, and OS-5).

Actions:

- a. All Ages and Abilities Network. Street design and transportation projects should enable people of all ages to navigate the streets safely and confidently and be supported by amenities such as shade and benches.
- b. Safety First. When designing streets, the safest treatments should be considered the default starting point and be degraded only if necessary and after documenting rationale for the approach.
- c. Safe Routes to Schools. Collaborate with parents, schools, the Alameda County Transportation Commission, and AC Transit to identify needed infrastructure, educational and encouragement programs, and enforcement to provide for the safety of students riding the bus, walking and bicycling to school.
- d. Safe School and Day Care Drop Off Zones. Work with Alameda Unified School district, private and charter schools, day care centers and other institutions and businesses requiring drop off areas for children to ensure that drop off zones are well planned and ensure the safety of children and parents walking, bicycling, and driving their children to school.
- e. Safe Crossings. Reduce the number of pedestrian and bicyclist fatalities and the severity of their injuries by minimizing vehicle turning speeds and intersection crossing distances. Limit automobile parking and other visual obstructions within 20 feet of an intersection to maintain sightlines and visibility for automobile drivers. Provide high-visibility crosswalk markings and bulb-outs at regular and frequent intervals on arterial and collector streets.
- f. Construction Zones. Ensure safe and convenient continuity for pedestrians, bicyclists and transit users when construction occurs in the public right-of-way.
- g. Space Priorities. When allocating public right-of-way space, the first consideration shall be for people walking, bicycling, and using transit. Space for on-street parking shall be the lower priority.



THE 25 MILE PER HOUR SPEED LIMIT: WHY DOES IT MATTER?

Automobile speeds on Alameda streets determine the quality of life in Alameda. Automobile speed plays a critical role in the cause and severity of crashes as well as the comfortability, safety and health of Alameda's neighborhoods. Reducing auto speeds and the incidence of speeding not only saves lives, but it also improves the neighborhood and commercial district environment, reduces the need for police enforcement activities, improves walkability, bikeability and the comfort of the street environment, and reduces noise pollution.

There is a direct correlation between higher speeds, crash risk, and the severity of injuries. The Institute of Transportation Engineers found that a pedestrian hit by an automobile traveling at between 20 and 25 miles an hour has a 95% chance of surviving the collision without dying. If the vehicle is traveling at 30 miles an hour, the chances for surviving death for the pedestrian drops to 70%. If the automobile is going 40 miles per hour or more, the pedestrian has a less than 15% chance of not being killed.



04



ROUNDABOUTS

Modern roundabouts are a type of intersection characterized by a generally circular shape, yield control on entry, and features that create a low-speed environment while traveling counterclockwise around a central island. Mini-roundabouts or "traffic circles" are a type of roundabout characterized by a small diameter and traversable islands, and are best suited to environments where speeds are already low and environmental constraints would preclude the use of a larger roundabout with a raised central island.

Modern roundabouts have been demonstrated to provide a number of safety, operational, and other benefits when compared to other types of intersections:

Safety: Roundabouts can reduce the number of crashes in an intersection by 35% and injury crashes by 76%. Due to the reduction of vehicle speeds, roundabouts can improve pedestrian and bicyclist safety.

Speeding: Roundabouts can reduce illegal speeding.

Travel Time: A roundabout avoids the need for a stop light. Especially during non-peak times, roundabouts can reduce delays for automobiles caused by traffic signals.

Lower Maintenance Costs: A roundabout has lower operating and maintenance costs than a traffic signal

Environment: Roundabouts provide environmental benefits such as reduced noise impacts, air quality impacts and fuel consumption by reducing vehicle delay and the number and duration of stops compared with signalized or all-way stop-controlled intersections.

Aesthetics: The central island and splitter islands offer the opportunity to provide attractive entries or centerpieces to communities through use of landscaping, monuments and art.

Source: Federal Highway Administration, Roundabouts: An Informational Guide

ME-7

Safe Streets. Reduce collisions between road users resulting in severe injuries and fatalities on Alameda streets by reducing automobile speeds. (See also Policies LU-2, LU-3, ME-5, ME-6, HS-5 and HS-6).

- **a. 25 MPH.** Reduce the severity of injuries and reduce fatalities by designing streets for a maximum vehicle speed of 25 miles per hour or less, except for Harbor Bay Parkway and Doolittle Drive.
- **b.** High Injury Corridors and Intersections. Prioritize high injury corridors and intersections for transportation infrastructure maintenance, project development, and implementation.
- c. Neighborhood Slow Streets. Identify and maintain a network of traffic-calmed neighborhood slow streets to reduce automobile volumes and speeds to create a network of neighborhood streets that are safe for people of all ages, abilities and travel preferences.
- d. Traffic Calming Measures. Improve livability and safety for residents and enhance mobility for people walking, biking and using personal mobility devices by reducing automobile speeds in neighborhood and school areas with the use of traffic calming techniques such as mini-roundabouts, speed tables and cushions, chicanes, sidewalk bulb-outs, and public art. Safety shall be the highest priority when evaluating traffic calming measures.
- **e. Roundabouts.** Increase the use of roundabouts at intersections to improve the safety and lower maintenance costs compared to traffic signals.
- f. Traffic Signal Timing. Coordinate the timing of traffic lights and the design of intersections on key corridors to promote safe, efficient, vehicle movements at or below 25 miles per hour and enhance the safety and convenience of people traveling by bus, foot, mobility device, and bicycle.



WHAT IS A HIGH INJURY CORRIDOR?

On average, two people die and about 220 people are injured on roads each year in Alameda. Seventy three percent (73%) of collisions and crashes occur on twenty percent (20%) of Alameda's streets. Those roads with 73% of the collisions and crashes are identified as Alameda High Injury Corridors.

High injury corridor mapping is an important Vision Zero tool, enabling the City to prioritize traffic safety improvements where they are needed most. Alameda's high injury corridor maps identify the streets with the highest crash densities and weight crashes by severity. Crashes that resulted in a fatal or life-altering injury receive a higher weight than other injury crashes. The high injury corridors are broken into three tiers with Tier 1 indicating the streets with the greatest frequency and severity of crashes. The City also maintains high injury corridor maps for all types of crashes together, as well as maps of injury crashes by individual modes: motorist, pedestrian, bicyclist, and motorcyclist. Reviewing the individual mode maps can help give a more nuanced understanding of what interventions would help most.



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- g. Travel Lane Width. To reduce speeding, limit lane widths to 10 feet on all streets, except on designated truck routes and streets accommodating AC Transit services where 11 foot lanes are preferable. If no parking is present, one foot may be added to the above to provide shy distance from a vertical curb. Where auto traffic volumes are low, space is constrained, or automobile speeds need to be reduced, further reductions in lane widths may be considered. Where necessary to accommodate fire prevention aerial apparatus access, protect or improve public safety at specific locations and/or improve transit efficiency, additional clearance may be provided.
- h. Roadway Widening. Prohibit the widening of existing roadways to create additional automobile travel lanes to accommodate increased automobile traffic volumes, with the exception of increasing transit-exclusive lanes, transit-bicycle exclusive lanes, or non-motorized vehicle lanes, or creating roundabouts.
- i. Intersection Widening. Discourage the widening of existing intersections beyond the width of the approaching roadway except for when necessary to create a single exclusive left turn lane, transit exclusive lanes, or non-motorized vehicle lanes, or for the construction of a roundabout.
- j. Intersection Safety. To improve safety at stopcontrolled or signalized intersections, consider a roundabout design or eliminating right turns on red and adding pedestrian scrambles to existing signals.
- k. Roundabouts and Traffic Circles. When considering modification to an intersection, prioritize roundabouts and traffic circles recognizing that land acquisition needs, operational considerations, or other engineering factors or constraints may result in other intersection solutions on a case-by-case basis.
- *I. Enforcement.* Focus traffic enforcement efforts on high injury corridors and on dangerous moving violations.

ME-8

Roadway Diets. To reduce speeding and collisions on 4-lane roads on high-injury corridors, consider converting the 4-lane road to a 2-lane road with turning lanes, transit lanes, or bicycle lanes. (See also Policies CC-7, CC-8, and Mobility Element Street Classifications).

ME-9

Emergency Response and Disaster Preparedness.

Preserve access for emergency response vehicles to people and property and for evacuation. (See also Policies HS-1, HS-2 and HS-4).

- a. Emergency Response Planning. Include emergency response needs in all transportation planning, the design of new facilities, and modifications to existing facilities. Establish and sign designated evacuation routes, and provide ongoing education and outreach to ensure that Alameda is evacuation ready. Continue to work with AC Transit and WETA to ensure coordinated services in the event of the need for evacuation.
- **b. Outreach.** Educate the community on disaster preparedness using an all-hazard approach to emergency response.
- c. Miller-Sweeney Bridge. Upgrade the Miller-Sweeney Bridge to meet lifeline standards to ensure that the bridge can be used for the movement of supplies, evacuations and emergency vehicles and to support recovery efforts in the event of a major earthquake.
- d. Fruitvale Rail Bridge Hazard. Remove or seismically upgrade the abandoned Fruitvale Rail Bridge which poses a seismic hazard to the city's Miller-Sweeney Bridge. Consider replacing the hazardous structure with crossing for transit, bicycles and pedestrians.



GOAL 3: CHOICES

Expand and improve alternatives to low occupancy automobile trips to incentivize trip planning and mode shift to more environmentally sustainable modes of transportation while recognizing the diverse needs for mobility.

POLICIES:

ME-10

Movement. Provide for the safe and efficient daily movement of people, goods, and services. (See also Policies LU-3, OS-7 and HS-6).

Actions:

- **a.** Complete Streets. Maintain a multimodal system of complete streets and multi-use paths designed for safe access and equal utility for all modes of transportation and users of all ages and abilities.
- b. Best Practices. Rely on up-to-date, forward-looking design guides and manuals as well as countermeasure best practices such as those produced by the Federal Highway Administration and National Association of City Transportation Officials (NACTO) in the design of all transportation projects.
- c. Self-Enforcing Design. Design streets and rights-of-way to support vehicle speeds of 25 miles per hour or less, efficient bus movements and safe bicycle and pedestrian movements, to reduce the need for active enforcement and the risk of bias.
- d. Pilot Projects. Experiment with low cost, easily reversible street design changes, such as temporary "slow streets," weekend street closures, lane restriping, and low cost barriers to test new best practices or community ideas that support safe, multimodal transportation.
- e. Complete Streets. Complete streets shall not be interpreted to prohibit bicycle, pedestrian, and/or transit-only streets that provide direct connections for active transportation and transit users.

ME-11

Commercial Traffic. Work with local business associations and individual businesses to identify and implement transportation improvements to support the local economy, reduce commercial traffic, and improve safety.

Actions:

- **a. Customer Trips.** Use infrastructure and transit improvements to ensure all commercial corridors are connected, accessible and welcoming for customers using all modes of transportation.
- **b. Deliveries.** Provide adequate loading zones and work with businesses to schedule deliveries to facilitate commercial activity while minimizing safety hazards of obstructed rights-of-way.
- **c. Truck Routes.** Maintain a citywide network of clearly-marked truck routes with lanes no wider than 12 feet to provide for efficient movement of materials and products with the least impact on public health, safety and general welfare.



TRANSPORTATION CHOICES PLAN

In 2018, the City Council adopted the Transportation Choices Plan to ensure that the city sustains a high quality of life while accommodating population and employment growth. The plan identifies projects and programs to effectively support shifts to transportation modes that make more efficient use of the existing transportation network, are more equitable, less damaging to the environment, and reduce congestion.

THE PLAN INCLUDES:



Current goals and objectives to allow the City to measure its performance in providing effective travel choices and reducing single occupant vehicle trips.



Quantification of existing and expected future travel characteristics in terms of cross estuary trips and trips within Alameda.



Identification of potential projects and programs that, if implemented, would move the City towards the achievement of the performance goals. These projects and programs have been categorized by their expected performance and by the time frame in which they could reasonably be implemented.



School Traffic. Work with Alameda Unified School District, private and charter schools, parents, and AC Transit to reduce school-related automobile traffic and congestion.

Actions:

- **a. Safety.** Prioritize the actions listed in ME-14 in supporting safe mobility and access to school sites.
- a. Student Drop Offs. Where safety issues are identified and drop-off areas can be accommodated without priortizing drive-to-school trips, consider the use of Drop Off Zones that allow safe pickups and drop offs from vehicles while removing these stopped vehicles from the flow of traffic.

ME-13

Alameda Street Grid. Manage and extend the Alameda street grid to maintain the character of Alameda, reduce traffic, and maximize mobility, access, and safety for all modes of transportation. (See also Policy OS-8).

Actions:

- a. Cross Alameda Trail. Complete the Cross Alameda Trail, the major cross town route for people walking and bicycling, from Seaplane Lagoon to the Miller-Sweeney Bridge.
- b. Bay Trail. Complete the San Francisco Bay Trail along the shoreline and around the perimeter of Alameda with connections to the San Francisco Bay Water Trail. (See Bay Trail spotlight in Open Space Element).
- c. Shoreline to Sea View Bridge. Evaluate the feasibility of connecting the South Shore area to Harbor Bay directly via water shuttle, ferry, or a causeway for pedestrians, bicyclists and micromobility users, reducing trips by 1.5 miles each way.
- d. Central Avenue Safety Improvements. Complete the Central Avenue Safety project to reduce speeding and improve safety for people walking and bicycling from Pacific Avenue/Main Street to Encinal Avenue/Sherman Street.

- e. Mitchell Avenue Extension. Complete the Mitchell Avenue extension from Bette Street to Main Street.
- f. Clement Avenue Extension. Complete the Clement Avenue extension from Sherman Street to Grand Street and from Broadway to Tilden Avenue.
- **g. Tilden Avenue.** Reconfigure Tilden Avenue into a 25 mile per hour, complete street with sidewalks, lowstress bikeways and safe pedestrian crossings.
- h. Rights-of-Way. Utilize former railroad and public rights-of-way for transportation improvements and extensions to the Alameda street grid and pathway network.
- i. Block Sizes. When designing new streets, typical blocks should be between 200 and 400 feet in length to reflect typical, historic, Alameda block sizes.
- j. Grid Management. Allow for portions of the grid to be prioritized for specific modes such as truck routes, bike boulevards, and/or pedestrian pathways.
- **k. Private Roads.** Require that all private roads in new development include public access easements.

ME-14

Active Transportation. Reduce traffic, improve public health, increase transportation equity, reduce greenhouse gas emissions, and air and noise pollution, increase access to transit, enhance quality of life, and improve the efficiency of the transportation system by making Alameda a city where people of all ages and abilities can safely, conveniently, and comfortably walk, bike, and roll to their destinations. (See also Policies LU-2, LU-3, OS-7, OS-8, and CC-7).

- a. Connectivity and Comfort. Develop a well-connected, low-stress, and uncluttered network of pedestrian and bicycle facilities that are comfortable and well-designed for people of all ages and abilities. Seamlessly link the network with Alameda's key destinations such as schools, designated commercial corridors, grocery stores, parks and transit stops.
- **b. Maintenance.** Regularly maintain the active transportation network for safety and comfort, and to ensure current design standards are being met.

S

SPOTLIGHT

WHAT IS ACTIVE TRANSPORTATION?

Active transportation modes are the original modes of transportation that predate the automobile: walking, biking, and wheelchairs. But they also include newer forms, such as skateboards and scooters. Whether new or old, these are the modes of transportation that rely on an excellent citywide network of sidewalks, bicycle lanes, and trails. They are also the types of transportation that have the least impact to our natural environment (little to no greenhouse gas emissions) and they are the modes of transportation that support a healthy life style.

The Active Transportation Plan is a plan for improvements to support people walking or rolling, which includes travel by bicycle, wheelchair, scooter, skateboard, or other similar wheeled vehicles allowed in bicycle lanes, paths or sidewalks. The Plan builds on plans and projects from the previous decade, with a focus on safety, user comfort, connectivity, and equity and mode share.

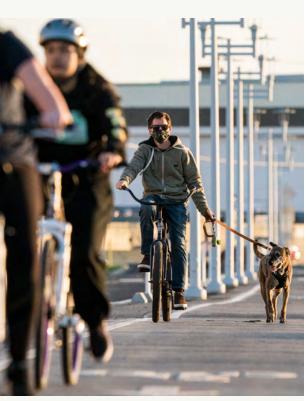


Photo: Maurice Ramirez

- c. Community Awareness and Education. Foster a strong culture of walking and bicycling through public outreach efforts such as community-wide campaigns, community-implemented street art and placemaking (such as painted bulbouts and intersections), and ongoing education in collaboration with community organizations and neighborhood groups.
- **d. Equity.** Ensure that comfortable bicycle and pedestrian facilities and programs are implemented equitably throughout the city.
- **e. Safety.** Increase the safety of all people bicycling and walking by improving the design of streets and active transportation facilities, educating the public, and enforcing traffic laws.
- **f. Design for Context.** Develop a pedestrian-specific street typology to apply to all city streets, based on street function and characteristics, and match recommended design treatments to each typology.
- **g. Supportive, Barrier-Free-Infrastructure.** Ensure that bicycle and pedestrian infrastructure is barrier-free, well-signed and well-supplied with short and long-term bicycle parking.
- h. Low-stress Bikeways. Prioritize low-stress biking infrastructure such as separated bicycle lanes, bicycle boulevards (Slow Streets) and bike trails, which is comfortable for the majority of the community. Build these facilities with enough width to comfortably and safely support all people and devices into the future, including cargo bikes, electric bikes, and scooters, all operating at different speeds. Provide separated bicycle lanes instead of unprotected, standard bicycle lanes, unless not feasible, and optimize the experience of bicyclists on bike boulevards by minimizing stop signs along these routes by opting for mini-roundabouts or similar treatments that allow bicyclists to travel unimpeded while slowing vehicle speeds.
- i. Separate Pathways. Where there is adequate space and existing or anticipated future demand, build separate facilities for people walking and bicycling, given their different speeds.
- *j.* **Safer Intersections.** Use hardscape treatments and traffic signals to separate people walking and bicycling from motorists at busy and larger intersections.
- k. Legislative Agenda. Support legislation to improve safety for people walking and biking, improve and accelerate the implementation of Caltrans' complete streets policies, allow the thoughtful deployment of automated speed cameras, and subsidize the cost of e-bikes, transit, and other modes of travel in support of mode shift.

Estuary Crossings. Work with Oakland, Alameda County, Caltrans, the Alameda County Transportation Commission, the State of California, the US Coast Guard, and other local, regional and federal partners to improve and ensure the maintenance and safe operations of Alameda's existing bridges and tubes, and improve bicycle, pedestrian and transit access between Alameda and Oakland.

Actions:

- a. Pedestrian and Bicycle Access to Oakland. Upgrade walking and bicycling facilities on the Park Street Bridge, Miller-Sweeney Bridge, and High Street Bridge to current best practice standards.
- b. West Alameda to Oakland Bicycle and Pedestrian Bridge.
 Prioritize work with Oakland, Caltrans, the Alameda County
 Transportation Commission, the State of California, the US
 Coast Guard, and other relevant agencies to design, fund,
 construct and operate a bicycle and pedestrian bridge from
 West Alameda to Oakland in order to increase bicycle and
 pedestrian access across the estuary.
- c. Transit Crossings. Prioritize work with Caltrans and the City of Oakland to improve and optimize transit access across the estuary in the short term by creating queue jumps lanes and commute hour transit lanes to the approach of the crossings. In the long term, begin planning for the eventual replacement of the Webster and Posey Tubes, which provides an opportunity to design a crossing that better serves transit.
- d. Water Service Shuttles. Work with the Alameda Transportation Management Association, WETA, and Oakland stakeholders to develop and support water shuttles or provide short-hop service between Oakland and Alameda.
- e. BART to West Alameda. Work with BART and other key stakeholders to extend BART to West Alameda as part of the second transbay tube between Oakland and San Francisco.
- f. Water Bikeshare Service. Explore a water bikeshare system for transportation across the estuary and along the Alameda waterfront.
- **g. Harbor Bay Connections.** Consider options, including a water shuttle and bridge improvements, to improve transportation options between Harbor Bay and the Main Island.



WEST ALAMEDA BICYCLE + PEDESTRIAN BRIDGE

In 2021, Alameda, Oakland, the Alameda County, Transportation Commission (ACTC), and a wide coalition of stakeholders and agencies are working together on a plan to build a pedestrian and bicycle bridge to enable pedestrians and bicyclists to safely and easily cross the 1,000 foot distance between West Alameda and Jack London Square.

As Alameda, Oakland, and the State of California work to reduce greenhouse gas emissions generated by automobile trips, create a more equitable and sustainable transportation system, and reduce the environmental justice impacts of the Webster and Posey tubes on the vulnerable communities in Downtown Oakland and West Alameda, the West Alameda-Oakland Bicycle and Pedestrian Bridge represents a major step forward. ACTC studies completed in 2020 demonstrated that the new bridge, if built, would be used by an estimated 5,000 to 6,000 bicyclists and pedestrians each weekday, resulting in 40,000 fewer auto trips each week on Oakland Chinatown and Jack London streets and along Webster Street and Constitution in West Alameda.



Sketch of a potential bicycle and pedestrian bridge on the West End



Few cyclists and pedestrians choose to navigate the tube, their only estuary crossing on the West End.

Transit. Improve mobility and reduce greenhouse gas emissions and air and noise pollution by making Alameda a city where all people have access to safe, reliable, high quality transit. (See also Policy CC-8).

Actions:

- **a. Partnerships.** Collaborate and partner with AC Transit, the Water Emergency Transit Agency (WETA), BART, the Alameda Transportation Management Associations, community groups, and employers to provide expanded and more convenient transit services throughout the city as well as to downtown Oakland, San Francisco, and the BART system.
- **b. Travel Time.** Incentivize transit use by making on- and off-Island transit ride times faster than or comparable to on- and off-Island drive times through traffic management and parking management.
- c. Bus Transit. Work with AC Transit to provide convenient and frequent bus service within a 1/4 mile of every Alameda resident and business and establish a regular cross Alameda service connecting east Alameda and Park Street to west Alameda and the Alameda Point Ferry Terminals and key retail destinations.
- **d. Land Use.** Coordinate transit investments with land use decisions in order to maximize returns, enhance livability, and minimize congestion. Adopt development regulations that discourage automobile ownership in new projects.
- **e. Water Transit.** Expand ferry services from Alameda to San Francisco, the Peninsula, Oakland (short-hop), and other locations throughout the Bay Area. Consider the use of hovercraft and other water-based transportation technologies to connect the south shore of Alameda to employment centers and other destinations that cannot be served by traditional ferries.
- f. BART to Alameda. Continue to work with BART to include an Alameda BART station in the design of BART's plan for a second San Francisco Bay crossing connecting Oakland and San Francisco.
- **g.** Transit Connections. Improve connections between bus transit and water transit facilities and services, such as a cross-town bus service connecting east and west Alameda to the Ferry Terminal services at Alameda Point.
- **h. Citywide "Transit Pass."** Work with AC Transit, WETA and MTC to develop a multi-modal fare payment system that could be used to develop an "Alameda Transit Pass" program that would provide every Alameda resident and employee with a pass for use on any bus or ferry at any time.
- *i.* Bus Transit Priority Infrastructure. Provide transit priority lanes, transit signal priority, and transit queue jump lanes, and make traffic signal upgrades including coordination, to make transit faster and more reliable.
- j. Bus Stops. Ensure consistency with AC Transit Multimodal Design Guidelines and move bus stops to the far side of the intersection to increase safety and improve bus speeds and reliability and work to make all bus stops fully ADA-accessible to accommodate those with mobility challenges.
- **k. Committees.** Maintain committees such as the Interagency Liaison Committee that promote partnerships with transit service providers to improve transit services for Alameda.
- I. Special Event Shuttles. Provide, encourage or require on-island shuttle services for special events, festivals or venues.

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Shared Mobility. Promote shared mobility devices programs such as bicycle share, car share, and electric scooter share programs that reduce the need for an automobile trip. (See also Policy CC-9).

Actions:

- **a.** Car Share. Continue to partner with car share companies to provide car share services in all Alameda neighborhoods.
- b. Scooter Share. Develop a permitting system to all electric scooter companies to operate in Alameda.
- **c. Bike Share.** Continue to explore options and partners to provide bicycle, e-bike and water bike share services in Alameda.

ME-18

New Mobility and New Technology Infrastructure. Plan for new mobility technologies or customizable on-demand services, such as autonomous cars, taxis, shuttles, buses and delivery vehicles; bicycle, water bicycle, scooter, and car share; and other micromobility and new mobility transportation options.

Actions:

- **a.** *Infrastructure.* Require the installation of communications and fiber infrastructure in excavation projects in the public right-of-way wherever and whenever feasible to facilitate interconnected traffic signals, improved transportation operations, new mobility options, and digital inclusion.
- **b. Safety.** Ensure and plan for consumer protections and the City's emergency response when developing shared, automated and other new mobility models.
- **c. Service Quality.** Prioritize improvements to improve the efficiency of transit, parking management, and data collection for the purposes of transportation management and improvement.

ME-19

Active Management and Monitoring. Actively manage the use of public streets, parking areas, and transportation services through signal timing, design changes, and user fees to increase efficiency and capacity, decrease traffic, and to reduce collisions, congestion, greenhouse gas emissions, and vehicle miles traveled. (See also Policy CC-12).

- a. Signal Operations. Implement multimodal, equitable, and reliable traffic signal operations.
- **b. State and Regional Roadways.** Work with the State of California, Alameda County and the City of Oakland to ensure that any future user fees or congestion pricing on state and regional roadways, such as the Webster and Posey Tubes and the Estuary Bridges, are designed to reduce greenhouse gas emissions while being sensitive to the needs of lower income residents.
- **c. Systemwide Monitoring.** Provide comprehensive citywide monitoring of the transportation system for all modes to be included in the Annual Report on Transportation.



SPOTLIGHT

TRANSPORTATION DEMAND MANAGEMENT (TDM)

Transportation Demand Management (TDM) strategies are actions and programs to better manage the demands on the transportation system.

THESE INCLUDE:



CONSTRUCTING HIGH OCCUPANCY VEHICLE LANES



AUTOMATED SIGNAL TECHNOLOGY AND BUS PRIORITY SIGNALS



CONGESTION PRICING



PARKING PRICING



CURB MANAGEMENT



PEDESTRIAN AND BICYCLE IMPROVEMENTS



TELECOMMUTING



OTHER STRATEGIES TO MAKE USE OF THE SYSTEM MORE EFFICIENT

ME-20

New Development. Require that new development support citywide traffic reduction, greenhouse gas reduction, and sustainable transportation. (See also Policies LU-16 and CC-10).

Actions:

- a. Transportation Demand Management Ordinance.
 - Prepare and adopt a Transportation Demand Management Ordinance requiring new development to actively meet the mobility needs of residents and employees, including but not limited to contributing to annual operations and capital improvements for supplemental transit, water shuttle, land-based shuttle services and improvements to the bicycle and pedestrian network.
- b. Alameda Transportation Management Association. Expand the Alameda Transportation Management Association to provide transportation services to all new developments, existing business associations and neighborhoods to improve citywide transportation service options and reduce greenhouse gas emissions and vehicle miles traveled in Alameda.

ME-21

Parking and Curbside Management. Manage parking and allocate curb space to reduce congestion, reduce vehicle miles traveled, and increase safety. (See also Policies LU-34 and ME-3.d).

- a. Availability. Manage parking pricing to ensure that approximately 15% of public parking is always available, allowing people to find parking faster and reducing emissions and potential conflicts with pedestrians while drivers circle for parking.
- **b.** Long-Term Parking. Ensure that long-term parking pricing is equitable and considers the impact of the fees on lower income or other vulnerable users.
- c. On-street Metered Parking and Surface Lots. Utilize parking pricing to encourage one or two open spots on every block, and a few open spots in city-owned surface lots to minimize circling for parking.



- **d. Ferry Terminal Parking Management.** Establish daily parking fees at all of Alameda's regional ferry terminals. Periodically adjust pricing to ensure that some spaces are always available for riders on later boats and to ensure that those with the least resources are eligible for reduced cost parking passes.
- e. Disability Parking. Provide an appropriate supply of well-located, accessible parking for mobility impaired drivers.
- **f. Carpool Parking.** Incentivize and reward carpooling by providing carpool-only parking spaces in locations throughout Alameda such as major employment sites and at ferry terminals and transit transfer locations.
- g. Bicycle and Scooter Parking. Provide plentiful and secure parking for micromobility devices (i.e. scooters and bicycles), and space off of sidewalks to allow pedestrians to walk freely and ensure that there is plenty of parking available at all times so families and larger groups can be confident they can find enough bicycle parking. Where possible, include valet programs funded by parking fees at transportation transfer points, such as the ferry terminals and along commercial transit corridors.
- **h. Shared Off-Street Parking.** Revise development requirements and ordinances to facilitate shared and well-managed off street parking facilities.
- i. Neighborhood Parking Permits. Continue to provide opportunities for neighborhood preferential parking permits.

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GOAL 4: SUSTAINABILITY

Reduce the impacts of transportation systems on the environment and transition to a more resilient transportation system to address the impacts of climate change.

POLICIES:

ME-22

Environmentally Friendly Transportation. Reduce traffic, air and noise pollution, and greenhouse gas emissions by reducing reliance on the single occupancy vehicle and reducing vehicle miles traveled (VMT). (See also Policies CC-6, CC-7, CC-8, CC-9, CC-10, and CC-11).

Actions:

- **a.** Climate-Friendly Vehicles and Equipment. Reduce pollution and transportation greenhouse gas emissions by promoting, and when appropriate, requiring the use of low and zero emission vehicles and equipment and taking action to support use of micro mobility devices to reduce energy use and carbon emissions from personal vehicles.
- **b.** Clean Transit. Support and encourage use of hydrogen fuel cells and other alternative energy sources for transit vehicles.
- **c.** Climate-Friendly Modes of Transportation. Prioritize the use of quiestest, cleanest and greenest modes of travel and reduce greenhouse gas emissions from transportation by improving the local roadway network to support environmentally sensitive mobility choices such as transit, walking and bicycling.
- d. Transit Use. Reduce automobile greenhouse gas emissions by increasing transit use.
- **e.** Vehicle Sharing and Carpooling. Reduce automobile greenhouse gas emissions by supporting and encouraging vehicle sharing and carpooling.
- f. Climate-Friendly, Walkable and Transit-Oriented Development. Reduce reliance on automobile use and reduce vehicle miles traveled by requiring walkable, transit-oriented, medium and higher-density mixed-use development in transit-rich areas and along commercial corridors such as much of Park Street, Webster Street and Otis Drive, as well as near ferry terminals.
- **g.** Climate-Friendly Employment Commute Behavior. To reduce vehicle miles traveled, greenhouse gas emissions, and commute hour congestion, make Alameda an ideal location to work from home in the Bay Area by collaborating with employers, Island businesses, and improving work-from-home infrastructure.

ME-23

Resilient Transportation Infrastructure. Plan, develop and construct transportation infrastructure that is resilient to the impacts of climate change and reduces greenhouse gas emissions. (See also Policies LU-14, CC-3, CC-7, and HS-21).

Actions:

a. Adaptation Strategies. Implement improvements to protect critical transportation facilities threatened by sealevel rise or rising groundwater.

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- **b. Nature Based Design.** Require the use of bioswales, rain gardens, trees, coastal habitat restoration, and pervious materials as an integral part of an adaptation solution to enhance water quality, ecosystem health and the visual appearance of the facility, and to reduce greenhouse gas emissions, the urban heat island effect and the flooding impacts on the stormwater system and the San Francisco Bay.
- **c.** Lifecycle Emissions. Reduce lifecycle emissions by considering variables such as asphalt compaction effect on vehicle fuel efficiency and transportation project design specifications.

Regional Partners. Work with Caltrans, the East Bay Regional Park District (EBRPD), the Alameda County Transportation Commission and the City and Port of Oakland to prepare regional facilities for the impacts of climate change and identify funding to adapt the regional and local roadways in Alameda. (See also Policies OS-2 and HS-16).

Actions:

- **a. Webster and Posey Tubes and the Northern Waterfront.** Work with Caltrans and northern waterfront property owners to develop sea-level rise protection for the Webster and Posey Tubes and the connecting on-island roadway network along the northern waterfront.
- b. Bay Farm Island. Work with Caltrans, the EBRPD and the City and Port of Oakland to develop sea-level rise protections for Bay Farm Island including Doolittle Drive, State Route 61, the San Francisco Bay Trail access including East Bay Regional Park District's (EBRPD) bike/pedestrian wooden bridge on Bay Farm Island, and the Packet Landing Road Lagoon Outfall.
- **c. Southshore.** Work with the EBRPD and south shore residential and commercial property owners to prepare Shoreline Drive and the adjacent roadway network for sea-level rise.
- **d. East Shore.** Work with Fernside Drive and eastern shoreline homeowners to prepare Shoreline Drive, the Veterans Court area and the adjacent roadway network for sea-level rise.



WHAT IS VEHICLE MILES TRAVELLED (VMT)?

VMT is the best measure of the impact on the environment of automobiles from new development. Reducing VMT reduces greenhouse gas emissions and reduces congestion on our streets and roads. VMT has replaced automobile level of service (LOS) as the recommended metric for use in the California Environmental Quality Act (CEQA). LOS measures the volume and speed of vehicles moving through an intersection or on a segment of roadway. Improving LOS increases the speed of vehicles and allows for a greater volume of vehicles through the intersection or on the segment. Increasing automobile speeds and volumes increases greenhouse gas emissions and increases safety hazards for pedestrians and bicyclists.

