

2.17 Transportation

| | Potentially Significant Impact | Less-than-Significant with Mitigation | Less-than-Significant Impact | No Impact |
|--|--------------------------------|---------------------------------------|-------------------------------------|--------------------------|
| Would the project: | | | | |
| a) Conflict with an a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)(1)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

2.17.1 Environmental Setting

This setting section discusses existing roadway network and transportation facilities in the vicinity of Project area, traffic operation conditions at analysis intersections, and the applicable regulations and impact criteria for the evaluating the Project’s transportation and traffic impacts. Information in this section is based on the Transportation Impact Analysis and the Transportation Errata Memorandum prepared for this Project (**Appendix C**), which also includes additional background information.

As described in Section 1.3, the Project would require the conversion of roadway shoulders to a bike path and lane reductions at the West Grand Avenue/Mandela Parkway intersection.

2.17.1.1 Existing Conditions

Roadway Network

Regional access to the Project area is provided by several regional freeways, including I-80, I-580, I-880, I-980, and California State Route 24 (SR 24). Other major roadways in the vicinity of the Project area include Mandela Parkway, Adeline Street, Grand Avenue, 7th Street, Frontage Road, Maritime Street, and Burma Road. The extents of these roadways in relation to the Project are shown in **Figure 2.17-1**. The Project would construct a Class I bike path on West Grand Avenue and Class II bike lanes on Wood Street, Willow Street, Campbell Street, and 20th Street. These roadways in the Project area are described in more detail below.

West Grand Avenue is a four-lane arterial that extends east–west through the Project area. Within the Project area, it connects to I-880 and the eastern end of the Bay Bridge on the west and Mandela Parkway on the east. There are sidewalks on West Grand Avenue between Campbell Street and Mandela Parkway and on West Grand Avenue alley between Wood Street and Campbell Street. There is no sidewalk on the elevated portion of West Grand Avenue west of Campbell Street. No street parking is provided on West Grand Avenue in the Project area. Alameda-Contra Costa Transit District (AC Transit) operates the Transbay NL bus line along Grand Avenue. The City of Oakland’s *Grand Avenue Mobility Plan* is currently in progress. It outlines a multimodal mobility plan for Grand Avenue between Mandela Parkway

and MacArthur Boulevard, with an emphasis on fairness, just treatment, and safety. The final plan is set to be completed in 2021.

Wood Street, Willow Street, Campbell Street, and 20th Street in the Project area are low-volume, two-lane local streets. There are sidewalks on Willow Street, Campbell Street, and 20th Street. There are no sidewalks on Wood Street, but there are shoulders. There is no formal on-street parking with signage on these streets. However, the road width of these streets is wider than standard two-lane streets, and the additional width is used for informal on-street parking for businesses along the streets.

Pedestrian and Bicycle Facilities

Pedestrian facilities include sidewalks, pathways, crosswalks, and pedestrian signals. In the Project area, sidewalks are provided on West Grand Avenue (between Campbell Street and Mandela Parkway), West Grand Avenue alley (between Wood Street and Campbell Street), and on Willow Street and Campbell Street. Shoulders are provided on Wood Street. Crosswalks are provided at the West Grand Avenue/Mandela Parkway intersection.

In general, bicycle facilities in Oakland are classified into following three types, as identified in the City of Oakland's Bicycle Master Plan (2007). These are consistent with the Caltrans classifications identified in Section 1.3.1.

- **Class I Bikeway (Bike Path):** A completely separate right-of-way designated for the exclusive use of bicycles and pedestrians with minimal roadway crossings. Class I paths are typically 8 to 10 feet wide.
- **Class II Bikeway (Bike Lane):** A striped lane on a street for one-way bicycle travel. Bike lanes are generally 5 feet wide. Vehicle parking and vehicle and pedestrian cross flows are permitted. Class II lanes are typically 5 to 6 feet wide.
- **Class III Bikeway:** Streets with signs or pavement markings for shared use with cyclists and motor vehicles. Class III bikeways are generally designated for local residential or collector streets with low traffic volumes.

Existing and proposed bicycle facilities in the Project vicinity are shown in **Figure 2.17-2**.

A portion of the Link will be incorporated into the regional Bay Trail (Lo pers. comm. 2022). The Link will therefore connect directly to the Bay Bridge Trail on the west end of the Link alignment and Mandela Parkway on the east end of the alignment, which are part of the Bay Trail. As described in Section 2.16.1.1, the Bay Trail includes 500 miles of continuous bicycle and hiking trails that will ultimately connect the shorelines of all nine Bay Area counties.

Transit Services

Transit service in the Project area is provided by AC Transit, which provides both local service and Transbay service throughout Oakland and the greater East Bay and San Francisco area. The closest services to the Project area are Transbay route NL, operating along West Grand Avenue, and local route Line 29, operating along Peralta Street. Stops are located near the West Grand Avenue/Mandela Parkway intersection. **Figure 2.17-3** shows transit services in the Project vicinity.

Amtrak is a national train operator that connects Northern California to the rest of the country via passenger rail. Amtrak extends beneath West Grand Avenue in the Project area. The two closest stations are in Emeryville to the north and in Oakland's Jack London Square to the south.

Roadway Network



Figure 2.17-1

West Oakland Link



Existing Bicycle Facilities

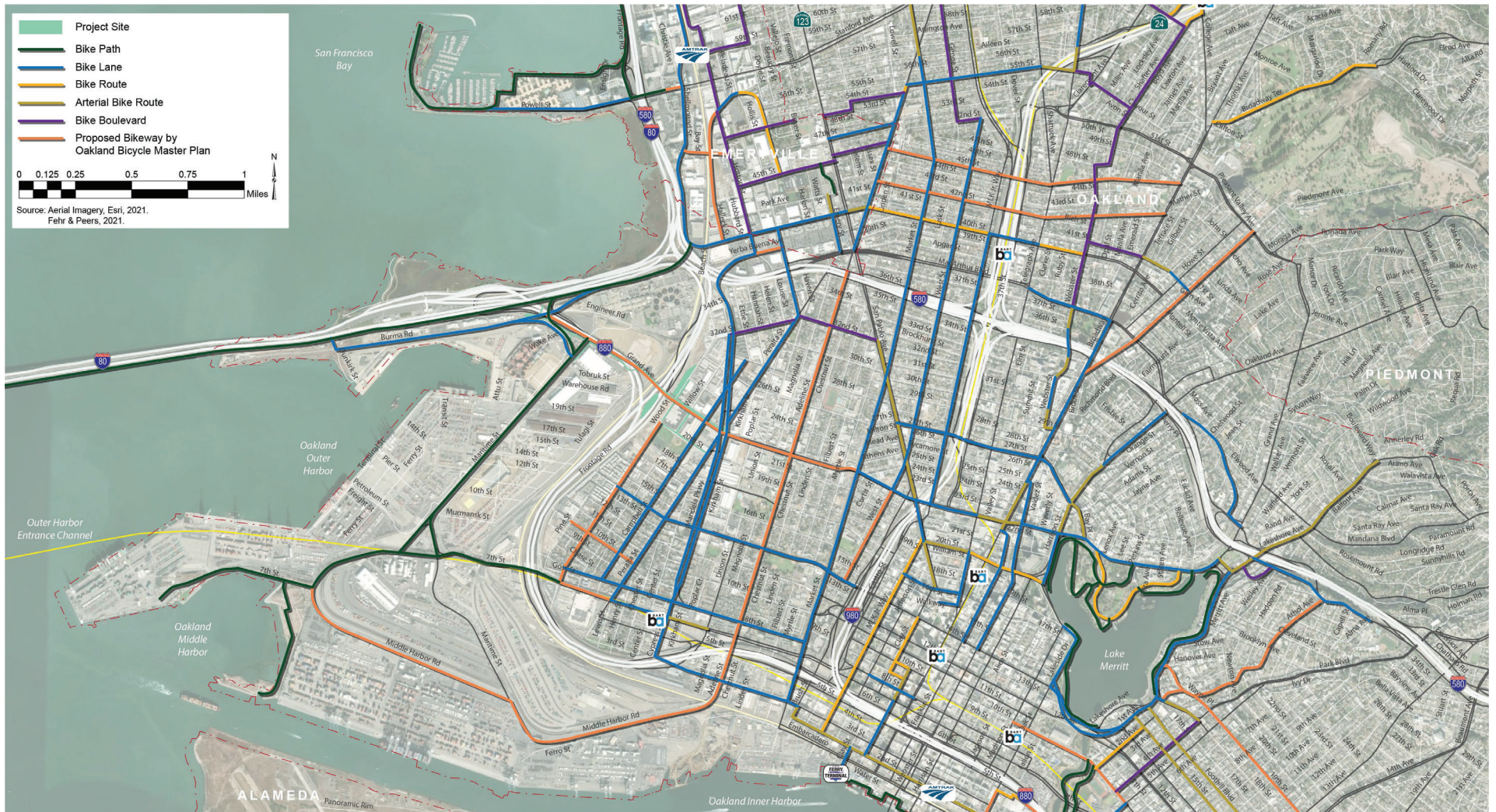


Figure 2.17-2

West Oakland Link



Existing Transit Service



Figure 2.17-3

West Oakland Link



2.17.1.2 Regulatory Setting

Federal

There are no relevant federal regulations for identifying environmental effects of the Project on transportation and traffic relevant to this section.

State

Senate Bill 743 (SB 743) updated the way transportation impacts are measured in California for new projects. In response to SB 743, the Office of Planning and Research (OPR) updated the California Environmental Quality Act (CEQA) Guidelines to include new transportation-related evaluation metrics. Draft guidelines were developed in August 2014, and after several rounds of public review and feedback, final proposed guidelines were published on November 27, 2017, with an associated *Technical Advisory Document on Evaluating Transportation Impacts in CEQA* dated December 2018. That process identified vehicle miles traveled (VMT) as the most appropriate metric for evaluating the environmental effects of a project from a transportation perspective and prohibited the use of delay-based metrics for the purposes of identifying transportation impacts under CEQA.

Regional and Local

Metropolitan Transportation Commission Vehicle Transportation Maps

The Metropolitan Transportation Commission (MTC) has prepared VMT maps that characterize current (2020) VMT per capita by place of residence (Metropolitan Transportation Commission 2018) and VMT per capita by place of work (Metropolitan Transportation Commission 2019) for all areas of the nine-county San Francisco Bay Area region, as summarized at the geographic level of the Transportation Analysis Zone (TAZ). These maps were prepared consistent with City of Oakland and OPR Technical Advisory guidelines for map-based screening, in which geographic areas that generate low levels of VMT are identified because projects in those areas are presumed to exhibit similarly low levels of VMT and thus can be screened out of further VMT analysis. This type of screening is recommended for residential and for office (employment) uses.

Alameda County Countywide Travel Demand Model

The Alameda County Transportation Commission's Alameda Countywide Travel Demand Model allows the commission to anticipate and forecast the potential impacts of land development decisions on major roadways in the county. The model is periodically updated to be consistent with the most recent land use and socio-economic database (Sustainable Communities Strategy from the Plan Bay Area) of the Association of Bay Area Governments and assumptions of the MTC's regional travel demand model. The current Alameda countywide travel demand model, completed in July 2014, includes Plan Bay Area 2013 land use assumptions. An update to incorporate the Plan Bay Area 2040 assumptions is under way. The model addresses traffic volumes, VMT, transit accessibility, and miles of congested roads.

City of Oakland General Plan Land Use and Transportation Element

The Land Use and Transportation Element (LUTE) (City of Oakland 1998) includes objectives and policies to maintain acceptable traffic operations, reduce congestion, and promote the use of alternative transportation modes. The following policies are relevant to the Project:

- **Policy T3.5: Including Bikeways and Pedestrian Walks.** The City should include bikeways and pedestrian walks in the planning of new, reconstructed, or realized streets, wherever possible.
- **Policy T3.9: Providing Parking for Transportation.** The City should strive to provide parking for multiple modes of transportation throughout the city where it is needed and does not unduly disrupt traffic flow.
- **Policy T4.8: Accommodating Multiple Types of Travel on the Bay Bridge.** The City should encourage the design and engineering for the new Bay Bridge to accommodate multiple means of access and travel by automobiles, trucks, transit, bicycles, pedestrians, and future mass transit.
- **Policy T4.9: “Gateway” Public Access Area.** The City, in concert with the East Bay Regional Park District, Port of Oakland, Oakland Base Reuse Authority, and Bay Conservation and Development Commission, should support development of a significant new “gateway” public park area at the terminus of the San Francisco-Oakland Bay Bridge east span that is accessible by auto, bicycle, or walking.
- **Policy T4.10: Converting Underused Travel Lanes.** Take advantage of existing transportation infrastructure and capacity that is underutilized to convert travel lanes to bicycle or pedestrian paths or amenities.

City of Oakland Vehicle Miles Traveled Thresholds

The City of Oakland has established VMT thresholds for typical development projects, such as residential, office, or retail projects. Transportation projects are typically evaluated to determine if they could result in induced travel. For example, adding a lane to a congested portion of a highway could result in additional travel as time barriers to travel are reduced. Guidance from OPR, as documented in the December 2018 technical advisory (Governor’s Office of Planning and Research 2018), specifies that “the addition of new or enhanced bicycle or pedestrian facilities on existing streets/highways or within existing public rights-of-way, as well as the addition of Class I bicycle paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel,” is not likely to increase VMT and should not require an induced travel analysis.

City of Oakland Resolution 84204 Complete Streets Policy

The City of Oakland’s Complete Streets Policy (Resolution No. 84204 C.M.S.) states a strong preference for encouraging the use of non-automobile transportation modes, such as transit, bicycling, and walking. This resolution expresses the City of Oakland’s commitment to creating and maintaining “complete streets” that provide safe, comfortable, and convenient travel along and across streets through a comprehensive, integrated transportation network that serves all categories of users. This resolution further states that City of Oakland agencies are committed to maintaining sensitivity to local conditions when planning and implementing street projects.

City of Oakland Bicycle Plan

In July 2019, the Oakland City Council adopted Let’s Bike Oakland!, an update to the City of Oakland Bicycle Plan. The plan focuses on updating the 2007 plan’s vision, goals, and policies with a focus on

equity, engaging local community organizations, developing an action plan with performance measures for increasing the number of people who bike, decreasing bicyclist crashes, improving the quality of bikeways to serve all ages and abilities, supporting and expanding existing community-led programs to teach and support new and continuing bicyclists, and implementing the plan with a focus on an equitable distribution of programs and projects.

City of Oakland Pedestrian Plan

The City of Oakland Pedestrian Plan was updated and adopted in 2017. The pedestrian plan identified the "high-injury network," a set of 34 high-injury corridors and 37 high-injury intersections. It also incorporated up-to-date information on existing conditions, refined the City's pedestrian vision and goals, and outlined a five-year work plan of specific high-priority and cost-effective improvements, programs, and policies.

West Oakland Truck Management Plan

The West Oakland Truck Management Plan, prepared by the City of Oakland and the Port of Oakland, is an action plan designed to reduce the effects of truck transportation on local streets in West Oakland. The plan identifies a number of improvements in the West Oakland area, including designating additional streets as Truck-Prohibited Streets, improving truck routing and wayfinding to minimize the number of trucks driving on non-industrial streets, improving safety at intersections near the Port, improving traffic enforcement, changing parking regulations, and improving parking enforcement.

West Oakland Community Action Plan

The West Oakland Community Action Plan, prepared by the Bay Area Air Quality Management District, identifies specific strategies and goals to improve air quality and reduce pollution in West Oakland. Although most of the emissions in West Oakland come from the Port and Port-related functions, there are strategies in the plan related to improving the design and safety of local streets to encourage residents to walk or ride bicycles.

AC Transit Service Adjustment Plan

The AC Transit Service Adjustment Plan, prepared by AC Transit, identifies changed routes in their service area, mostly to increase the frequency of specific routes and eliminate some underperforming routes.

West Oakland Specific Plan

The West Oakland Specific Plan, prepared by the City of Oakland, provides comprehensive, multi-faceted strategies for facilitating the development of selected vacant and/or underutilized commercial and industrial properties within the West Oakland community. The plan is a tool for supporting, attracting, and developing commercial and industrial enterprises that will provide the jobs and services needed by the West Oakland community and the city of Oakland at large.

City of Oakland Standard Conditions of Approval

As stated in Section 1.7.2, *Permits/Approvals*, the Oakland SCA includes conditions of approval for projects. The following SCA is required for all construction projects:

74. Construction Activity in the Public Right-of-Way.

- (a) The project applicant shall obtain an obstruction permit from the City prior to placing any temporary construction-related obstruction in the public right-of-way, including City streets, sidewalks, bicycle facilities, and bus stops.
- (b) In the event of obstructions to vehicle or bicycle travel lanes, bus stops, or sidewalks, the project applicant shall submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit.
- (c) The project applicant shall repair any damage to the public right-of way, including streets and sidewalks, caused by project construction at his/her expense within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to approval of the final inspection of the construction-related permit.

2.17.2 Discussion of Potential Impacts

- a. The Project would have a less-than-significant impact resulting from potential conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.**

During construction, the Project would result in a less-than-significant impact.

For operation, the Project would have a less-than-significant impact related to conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. The Project would also have a less-than-significant impact on parking.

Construction

If the Project is constructed as a single contract, Project construction is estimated to occur over 24 months, from October 2023 to October 2025. However, the Project may be constructed in phases, as follows:

- Phasing Option 1 would take 21 months for the initial build, and the remaining construction would take an additional 18 months.
- Phasing Option 2 would take 21 months for the initial build, and the remaining construction would take an additional 18 months.
- Phasing Option 3 would take 21 months for the initial build, and the remaining construction would take an additional 15 months.

During the construction period, temporary and intermittent transportation impacts may result from truck movements and construction workers' vehicles traveling to and from the Project area. The construction-related traffic may temporarily reduce roadway capacities in the Project vicinity and increase congestion. This is because construction trucks have slower movements and larger turning radii compared to passenger vehicles. In addition, construction activities could disrupt access to existing land uses and parking along the alignment and impede pedestrian and bicycle flow. Construction equipment could block roadways and damage streets. However, incorporation of the City's SCA 74, Construction Activities in the Public Right-of-Way, requires that the Project applicant obtain an obstruction permit prior to placing any temporary construction-related obstruction in the public right-of-way, prepare a traffic control plan, and repair any damage to the public right-of-way caused by construction. The traffic control plan would contain a set of comprehensive traffic control measures for auto, transit, bicycle, and pedestrian accommodations (or detours, if accommodations are not feasible), including detour signs if required, lane closure procedures,

signs, cones for drivers, and designated construction access routes. Through incorporation of this SCA, this impact would be less than significant.

Operation

The City of Oakland and other agencies adopted several plans that influence the West Oakland area. These plans were reviewed to determine if the Project would result in a conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

Let's Bike Oakland

The City of Oakland Bicycle Plan identifies a new protected bicycle lane on West Grand Avenue from Maritime Street east through downtown Oakland and beyond. Within the Project area, Wood Street is designated as a future neighborhood bicycle route, and buffered bicycle lanes are proposed to be provided on 14th Street, 18th Street, and Mandela Parkway. The Project would advance the provision of protected bicycle facilities on West Grand Avenue by completing the portion of the Project between Mandela Parkway and Maritime Street. The Project would also provide Class II bicycle lanes on the following roadways:

- West Grand Avenue alley (westbound), from Mandela Parkway to Wood Street
- 20th Street, from Peralta Street (one block south of West Grand Avenue) to Wood Street
- Wood Street, from 20th Street to 24th Street
- Willow Street, from 20th Street to West Grand Avenue
- Campbell Street, from 20th Street to West Grand Avenue alley
- Wood Street parking lot

This would provide additional bicycle facilities beyond those identified in the City of Oakland Bicycle Plan and would not preclude the provision of additional bicycle facilities as identified in the plan by others.

Oakland Walks

The City of Oakland Pedestrian Plan identifies the Project area as a car-dependent area, with the worst sidewalks in the city and the second-highest transportation system injury rate. The Project does not propose any changes at high-injury intersections. There are numerous sidewalk gaps in the area, including on Wood Street and 20th Street. Construction of the proposed Project would not preclude the construction of additional sidewalk facilities by others.

West Oakland Truck Management Plan

As described above, the West Oakland Truck Management Plan is an action plan designed to reduce the effects of truck transportation on local streets in West Oakland. The proposed Project would not preclude the implementation of any of the plans or strategies identified in the West Oakland Truck Management Plan, and although it would not construct any of the safety improvements identified, the Project would improve bicycle facilities along Grand Avenue (a truck route), thereby improving bicyclist safety in West Oakland.

West Oakland Community Action Plan

The West Oakland Community Action Plan identifies specific strategies and goals to improve air quality and reduce pollution in West Oakland. Although most of the emissions in West Oakland come from the Port and Port-related functions, there are strategies in the plan related to improving the design and safety of local streets to encourage residents to walk or ride bicycles. Because the Project would provide improved bicycle infrastructure in the area, it would help further the goals in the West Oakland Community Action Plan and would not preclude the implementation of other strategies.

AC Transit Service Adjustment Plan

The AC Transit Service Adjustment Plan identifies changed routes in the Project vicinity, mostly to increase the frequency of specific routes and eliminate some underperforming routes. Implementation of the proposed Project would not preclude planned changes to AC Transit service in the area.

West Oakland Specific Plan

As described above, the West Oakland Specific Plan provides comprehensive, multi-faceted strategies for facilitating the development of selected vacant and/or underutilized commercial and industrial properties within the West Oakland community. The plan identifies the provision of bicycle facilities in the area, including Class II bicycle facilities on West Grand Avenue. The proposed Project advances these improvements by constructing a Class I bicycle facility along the West Grand Avenue corridor between Mandela Parkway and Maritime Street.

The West Oakland Specific Plan also identifies Wood Street as a Neighborhood Route and intersecting streets, such as 20th Street, as Minor Priority Pedestrian Routes. A Neighborhood Route is a local street that connects schools, parks, recreational centers, and libraries. Neighborhood Routes are intended to be used for active transportation as well as recreation; Neighborhood Routes accommodate safe walking at night. The proposed Project would improve a portion of Wood Street, as well as intersecting streets, helping to achieve West Oakland Specific Plan goals. Implementation of the Project would not preclude the implementation of other goals and policies articulated in the plan.

Parking

Wood Street, Willow Street, Campbell Street, and 20th Street in the Project area are low-volume, two-lane local streets. There is no signed street parking on these streets, but the road width of these streets is wider than standard two-lane streets. The additional width is used as street parking on both sides of the streets for businesses.

Implementation of the Project would restripe these streets to eliminate the informal parking on one side of the streets and provide Class II bike lanes on both sides of the streets, which would result in the loss of some street parking. However, field observation and a review of Google Earth aerial images and street views indicate that the number of vehicles using on-street parking on these streets is low. Therefore, with implementation of the Project, the parking supply for businesses on the streets is expected to be sufficient.

The City of Oakland General Plan LUTE and the City's Complete Streets Policy (Resolution No. 84204 C.M.S.) state a strong preference for encouraging the use of non-automobile transportation modes, such as transit, bicycling, and walking. The Project would encourage the use of non-automobile transportation modes by providing additional bicycle and pedestrian facilities within the city of Oakland. The Project would add Class I bicycle facilities along the West Grand Avenue corridor consistent with the City's 2007 Bicycle Master Plan. The Project would add Class II bicycle facilities in the West Grand Avenue corridor vicinity. Therefore, the Project would not conflict with adopted City policies, plans, or programs regarding

public transit, bicycle, or pedestrian facilities. In addition, although not required to reduce this impact to a less-than-significant level, **Mitigation Measures TR-1** through **TR-5** would improve access, circulation, safety, and comfort for pedestrian and bicyclists. This would further encourage the use of these modes of travel in the Project vicinity.

Conclusion

Based on the above review of applicable plans, the Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. This would result in a less-than-significant impact, and no mitigation measures are required.

b. The Project would have a less-than-significant impact resulting from a conflict or inconsistency with CEQA Guidelines Section 15064.3, subdivision (b)(1).

Guidance from OPR, as documented in the December 2018 technical advisory, specifies that the addition of new or enhanced bicycle or pedestrian facilities on existing streets/highways or within existing public rights-of-way, as well as the addition of Class I bicycle paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel, is not likely to increase VMT and should not require an induced travel analysis. Therefore, the Class I and Class II facility portions of the Project can be presumed to have a less-than-significant impact on VMT, and no further analysis is required. However, the 100-space parking lot portion of the Project¹⁹ may not be exempt from VMT analysis. Because there are no published guidelines or criteria to evaluate VMT for a parking lot that serves as a trailhead for a Class I facility, guidance presented in the City of Oakland Transportation Impact Review Guidelines and the concepts presented in the technical advisory were applied to the parking lot portion of the Project, considering the intent of SB 743, which is to “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.”

The guidelines suggests the use of “screening criteria” that can be applied to a project to determine whether that project can be presumed to cause a less-than-significant level of VMT, in which case the project could be screened out of further VMT analysis. The City of Oakland criteria include the ability to screen out small projects, which are defined as projects that generate fewer than 100 vehicle trips per day. It is estimated that the parking lot portion of the Project could generate up to 400 vehicle trips per day. However, many of these trips are most likely already on the roadway system and not new vehicle trips. In addition, many people who ride bikes on the Bay Bridge Path have been observed to park in other locations in the vicinity, including the Ikea and Target parking lots and parking areas off Burma Road. However, the extent of this has not been quantified, and providing a trail facility parking facility in combination with the new bicycle facilities could be expected to generate new bicycle travel demand that could back-fill parking demand shifts in the area.

Another screening method is map-based screening, in which geographic areas that generate low levels of VMT are identified. Projects that are located in those areas are presumed to exhibit similarly low levels of VMT and thus can be screened out of doing further VMT analysis. The MTC has prepared VMT maps that characterize current (2020) VMT per capita by place of residence and VMT per capita by place of work for the Bay Area. The parking lot portion of the Project is located in an area that experiences low levels of VMT per capita by place of residence, meaning that people who live in this area tend to travel shorter distances for their daily needs. Although employment uses in this area tend to have higher levels of VMT, this is largely a function of the primarily industrial jobs located in the area.

¹⁹ The parking lot would very likely reduce the driving distance to Judge John Sutter Regional Shoreline, leading to an overall decrease in shoreline traffic VMT.

Although the parking lot portion of the Project is expected to generate some new VMT, it is expected to be at a low level on per capita basis because the people who live in the general vicinity tend to travel at levels at least 15 percent below existing regional averages per household. If the parking lot portion of the Project were not constructed, trail users that drive to the area would very likely still continue to drive and park in non-designated areas and use roadway facilities connecting to the trail that do not provide adequate bicycle facilities. Therefore, if the parking lot were not constructed, there would most likely not be an appreciable change in overall VMT, and there could be worse safety outcomes. Therefore, based on the review of VMT per capita levels in the area and the types of trips in the area expected to be generated by the Project—primarily residential based trips for recreational purposes—the parking lot portion of the Project is expected to have a less-than-significant impact on VMT.

c. The Project would have a less-than-significant impact with mitigation as a result of a potentially substantial increase in hazards because of a geometric design feature or incompatible uses.

The Project is not expected to result in a significant demand for public transit, nor would it change any existing transit facility. Therefore, the impact on bus rider safety is considered to be less than significant. The following sections describe impacts resulting from transportation hazards, Link design, and pedestrian and bicycle safety.

Transportation Hazards

The Project is intended to provide a safe route for bicyclists and pedestrians who travel between West Oakland and the Bay Bridge Trail by separating bicycle and pedestrian travel from motor vehicle travel and reducing potential conflicts between different roadway users. Access to the Link from the east would be from West Grand Avenue at Mandela Parkway. Access to the Link for users who park within the Wood Street parking lot would be from new Class II bike lanes marked on Wood Street, 20th Street, Willow Street, and Campbell Street. The Class II bike lanes would connect to the at-grade section of the Link on West Grand Avenue between Mandela Parkway and Campbell Street.

The Link would provide a physical separation between Link users (pedestrians and bicyclists) and motor vehicle traffic for most of its length, thereby reducing hazards. However, there are two intersections where there are potential hazards for pedestrians and bicyclists, as described below.

West Grand Avenue/Frontage Road/I-80 Ramps Intersection. The Project would add pedestrian and bicycle traffic to the intersection where the current pedestrian crosswalk and signals would be insufficient to accommodate increased demand. This could create a hazard for bicyclists and pedestrians.

Implementation of **Mitigation Measure TR-1** (Implement Signal Upgrade Crosswalk Improvement at West Grand Avenue/Frontage Road/I-80 Ramps Intersection) would reduce the impact to less than significant.

West Grand Avenue/Mandela Parkway (Northbound). The Project would add pedestrian and bicycle traffic to the intersection, increasing exposure to vehicles at the intersection. This could create a hazard for bicyclists and pedestrians. Implementation of **Mitigation Measure TR-2** (Implement Improvements at West Grand Avenue/Mandela Parkway Intersection) would reduce the impact to less than significant.

Link Design

The Link would be constructed in five sections with varying widths, reflective of right-of-way constraints. Because the Project is intended to accommodate both bicycle and pedestrian travel, there could be some conflicts between bicyclists and pedestrians. Generally, the path is being designed to provide 10 feet for bicyclists (5-foot lanes in each direction), a 5-foot area for pedestrians, and a 2-foot area for fencing within a 17-foot cross section. Segments 2 and 3 would have a width of 14 feet (10-foot clear area and 4 feet for

shoulders to accommodate fencing). The Caltrans *Highway Design Manual* (Chapter 1000) specifies a minimum width of 8 feet for a two-way bike path, with 10 feet preferred. Where a path is on a structure, the minimum width of the path is 14 feet to provide 10 feet for travel and a 4-foot shoulder area.

The Class I portion of the Project as currently proposed would meet or exceed Caltrans standards for Class I path design. The volume of pedestrian and bicycle travel along the Link is expected to be less than 10 percent of the total pedestrian and bicycle traffic that is expected through the park area and the east span of the Bay Bridge, with higher levels of bicycle activity than pedestrian activity. This level of activity would result in 140 to 450 Link users on a typical weekday and 430 to 830 Link users on a weekend day, with less activity during an individual hour.

The Trail Level of Service (LOS) Calculator was developed by North Carolina State University and Toole Design Group, based on the Federal Highway Administration *Shared-Use Path Level of Service Calculator—A User's Guide*, July 2006. The calculator was used to assess pedestrian/bicycle LOS on the Link, which considers factors such as bicyclist passing, desired buffer space between path users, and the mix of bicyclists, pedestrians, runners, and child bicyclists. Based on the weekend peak-hour pedestrian/bicycle volume estimate for the Link (between 60 and 120 trail users in a peak hour), the trail LOS is B for the segments with a 17-foot cross section and LOS C for segments with a 14-foot cross section, meaning that pedestrians and bicyclists can generally travel fairly unimpeded along the Link, although some bicyclists may have to wait to pass a slower moving bicyclist. Trail operations would be better during other times of day and week.

Approximately 500 users per hour could be accommodated on the path at an LOS D condition, which is considered the functional capacity of a trail. When these conditions are experienced, bicyclists are likely to avoid peak periods or adjust expectations of path operations. Segment 3 of the Link constrains the volume of pedestrian and bicycle travel that could be accommodated along the entire Link corridor.

Bicycle/pedestrian conflicts could exist where the path would connect to the existing Bay Bridge Trail, below the I-880/I-80 connection. This could result in bicycle/pedestrian conflicts at the intersection and create a hazard for pedestrians and bicyclists. Implementation of **Mitigation Measure TR-3** (Implement Improvements at Bay Bridge Trail Intersection) would reduce the impact to less than significant.

Pedestrian and Bicycle Safety

The Project would add a separated bicycle and pedestrian path, connecting West Oakland to the Bay Bridge Trail, that would be open at all times and enhance bicycle safety by adding a separated bicycle facility where there currently is none. Sidewalks and paths are provided in the Project vicinity along Grand Avenue and Mandela Parkway, connecting to the Link, as well as crosswalks and pedestrian signals. Some Link pedestrians could use the Wood Street parking lot. Although sidewalks are provided on some of the streets around the parking lot, they are discontinuous in the area. In addition, some bicyclists could use the Wood Street parking lot and access the Link from the Class II bicycle facilities proposed on the streets connecting the Wood Street parking lot and the Link.

A second hazard to bicyclists could result within Segment 4 of the path, which contains a 180-degree curve on a 2 percent grade to transition from the elevated structure to the at-grade level. Based on guidance provided in the Caltrans *Highway Design Manual*, a 5 percent grade is the maximum allowed for short segments, and 2 percent is recommended for sustained grades.

Distance between Wood Street Parking Lot and Link. The Project would add pedestrian and bicycle travel on the roadways between the Wood Street parking lot and the start of the Link on West Grand Avenue at Mandela Parkway, a distance of approximately 0.25 mile. The Project could add Class II

bicycle facilities in this area, if funding is available. This could create a hazard for pedestrians and bicyclists because sidewalks are discontinuous in this area and street lighting is intermittent. In addition, if the Wood Street parking lot is constructed without the accompanying bicycle facilities, a hazard to bicyclists would result because new bicyclist demand would be added to an area without facilities to serve the demand. Implementation of **Mitigation Measure TR-4** (Implement Pedestrian and Bicycle Safety Measures between Wood Street Parking Lot and Path) would reduce the impact to less than significant. Measures would include crosswalks and crossing treatments, lighting, and wayfinding elements as necessary.

Segment 4 Switchback. At the west end of the elevated Link, Segment 4 includes a switchback or 180-degree curve to transition from the elevated structure to grade level. Based on guidance provided in the Caltrans *Highway Design Manual*, the current design does not provide a sufficient turn radius to maintain a minimum design speed of 20 miles per hour for a bicycle path. Bicyclists can exceed speeds of 20 miles per hour, especially on flat surfaces or downgrade. In addition, there may not be clear lines of sight. This could result in unsafe conditions for bicyclists and pedestrians. The posted speed on the Bay Bridge Trail is 15 miles per hour, and it is likely the posted speed on the elevated Link would be 15 miles per hour or less. However, this has not yet been determined. Implementation of **Mitigation Measure TR-5** (Implement pedestrian/Bicycle Safety Measures along Segment 4 of the Link) would include installing warning signs at the curve approaches and maintaining clear lines of sight to minimize the potential for collisions. Therefore, this impact would be less than significant with mitigation.

d. The Project would have a less-than-significant impact on adequacy of emergency access.

During construction, temporary lane closures would occur, which could cause short-term disruption of emergency access along the corridor. As described in Section 1.6.3 of the project description, construction activities are not anticipated to result in any long-term road closures. Temporary road closures could affect Campbell Street and Willow Street for intersection modifications at West Grand Avenue alley to allow for footing construction and excavation; and Maritime Street, to place falsework over Maritime Street for the new elevated structure. Construction vehicles and equipment would not park or stop along key collector roads and block emergency vehicle access or hinder emergency response.

The Project includes installing a cul-de-sac where Willow Street intersects West Grand Avenue alley, closing West Grand Avenue alley on the south side of West Grand Avenue. These changes would prevent emergency vehicles from using these roadways. However, because of the grid street network in the Project area and the short distance between parallel streets, the impact on the emergency vehicle response time is expected to be less than significant.

2.17.3 Mitigation Measures

Mitigation Measure TR-1: Implement Signal Upgrade and Crosswalk Improvement at West Grand Avenue/Frontage Road/I-80 Ramps Intersection

BATA/Caltrans will be responsible for implementing future improvements at the West Grand Avenue/Frontage Road/I-80 ramps intersection to minimize conflicts and safety hazards between vehicles and Link users. This includes upgrading the marked crosswalk along the south leg of the intersection to be the same width as the Link, installing pedestrian and bicycle signals, and upgrading traffic signal equipment as necessary. This includes installing video detection equipment to accommodate pedestrian and bicycle movement across the intersection. With installation of video detection for both bicyclists and vehicles, the improvements are not projected to degrade automobile LOS at the intersection.

Mitigation Measure TR-2: Implement Signal Upgrade and Optimization at West Grand Avenue/Mandela Parkway (northbound) Intersection

BATA/Caltrans will coordinate with the City of Oakland to implement signal upgrades and optimization at West Grand Avenue/Mandela Parkway (northbound) intersection. This includes modifying the eastbound approach to convert the shared left through lane to a left-turn-only lane, installing protected phasing for the eastbound and westbound left-turn movements, and upgrading traffic signal equipment as necessary to provide bicycle video detection.

Mitigation Measure TR-3: Implement Safety Measures at Bay Bridge Trail Intersection

BATA/Caltrans will design the path in the vicinity of the Bay Bridge Trail intersection to provide for safe movement, provide directional signage and striping, and potentially provide a bicycle stop sign on the path at the Bay Trail connection.

Mitigation Measure TR-4: Implement Pedestrian/Bicycle Safety Measures between Wood Street Parking Lot and Link

Prior to operation, BATA/Caltrans will implement the following pedestrian/bicycle safety measures between the Wood Street parking lot and the Link.

- Identify the preferred pedestrian/bicycle route between the Wood Street parking lot and the Link.
- Install crosswalks, crossing treatments, pedestrian-scale lighting, and wayfinding elements as necessary along the route to guide pedestrians and bicyclists.

Mitigation Measure TR-5: Implement Pedestrian/Bicycle Safety Measures along Segment 4 of the Link

Prior to final design, BATA/Caltrans will implement the following bicycle safety measures along the west end of Segment 4 of the Link:

- Install warning signs at the curve approaches on Segment 4 where the Link ascends and descends with a switchback curve.
- Ensure there are clear lines of sight maintained between path sections and, where practical, provide a wider cross section through the curve area.