

5. Alternatives to the Project

5.1 Overview

Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines requires that an Environmental Impact Report (EIR) describe a range of reasonable alternatives to the project, or to the location of the project, that would feasibly attain most of the basic objectives of the project but avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR is not required to consider alternatives that are infeasible.

5.2 Introduction

This chapter presents the alternatives analysis for the Larkspur Ferry Service Expansion and Parking Project (Project) as required by CEQA. This chapter includes a discussion of the CEQA requirements for an alternatives analysis and describes the process used to identify alternatives for evaluation.

Project design concepts were developed to meet the Project objectives: accommodating forecast ferry ridership demand to 2050 and beyond; providing a reliable, competitive travel alternative into San Francisco on United States Highway 101 (US 101) from Larkspur that reduces vehicle miles traveled (VMT) and greenhouse gases (GHG); enhancing onsite components to encourage multimodal travel, transit and non-motorized access; and developing parking solutions that accommodate ferry ridership to 2050 and beyond. The concepts are contained in two Build Alternatives that were evaluated based on their ability to meet the Project objectives. Alternative 3 – Transportation Demand Management Only was specifically considered in response to comments received during public outreach and the scoping process.

This chapter compares the impacts of the Build Alternatives, analyzed in Chapter 3, Environmental Analysis, and the No-Project Alternative. The Build Alternatives are compared with respect to their environmental effects and their ability to achieve the Project objectives. The chapter evaluates the alternatives' impacts compared to existing environmental conditions. Finally, it describes alternatives considered during project development but eliminated from detailed consideration in this EIR and Alternative 3, including the reasons for elimination.

5.3 CEQA Requirements for Alternatives Analysis

The State CEQA Guidelines require the analysis of a reasonable range of alternatives to a proposed project or to the location of a project that would feasibly attain most of the basic objectives of the project and avoid or substantially lessen the significant effects of the project (State CEQA Guidelines Section 15126.6[a]). The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those potentially feasible alternatives necessary to foster informed public participation and an informed and reasoned choice by the decision-making body (State CEQA Guidelines Section 15126.6[f]). CEQA generally defines "feasible" to mean the ability to be accomplished in a successful manner within a reasonable timeframe, considering economic, environmental, social, technological, and legal factors. The following factors may also be taken into consideration when assessing the feasibility of alternatives: site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and the ability of the proponent to attain site control (State CEQA Guidelines Section 15126.6[f][1]). An EIR need not consider an alternative whose impact cannot be reasonably ascertained and whose implementation is remote and speculative.

Furthermore, an EIR need not consider every conceivable alternative but must consider a reasonable range of alternatives that will foster informed decision-making and public participation.

CEQA also requires the evaluation of a no-project alternative (State CEQA Guidelines Section 15126.6[e]). The analysis of a no-project alternative is based on the assumption that the proposed project would not be approved. In certain instances, the no-project alternative means “no build,” wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in the preservation of existing environmental conditions, the no-project alternative should identify the practical result of the project’s non-approval rather than create and analyze a set of artificial assumptions to preserve the existing physical environment.

An environmentally superior alternative must also be identified among the alternatives considered. The environmentally superior alternative is generally defined as the alternative that would result in the least adverse environmental impact on the project site and affected environment. If a no-project alternative is found to be the environmentally superior alternative, the EIR must identify an environmentally superior alternative among the other alternatives (State CEQA Guidelines Section 15126.6[e][2]).

State CEQA Guidelines Section 15126.6(c) also requires an EIR to identify and briefly discuss any alternatives that were considered by the lead agency but rejected as infeasible during the scoping process. In identifying alternatives, primary consideration was given to alternatives that would reduce significant impacts while still meeting most of the basic project objectives. Those alternatives that would have impacts identical to or more severe than those of the proposed project or would not meet most of the basic project objectives were rejected from further consideration.

5.4 Alternatives Selection

The goal of developing a set of possible alternatives is to identify other means for attaining the Project objectives while substantially lessening or avoiding one or more of the significant environmental impacts potentially caused by the proposed Project. The proposed Project’s objectives and significant impacts were considered in developing a reasonable range of alternatives for analysis so that the alternatives analyzed meet most of the objectives and avoid or minimize at least one of the proposed Project’s significant impacts.

5.4.1 Project Objectives

As described in Section 2.2, the Project is intended to increase ferry service and landside access to accommodate forecast future ridership demand and ensure that ferry service remains a reliable and competitive travel option that reduces VMT and GHGs along the US 101 corridor in Marin and Sonoma Counties and for the greater Bay Area through 2050 and beyond.

The Project objectives include the following:

- **Meet Growing Demand:** Meet increasing demand for ferry service between the Larkspur Ferry Terminal (LFT) and San Francisco in 2050 and beyond
- **Expand Capacity:** Accommodate higher levels of ferry service beyond the historic cap of 42 average daily trips
- **Relieve Congestion:** Reduce traffic congestion within the US 101 highway corridor by providing an alternative and time competitive mode of travel to San Francisco that will reduce VMT and air emissions

- Improve Multimodal Access: Develop facilities at the LFT to accommodate future ferry riders arriving by car, carpool, bus, train, bicycle/scooter, foot and other modes, including building parking garages on the Main Lot and North Lot

The Golden Gate Bridge, Highway and Transportation District (District) considered various options to meet the Project objectives and in response to public comments received during the scoping process. The District identified two feasible Build Alternatives, which are described in Chapter 2, Project Description. Both Build Alternatives would generally occupy the same project footprint and include increased ferry service, improve the pickup/drop-off area to provide designated areas for fixed-route transit loading and unloading, transportation network companies, kiss and ride; upgrade bicycle storage facilities; and improve pedestrian connections; and construct new parking garages with EV charging spaces. The primary distinctions between Alternative 1 and Alternative 2 are that Alternative 1 would include a five-level Main Lot parking garage, whereas Alternative 2 would include a four-level Main Lot parking garage and enhanced transportation demand management (TDM) measures, as described in Section 2.3.2.3.

5.4.2 Summary of Significant Impacts of Build Alternatives

This Draft EIR (DEIR) identified significant and unavoidable impacts associated with aesthetics and transportation for the Build Alternatives. Mitigation measures were included for aesthetics; however, the mitigation was unable to reduce the impact to less than significant. For transportation, the Project would contribute to a significant operational impact associated with queuing at the southbound US 101 off-ramp, backing up onto the US 101 mainline within California Department of Transportation right-of-way. No feasible mitigation within the control of the District was identified to reduce the impact to less than significant.

This DEIR also identified the following resource areas, which would result in significant impacts from the Build Alternatives but could be reduced to less than significant through proposed mitigation:

- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Tribal Cultural Resources

5.5 Alternatives Analysis

Both Build Alternatives were evaluated in equal detail. The No-Project Alternative is required under State CEQA Guidelines Section 15126.6(e). The selected alternatives, which were developed by the District with input from the local communities, were identified based on their ability to accommodate forecast ferry ridership demand through 2050 and beyond and achieve the Project objectives. The alternatives evaluated include the following:

- No-Project Alternative
- Alternative 1: Increased Ferry Service and New Parking Garages
- Alternative 2: Increased Ferry Service, New Parking Garages, and Enhanced Transportation Demand Management

The impacts of Alternative 1 and Alternative 2 (Build Alternatives) are analyzed in Chapter 3, Environmental Analysis. Table 5-1 provides a comparison between the impacts of the two Build Alternatives and the No-Project Alternative.

5.5.1 No-Project Alternative: Maintain Existing Levels of Ferry Service, with No Change to Bicycle, Pedestrian, Transit or Parking Access

The State CEQA Guidelines require a lead agency to evaluate a No-Project Alternative in an EIR to allow decision-makers to compare the impacts of approving the proposed Project with the impacts of not approving the proposed Project (State CEQA Guidelines Section 15126.6[e]). Under the No-Project Alternative, an agency must consider what would be reasonably expected to occur in the foreseeable future if the proposed Project were not approved, based on current plans and consistent with available infrastructure and community services.

Under the No-Project Alternative, the District would not change the number of daily revenue trips. The District would not build additional parking garages or make any other improvements to improve landside access to accommodate forecast ferry ridership to 2050 and beyond. The No-Project Alternative would not include additional parking spaces, bicycle parking, or storage and would not provide any enhanced TDM improvements. Parking at the LFT would remain the same as the existing conditions, with surface parking available at the North Lot and Main Lot. The legacy fleet would still be retired and replaced with the Liwa-class vessels by 2033, and the LFT would continue to operate as it does currently.

5.5.1.1 Characteristics of the No-Project Alternative

Ferry Service Levels

The number of ferry revenue trips is capped at 42 weekday revenue crossings, consistent with approved service levels.

Up to four special event crossings are estimated, including crossings to serve Oracle Park and large concert or other events. Up to six additional deadhead trips are estimated, including the runs returning to Larkspur in the morning and heading to San Francisco in the afternoon to support additional peak revenue services. The maximum numbers of large event special service trips and maintenance trips are anticipated to be the same as existing.

Actual service would depend on demand and subject to the District's standard operating practices.

Drive and Park

In the No-Project Alternative, the number of parking stalls in the North Lot and Main Lot would remain the same as under existing conditions, for a total of 2,023 spaces.

Drop Off/Transportation Network Companies

Curb space is provided in front of the ferry terminal for pick up/drop off by private vehicles or transportation network companies. This area will remain as-is in the No-Project Alternative.

Transit

The ferry terminal will continue to be served by existing transit, and one feeder shuttle route is expected to be restored by 2035.

Non-Motorized Access Modes

The No-Project Alternative maintains existing onsite facilities for pedestrians and bicyclists.

Transportation Demand Management

The No-Project Alternative would not include any TDMs. There would be no increase in parking fee outside of increases in alignment with inflation to remain commensurate to the current \$2 per weekday.

5.5.1.2 No-Project Alternative Impacts

Aesthetics

Under the No-Project Alternative, there would be no change to the current views, visual character, daytime glare, or nighttime lighting. The Build Alternatives would reduce glare associated with upgrading the exterior lighting at both the Main and North Lots; overall, aesthetic impacts of the No-Project Alternative would be less than those of the Build Alternatives.

Air Quality

No construction would occur with the No-Project Alternative. As a result, none of the short-term construction-related emissions resulting from the Build Alternatives would occur. Daily operational emissions from vehicle trips would be greater for both 2035 and 2050 compared to the Build Alternatives. Daily operational emissions associated with daily ferry operations would be the same in 2035 and less than 2050 because of the increased ferry trips. The No-Project Alternative results in smaller reductions in VMT and GHG emissions associated with more vehicle trips to San Francisco compared with Alternatives 1 and 2 providing additional parking and TDM measures to address ferry ridership demand in 2050 and beyond.

Biological Resources

The No-Project Alternative would avoid impacts from construction noise impacts on special-status species and migratory birds. There would also be no change in impacts related to aquatic resources. Therefore, impacts on biological resources under this alternative would be less than those of the Build Alternatives.

Cultural Resources

Potential disruption to unknown historic, archaeological, and paleontological resources would not occur with this alternative because there would be no ground disturbance. Therefore, the impacts on cultural resources under this alternative would be less than those of the Build Alternatives.

Energy

The No-Project Alternative would not require any temporary increases in energy associated with energy use during construction. The existing terminal lighting is less energy efficient than lighting proposed under the Build Alternatives. Although the No-Project Alternative would have no construction energy use, it does not include any increase in generation of renewable energy and would therefore result in a greater net operational energy use than under the Build Alternatives.

Geology and Soils

No construction would occur under the No-Project Alternative. Therefore, none of the geologic/soils impacts associated with construction and operation would occur. Therefore, the impacts on geology and soils would be less than those of the Build Alternatives.

Greenhouse Gas Emissions

No new construction would occur with the No-Project Alternative. As a result, none of the short-term construction-related emissions resulting from the anticipated development would occur under this alternative. Therefore, construction-related GHG emissions under this alternative would be less than those of the Build Alternatives. Operation of the No-Project Alternatives would result in fewer reductions in VMT and GHGs because it does not accommodate removal of as many vehicles and trips from the transportation system compared with the Build Alternatives.

Hazards and Hazardous Materials

Because there would be no construction, under the No-Project Alternative, there would be no risk of exposure to potentially hazardous materials because construction materials and ground disturbance. Operational risks related to hazards and hazardous materials under the No-Project Alternative would be similar because there are no anticipated changes in vessel operations or maintenance activities other than additional need for fuel at the LFT to accommodate increased ferry service and forecast ridership to 2050 and beyond. Therefore, impacts related to hazards and hazardous materials under the No-Project Alternative would be less than those of the Build Alternatives during construction and operation.

Hydrology and Water Quality

Under the No-Project Alternative, the existing drainage patterns in the Project area would be maintained. The No-Project Alternative would not result in temporary impacts on water quality related to construction. The District would continue to comply with the LFT industrial general permit for the site; however, runoff would continue to flow into the Bay with no treatment. In addition, the parking lot would experience increased flood events that could impact use of the Main Lot. The Build Alternatives would provide additional treatment before discharge and be constructed above the near-term sea-level rise elevation. Therefore, impacts on hydrology and water quality under this alternative would be greater than those of the Build Alternatives.

Land Use and Planning

The No-Project Alternative and the Build Alternatives would result in a continuation of the existing uses in the Project area. The No-Project Alternative would also be consistent with *The City of Larkspur General Plan 2040* (City of Larkspur 2024) and City of Larkspur zoning regulations. However, the No-Project Alternative would not be compatible with the need for the District to increase ferry service to accommodate forecast ferry ridership to 2050 and beyond.

Noise and Vibration

With the No-Project Alternative, there would be no short-term construction noise impacts. Therefore, impacts related to noise and vibration under this alternative would be less than those of the Build Alternatives. The No-Project Alternative would not provide for the increased ferry service or forecast ferry ridership associated with the Build Alternatives. The vessel fleet would be the same under both the No-Project Alternative and the Build Alternatives. With an increase in the number of daily trips, overall, it is anticipated that there could be some additional noise associated with more departures; however, the noise

associated with departure is anticipated to be the same as the noise levels at departure under the No-Project Alternative.

Population and Housing

The No-Project Alternative would result in the continuation of existing uses in the Project area. There would be no effect on population growth or demand for housing. Therefore, the impacts on population and housing under this alternative would be equal to those of the Build Alternatives.

Public Services and Recreation

Under the No-Project Alternative, there would be no temporary impacts on public service providers related to compromised access for emergency vehicles during construction. Therefore, impacts on public services and recreation under this alternative would be less than those of the Build Alternatives.

Transportation

The No-Project Alternative would constrain ferry ridership below forecast demand, resulting in some potential ferry riders driving directly to San Francisco. Consequently, the No-Project Alternative would generate higher VMT than the Build Alternatives. Additionally, the No-Project Alternative would be inconsistent with the goals and vision presented in *Plan Bay Area 2050+* (MTC and ABAG 2025), Transportation Authority of Marin's *Getting Around Marin Strategic Vision Plan and Countywide Transportation Plan* (TAM 2024), or *The City of Larkspur General Plan 2040* (City of Larkspur 2024) because it would not provide the infrastructure needed to accommodate forecast ferry demand between Larkspur and San Francisco, thereby limiting opportunities to strengthen regional multimodal connectivity.

Tribal Cultural Resources

Under the No-Project Alternative, there would be no potential impacts from disturbance to identified resources of tribal cultural significance or unanticipated discovery of tribal cultural resources. Therefore, the impact of the No-Project Alternative on tribal cultural resources would be less than those of the Build Alternatives.

Utilities and Service Systems

The No-Project Alternative would result in the continuation of existing uses in the Project area and would not require modification to any of the existing utilities and service systems at the ferry terminal. Therefore, impacts on utilities and service systems under the No-Project Alternative would be less than those of the Build Alternatives.

Wildfire

Given the location of the No-Project Alternative in relation to the location of the Build Alternatives, the existing terminal and parking lots would have a comparable level of wildfire risk to that of the Build Alternatives. Therefore, impacts from this alternative related to wildfires would be comparable to the Build Alternatives.

5.5.1.3 Characteristics of the Alternative 1

Ferry Service Levels

The number of weekday revenue ferry crossings are projected to increase from 42 up to 76 by 2050 and beyond to accommodate projected ridership demand. Additional special event and maintenance/deadhead trips would continue as necessary to support operations. Actual service levels would depend on demand and the District's standard operating practices.

Drive and Park

Alternative 1 would increase parking capacity through construction of a new 3,998-space parking garages in the Main Lot and an 850-space parking garages in the North Lot. The Main Lot garages would consist of five levels and provide sufficient parking capacity to accommodate projected ferry ridership through 2050 and beyond.

Drop Off/Transportation Network Companies

The existing curbside passenger pickup and drop-off area would be reconfigured to improve circulation, operational efficiency, and access to the ferry terminal.

Transit

The ferry terminal would continue to be served by existing transit providers, including Sonoma–Marin Area Rail Transit (SMART), Golden Gate Transit, and Marin Transit. Transit connectivity would be maintained and enhanced through improved access and circulation features.

Non-Motorized Access Modes

Alternative 1 would improve pedestrian and bicycle access through enhanced pedestrian connections, a new pedestrian crossing, and expanded bicycle parking facilities, including a dedicated bike room with approximately 350 bicycle parking spaces.

Transportation Demand Management

Alternative 1 would provide additional carpool parking spaces on the ground floor of the Main Lot parking garages and increase parking fees beyond inflation to help recover a portion of the capital costs associated with construction of the parking garages. However, the alternative primarily accommodates future ridership growth through expanded parking capacity.

5.5.1.4 Characteristics of the Alternative 2

Ferry Service Levels

The number of weekday revenue ferry crossings are projected to increase from 42 up to 76 by 2050 and beyond to accommodate projected ridership demand. Additional special event and maintenance/deadhead trips would continue as necessary to support operations. Actual service levels would depend on demand and the District's standard operating practices.

Drive and Park

Alternative 2 would increase parking capacity through construction of a new 3,258-space parking garage in the Main Lot and an 850-space parking garage in the North Lot. The Main Lot garage would consist of four levels, one level fewer than Alternative 1.

Drop Off/Transportation Network Companies

The existing curbside passenger pickup and drop-off area would be reconfigured to improve circulation, operational efficiency, and access to the ferry terminal.

Transit

The ferry terminal would continue to be served by existing transit providers, including SMART, Golden Gate Transit, and Marin Transit. Transit connectivity would be enhanced through improved access and circulation features and the addition of two new, all-day feeder shuttle services providing connections to the ferry terminal and expanding transit access for ferry passengers.

Non-Motorized Access Modes

Alternative 2 would improve pedestrian and bicycle access through enhanced pedestrian connections, a new pedestrian crossing, and expanded bicycle parking facilities, including a bike hub with approximately 350 bicycle parking spaces and bicycle repair services.

Transportation Demand Management

Alternative 2 would rely more heavily on TDM measures to accommodate projected ridership demand than Alternative 1. The alternative would provide additional carpool parking spaces on the ground floor of the Main Lot parking garage, with more carpool spaces than under Alternative 1. Parking fees would also be increased beyond inflation to help recover a portion of the capital costs associated with parking garages and contribute to the operating costs of the feeder shuttle services.

Table 5-1. Comparison of Environmental Impact Significance by Alternative

Resource Area	No-Project Alternative	Alternative 1	Alternative 2
Aesthetics	No Impact	Significant and Unavoidable	Significant and Unavoidable
Air Quality	No Impact	Less Than Significant with Mitigation	Less Than Significant with Mitigation
Biological Resources	No Impact	Less Than Significant with Mitigation	Less Than Significant with Mitigation
Cultural Resources	No Impact	Less Than Significant with Mitigation	Less Than Significant with Mitigation
Energy	No Impact	Less Than Significant with Mitigation	Less Than Significant with Mitigation
Geology and Soils	No Impact	Less Than Significant with Mitigation	Less Than Significant with Mitigation

Resource Area	No-Project Alternative	Alternative 1	Alternative 2
Greenhouse Gas Emissions	No Impact	Less Than Significant	Less Than Significant
Hazards and Hazardous Materials	No Impact	Less Than Significant with Mitigation	Less Than Significant with Mitigation
Hydrology and Water Quality	No Impact	Less Than Significant with Mitigation	Less Than Significant with Mitigation
Land Use and Planning	No Impact	Less Than Significant	Less Than Significant
Noise and Vibration	No Impact	Less Than Significant	Less Than Significant
Population and Housing	No Impact	No Impact	No Impact
Public Services and Recreation	No Impact	Less Than Significant	Less Than Significant
Transportation	No Impact	Significant and Unavoidable	Significant and Unavoidable
Tribal Cultural Resources	No Impact	Less Than Significant with Mitigation	Less Than Significant with Mitigation
Utilities and Service Systems	No Impact	Less Than Significant	Less Than Significant
Wildfire	No Impact	Less Than Significant	Less Than Significant

The No-Project Alternative avoids the Project's transportation and aesthetic impacts; however, it does not meet the Project objectives related to the following:

- Accommodating future ferry ridership
- Increasing parking capacity
- Improving multimodal access
- Supporting regional transit demand through 2050 and beyond

Significance determinations for the Build Alternatives are the same for all environmental resource areas. The primary difference between them is the capacity of the Main Lot parking garage and the extent to which TDM measures offset the difference in parking capacity to accommodate projected ferry ridership demand to 2050 and beyond. Alternative 1 would include a five-level Main Lot parking garage to accommodate projected ferry ridership demand. Alternative 2 would include a four-level Main Lot parking garage and rely more heavily on enhanced TDM strategies, including feeder shuttle services, additional carpooling parking spaces, and other multimodal access improvements to accommodate future demand.

5.5.2 Environmentally Superior Alternative

The State CEQA Guidelines require that an environmentally superior alternative be identified. The environmentally superior alternative is the alternative that would avoid or substantially lessen, to the greatest extent feasible, the environmental impacts associated with the Project while feasibly attaining

most of the basic Project objectives. If the alternative with the least environmental impact is determined to be the No-Project Alternative, the EIR must also identify an environmentally superior alternative from among the Build Alternatives.

The identification of the environmentally superior alternative results from a comparison of the impacts associated with each alternative, as summarized in Table 5-1. The No-Project Alternative would avoid the construction-related impacts associated with the Build Alternatives, including impacts related to aesthetics, air quality, biological resources, cultural resources, GHG emissions, noise, tribal cultural resources, and transportation. Therefore, the No-Project Alternative is considered the environmentally superior alternative. However, the No-Project Alternative would not meet most of the Project objectives because it would not do the following:

- Accommodate forecast ferry ridership demand through 2050 and beyond
- Reduce VMT and GHGs emissions anticipated under the Build Alternatives
- Provide TDM measures or additional parking capacity to support increased ferry service

Pursuant to State CEQA Guidelines Section 15126.6(e)(2), because the No-Project Alternative is identified as the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the Build Alternatives.

Alternative 1 (Increased Ferry Service and New Parking Garages) would accommodate forecast ferry ridership demand through 2050 and beyond and achieve the Project objectives. Alternative 1 relies primarily on expanded parking supply to accommodate forecast ridership demand and includes more parking spaces and a taller five-level Main Lot parking garage. Alternative 1 also includes a projected increase up to 76 daily revenue crossings in 2050 to accommodate forecast increase in ferry riders.

Alternative 2 (Increased Ferry Service, New Parking Garages, and Enhanced Transportation Demand Management) would also accommodate forecast ferry ridership demand through 2050 and beyond and achieve the Project objectives. Similar to Alternative 1, Alternative 2 would include new smaller four-level parking garage within the same footprint in the Main Lot and enhanced TDM measures to offset fewer parking spaces while still accommodating forecast ferry ridership. Enhanced TDM measures would include additional multimodal access improvements designed to encourage transit use, ridesharing, bicycling, and walking. Alternative 2 also includes a projected increase up to 76 daily revenue crossings in 2050 to accommodate forecast increase in ferry riders.

Compared to Alternative 1, Alternative 2 would require less construction material, fewer hauling trips, and slightly less construction energy consumption because of the reduced size of the Main Lot parking garage. The shorter Main Lot garage would result in a reduced visual impact. Alternative 2 also consists of a reduced number of onsite parking stalls and enhanced TDM measures, resulting in fewer vehicle trips. The reduced vehicle trips results in a smaller contribution to the queuing issue at the US 101 southbound off-ramp and reductions in VMT and GHGs while accommodating the same forecast ridership demand. In 2050, Alternative 2 would reduce regional VMT by approximately 125,960 miles, displacing more fossil fuel use per day when compared to 86,056 miles per day for Alternative 1.

Although both Build Alternatives would result in similar impact conclusions for most environmental resource areas, Alternative 2 would achieve the Project objectives with greater multimodal access opportunities, greater reductions in VMT and GHGs, a shorter Main Lot parking garage, and reduced construction intensity. Unavoidable significant impacts associated with Alternative 2 would be considered less when compared to magnitude of the same unavoidable significant impacts for Alternative 1. Therefore, Alternative 2 is identified as the environmentally superior Build Alternative.

5.5.3 Alternatives Considered but Eliminated from Further Analysis

Alternative 3 – Transportation Demand Management Only, was originally considered for evaluation because of comments received during the Project scoping period. For Alternative 3, the ability of ferry service to accommodate increased ridership demand is constrained by landside facilities at the LFT. TDM measures for Alternative 3 landside facility improvements considered development of onsite facilities for seamless transfers between transit and ferry service, first/last-mile connection improvements, incentives for transit use, disincentives for parking, additional bicycle parking, and no expansion of existing parking capacity.

Although Alternative 3 would allow for increase ferry service up to 66 revenue trips in 2050 and promote multimodal access and landside facility improvements, based on Traffic Impact Analysis Report (Appendix G), it was determined that it would not meet the primary objective of the project to accommodate forecast ridership demand between the City of Larkspur and San Francisco in 2050 and beyond. In trying to meet forecast ferry ridership demand with TDM measures only, Alternative 3 was able to accommodate 14,000 daily riders, including 7,000 southbound riders in 2050 compared to the unconstrained 2050 forecast demand of 17,600 daily riders, including 8,800 southbound riders. In addition to not meeting full ferry ridership demand, the associated unmet ferry ridership demand also would generate 97,560 in daily VMT and result in a net daily increase of 5,242 VMT and associated air emissions when compared to the environmentally superior alternative. Accordingly, Alternative 3 would not achieve the Project objectives of supporting forecast ferry ridership and reducing VMT on the US 101 corridor through 2050 and beyond. Therefore, Alternative 3 was eliminated from further consideration because it would not meet most of the Project objectives.

5.5.3.1 Characteristics of the Alternative 3 – Transportation Demand Management Only

Ferry Service Levels

Under Alternative 3, ferry service would be expanded to accommodate projected ridership demand through 2050. Unconstrained ferry ridership is forecast to reach approximately 3,800 southbound riders during the weekday AM peak period in 2035 (approximately 7,500 daily trips). To serve this demand, ferry service would operate at up to 42 revenue trips per weekday, which is consistent with currently approved service levels.

By 2050, unconstrained ferry ridership is forecast to increase to approximately 8,800 southbound riders during the weekday AM peak period (approximately 17,600 daily trips). However, because parking capacity would remain unchanged, access constraints at the terminal would limit ridership growth. Ferry service would therefore increase to up to 66 weekday revenue trips using Liwa-class vessels to accommodate constrained ridership demand.

Up to four special event crossings are assumed to serve events such as those at Oracle Park or Center. Up to six deadhead trips would also occur to support ferry operations. The number of special event and maintenance trips would be similar to existing conditions.

Drive and Park

Under Alternative 3, parking capacity at the LFT would remain unchanged from existing conditions, with a total of 2,023 parking spaces between the Main Lot and North Lot.

To improve use of existing parking supply and support mode shift objectives, some parking spaces would be converted to preferred carpool/vanpool parking and bicycle-related facilities. Final changes in parking inventory would be determined during preliminary design.

Drop Off/Transportation Network Companies

The existing ferry terminal curbside area would be reconfigured to increase capacity for passenger pickup and drop-off activities and support a broader range of transportation services.

The proposed reconfiguration would include the following:

- 200 feet of bus layover space
- 32 passenger pickup/drop-off spaces
- 100 feet of curb space for reserved parking
- 100 feet of curb space for motorcycle parking
- 250 feet of curb space for microtransit pickup and drop-off activities

These improvements would support transit access and reduce reliance on single-occupancy vehicle travel.

Transit

Alternative 3 would place substantial emphasis on expanded transit connections to the ferry terminal, as follows:

- By 2035:
 - One Golden Gate Transit feeder shuttle route would operate throughout the day to match ferry schedules.
 - New microtransit service would operate during peak periods and connect nearby communities, including Larkspur, Greenbrae, and San Rafael, to the LFT.
- By 2050:
 - Up to two additional all-day feeder shuttle routes would be implemented.
 - Expanded microtransit service would serve a larger geographic area, including communities such as Fairfax and San Anselmo.

Non-Motorized Access Modes

Alternative 3 would include substantial bicycle and pedestrian improvements intended to encourage mode shift away from driving.

Improvements would include the following:

- Bicycle parking for approximately 180 bicycles and a bicycle repair facility ("bike hub") by 2035
- Expansion of bicycle parking capacity to approximately 400 spaces by 2050, subject to demand
- Improved pedestrian crossings and pedestrian connectivity between the North Lot area and the ferry terminal

Transportation Demand Management

Alternative 3 would rely heavily on TDM measures to accommodate future ferry ridership demand without constructing additional parking capacity.

Potential TDM measures would include the following:

- In 2035, parking fees would increase to account for inflation and help offset costs associated with transit-supportive improvements and feeder shuttle operations.
- In 2050, parking fees would be adjusted based on demand to encourage shifts from drive-and-park travel to transit, ridesharing, and other travel modes while remaining competitive with automobile commuting costs to San Francisco.
- Parking revenue could be used to support feeder shuttle and microtransit operations.
- Active participation in regional carpool matching programs, including Marin Commutes.
- Expanded transit, bicycle, and pedestrian access infrastructure to reduce reliance on private vehicles.