

5.15 TRANSPORTATION

5.15.1 INTRODUCTION

This section describes the existing regulatory and environmental settings, and analyzes the Project's potential to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities; to conflict or be inconsistent with State CEQA Guidelines § 15064.3(b); substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or result in inadequate emergency access.

Proposed General Plan

Proposed General Plan-related information in this section is based in part on the following study:

- *Barstow General Plan Update Transportation Study*; see **Appendix 5.15 Proposed GP-1: Transportation Study**

Barstow International Gateway (BIG)

BIG-related information in this section is based in part on the following studies:

- *Barstow International Gateway CEQA Assessment – Transportation Analysis*; see **Appendix 5.15 BIG-1: CEQA Assessment – Transportation Analysis**
- *Barstow International Gateway Level of Service Assessment – Transportation Analysis*; see **Appendix 5.15 BIG-2: Level of Service Assessment – Transportation Analysis**

Proposed General Plan: Summary of Findings

The proposed General Plan would be consistent with federal, State, and regional transportation plans, such as the Southern California Association of Governments (SCAG) 2024-2050 Regional Transportation Plan/Sustainable Communities Strategies (Connect SoCal 2024). The proposed General Plan includes policies aimed at improving mobility for all modes of transportation, including transit, pedestrian, and bicycle facilities. As such, the proposed General Plan would not conflict with a program, plan, ordinance, or policy addressing the circulation system, resulting in a less than significant impact.

While total vehicle miles traveled (VMT) is expected to increase under the proposed General Plan, as compared to the 2015 General Plan, the VMT per service population (VMT/SP) is projected to decrease. The proposed General Plan reflects a more balanced land use plan and improves the City's jobs-housing balance through efforts such as BIG. The proposed General Plan outlines a flexible development framework that may be implemented in phases and in any order, depending on market conditions, development interests, and infrastructure availability. Given this flexibility, individual development projects may proceed in ways that, if evaluated in isolation, could result in VMT levels that exceed CEQA thresholds, particularly if built in peripheral locations or ahead of planned infrastructure. To address this, the City is taking a conservative and transparent approach by identifying a significant and unavoidable

VMT impact. This acknowledges the potential for VMT impacts as the City grows, while also allowing the City to address VMT reduction comprehensively through citywide policies and mitigation strategies.

The proposed General Plan includes policies that promote safety, complete street design, and multimodal improvements. The proposed General Plan would not substantially increase hazards due to a geometric design feature or incompatible uses, resulting in a less than significant impact.

The proposed General Plan supports a connected and resilient circulation network that maintains emergency vehicle access. Future roadway improvements would be designed to meet applicable emergency access standards, resulting in a less than significant impact.

Barstow International Gateway: Summary of Findings

During construction of BIG, an approved traffic control plan would ensure continued access for emergency services and the public. During operations, the BIG project is expected to have a transformative impact on the region's transportation system. BIG would substantially reduce heavy-duty truck travel nationwide by shifting freight movement from trucks to trains, cutting hundreds of millions of truck miles annually, in furtherance of local, regional, and State transportation plans and policies. Additionally, by creating an employment hub in the Barstow area, BIG is projected to reduce vehicle miles traveled per worker and per resident, meaning it would help lower overall traffic and emissions compared to current conditions.

Overall, BIG's transportation impacts are considered less than significant, with no mitigation required.

5.15.2 REGULATORY SETTING

5.15.2.1 Federal

Federal Transportation Improvement Program

All federally-funded projects must be included in a Federal Highway Administration (FHWA)-approved Federal Transportation Improvement Program (FTIP). The FTIP is managed by the Metropolitan Planning Organizations (MPOs) and the Regional Transportation Planning Agencies (RTPAs). The Office of Federal Transportation Management Program (OFTMP) is responsible for preparing and managing the Federal Statewide Transportation Improvement Program (FSTIP), a four-year statewide intermodal program of transportation projects.

The FSTIP compiles all FHWA and Federal Transit Administration (FTA) projects that have been programmed throughout the states using federal funds. Highway Safety Improvement Program projects are programmed in the FSTIP on a lump-sum basis. Each MPO is provided with a backup list of their Highway Safety Improvement Program projects for FSTIP programming. Federal law does not directly require criteria for the analysis of federal-aid eligible roadways and highways. However, certain conditions must be met to maintain the funding eligibility of facilities. Federal agencies, such as FHWA and FTA, are also responsible for implementing certain federal environmental protection laws.

The California Department of Transportation (Caltrans) and the California Transportation Commission are responsible for producing the long-range transportation plan for planning statewide facilities (STIP). Caltrans and the California Transportation Commission prepare the STIP in cooperation with the MPOs

and the RTPAs. Federal law requires states to update the STIP at least once every four years; see also the *State Transportation Improvement Plan* Section below.

5.15.2.2 State

State Transportation Improvement Plan

As previously noted, Caltrans and the California Transportation Commission are responsible for producing a long-range transportation plan for planning statewide facilities and assembling a statewide short-term improvement plan (i.e., the STIP). California law requires the State to update and adopt this document every two years. The STIP, which is often prepared prior to the FSTIP, compiles all capacity-increasing and operations-improving projects related to rail, mass transportation, local highways, and the State highway system programmed through the State using federal or State funds.

State Greenhouse Gas Reduction Goals

California has established a framework of statutory greenhouse gas (GHG) reduction targets to guide statewide climate policy. Assembly Bill (AB) 32 (2006) mandated the reduction of GHG emissions to 1990 levels by 2020, which the State achieved in 2016 (California Air Resources Board [CARB], undated). Subsequently, Senate Bill (SB) 32 (2016) codified a mid-term target of reducing emissions to 40 percent below 1990 levels by 2030. More recently, AB 1279 (2022) set a long-term objective of achieving carbon neutrality no later than 2045, with interim milestones to ensure sectoral compliance. The California Air Resources Board (CARB) Scoping Plan provides sector-specific strategies and regulatory mechanisms to meet the State's GHG reduction targets.

California Government Code § 65080

The State requires each transportation planning agency to prepare and adopt a regional transportation plan (RTP) directed at achieving a coordinated and balanced regional transportation system.

California Streets and Highways Code § 1 et seq.

This code provides the standards for administering the statewide streets and highways system. Designated State route and interstate highway facilities are under Caltrans jurisdiction, except where facility management has been delegated to the county transportation authority.

Senate Bill 743 and State CEQA Guidelines § 15064.3

Senate Bill 743 (SB 743), codified in California Public Resources Code § 21099, created a shift in transportation impact analysis under CEQA from a focus on automobile delay, as measured by level of service (LOS) and similar metrics, toward a focus on reducing VMT and GHG emissions. The California Legislature required the Office of Planning and Research (OPR), now called the Office of Land Use and Climate Innovation (LCI), to propose new criteria for determining the significance of transportation. The statute states that upon certification of the new criteria, automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA, except in any locations specifically identified in the new criteria.

The new criteria, contained in State CEQA Guidelines § 15064.3, were certified and adopted in December 2018. State CEQA Guidelines § 15064.3 provides that VMT is the most appropriate metric to assess transportation impacts with limited exceptions (applicable to roadway capacity projects, which BIG is not). Therefore, a project's effect on automobile delay does not constitute a significant environmental impact. Other relevant considerations may include a project's effects on transit and nonmotorized travel. State CEQA Guidelines § 15064.3 further provides that transportation projects that reduce VMT should be presumed to cause a less than significant impact. This section took effect statewide on July 1, 2020.

Title 13, California Code of Regulations § 2014 and § 2015

On April 28, 2023, CARB approved the Advanced Clean Fleets Regulation, which includes Drayage Truck Requirements for drayage trucks transporting cargo to and from California's intermodal seaports and rail yards. All drayage trucks intending to begin or continue operations at a California seaport or intermodal rail yard must report in the CARB Truck Regulation Upload, Compliance, and Reporting System (TRUCRS).

- Legacy combustion powered drayage trucks (non-zero-emission) must report in TRUCRS by 12/31/23.
- Only zero-emission drayage trucks can report for drayage in TRUCRS beginning January 1, 2024.

Beginning in 2035, all drayage trucks in the TRUCRS system would be required to be zero-emission vehicles.

The regulation applies to trucks performing drayage operations at seaports and rail yards, fleets owned by State, local, and federal government agencies, and high priority fleets.

- High-priority fleets are those entities that own, operate, or direct at least one vehicle in California, and that have either \$50 million or more in gross annual revenue, or that own, operate, or have common ownership or control of a total of 50 or more vehicles. The regulation affects medium- and heavy-duty on-road vehicles with a gross vehicle weight rating greater than 8,500 pounds, off-road yard tractors, and light-duty mail and package delivery vehicles (CARB, 2023a; CARB, 2023b).

California Transportation Plan 2050

The *California Transportation Plan 2050* (Caltrans, 2021) is a core document that integrates State and transportation stakeholder plans and programs to help define and plan transportation in California. It exists within the larger context of long-range transportation planning that considers other relevant statewide, regional, and local plans and programs that may affect the transportation system.

The plan integrates findings and recommendations from key documents from various statewide programs. The plan also identifies a sustainable transportation system by pulling together these statewide long-range modal plans to envision the future system:

- Interregional Transportation Strategic Plan
- California Freight Mobility Plan
- California State Rail Plan
- California High-Speed Rail Business Plan
- Statewide Transit Strategic Plan
- California Aviation System Plan
- Bicycle and Pedestrian Plan

Assembly Bill 1358, Complete Streets Act

The California Complete Streets Act of 2008, AB 1358, was signed into law on September 30, 2008. Beginning January 1, 2011, AB 1358 required general plan circulation elements to address the transportation system from a multimodal perspective. AB 1358 states that streets, roads, and highways must “meet the needs of all users...in a manner suitable to the rural, suburban, or urban context of the general plan.” AB 1358 requires General Plan circulation elements to plan for all modes of transportation where appropriate—including walking, biking, car travel, and transit. AB 1358 also requires circulation elements to consider the transportation system’s multiple users (i.e., children, adults, seniors, and disabled people). AB 1358 required OPR to release guidelines for compliance with AB 1358 by January 1, 2014.

Assembly Bill 32, Global Warming Solutions Act

The Global Warming Solutions Act of 2006 (AB 32) establishes a comprehensive program to reduce GHG emissions to combat climate change. AB 32 required CARB to develop regulations that reduce GHG emissions to 1990 levels by 2020. On January 1, 2012, the GHG rules and market mechanisms, adopted by CARB, took effect and became legally enforceable. The reduction goal for 2020 is to reduce GHG emissions by 25 percent of the current rate in order to meet 1990 levels, and a reduction of 80 percent of current rates by 2050. The AB 32 Scoping Plan contains the main strategies California would use to reduce GHG. The scoping plan has a range of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms, and an AB 32 program implementation regulation for funding. In 2016, the Legislature passed SB 32, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB recognizes cities as “essential partners” in reducing GHG emissions. The CARB has developed a Local Government Toolkit with guidance for GHG reduction strategies such as improving transit, developing bicycle/pedestrian infrastructure, increasing City fleet vehicle efficiency, and other strategies.

Senate Bill 375 (Sustainable Communities and Climate Protection Act)

The Sustainable Communities and Climate Protection Act of 2008 (SB 375) provides incentives for cities and developers to develop housing and jobs closer to each other and to improve public transit. SB 375’s goal is to reduce automobile commuting trips and length of automobile trips, thus helping to meet the statewide targets for reducing GHG emissions set by AB 32. SB 375 requires each MPO to add a broader vision for growth to its RTP, called a “Sustainable Communities Strategy” (SCS). The SCS must lay out a plan to meet the region’s transportation, housing, economic, and environmental needs in a way that enables the area to lower GHG emissions. The SCS should integrate transportation, land use, and housing policies to plan for achieving the regional emissions target.

5.15.2.3 Local

Connect SoCal 2024

On April 4, 2024, SCAG adopted the *2024-2050 Regional Transportation Plan/Sustainable Communities Strategy* (Connect SoCal 2024), which places emphasis on sustainability and integrated planning. Connect SoCal 2024 encompasses a long-range visioning plan that balances future mobility and housing needs with

economic, environmental, and public health goals (SCAG, 2024). Connect SoCal 2024 includes a strong commitment to reduce emissions from transportation sources to comply with SB 375, improve public health, and meet national ambient air quality standards. This long-range plan, required by the federal and State governments, is updated by SCAG every four years to reflect changing demographic, economic, and policy circumstances. Connect SoCal 2024 is a living, evolving blueprint for the region’s future.

Table 5.15-1: Connect SoCal 2024 Regional Planning Policies Relevant Policies – Transportation lists goals and policies from Connect SoCal 2024 relevant to the Project.

Table 5.15-1: Connect SoCal 2024 Regional Planning Policies Relevant Policies – Transportation	
Policy	
Policy 9	Encourage residential and employment development in areas surrounding existing and planned transit/rail stations
Policy 11	Create a resilient transportation system by preparing for emergencies and the impacts of climate change
Policy 12	Pursue efficient use of the transportation system using a set of operational improvement strategies that maintain the performance of the existing transportation system instead of adding roadway capacity, where possible
Policy 22	Eliminate transportation-related fatalities and serious injuries (especially those involving vulnerable road users, such as people, especially older adults and children, walking and biking) on the regional multimodal transportation system
Policy 48	Promote sustainable development and best practices that enhance resource conservation, reduce resource consumption and promote resilience
Policy 51	Reduce hazardous air pollutants and greenhouse gas emissions and improve air quality throughout the region through planning and implementation efforts
Policy 53	Reduce the exposure and impacts of emissions and pollutants and promote local and regional efforts that improve air quality for vulnerable populations, including but not limited to Priority Equity Communities and the AB 617 Communities
Policy 70	Prioritize community and environmental justice concerns, together with economic needs, and support workforce development opportunities, particularly around deployment of zero-emission and clean technologies and their supporting infrastructure
Policy 71	Explore and advance the transition toward zero-emission and clean technologies and other transformative technologies, where viable
Policy 72	Advance comprehensive, systems-level planning of corridor/supply chain operational strategies that is integrated with road and rail infrastructure and inland port concepts
Policy 73	Ensure continued, significant investment in a safe, secure, clean and efficient transportation system—including both highways and rail—to support the intermodal movement of goods across the region
Source: Southern California Association of Governments. 2024. <i>Connect SoCal: The Southern California Association of Governments’ 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy</i> . https://scag.ca.gov/sites/default/files/2024-05/23-2987-connect-socal-2024-final-complete-040424.pdf	

County of San Bernardino Countywide Plan

The County of San Bernardino (County) adopted the Countywide Plan (CWP) in October 2020. The CWP addresses the physical, social, and economic issues facing the County’s unincorporated areas.

Table 5.15-2: Countywide Plan Policy Plan – Relevant Transportation Goals and Policies transportation

goals and policies relevant to the Project. For applicability of the CWP goals and policies to the Project, see **Section 5.0: Environmental Analysis**.

Table 5.15-2: Countywide Plan Policy Plan – Relevant Transportation Goals and Policies	
Goal or Policy	
TRANSPORTATION & MOBILITY ELEMENT	
Goal TM-1	Roadway Capacity. Unincorporated areas served by roads with capacity that is adequate for residents, businesses, tourists, and emergency services.
Policy TM-1.1	Roadway Level of Service (LOS). We require our roadways to be built to achieve the following minimum level of service standards during peak commute periods (typically 7:00-9:00 AM and 4:00-6:00 PM on a weekday): • LOS D in the Valley Region • LOS D in the Mountain Region • LOS C in the North and East Desert Regions
Policy TM-1.2	Interjurisdictional Roadway Consistency. We promote consistent cross-sections along roads traversing incorporated and unincorporated areas.
Policy TM-1.3	Freeways and Highways. We coordinate with Caltrans and regional transportation agencies and support the use of state, federal, and other agency funds to improve freeways and highways.
Policy TM-1.4	Unpaved Roads. The County does not accept new unpaved roads into the County Maintained Road System, and we require all-weather treatment for all new unpaved roads.
Policy TM-1.5	Upgrading Unpaved Roads. We support the paving of unpaved roads when funding is contributed through a local area funding and financing mechanism.
Policy TM-1.6	Paved Roads. For any new development for which paved roads are required, we require the developer to construct the roads and we require the establishment of a special funding and financing mechanism to pay for roadway operation, maintenance, and set-aside reserves.
Policy TM-1.7	Fair share contributions. We require new development to pay its fair share contribution toward off-site transportation improvements.
Policy TM-1.8	Emergency Access. When considering new roadway improvement proposals for the CIP or RTP, we consider the provision of adequate emergency access routes along with capacity expansion in unincorporated areas. Among access route improvements, we prioritize those that contribute some funding through a local area funding and financing mechanism.
Policy TM-1.9	New Transportation Options. We support the use of transportation network companies, autonomous vehicles, micro transit, and other emerging transportation options that reduce congestion, minimize land area needed for roadways, create more pedestrian- and bicycle-friendly streets, reduce VMT, or reduce dependence on privately-owned vehicles.
Goal TM-2	Roadway Design Standards. Roads designed and built to standards in the unincorporated areas that reflect the rural, suburban, and urban context as well as the regional (valley, mountain, and desert) context.
Policy TM-2.1	Context Sensitive Approach. We maintain and periodically update required roadway cross sections that prioritize multi-modal systems inside mobility focus areas (based on community context), and vehicular capacity on roadways outside of mobility focus areas (based on regional context).

Table 5.15-2: Countywide Plan Policy Plan – Relevant Transportation Goals and Policies	
Goal or Policy	
Policy TM-2.2	Roadway Improvements. We require roadway improvements that reinforce the character of the area, such as curbs and gutters, sidewalks, landscaping, street lighting, and pedestrian and bicycle facilities. We require fewer improvements in rural areas and more improvements in urbanized areas, consistent with the Development Code. Additional standards may be required in municipal spheres of influence.
Policy TM-2.3	Concurrent Improvements. We require new development to mitigate project transportation impacts no later than prior to occupancy of the development to ensure transportation improvements are delivered concurrent with future development.
Policy TM-2.6	Access Control. We promote shared/central access points for direct access to roads in unincorporated areas to minimize vehicle conflict points and improve safety, especially access points for commercial uses on adjacent properties.
Goal TM-3	Vehicle-Miles Traveled (VMT). A pattern of development and transportation system that minimizes vehicle miles traveled.
Policy TM-3.1	VMT Reduction. We promote new development that will reduce household and employment VMT relative to existing conditions.
Policy TM-3.2	Trip reduction strategies. We support the implementation of transportation demand management techniques, mixed use strategies, and the placement of development in proximity to job and activity centers to reduce the number and length of vehicular trips.
Goal TM-4	Complete Streets, Transit, and Active Transportation. On- and off-street improvements that provide functional alternatives to private car usage and promote active transportation in mobility focus areas.
Policy TM-4.1	Complete Streets Network. We maintain a network of complete streets within mobility focus areas that provide for the mobility of all users of all ages and all abilities, while reflecting the local context.
Policy TM-4.2	Complete Streets Improvements. We evaluate the feasibility of installing elements of complete street improvements when planning roadway improvements in mobility focus areas, and we require new development to contribute to complete street improvements in mobility focus areas. In evaluating complete street improvements, we prioritize those in mobility focus areas that are within unincorporated environmental justice focus areas.
Policy TM-4.3	Funding. We partner with SBCTA, Caltrans, and local agencies to fund active transportation systems in the county. We encourage unincorporated communities to apply for funding and cooperate with them in their funding applications for active transportation improvements that are identified in a non-motorized transportation plan that is accepted or adopted by the County.
Policy TM-4.4	Transit access for residents in unincorporated areas. We support and work with local transit agencies to generate a public transportation system, with fixed routes and on-demand service, that provides residents of unincorporated areas with access to jobs, public services, shopping, and entertainment throughout the county.
Policy TM-4.5	Transit access to job centers and tourist destinations. We support and work with local transit agencies to generate public transportation systems that provide access to job centers and reduce congestion in tourist destinations in unincorporated areas.
Policy TM-4.7	Regional Bicycle Network. We work with SBCTA and other local agencies to develop and maintain a regional backbone bicycle network.

Table 5.15-2: Countywide Plan Policy Plan – Relevant Transportation Goals and Policies	
Goal or Policy	
Policy TM-4.8	Local Bicycle and Pedestrian Networks. We support local bike and pedestrian facilities that serve unincorporated areas, connect to facilities in adjacent incorporated areas, and connect to regional trails. We prioritize bicycle and pedestrian network improvements that provide safe and continuous pedestrian and bicycle access to mobility focus areas, schools, parks, and major transit stops.
Policy TM-4.9	Bike and Pedestrian Safety. We promote pedestrian and bicyclist safety by providing separated pedestrian and bike crossings when we construct or improve bridges over highways, freeways, rail facilities, and flood control areas. We monitor pedestrian and bicycle traffic accidents and promote safety improvements in unincorporated high-accident areas.
Policy TM-4.11	Parking Areas. We require publicly accessible parking areas to ensure that pedestrians and bicyclists can safely access the site and onsite businesses from the public right-of-way.
Goal TM-5	Goods Movement. A road, rail, and air transportation system that supports the logistics industry and minimizes congestion in unincorporated areas.
Policy TM-5.1	Efficient and sustainable goods movement network. We advocate for the maintenance of a goods movement system in southern California that is efficient and sustainable and that prioritizes public health through the use of zero-emission equipment and infrastructure.
Policy TM-5.2	Intermodal Facility. We support the development of an intermodal facility in connection with the Southern California Logistics Airport.
Policy TM-5.4	Grade separations. We support grade separations to reduce conflicts between rail facilities and roadways, subject to available funding.
Policy TM-5.5	Countywide Truck Routes. We support SBCTA's establishment of regional truck routes that efficiently distribute regional truck traffic while minimizing impacts on residents. We support funding through the RTP to build adequate truck route infrastructure.
Policy TM-5.6	Unincorporated Truck Routes. We establish local truck routes in unincorporated areas to efficiently funnel truck traffic to freeways while minimizing impacts on residents. We establish routes where trucks are prohibited in unincorporated environmental justice focus areas and to avoid overlaps or conflicts with safe routes to schools.
Policy TM-5.7	Trucking-intensive businesses. We require trucking-intensive businesses to pay their fair share of costs to build and maintain adequate roads.
Source: County of San Bernardino. 2020. <i>Countywide Policy Plan</i> . https://countywideplan.sbcounty.gov/policy-plan/ .	

The CWP Policy Plan includes the following Policy Maps that address transportation. The noted figures are provided later in this EIR section.

- Policy Map TM-1(A-E) Roadway Network: This map depicts the County's roadway network and is represented in **Figure 5.15-4: San Bernardino County Roadway Network – North Desert Region**.
- Policy Map TM-2 Transit Network: This map depicts the County's transit service areas, bus routes, locations of existing and future Metrolink lines and stations, and the proposed location of the High-Speed Rail line and station. Policy Map TM-2 is represented in **Figure 5.15-8: San Bernardino County – Future Bicycle Facilities Map**.

- Policy Map TM-4 SBCTA Bicycle Plan: This map depicts the County’s Class I, Class II, Class III, and Class IV bike routes (San Bernardino, 2020). Policy Map TM-4 is represented in **Figure 5.15-17: San Bernardino County – Transit Network**.
- Policy Map TM-5 Goods Movement: This map depicts the County’s truck network, railway network, and proposed Xpress West line. Policy Map TM-5 is represented in **Figure 5.15-13: San Bernardino County – Goods Movement**.
- Policy Map TM-6 Airports: This map depicts the locations of the County’s airports.

See **Section 5.15.4: Environmental Setting** below for further discussion concerning the above conditions and their potential presence in the Project area.

Codified Ordinances of the County of San Bernardino

The Codified Ordinances of the County of San Bernardino (County Code) regulations addressing transportation are provided below. For applicability of the County Code regulations to the proposed General Plan and BIG, see **Section 5.0**.

County Code Chapter 51.01: Vehicle Regulations. This chapter establishes requirements for traffic control devices, parking regulations, pavement markings, and weight limits.

San Bernardino County Congestion Management Program

The San Bernardino County Transportation Authority (SBCTA), formerly known as the San Bernardino Associated Governments (SANBAG), is San Bernardino’s Congestion Management Agency. SBCTA prepares, monitors, and periodically updates the County Congestion Management Program (CMP) to meet federal Congestion Management Process requirements and the County’s Measure I Program. The San Bernardino County CMP defines a network of State highways and arterials, LOS standards and related procedures, the process for mitigation of impacts of new development on the transportations system, and technical justification for the approach. **Table 5.15-3: San Bernardino County Congestion Management Program** outlines the applicable County CMP goals addressing transportation (County of San Bernardino, 2016).

Table 5.15-3: San Bernardino County Congestion Management Program	
Goal or Policy	
Goal 5	Anticipate the impacts of proposed new development on the multimodal transportation system, provide consistent procedures to identify and evaluate the effectiveness of mitigation measures and provide for adequate funding of mitigations.
Goal 6	Promote air quality and improve mobility through implementation of land use and transportation alternatives or incentives that reduce both vehicle trips and miles traveled and vehicle emissions.
Source: County of San Bernardino. 2016. <i>San Bernardino County Congestion Management Program</i> . https://www.gosbcta.com/wp-content/uploads/2019/10/2016-Congestion-Management-Plan-.pdf . https://codelibrary.amlegal.com/codes/sanbernardino/latest/sanberncty_ca/0-0-0-164891	

Measure I Strategic Plan

Measure I authorizes a half-cent sales tax in San Bernardino County until March 2040 for use exclusively on transportation improvement and traffic management programs. San Bernardino County voters first

approved the measure in 1989, and in 2004 overwhelmingly approved the extension through 2040. Measure I includes language mandating development to pay its fair share for transportation improvements in the County. The Measure I Strategic Plan is the official guide for the allocation and administration of the combination of local transportation sales tax, State and federal transportation revenues, and private fair-share contributions to regional transportation facilities to fund the Measure I 2010–2040 transportation programs. The Strategic Plan identifies funding categories and allocations and planned County transportation improvement projects including freeways, major and local arterials, bus and rail transit, and traffic management systems. The City has adopted a development impact fee (DIF) program that is consistent with Measure I requirements. **Table 5.15-4: Measure I Strategic Plan** outlines the applicable sections of the Measure I Strategic Plan addressing transportation (San Bernardino Associated Governments, 2017).

Table 5.15-4: Measure I Strategic Plan	
Goal or Policy	
Section II.C.2.	For areas outside the San Bernardino Valley and Victor Valley cities and spheres: local jurisdictions must prepare Traffic Impact Analysis (TIA) reports for proposed development projects exceeding specified thresholds of trip generation. This is a continuation of a requirement established when the CMP was originally approved by the SBCTA Board in 1992. TIA reports must comply with requirements contained in Appendix B of the CMP. Local jurisdictions required to participate in the TIA program are: Barstow, Big Bear Lake, Needles, Twentynine Palms, Yucca Valley and the County of San Bernardino for other un-incorporated areas in the Mountain/Desert Subareas.
Source: San Bernardino Associated Governments (SBAG). 2017. <i>Measure I 2010-2040 Strategic Plan</i> . https://www.gosbcta.com/wp-content/uploads/2019/09/MeasureIStrategicPlan-Part1-rev0917.pdf	

San Bernardino Countywide Transportation Plan

The SBCTA developed the County’s Countywide Transportation Plan (CTP), which was released in September 2015. The CTP has a horizon year of 2040 and serves as the County’s input into the Connect SoCal 2020. The purpose of the CTP is to lay out a strategy for long-term investment in and management of the County’s transportation system. Key issues the CTP addresses include transportation funding, congestion relief, economic competitiveness, system preservation and operations, transit system interconnectivity, air quality, sustainability, and GHG emission reductions. The CTP analyzes a Year 2040 baseline scenario with traditional revenue sources and a Year 2040 aggressive scenario with added, “innovative revenue sources” defined in Connect SoCal 2020. The CTP has developed a set of strategies to address issues such as air quality, goods movement, sustainability, and active transportation. **Table 5.15-5: San Bernardino Countywide Transportation Plan: Interim 2021 Update** outlines the applicable goals and objectives of the *San Bernardino Countywide Transportation Plan: Interim 2021 Update* addressing transportation (SBCTA, 2021).

Table 5.15-5: San Bernardino Countywide Transportation Plan: Interim 2021 Update

Goals and Objectives	Definition
GOALS	
Goal 1	Focus on our transportation “customers” by building an integrated, multimodal network and managing that network to improve safety, mobility, and accessibility for the residents and businesses within San Bernardino County and the region.
Goal 3	Promote stewardship of the public resources entrusted to SBCTA and other transportation agencies in the County through analysis and application of cost-effective, customer-focused, and technology-enabled approaches to the multimodal movement of people and goods.
Goal 4	Promote the funding of transportation needs and efficient operation of transportation systems through collaboration with local, regional, state, and federal transportation agencies, together with private stakeholders.
Goal 5	Support state, regional, and local environmental and sustainability goals.
OBJECTIVES	
Objective 1	Maximize the accessibility, efficiency and reliability of the transportation system for all users
Objective 3	Reduce vehicle miles traveled and travel times for both highway and transit travel (for both people and goods)
Objective 4	Reduce vehicle emissions, both criteria pollutants and GHG emissions
Objective 5	Increase the proportion of people sharing rides, bicycling, walking, taking transit, and replacing trips with “virtual travel”
Objective 8	Encourage development around existing and planned transit stations and hubs
Source: San Bernardino County Transportation Authority (SBCTA) 2021. <i>San Bernardino Countywide Transportation Plan (Interim 2021 Update)</i> . https://www.gosbcta.com/wp-content/uploads/2019/10/SBCTA_CTP_2021Update_ExecutiveSumFinal.pdf	

Codified Ordinances of the County of San Bernardino Municipal Code

The Codified Ordinance of the County of San Bernardino (County Code) regulations addressing transportation are provided below.

County Code 52.019: Procedure for Establishing Terminal Routes. This chapter establishes procedures for designating truck routes, including routes necessary to accommodate over-sized/over-weight trucks accessing a terminal. A terminal is defined in the Code as “any facility at which freight is consolidated to be shipped or where full load consignments may be loaded and off-loaded or at which the vehicle combinations defined in Vehicle Code § 35401.5 are regularly maintained, stored or manufactured.”

San Bernardino County Long-Range Transit Plan

SBCTA updates its Long-Range Transit Plan (LRTP) to address transit needs for an approximate 25-year horizon. The LRTP prioritizes goals and projects for transit growth. Since the passage of SB 375, the LRTP has also closely tied land use and transportation planning strategies. The LRTP addresses countywide travel challenges and creates a system aimed to increase the role of transit in future travel choices. The LRTP anticipates that a premium transit service, such as rapid buses and rail modes, will offer solutions to future travel demands by providing competitive travel times and increased reliability, mobility, and accessibility. Premium transit would reduce dependence on cars, encourage community revitalization, and encourage more balanced transit-oriented land use development.

SBCTA Development Mitigation Nexus Study

The SBCTA Development Mitigation Nexus Study identifies the fair share contributions from new development for regional transportation improvements (e.g., freeway interchanges, railroad grade separations, and regional arterial highways). The Nexus Study is updated biennially or as requested by SBCTA Board of Directors and in close coordination with local jurisdictions.

San Bernardino County Transportation Impact Study Guidelines

The County developed the *County Transportation Impact Study (TIS) Guidelines* (County TIS Guidelines) to provide recommendations related to VMT assessment (both thresholds of significance and methodology for identifying VMT related impacts) and to refine the County's existing TIS guidelines to reflect state-of-the-practice methodologies for identifying project impacts. The County TIS Guidelines provide a general guide in assessing the potential transportation impacts of proposed development projects, General Plan Amendments, and zone changes in the County. The County TIS Guidelines also provide the recommended format and methodology that should be used in the preparation of traffic studies (San Bernardino, 2019).

San Bernardino County Local Road Safety Plan

San Bernardino County completed its first comprehensive road safety plan in 2022. The Local Road Safety Plan (LRSP) proactively identifies and evaluates hot spots¹ and systemic risk factors throughout unincorporated San Bernardino County and identifies proven countermeasures that can be implemented through roadway design changes and partnerships with stakeholders. The LRSP identifies the County's top ten collision hot spots, systemic trends, and recommended countermeasures.

Of the top 10 collision hot spots selected for project development, one location is within BIG's study area, "#8 National Trails Highway". Approximately three miles of collision hot spot location #8 runs along BIG Specific Plan area frontage, on National Trails Highway/Main Street, between the western extent of BIG Specific Plan area and Amarylis Street. The LSRP's recommended engineering countermeasures applicable to the Hot Spot #8 segment that runs along BIG Specific Plan area's frontage are provided in **Table 5.15-6: San Bernardino County Local Road Safety Plan**

¹ Hot spots are high-risk locations, either intersections or roadway segments, where collisions occur more frequently than other locations.

Table 5.15-6: San Bernardino County Local Road Safety Plan	
Number	Hot Spot #8 Engineering Countermeasures
1	Upgrade to larger stop signs at all unsignalized intersections.
2	Install flashing beacon at all unsignalized, stop-controlled intersections.
3	Install splitter islands on the minor road approaches at all unsignalized intersections with paved minor road approaches.
5	High friction surface treatment on entire corridor along curved roadway segments.
7	Widen unpaved shoulder on entire corridor.
8	Install edgeline rumble strips on entire corridor.
9	Install centerline rumble strips on each side of the painted median on entire corridor.
10	Create 4' wide painted median on entire corridor.
11	Install flexible posts in the median where passing is not permitted on entire corridor.
12	Restripe edge-lines and centerlines with 6" retroreflective lane markings on entire corridor.
13	Install pavement reflectors (raised pavement markers) on entire corridor along centerline and edgeline.
Source: San Bernardino County. 2022. <i>San Bernardino County Local Road Safety Plan</i> . https://dpw.sbcounty.gov/wp-content/uploads/sites/87/2022/08/SanBernardinoCountyLRSP_FinalPlan_Master_8.19.22_Sml.pdf?x39624	

San Bernardino County Non-Motorized Transportation Plan

The San Bernardino County Non-Motorized Transportation Plan (NMTP) outlines benefits of creating an interconnected bicycle and pedestrian network in San Bernardino County. While there has been substantial growth in bicycle infrastructure in recent years, there is still a need for a comprehensive plan and funding sources to further develop these systems. The 2011 NMTP, which was revised in 2018, aims to address this challenge, aligning with State initiatives to reduce vehicle travel and GHG emissions. The plan emphasizes collaboration between local governments, transportation agencies, and citizens to make it a reality and ensures coordination across jurisdictions for facility development, scheduling, and funding.

Table 5.15-7: San Bernardino County Non-Motorized Transportation Plan Goals and Policies outlines the relevant NMTP goals and policies addressing transportation.

Table 5.15-7: San Bernardino County Non-Motorized Transportation Plan Goals and Policies

Goals and Policies	Definition
GOALS	
Goal 1	Increased bicycle and pedestrian access – Expand bicycle and pedestrian facilities and access within and between neighborhoods, to employment centers, shopping areas, schools, and recreational sites.
Goal 2	Increased travel by cycling and walking – Make the bicycle and walking an integral part of daily life in San Bernardino County, particularly (for bicycle) for trips of less than five miles, by implementing and maintaining a bikeway network, providing end-of-trip facilities, improving bicycle/transit integration, encouraging bicycle use, and making bicycling safer and more convenient.
Goal 3	Routine accommodation in transportation and land use planning – Routinely consider bicyclists and pedestrians in the planning and design of land development, roadway, transit, and other transportation facilities, as appropriate to the context of each facility and its surroundings.
Goal 4	Improved bicycle and pedestrian safety – Encourage local and statewide policies and practices that improve bicycle and pedestrian safety.
POLICIES	
Policy 1	Local jurisdictions are the agencies responsible for the identification of non-motorized transportation projects within their jurisdiction for inclusion into the Plan. SANBAG shall only serve in an advisory capacity with respect to the identification of projects on the regional network. SANBAG shall provide advice on the inclusion of projects that may serve to better establish connectivity between jurisdictions, intermodal facilities and regional activity centers. However, local jurisdictions have sole authority over all projects included in the Plan
Policy 2	Local jurisdictions are also responsible for implementation of the projects included in the NMTP. SANBAG may provide advisory support to jurisdictions in the project development process on request. Should SANBAG be requested to provide assistance delivering a project in the Plan, such instances should be limited to development of regional non-motorized transportation facilities that provide connectivity to more than one jurisdiction or complete gaps within the regional non-motorized transportation network or serve to provide better access to transit facilities.
Source: San Bernardino County Transportation Authority (SBTA). 2018. <i>San Bernardino County Non-Motorized Transportation Plan (Revised June 2018)</i> . https://www.gosbcta.com/wp-content/uploads/2019/10/Non-Motorized-Transportation-Plan-.pdf	

City of Barstow 2015-2020 General Plan

The City adopted the *City of Barstow 2015-2020 General Plan* (2015 General Plan) in February 2015. The Circulation Element establishes goals, policies and programs that correlate the City's roadway and active transportation network with the land uses within the planning area. The 2015 General Plan Exhibit C-1: Circulation Map depicts the City's roadways and identifies a hierarchy of five classes of streets that collectively comprise the City's vehicular circulation network. The 2015 General Plan Exhibit C-2: Pedestrian Paths, Bicycle Routes, and Park and Ride Facilities depicts the existing and proposed pedestrian and bicycle facilities. The Safety Element establishes goals, policies and strategies for public safety services and emergency preparedness. **Table 5.15-8: General Plan Relevant Goals and Policies – Transportation** identifies the applicable goals and policies of the 2015 General Plan addressing transportation. For applicability of the 2015 General Plan goals and policies to the proposed General Plan and BIG, see **Section 5.0**.

Table 5.15-8: General Plan Relevant Goals and Policies – Transportation

Goal or Policy	
CIRCULATION ELEMENT	
Goal 1	The City shall maintain and expand a safe, efficient and convenient circulation system.
Policy 1A	Continue to utilize Capital Improvement Program and Measure I funds to maintain and enhance the City's roadway network, retaining a minimum level of service of "C" along all roadways and at all intersections.
Policy 1B	Endeavor to avoid facing residential properties onto arterial roadways
Policy 1.C	Pursue expansion of the City's roadway network to accommodate planned residential, commercial and industrial growth and to address existing system deficiencies.
Goal 2	Upgrade the appearance of freeway corridors and major gateways into the City.
Policy 2A	Pursue aesthetic enhancements of freeway sound walls.
Policy 2B	Provide visual enhancements at major gateways to the City
Goal 3	Foster improved traffic flow and air quality by encouraging the use of non-motorized transportation, alternative fuel vehicles and multi-occupant vehicles
Policy 3.A	Encourage pedestrian travel by improving the means by which residents and visitors may walk throughout the community.
Policy 3.B	Establish a network of bicycle routes as illustrated on Exhibit C-2 (of the City of Barstow General Plan).
Policy 3.C	Encourage carpooling and the use of alternative fuel vehicles by City residents and employees.
Policy 3.D	Implement incentives outlined in Municipal Code Chapter 19.49 – Design Guidelines such as relaxation of parking requirements, density bonuses and exceptions to building height and lot coverage requirements in exchange for on- or off-site provision of bicycle racks and/or storage facilities, bikeways, electric vehicle charging facilities, designated pedestrian pathways or other design features designed to foster alternatives to single-occupancy, internal combustion engine driven vehicle use.
SAFETY ELEMENT	
Strategy 2.A.2	Ensure that all proposed development is designed to provide unencumbered access for police, fire, and paramedic vehicles.
Source: City of Barstow. 2015. <i>City of Barstow 2015-2020 General Plan</i> . https://www.barstowca.org/home/showpublisheddocument/5359/636607004808630000	

City of Barstow Active Transportation Plan

The City adopted the *City of Barstow Active Transportation Plan* (Active Transportation Plan) in 2018. The Active Transportation Plan placed emphasis on five goals: safety, connectivity and access, health and equity, economic development, and sustainability (Barstow, 2018). The City's adoption of the Active Transportation Plan is a means for the City to comply with AB 32.

Code of the City of Barstow

Table 5.15-9: Code of the City of Barstow Relevant Regulations – Transportation outlines the relevant Code of the City of Barstow (Barstow Code) sections addressing transportation applicable to the Project. For applicability of the above Barstow Code regulations to the proposed General Plan and BIG, see **Section 5.0**.

Table 5.15-9: Code of the City of Barstow Relevant Regulations – Transportation	
Section	Standard
TITLE 10 – TRAFFIC	
Sec. 10.09.030I	Trip Reduction. Continue to support public information programs which promote the use of alternative modes of transportation such as those provided through commercials on local television stations and availability of bus schedules at various locations throughout the city. The city will continue to encourage public information programs which promote the use of alternate modes of transportation.
Sec. 10.09.030(d)	Trip Reduction. Continue to promote land use regulations which have the potential to reduce vehicle trips (VT) and/or vehicle miles travelled (VMT), such as the MU (mixed use) land use district which permits mixed residential and commercial uses.
Sec. 10.09.040(b)(1)	Travel Demand Management. New development is required to comply with the city’s standard requirement of installing public sidewalks. This improvement provides for pedestrian use as an alternate transportation mode, and serves as a link to other transportation systems which encourage their use, thus reducing traffic congestion, VMT and VT. The city shall continue to install sidewalks in those limited areas of the city where development existed prior to the requirements for sidewalks with the 1911 Bond Act and Community Development Block Grant (CDBG) funds.
Sec. 10.09.040(b)(2)	Travel Demand Management. The city (as the city area transit and dial-a-ride) provides multiple occupancy vehicle service to the city and surrounding county area. Approximately 85 miles of roads are covered by the current route and monthly ridership exceeds 12,000. This service reduces traffic congestion, VMT and VT. The fixed route network will be periodically evaluated to determine appropriate changes and expansion based upon new development and levels of ridership.
Sec. 10.09.040(b)(3)	Travel Demand Management. Traffic signal coordination and timing are being used to increase roadway efficiency and capacity during peak travel periods, resulting in improved vehicle movement. New signals are being installed by the city and by private development at locations where traffic volumes warrant and as determined by the city’s traffic engineer. These improvements also result in improved vehicle movement.
Sec. 10.18.010	Work Area Traffic Control Handbook. This section of the Barstow Code regulates the design, erection, and placement of all traffic control devices to be observed by all those who perform work in or near a public street to provide safe and effective work areas, and to warn, control, protect and expedite vehicular and pedestrian traffic.
Sec. 10.48.020(a)	Truck Routes. Whenever any city resolution designates and describes any street or portion thereof as a street the use of which is permitted by any vehicle exceeding a maximum gross weight limit of three tons, the city engineer is authorized to designate such streets by appropriate signs as truck routes for the movement of vehicles exceeding a maximum gross weight limit of three tons.
Sec. 10.48.020(b)	Restricted Use of Streets – Truck Routes. When any such truck routes are established and designated by appropriate signs, the operator of any vehicle exceeding a maximum gross weight limit of three tons shall drive on such routes and none other, except that nothing in this section shall prohibit the

Table 5.15-9: Code of the City of Barstow Relevant Regulations – Transportation	
Section	Standard
	operator of any vehicle exceeding a maximum gross weight of three tons coming from a truck route having ingress and egress by direct route to and from restricted streets when necessary for the purpose of making pickups or deliveries of goods, wares and merchandise from or to any building or structure located on such restricted streets or for the purpose of delivering materials to be used in the actual and bona fide repair, alteration, remodeling or construction of any building or structure upon such restricted streets for which a building permit has previously been obtained.
Sec. 10.48.020(d)	Restricted Use of Streets – Truck Routes. Those streets and parts of streets established by resolution of the council are declared to be truck routes for the movement of vehicles exceeding a maximum gross weight of three tons.
Sec. 10.48.030(a)	Commercial Vehicles Prohibited from Using Certain Streets. No person shall operate or move a vehicle or combination of vehicles or special mobile equipment of a size or weight of vehicle or load exceeding the maximum specified in the State Vehicle Code on any highway or street without first obtaining a transportation permit from the city engineer.
Sec. 10.48.030(b)	The type of permit may be single trip, annual, repetitive or direct crossing.
Sec. 10.48.030(c)	The city engineer is authorized to issue or withhold any permit at his discretion. If the permit is issued, he is authorized to limit the number of trips or to establish seasonal or time and day limitations or designate certain routes within, which the vehicles described may be operated on the highways and streets indicated or otherwise to limit or prescribe conditions of operation of vehicle, when necessary to ensure against undue damage to the road foundations, surfaces or structures and may require the undertaking of other security as may be deemed necessary to protect the highways, streets and bridges from injury or to provide indemnity for any injury resulting from the operation of the vehicle.
Sec. 10.48.030(d)	It is unlawful for any person to violate any of the terms or conditions of the special permit.
Sec. 10.48.030(e)	The permit application fees shall be the same as those currently in use by the state department of transportation. Additional services necessitated by unusually large or heavy loads, such as engineering investigations, police escorts, tree trimming or other services, shall be billed separately for each permit.
Sec. 10.48.030(f)	Nothing in this section shall relieve the operator or driver from any obligation imposed by federal state or local laws relating to this type of transportation.
TITLE 12 – PUBLIC IMPROVEMENTS	
Sec. 12.04.020(b)	Required Improvements. For commercial and industrial subdivisions, installation of all required public off-site improvements shall be required by the property owner, lessee or agent, on the property where development activity will occur prior to the issuance of a building permit.
Sec. 12.04.020(d)	Required Improvements. The city shall establish a master plan of required off-site public improvement standards for the following land use designations: (1) Rural. (2) Residential. (3) Commercial. (4) Industrial.

Table 5.15-9: Code of the City of Barstow Relevant Regulations – Transportation	
Section	Standard
	All public improvements required under this section shall be designed and constructed in accordance with the city’s established master plan of required off-site public improvement standards. The master plan will outline the specifications of the off-site public improvements required throughout the entire community. Any deviation from the established standard will require city council authorization and approval.
Sec. 12.04.020I	Required Improvements. The city engineer may require that plans be prepared by a registered civil engineer showing the line and grade of the public improvements required to be constructed by this section in conjunction with any construction. When such plans are required, no building permit shall be issued until the plans are approved by the city engineer. Further, no final certificate of occupancy shall be issued until the improvements required by this section have been constructed.
TITLE 18 PLATS AND SUBDIVISIONS	
Sec. 18.12.010	Dedication of Streets, Alleys, and Other Public Right-of-Way or Easements. This section assures that subdivisions provide the land necessary for access and utilities. As a condition of approval of a final map or parcel map, the subdivider shall dedicate or make an irrevocable offer of dedication of all parcels of land within the subdivision that are needed for streets and alleys, including access rights and abutters' rights, drainage, public greenways, scenic easements, public utility easements, and other public easements. In addition, the subdivider shall improve or agree to improve all streets and alleys, including access rights and abutters rights, drainage, public utility easements, and other public improvements.
TITLE 19: ZONING	
Sec. 19.06.090	Alternative Energy. This section focuses on alternative energy production and utilization, including for electric vehicles. The intent of this section is to remove barriers to implementation and encourage the use of alternative energy sources.
Source: City of Barstow Municipal Code. 2025. https://library.municode.com/ca/barstow/codes/code_of_ordinances	

City of Barstow VMT Resolution

The *City of Barstow VMT Resolution* (City VMT Resolution) was adopted June 17, 2025, as City Council Resolution No. 5219-2025, “A Resolution of the City Council of the City of Barstow Adopting “Vehicle Miles Traveled” Thresholds of Significance for Purposes of Analyzing Transportation Impacts Under the California Environmental Quality Act;” see Appendix A of **Appendix 5.15 BIG-1**. Resolution 5219-2025 repealed and replaced Resolution No. 5010-2020 to correct a clerical error (Barstow, 2025). **Table 5.15-10: City of Barstow VMT Resolution** outlines the City VMT Resolution sections applicable to the Project.

Table 5.15-10: City of Barstow VMT Resolution	
Section	Standard
Section 1	
Section 1.1	Utilizing the San Bernardino County Travel Demand Model (SBTAM) as its preferred methodology to measure VMT.
Section 1.2	Utilizing the San Bernardino County Travel Demand Model (SBTAM) as its preferred method to analyze a project's VMT impact.
Exhibit A: Table 1 VMT Impact Thresholds	
Land Use Plans (such as General Plans and Specific Plans)	<u>Methods:</u> San Bernardino Traffic Analysis Model (SBTAM) forecast of total daily VMT/SP. To capture project effect, the same cumulative year population and employment growth totals should be used. The 'project' only influences land use allocation. <u>Project Threshold:</u> A significant impact would occur if the project VMT per service population (VMT/SP) (for the land use plan) exceeds the [Countywide/Citywide] average under General Plan Buildout Conditions. <u>Cumulative Threshold:</u> A significant impact would occur if the project caused total daily VMT per service population within the City to be higher than the no project alternative under cumulative conditions.
Source: City of Barstow, 2025.	

City of Barstow Engineering Standards

The City of Barstow Community Services Department Engineering Services Division maintains a series of engineering details and standards that apply to all work within the public rights-of-way. The standards explain where and how driveways are to be placed, standard street and lane widths, sewer and water line placement, and other improvements. Adopted in August 10, 2010, the standards are regularly reviewed and amended to reflect best practices or changes in design (Barstow, 2020).

City of Barstow Standard Plan 138 addresses Encroachment Permits, traffic control plans (TCPs), and lane closures. Standard Plan 138 specifies that prior to issuance of an Encroachment Permit, the contractor must obtain a City business license, designate a contact person (who is available 24 hours a day, every day of the week for call outs), provide an Underground Service Alert ticket number, and submit a TCP for approval.

5.15.3 METHODOLOGY FOR EVALUATING IMPACTS

This section defines the study area (i.e., affected environment) and summarizes the methodology used to analyze the Project's potential impacts concerning transportation.

5.15.3.1 Definition of Study Area

The study area is the geographic boundary in which the environmental investigations were conducted specific to each resource topic.

Proposed General Plan

The study area for the proposed General Plan is the City of Barstow and its unincorporated Sphere of Influence (SOI) (proposed General Plan area); see **Figure 3-1: Regional Vicinity Map** and **Figure 3-2: Local Vicinity Map** in **Section 3.0: Project Description**.

Barstow International Gateway

The study area for BIG's VMT analysis is the proposed General Plan area as shown in **Figure 3-1**, **Figure 3-2**, and **Figure 5.15-1: City and Sphere of Influence (SOI) SBTAM+ Traffic Analysis Zones**.

The study area for BIG's other transportation analyses (circulation system, hazards, and emergency access) involves the transportation network surrounding BIG, which provides connectivity to the BIG Specific Plan area and its surroundings. The roadways discussed in **Section 5.15.4 Environmental Setting** are intended to provide a qualitative understanding of the transportation network surrounding the BIG Specific Plan area.

5.15.3.2 Methodology

This transportation analysis was prepared in accordance with the State CEQA Guidelines, including the most recent update to State CEQA Guidelines § 15064.3(b), which establishes VMT as the primary metric for evaluating transportation impacts. The analysis also addresses the full range of CEQA transportation impact criteria identified in State CEQA Guidelines Appendix G, which include the following:

1. **Circulation System Conflict Evaluation.** A qualitative policy-level review was conducted to evaluate potential conflicts with adopted transportation plans and policies at the federal, State, regional, and local levels. The analysis considered whether the Project supports or conflicts with planned mobility strategies for all users—motorists, pedestrians, bicyclists, and transit riders.
2. **State CEQA Guidelines § 15064.3(b).** The quantitative VMT analysis was conducted using SBTAM+, a trip-based travel demand model developed for San Bernardino County, which is aligned with the SCAG regional model. SBTAM+ is the most recent version of SBTAM. The model considers socioeconomic data such as population, households, and employment. VMT per service population (VMT/SP) was used to assess the efficiency of land use and circulation strategies. The VMT analysis methodology is discussed in more detail below.
3. **Hazards Due to Design Features or Incompatible Uses.** The qualitative analysis evaluated whether construction or operation of the proposed land uses or infrastructure improvements would introduce hazardous geometric features (e.g., inadequate turning radii, skewed intersections, limited visibility) or incompatible uses (e.g., conflicts between heavy truck traffic and sensitive land uses). Review of preliminary plans, roadway classifications, and existing conditions informed the impact determination.
4. **Emergency Access.** The Project's potential to impede emergency response or access routes was assessed qualitatively by evaluating proximity to emergency service facilities, proposed changes to roadway connectivity, and compliance with applicable fire and life safety access standards. The City's proposed General Plan policies related to emergency circulation and resilience were also reviewed.

VMT Analysis Methodology

The VMT analysis was conducted using SBTAM+, a regional travel demand model developed and maintained by the San Bernardino County Transportation Authority (SBCTA). SBTAM+ is reflective of

Connect SoCal 2024 and is consistent with SCAG’s regional modeling framework and socioeconomic assumptions. The model has a base year of 2019 and a forecast horizon year of 2050. This modeling horizon aligns closely with the Project’s 2048 horizon year and is deemed equivalent for purposes of analysis and projection.

SBTAM+ was refined to reflect local conditions within the City and its unincorporated SOI. In coordination with City staff, the base year model was updated with localized roadway network characteristics and land use inputs to represent Existing Year (2023) Conditions. The future year model was similarly updated to reflect the Project’s projections for the year 2048. The refined model was used to generate roadway segment volume forecasts for the Air Quality and Noise assessments in **Sections 5.3** and **5.12**, respectively, and to estimate VMT for the transportation assessment. The land use assumptions for each SBTAM+ modeling scenario are summarized in **Table 5.15-11: Land Use Inputs for Proposed General Plan**.

Table 5.15-11: Land Use Inputs for Proposed General Plan			
	Existing Year (2023)	Horizon Year (2048) No Proposed General Plan	Horizon Year (2048) Plus Proposed General Plan
Households	11,992	15,552	18,314
Population	34,432	45,603	52,833
Total Employment	14,416	19,810	26,475
Note: The Transportation Study also considered two cumulative projects that are estimated to generate 1,269 employees and are under consideration by the County of San Bernardino within the City’s unincorporated SOI. Because the County would remain the local agency with land use authority for these projects, these projects are not considered part of the City’s proposed General Plan but are instead considered probable future projects producing related or cumulative impacts.			
Source: Fehr and Peers, 2025. Transportation Study, Appendix 5.15 GP-1: CEQA Assessment – Transportation Analysis .			

The VMT analyses were conducted under Horizon Year (2048) Conditions for the Project Threshold and Cumulative Threshold, consistent with the City VMT Resolution; see **Table 5.15-10: City of Barstow VMT Resolution**. VMT is typically analyzed in the horizon year because it provides a long-term perspective of the effects of projects and plans. The City evaluates VMT impacts using a metric known as VMT per service population (VMT/SP), with “service population” reflecting the number of residents and/or employees in the study area. VMT/SP can be calculated using one or more of several efficiency metrics (e.g., Total VMT/SP, Home-Based VMT per Resident, or Home-Based Work VMT per Worker). Additionally, VMT can be determined using one or more of several methodologies (e.g., origin/destination (OD) method, production/attraction (PA) method, or boundary method). Common efficiency metrics and methodologies, along with the types of analysis each is best suited for, are summarized in **Table 5.15-12: VMT Calculation Methodologies and Efficiency Metrics**.

Table 5.15-12: VMT Calculation Methodologies and Efficiency Metrics			
Efficiency Metric or Methodology	Description	Trucks?	Best Suited For:
Efficiency Metric			
Total VMT/SP	The total VMT within a specific area, divided by the total number of residents and employees in that area. Vehicle volume on each roadway segment (link) is multiplied by the roadway segment length (link distance). Total VMT per service population (VMT/SP) accounts for trips to work, as well as other trips (e.g., to commercial, educational, and recreation), and normalizes them by the sum of residents and employees in the specific area.	May or may not include heavy-duty trucks	Evaluating changes at a citywide or regionwide scale
Home Based VMT per Resident	Quantifies VMT based on the residents within a specific area. “Home based” means that the trips counted in this metric either begin or end at a resident’s home. This includes commute trips to their place of employment and other trips (e.g., to commercial, educational, and recreational uses), but only records trips for residents. This means that the trips made by residents within the specific area are included, but the trips made by employees who work within the area but live elsewhere are excluded.	Excludes heavy-duty trucks	Residential projects
Home Based Work VMT per Worker	Quantifies the VMT based on the workers/employees within a specific area. “Home based” means that the trips counted in this metric either begin or end at an employee’s home. This metric measures the VMT that employees, but not residents, in a specific area travel due to work to and from their homes.	Excludes heavy-duty trucks	Office or industrial projects
Methodologies			
Origin/Destination (OD) Method	Calculates VMT by summing all vehicle trips with at least one trip end (origin or destination) within the study area. Trip origins represent the start of a vehicle trip in a given traffic analysis zone (TAZ ²), while destinations represent trip ends within a given TAZ. This approach accounts for trips that either begin or end outside the boundaries of SBTAM+, resulting in a more comprehensive capture of travel activity associated with the study area. However, SBTAM+ does not retain information on trip purpose when using this method, limiting its applicability for purpose-specific analyses.	May or may not include heavy-duty trucks	Mixed-use developments or general plans where capturing a full spectrum of trip activity is critical

² Traffic Analysis Zones (TAZs) are geospatial areas in a traffic model where residential, employment, land use, and other characteristics are measured. Traffic analysis models such as SBTAM+ determine trips based on people’s predicted movement between TAZs.

Table 5.15-12: VMT Calculation Methodologies and Efficiency Metrics			
Efficiency Metric or Methodology	Description	Trucks?	Best Suited For:
Production/Attraction (PA) Method	Sums trips with at least one end in the study area, but it distinguishes between productions (typically residential land uses that generate trips) and attractions (typically employment or commercial land uses that draw trips). For VMT calculations, person trips are converted into vehicle trips. A key advantage of the PA method is that it enables VMT analysis by trip purpose, in alignment with California Office of Planning and Research guidance (OPR, 2018). For example, office developments can be evaluated using the Home-Based Work VMT per Worker metric. However, the PA method excludes trips with an external end outside of the SBTAM+ model boundary, which can result in underestimation of total VMT and inconsistencies when comparing results with other environmental impact assessments (e.g., greenhouse gas emissions or air quality).	Excludes heavy-duty trucks	Project-level impacts of projects with a single, clearly defined land use
Boundary Method	Calculates VMT by summing all vehicle travel on the roadway network within a specified geographic boundary, regardless of trip origin or destination. As such, this is the only method that captures pass-through or cut-through traffic—vehicle trips that do not begin or end within the study area but still use the roadway network. This approach provides a full accounting of all vehicular activity within the defined area.	Includes heavy-duty trucks (model limitations)	Understanding the operational impacts of all traffic, including displaced or non-local trips
Source: Kimley-Horn, 2025.			

Table 5.15-13: VMT Analyses Methodology Summary summarizes the efficiency metrics and methodologies applied in the proposed General Plan and BIG Specific Plan VMT analyses under the Project Threshold and Cumulative Threshold. The analysis approaches align with State guidance, adopted City guidance, and established professional best practice. The key differences between the two analyses stem from the type and scale of land uses evaluated and the intended purpose of each plan-level study, as discussed in more detail below.

Table 5.15-13: VMT Analyses Methodology Summary			
Category	Analysis	Project Threshold	Cumulative Threshold
VMT/SP Metric	BIG Specific Plan	Home Based Work VMT per Worker	Total VMT/SP
	Proposed General Plan	Total VMT/SP	
Calculation Method	BIG Specific Plan	PA Method	Boundary Method
	Proposed General Plan	OD Method	
Includes Trucks?	BIG Specific Plan	No	Yes
	Proposed General Plan	Yes	
Note: Refer to Appendix 5.15 GP-1: CEQA Assessment – Transportation Analysis for additional discussion regarding the VMT analysis metrics, methodologies, and applicable scenarios.			
Source: Author Compilation, 2025.			

The proposed General Plan encompasses a wide range of land uses, including residential, retail, office, industrial, and institutional uses, and therefore evaluates Total VMT, including both automobile and truck travel, for both the Project and Cumulative Thresholds. This comprehensive approach ensures that the analysis discloses the full extent of transportation activity and associated environmental effects resulting from citywide development. Including truck VMT also provides internal consistency with related technical studies such as the Air Quality and Greenhouse Gas Analyses, which account for emissions from both passenger vehicles and trucks. At the General Plan level, the goal is to understand overall system efficiency and cumulative effects, rather than isolating a single travel mode. Therefore, Total VMT provides a more complete representation of the community’s transportation footprint and supports integrated policy evaluation across environmental topics.

To calculate Total VMT for the Project Threshold analysis, the proposed General Plan uses the OD Method because it captures a full spectrum of trip activity, including trips that start or end outside the boundaries of SBTAM+. To calculate Total VMT for the Cumulative Threshold analysis, both the proposed General Plan and BIG use the Boundary Method because it captures all vehicle trips on the roadway network, including cut-through and displaced traffic, providing a broader understanding of traffic changes.

The BIG Specific Plan focuses primarily on industrial land uses, which generate a distinct mix of trip types compared to a citywide plan. For the purposes of the Project Threshold analysis, VMT was calculated to reflect employee travel (Home Based Worker VMT per Worker), consistent with CEQA’s focus on automobile VMT as a measure of passenger travel efficiency, reflected in regulatory guidance that heavy-duty trucks trips may be excluded from assessments of VMT if not needed for convenience of modeling (OPR, 2018). However, because the BIG’s land uses inherently generate a meaningful amount of goods-movement activity, the project analysis considered truck miles traveled (TMT) separately in other environmental topic areas (e.g., Air Quality, GHG, and Noise). In other words, truck activity related to BIG was disclosed and analyzed where it most directly contributes to environmental impacts (e.g., TMT by air quality basin is included in **Section 5.3 Air Quality**) or the local roadway network operations (e.g., the Level of Service Assessment), while BIG’s VMT metric for CEQA transportation purposes focuses on employee travel efficiency.

To calculate Home Based Worker VMT for the Project Threshold Analysis, BIG uses the PA method because it can quantify VMT by trip purpose, which is required to calculate this efficiency metric.

Proposed General Plan: Transportation Analysis Methodology

Additional details regarding the proposed General Plan's transportation analysis methodology are provided in **Appendix 5.15 GP-1: Transportation Study**.

To identify the proposed General Plan's potentially significant transportation impacts, the following three scenarios were analyzed:

- Existing Year (2023) Conditions – For informational purposes only.
- Horizon Year (2048) No Proposed General Plan Conditions (2015 General Plan Buildout Conditions) – Consists of forecasted volumes based on growth and travel forecasts contained in the Future Year SBTAM+. No Proposed General Plan Conditions is consistent with the City's current General Plan.
- Horizon Year (2048) Plus Proposed General Plan Conditions (Proposed General Plan Buildout Conditions) – Consists of forecasted volumes based on growth and travel forecasts contained in the Future Year SBTAM+ outside the proposed General Plan area, and projected land use and planned infrastructure within the City of Barstow as proposed in the proposed General Plan.

Project VMT Threshold

Under the Project Threshold, a significant project impact would occur if VMT/SP under the Proposed General Plan Buildout Conditions exceeds the VMT/SP under 2015 General Plan Buildout Conditions. VMT was calculated using the Origin-Destination (OD) method, which accounts for trips that begin and end within the City and SOI boundaries. VMT was estimated using the Full Accounting Method, which evaluates 100 percent of the trip length with one or both trip ends within a jurisdiction. The analysis considered three primary trip types based on trip endpoints and travel patterns within the City and its SOI. Pass-through trips, which neither originate nor end within the City and SOI (i.e., external-external trips), were excluded from VMT analysis, as they are not attributable to land uses or activity within the City. The trip types included in the VMT estimates are defined as follows:

- Internal-Internal (I-I): Trips that both originate and end within the City of Barstow SOI.
- Internal-External (I-X): Trips that originate within the SOI and terminate outside it.
- External-Internal (X-I): Trips that originate outside the SOI and terminate within it.

Cumulative VMT Threshold

Under the Cumulative Threshold, a significant cumulative impact would occur if the total daily VMT/SP within the City and its SOI under Proposed General Plan Buildout Conditions exceeds the total daily VMT/SP within the City and its SOI under 2015 General Plan Buildout Conditions. Note that the boundary VMT truncates trips to the City and SOI limits and includes trips that pass through the City without stopping within the City (i.e., pass-through trips).

Barstow International Gateway: Transportation Analysis Methodology

Additional details regarding BIG’s transportation analysis methodology are provided in **Appendix 5.15 BIG-1: CEQA Assessment – Transportation Analysis**.

BIG’s VMT analysis was conducted under the following scenarios:

- Horizon Year 2048 No BIG Baseline – Consists of the City’s proposed General Plan Conditions without BIG. In the Horizon Year 2048 No BIG Baseline scenario, BIG’s traffic analysis zones (TAZ) land use and employment conditions are replaced with the land use and employment conditions in the County’s SBTAM+ prior to the City’s proposed General Plan modifications.
- Horizon Year 2048 Plus BIG – Consistent with the City’s Horizon Year (2048) Plus Proposed General Plan Conditions, which includes BIG’s proposed land use and employment conditions.

BIG’s other operational analyses are conducted under various scenarios as appropriate to each threshold.

Project VMT Threshold

For BIG’s analysis under the Project Threshold, the Home-Based Work VMT per Worker metric (calculated using the Production-Attraction (PA) method, which measures trips produced by households that are attracted to specific destinations such as a place of employment) is used because this metric is most applicable to BIG’s industrial-related Specific Plan. It measures the average VMT by workers commuting to and from home, specifically for employees associated with the BIG Specific Plan area. The VMT efficiency of the BIG Specific Plan area is then compared to the citywide average. A significant project impact would occur if BIG’s Home-Based Work VMT per Worker is higher than the citywide average Home-Based Work VMT per Worker under Horizon Year 2048 conditions.

Cumulative VMT Threshold

BIG’s Cumulative Threshold uses total daily VMT/SP, consistent with the City VMT Resolution. For this analysis, the City is evaluated as a whole, both without and with BIG. This differs from the Project Threshold, which compares only BIG VMT/SP to the citywide VMT/SP average. A significant cumulative impact would occur if BIG’s implementation causes the citywide VMT/SP to be higher than the No BIG Baseline under the Horizon Year 2048 conditions.

Table 5.15-14: BIG VMT Thresholds of Significance summarizes the Project Threshold and Cumulative Threshold used to evaluate BIG’s VMT effects.

Table 5.15-14: BIG VMT Thresholds of Significance	
Project Threshold	Cumulative Threshold
A significant project impact would occur if BIG’s Home-Based Work VMT per Worker is higher than the citywide average Home-Based Work VMT per Worker under the Horizon Year 2048 conditions.	A significant cumulative impact would occur if BIG’s implementation causes the citywide total VMT per service population to be higher than the No BIG Baseline under the Horizon Year 2048 conditions.
Sources: Author Compilation, 2025; City of Barstow. 2025	

The geographic boundaries of the BIG traffic analysis zones (TAZs) and the proposed General Plan area (i.e., City and SOI) TAZs are depicted in **Figure 5.15-1: City and Sphere of Influence (SOI) SBTAM+ Traffic Analysis Zones**. These TAZs comprise the study areas for analyses of BIG's VMT impacts under CEQA. BIG's VMT is evaluated in **Impact 5.15-2**.

Activities Excluded from Determination of BIG's Transportation Impacts under CEQA

See the Truck Miles Traveled Methodology in **5.15.8: Additional Non-CEQA Analysis** for further discussion concerning heavy-duty truck travel attributable to BIG operations, which is provided for informational purposes in this report and does not inform the analysis of BIG's transportation impacts under CEQA.

Electric hostlers are excluded from the analysis of BIG's transportation impacts, including VMT, because (1) as discussed above, State CEQA Guidelines § 15064.3(a) refers to analysis of on-road cars and light trucks, and the electric hostlers would be used solely to transport containers short distances within the rail yard, and between the rail yard and transload warehouse center, and would remain within a private on-site closed-loop, never accessing any public roads; and (2) SB 743, which established VMT as the metric for analyzing transportation impacts, was also intended to combat climate change by reducing GHG emissions and the electric hostlers used during BIG operations would be zero-emission vehicles. Therefore, electric hostlers are excluded from this analysis of VMT under CEQA.

Circulation System Conflict Evaluation Methodology

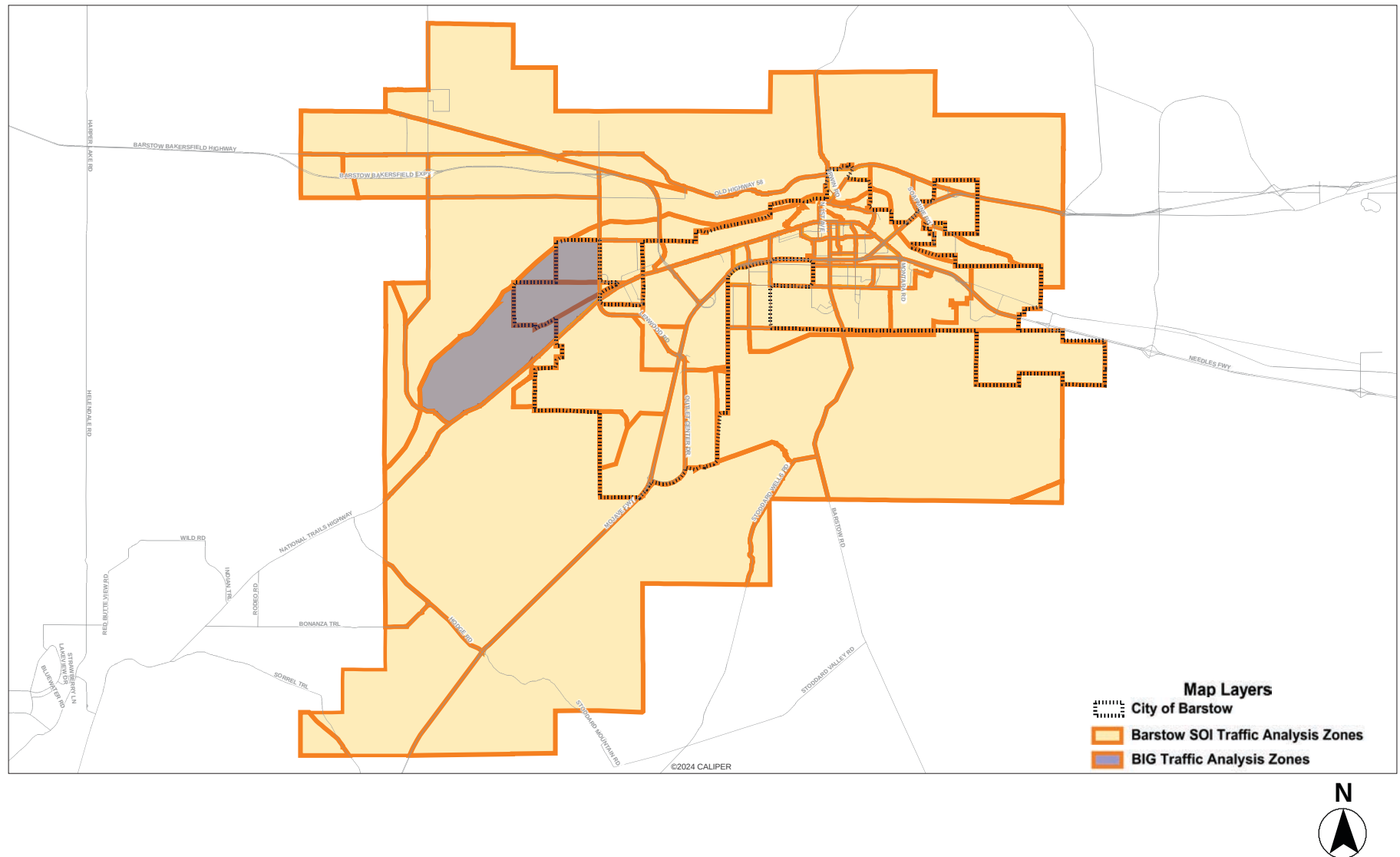
BIG would include various on-site circulation improvements as shown in **Figure 3-26: BIG On-Site Circulation Improvements** and discussed in **Appendix 5.15 BIG-2**. BIG access improvements are further illustrated in **Figure 5.15-2: BIG Access Improvements**. BIG also proposes Transportation Modifications (TMs) to improve traffic operations and safety, identified through level of service analysis of study area intersections and roadway segments, as discussed in **Appendix 5.15 BIG-2**. The locations of the BIG off-site TMs are shown in **Figure 3-33: BIG Off-Site Transportation Modifications** and detailed representations of the TMs are shown in **Figure 5.15-3: BIG Transportation Modification Details**. As such, BIG (inclusive of these circulation improvements and TMs) was evaluated for potential to conflict with a program, plan, ordinance, or policy addressing the circulation system (e.g., including transit, roadway, bicycle, and pedestrian facilities) during construction and operations; see **Impact 5.15-1**. This analysis evaluates potential conflicts with the applicable circulation standards of relevant agencies including SCAG, the County, and the City.

Transportation Hazards Methodology

BIG (inclusive of proposed circulation improvements and TMs) was evaluated for potential transportation safety hazards during construction and operations. An evaluation of geometric design features and land use compatibility is evaluated in **Impact 5.15-3**.

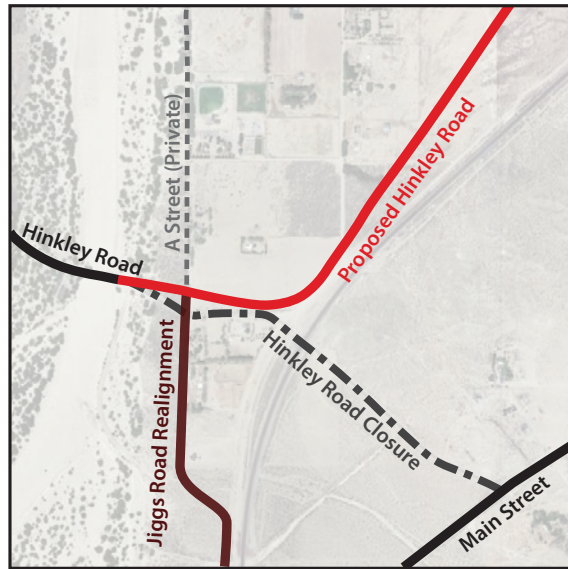
Emergency Access Methodology

BIG (inclusive of proposed circulation improvements and TMs) was evaluated concerning emergency access during construction and operations. Emergency access during construction and operations is evaluated in **Impact 5.15-4**.



Source:
San Bernardino Traffic Analysis Model Plus (SBTAM+), Accessed May 2025.

Figure 5.15-1
City and Sphere of Influence (SOI) SBTAM+ Traffic Analysis Zones

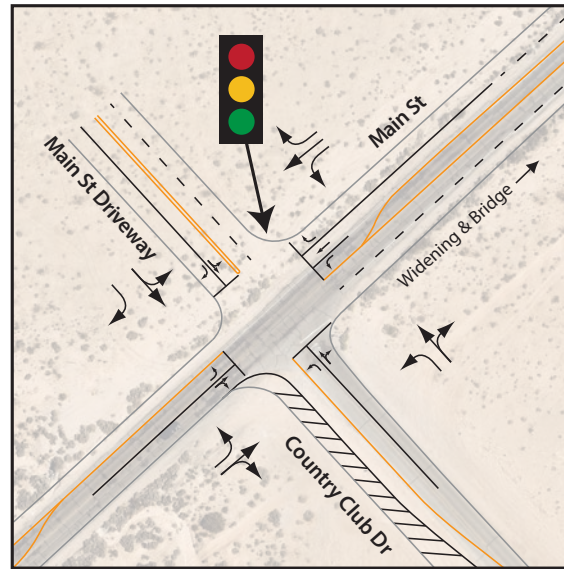


Hinkley Road Vacation and Realignment and Jiggs Road Realignment

Vacate Hinkley Road from south side of Mojave River bridge crossing to Main Street. Realign Hinkley Road to run east-west through the transload warehouse center. Realign Jiggs Road.



NOT TO SCALE

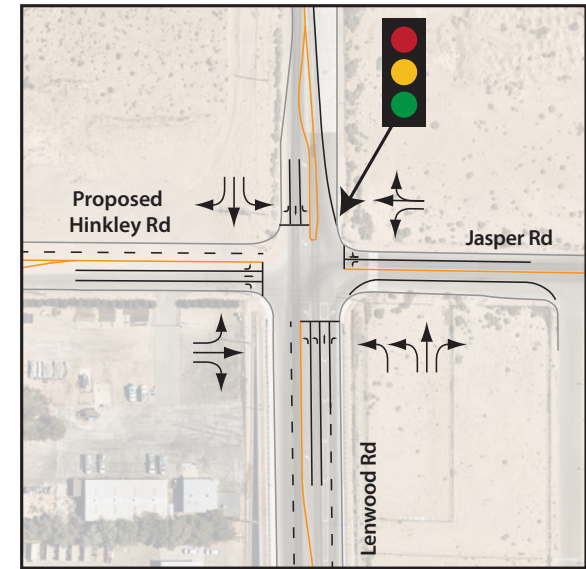


Rail Yard Access, Main Street Widening, and Country Club Drive Widening

Construct signalized project driveway and turn pockets at the existing intersection of Main Street and Country Club Drive to provide rail yard access.

Widen Main Street to include two lanes in each direction for approximately 0.5-mile east of Country Club Drive. Replace the Lenwood Channel Bridge.

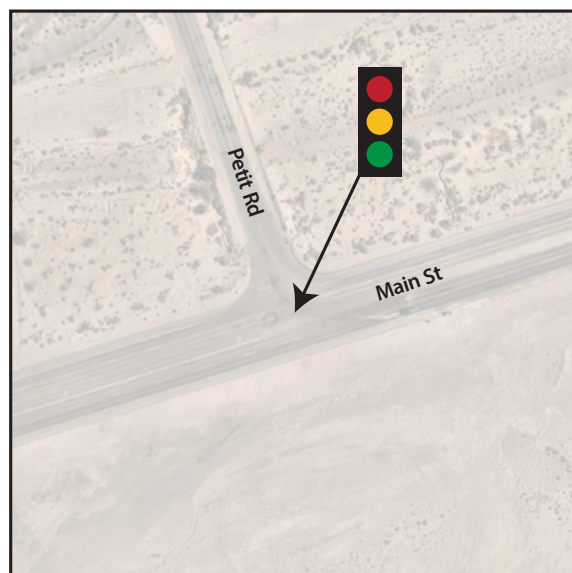
Widen Country Club Drive between Main Street and Sweeten Lane.



Transload Warehouse Center Access

Install traffic signal, roadway widening, and restriping at the proposed Hinkley Road/Jasper Road/Lenwood Road intersection to provide transload warehouse center access.

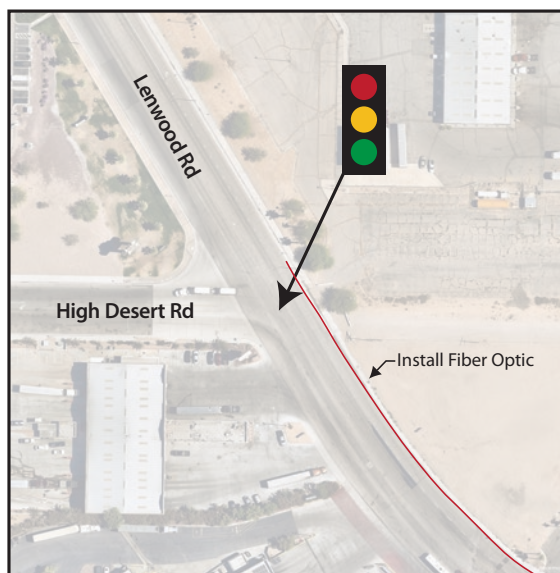
Figure 5.15-2
BIG Access Improvements



TM-1

Intersection 14: Main St & Petit Rd

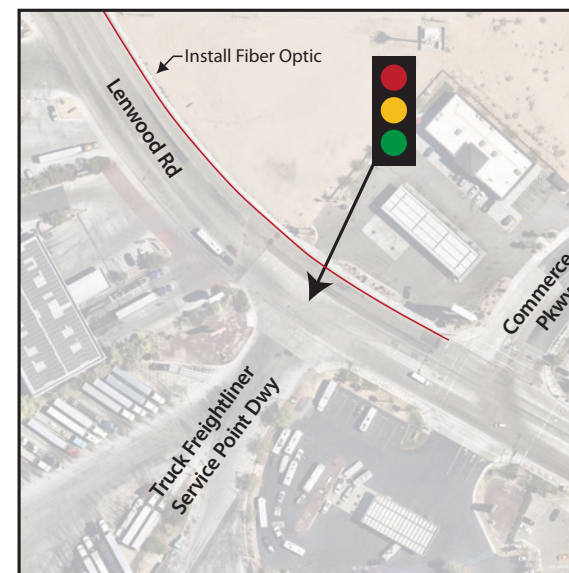
2028: No improvements proposed.
2033: Install Traffic Signal.
2048: Same improvements as 2033.



TM-2

Intersection 18: Lenwood Rd & High Desert Rd

2028: No improvements proposed.
2033: Install Traffic Signal. Install fiber optic interconnect system between High Desert Rd & Commerce Pkwy and optimize signal timing for corridor.
2048: Same improvements as 2033 and optimize signal timing for corridor under 2048 conditions.



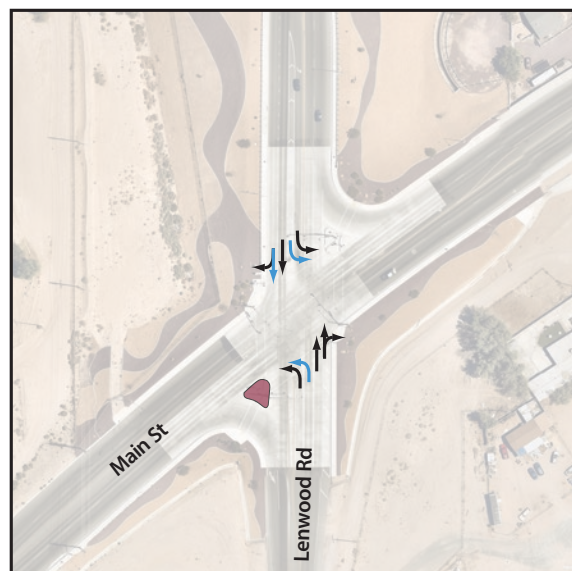
TM-3

Intersection 19: Lenwood Rd & Truck Freightliner Service Point Driveway

2028: No improvements proposed.
2033: Install traffic signal and cluster the intersection with the existing signal at Commerce Pkwy so they function as a combined system with a single controller. This configuration is recommended due to the close proximity of the intersections, which supports synchronized signal operations and improved traffic flow. Install fiber optic interconnect system between High Desert Rd & Commerce Pkwy and optimize signal timing for corridor.
2048: Optimize signal timing for 2048 conditions.



Figure 5.15-3
BIG Transportation Modification Details (Page 1/3)



TM-4

Intersection 3: Lenwood Rd & Main St

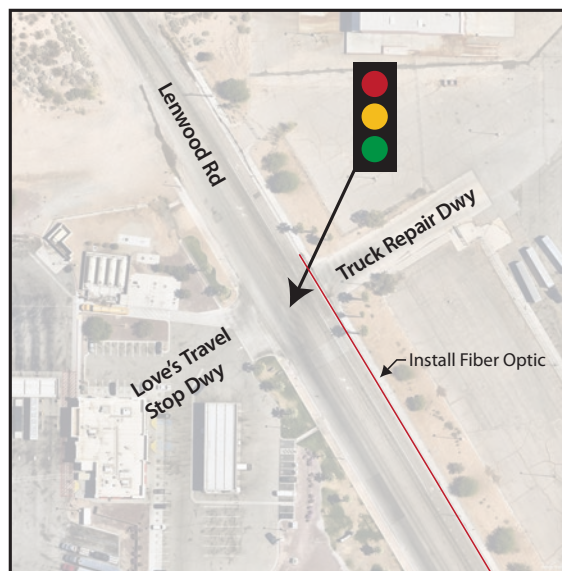
2028: No improvements proposed.

2033: No improvements proposed.

2048: Restripe southbound approach to provide a second southbound left-turn lane. Restripe southbound right-turn lane into a through-right lane. Reconfigure traffic island to provide space for additional southbound through movement. Restripe northbound approach to provide a second northbound left-turn lane.



NOT TO SCALE



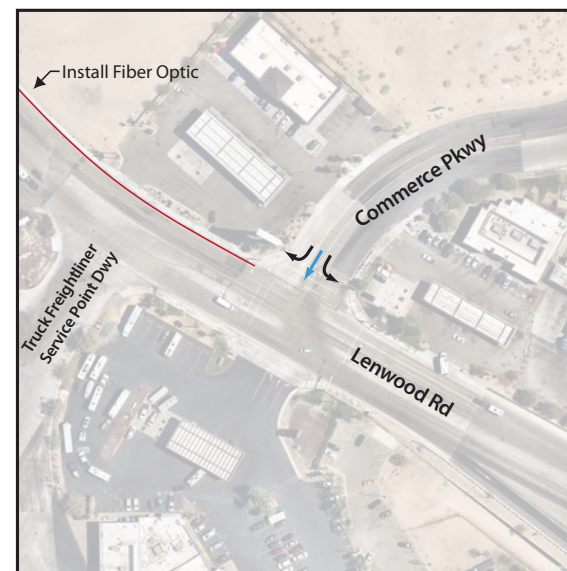
TM-5

Intersection 17: Lenwood Rd & Love's Travel Stop Driveway

2028: No improvements proposed.

2033: No improvements proposed.

2048: Install Traffic Signal. Install fiber optic interconnect system between intersections Love's Travel Stop Driveway and Commerce Pkwy and optimize signal timing for corridor.



TM-6

Intersection 20: Lenwood Rd & Commerce Pkwy

2028: No improvements proposed.

2033: No improvements proposed.

2048: Restripe existing southbound middle through-left lane to an exclusive through lane. Add northbound and southbound protected left phase. Install fiber optic interconnect system between Love's Travel Stop Driveway and Commerce Pkwy and optimize signal timing for corridor.

Figure 5.15-3
BIG Transportation Modification Details (Page 2/3)



TM-7

Intersection 37: Barstow Rd & Armory Rd

2028: No improvements proposed.

2033: No improvements proposed.

2048: Restripe westbound right-turn lane from through-right to right turn only and add westbound right turn overlap phase.



Figure 5.15-3
BIG Transportation Modification Details (Page 3/3)

5.15.4 ENVIRONMENTAL SETTING

Proposed General Plan

Existing Major Freeways, State Routes, and Roadway Network

The following major regional facilities traverse the proposed General Plan area connecting it to adjacent jurisdictions and beyond:

- **Interstate 15 (I-15):** This major interstate highway stretches from I-8 in San Diego near the U.S./Mexico border to Sweet Grass, Montana at the U.S./Canada border. I-15 is the most extensive interstate highway in San Bernardino County stretching from the San Bernardino/San Diego county line to the California/Nevada border near Primm, Nevada. The highway runs through the San Gabriel Mountains into the high desert region through major population centers including Victorville, Hesperia, Apple Valley, and Barstow. It runs north/south from the southwestern to the northeastern edges of the County. I-15 has four lanes in each direction in the population centers of the southwestern edge of the County and two to three lanes in each direction east of Yermo. Speed limits are 65 miles per hour (mph) in urban southwestern County and 70 mph through the high desert to the Nevada border.
- **Interstate 40 (I-40):** This highway, also known as the Needles Highway, is the second of two east/west running interstate highways in the County, which only runs through the high desert region of the County. The western edge of I-40 starts in Barstow at the junction with I-15 and ends at the Arizona state border adjacent to Needles. The highway has two lanes in each direction with a posted speed limit of 70 mph.
- **State Route 247 (SR-247):** This highway, also known as Old Woman Springs Road, runs north-south starting in Barstow at the junction with I-15 at northern edge and continuing south to Yucca Valley at the junction with SR-62. It has one lane in each direction.
- **State Route 58 (SR-58):** This highway, also known as the Barstow-Bakersfield Highway, runs east-west in the Mojave Desert region of the County. SR-58's western edge within the County borders the Kern County line, then runs east to the junction with I-15 in Barstow. This highway is one to two lanes in each direction and contains a posted speed limit of 55 mph.

Primary arterials are roadways that carry most of the traffic entering and leaving an area and typically include speed limits ranging from 30 to 50 mph. Primary arterials in the City include Main Street, Lenwood Road, Old Highway 58, Barstow Road, Rimrock Road, and Montara Road (Barstow, 2015b).

County and City Roadway Networks

Figure 5.15-4: San Bernardino County Roadway Network – North Desert Region depicts the County's existing and planned roadway network and classifications, as presented in CWP Policy Map TM-1C: Roadway Network North Desert Region, Victory Valley, & Barstow. **Figure 5.15-5: City of Barstow – Circulation Map 2015 General Plan** depicts the City's existing and planned roadway network and classifications as presented in the 2015 General Plan Circulation Element, Exhibit C-1: Circulation Map. **Figure 5.15-6: City 2015 General Plan and County CWP Roadway Classification Map** depicts both the

County's and City's existing and planned roadway network and classifications, as presented in CWP Policy Map TM-1C and 2015 General Plan Circulation Element, Exhibit C-1:, respectively.

Existing Transit Conditions

The Victor Valley Transit Authority (VVTA) is the second largest transit operator in San Bernardino County and provides bus service in the Victor Valley area. The VVTA operates the following bus routes within the proposed General Plan area: 1, 2, 3, 6, 28, 29, 111, 114, 115, and 118.

Existing Pedestrian and Bicycle Facilities

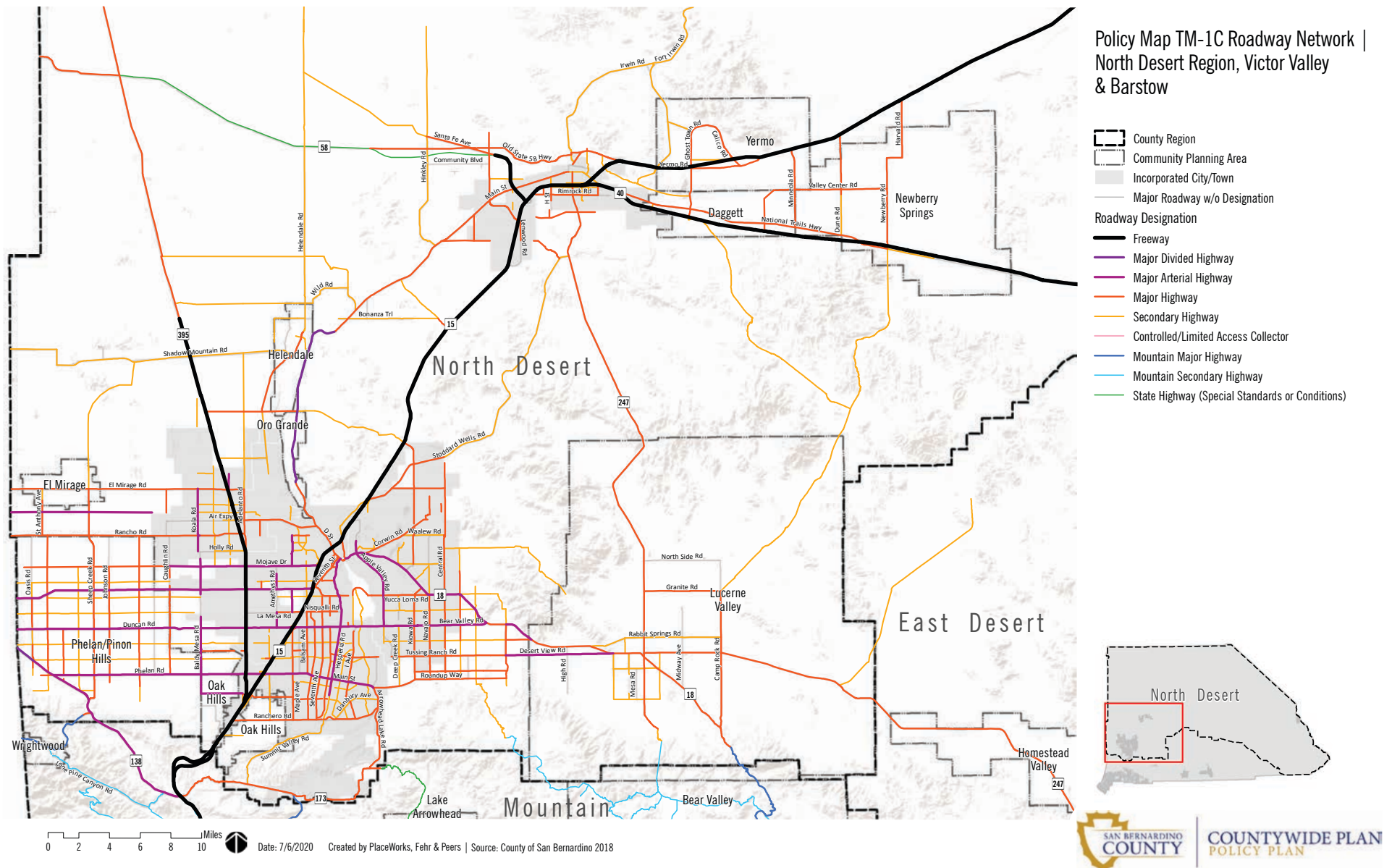
The *San Bernardino County Non-Motorized Transportation Plan Update* (SBCTA, 2018) notes that the County's existing bicycle and pedestrian network is limited in many areas and that the County plans to create a more interconnected system for non-motorized transportation. The Plan's goals include an emphasis on improving connections for individuals biking and walking to major destination points, schools, and transit facilities. **Figure 5.15-7: San Bernardino County Non-Motorized Transportation Plan Update – Existing and Planned Bicycle Facilities** depicts the Plan's existing and planned bicycle and pedestrian facilities. **Figure 5.15-8: San Bernardino County – Future Bicycle Facilities Map** depicts the CWP's planned pedestrian and bicycle paths. **Figure 5.15-9: City of Barstow – Planned Pedestrian Paths, Bicycle Routes and Park and Ride Facilities** depicts the 2015 General Plan Circulation Element's planned pedestrian paths, bicycle routes, and park and ride facilities. **Figure 5.15-10: City and County Planned Pedestrian Paths and Bike Lanes** compares the 2015 General Plan (Barstow, 2015b) and *San Bernardino County Non-Motorized Transportation Plan Update* (SBCTA, 2018) planned pedestrian paths and bicycle routes.

Figure 5.15-11: City of Barstow – Active Transportation Plan Proposed Pedestrian Network and **Figure 5.15-12: City of Barstow – Active Transportation Plan Proposed Bicycle Network** depict the proposed pedestrian and bicycle networks included in the *City of Barstow Active Transportation Plan*.

Existing Truck Routes

San Bernardino County serves as a gateway between the Port of Los Angeles and the Port of Long Beach (Ports) and the rest of the U.S. Goods movements play an important role in both the circulation network and the economy of the County. The following highways in the proposed General Plan are used as truck routes for goods movement in the City and County: SR-58, SR-247, I-15, and I-40.

Figure 5.15-13: San Bernardino County – Goods Movement depicts goods movement within the County, as presented in CWP Policy Map TM-5: Goods Movement (2020). **Figure 5.15-14: Caltrans District 8 – National Network Truck Routes** depicts Caltrans District 8 truck routes, including I-15, I-40, SR-58, and SR-247.



Source:
County of San Bernardino, 2021

Figure 5.15-4
San Bernardino County Roadway Network - North Desert Region

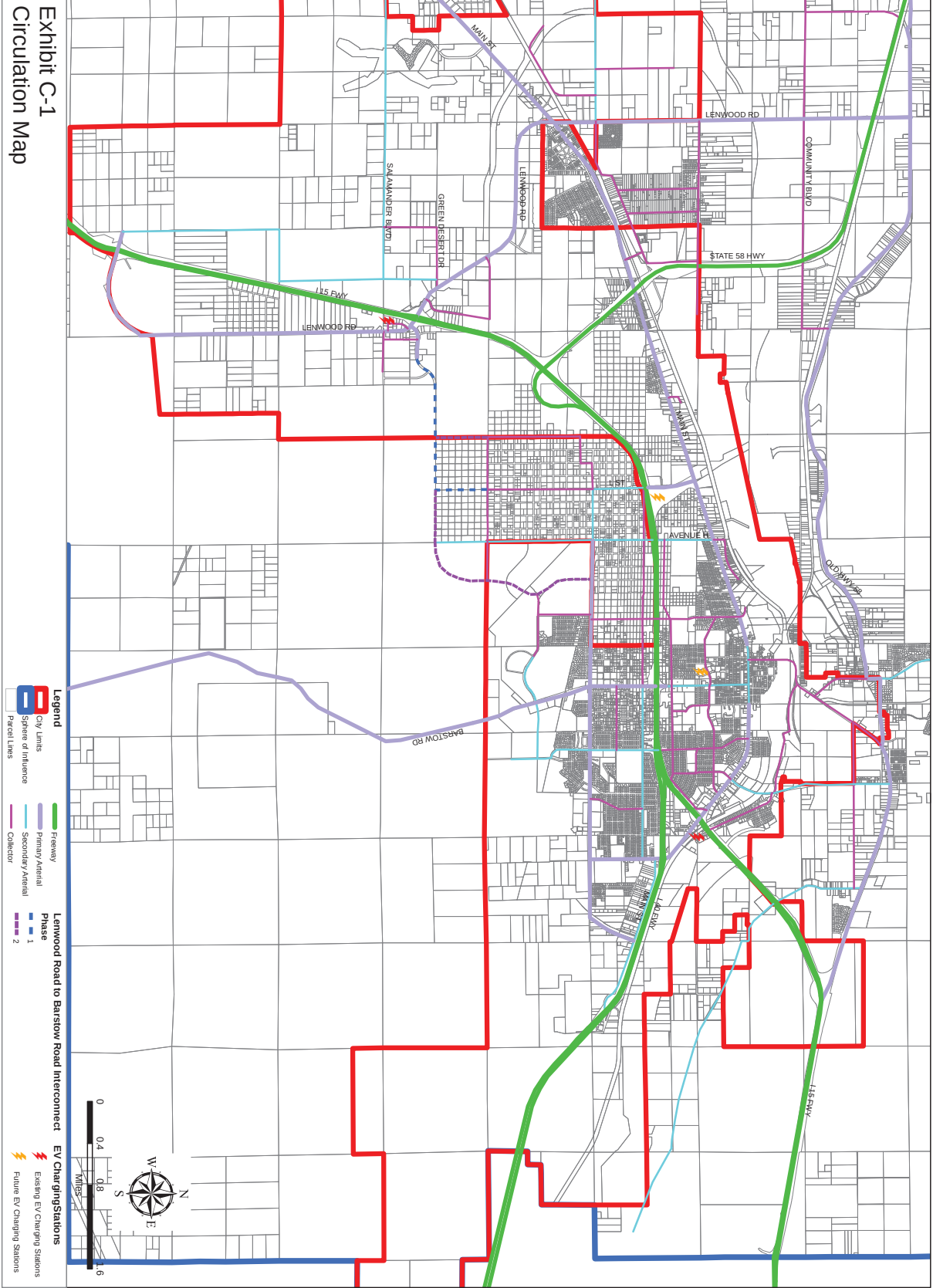
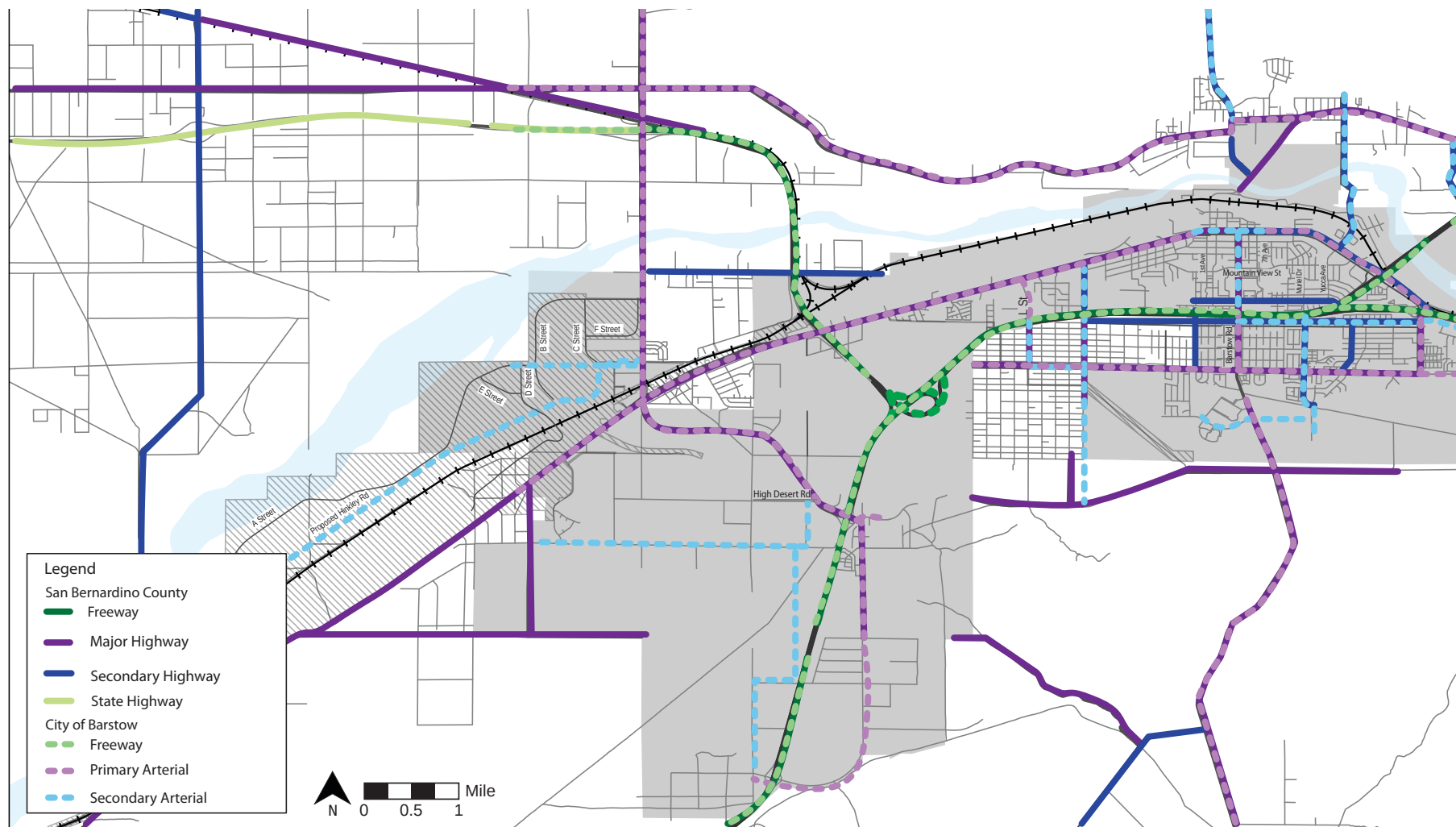


Exhibit C-1
Circulation Map

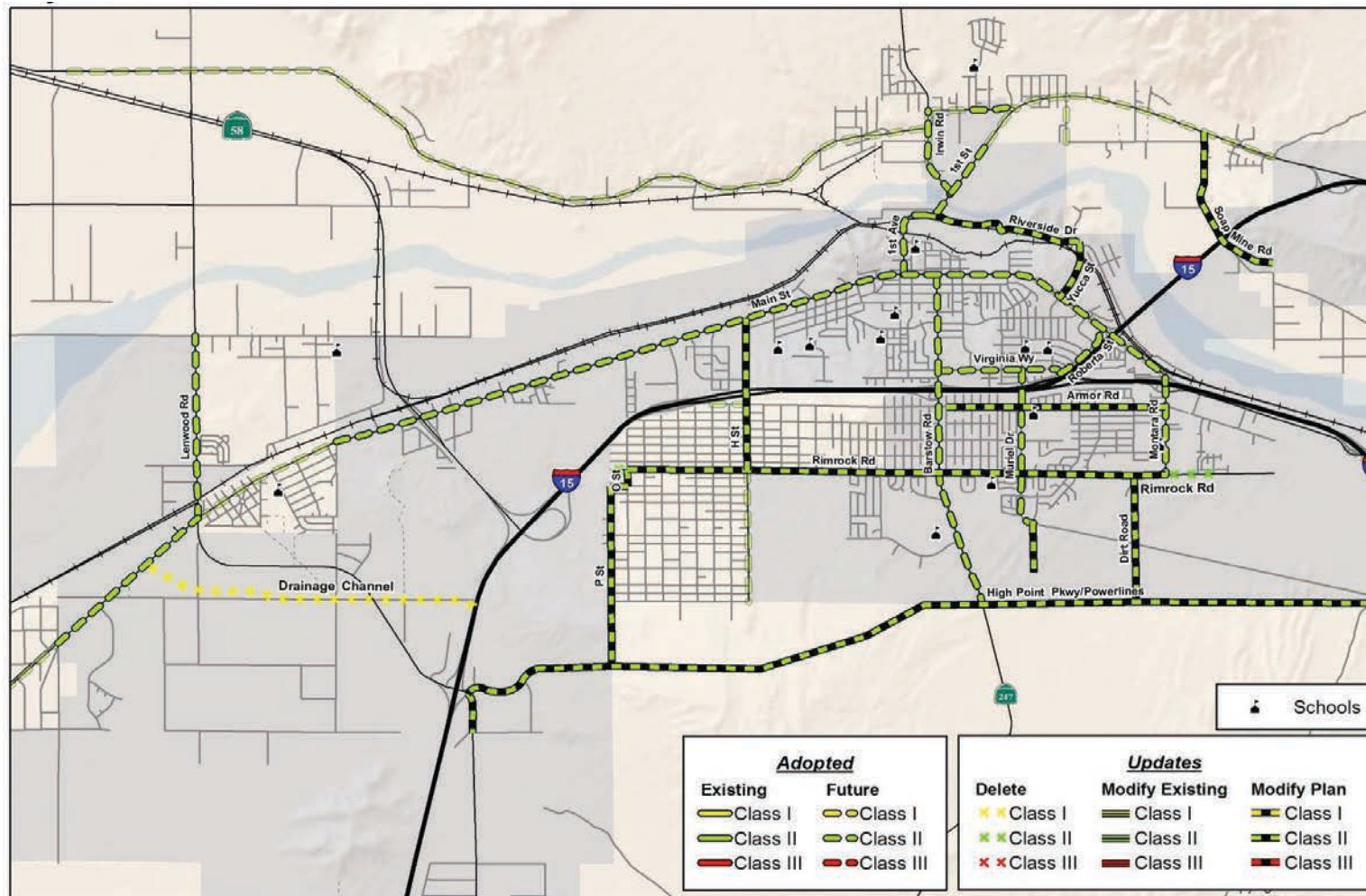
Source:
City of Barstow, 2015b

Figure 5.15-5
City of Barstow - Circulation Map 2015 General Plan



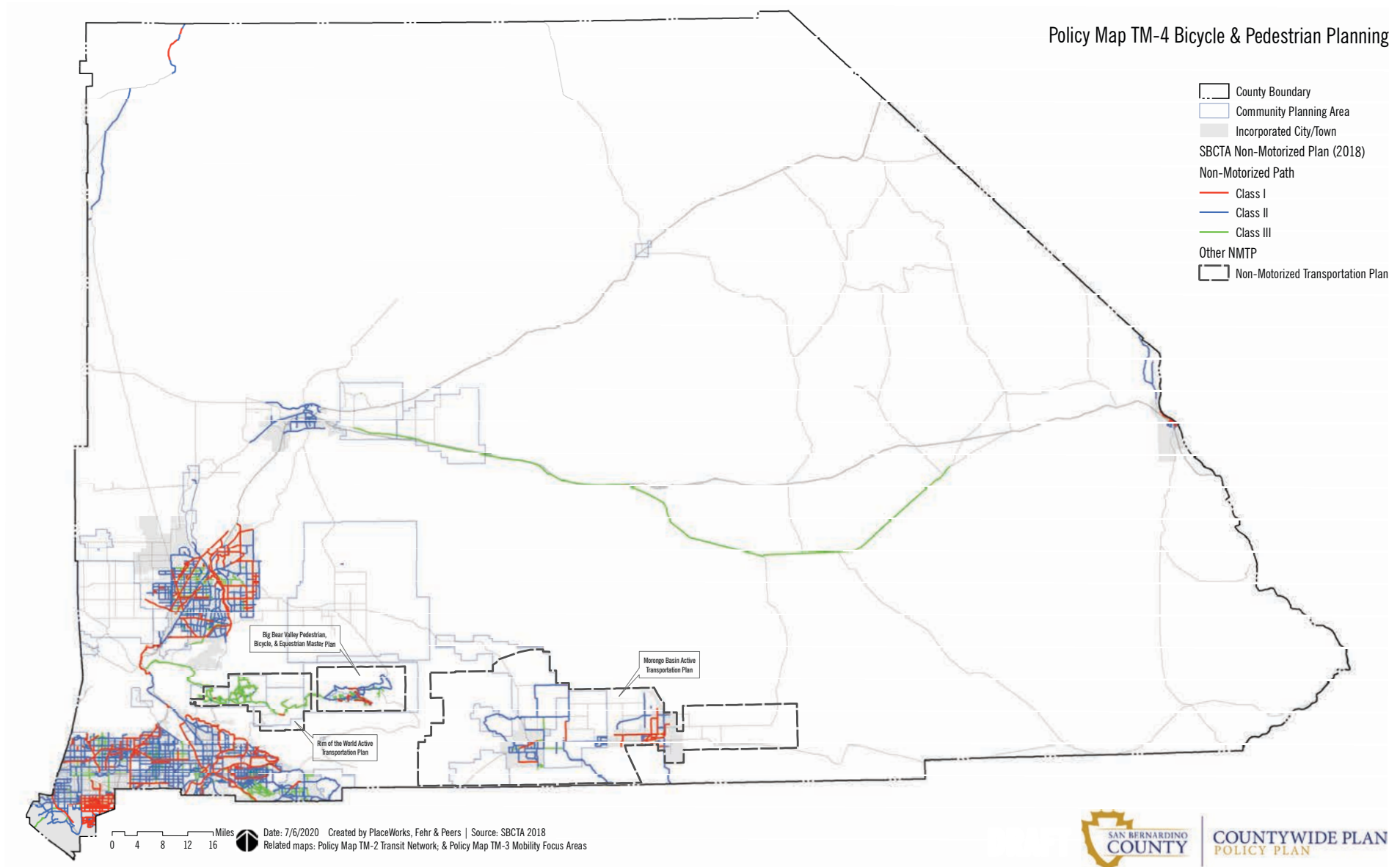
Sources:
City of Barstow, 2015b
County of San Bernardino, 2021

Figure 5.15-6
City 2015 General Plan and County CWP Roadway Classification Map



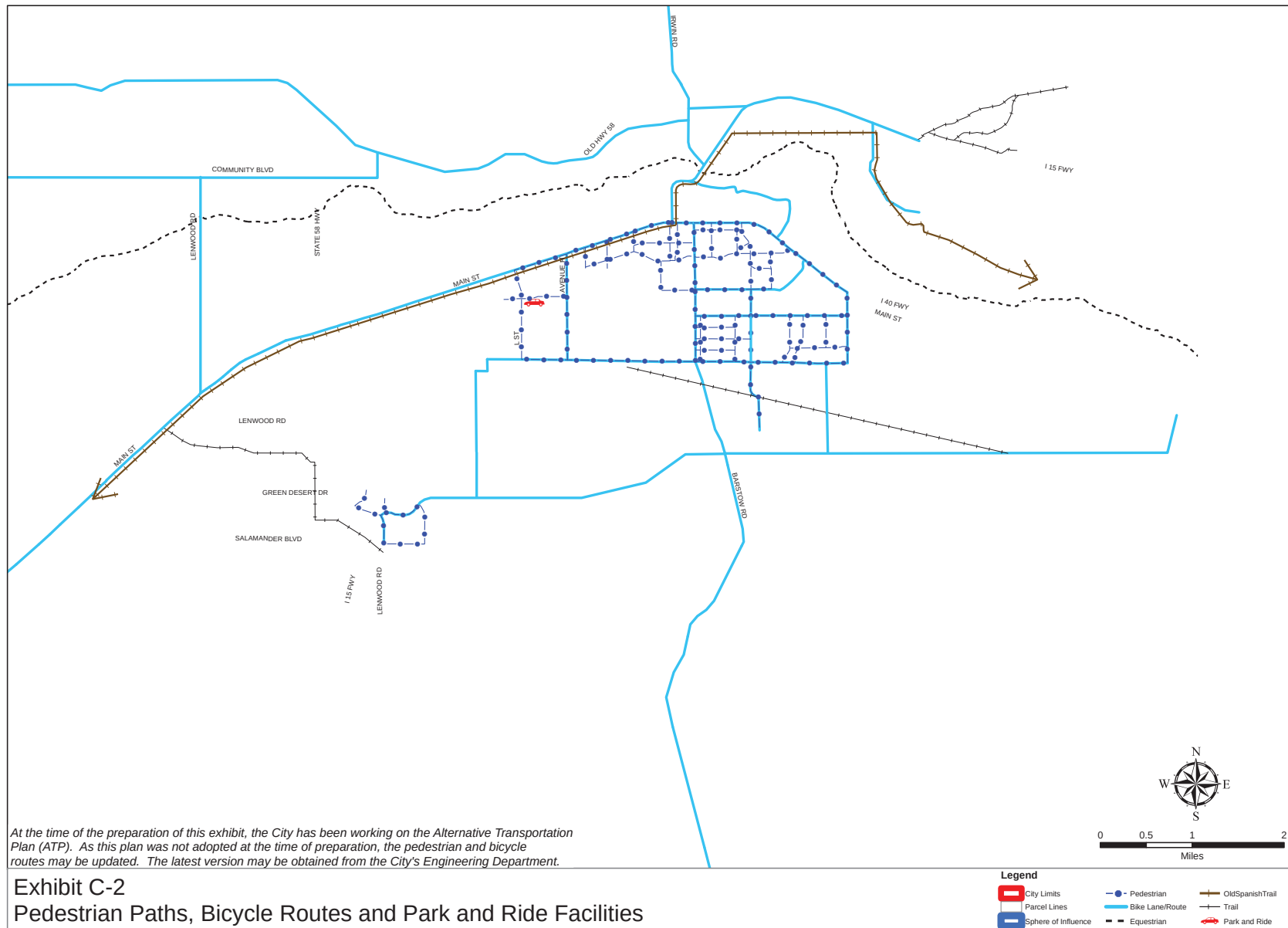
Source:
San Bernardino County Transportation Authority, 2018

Figure 5.15-7
San Bernardino County Non-Motorized Transportation Plan Update - Existing and Planned Bicycle Facilities



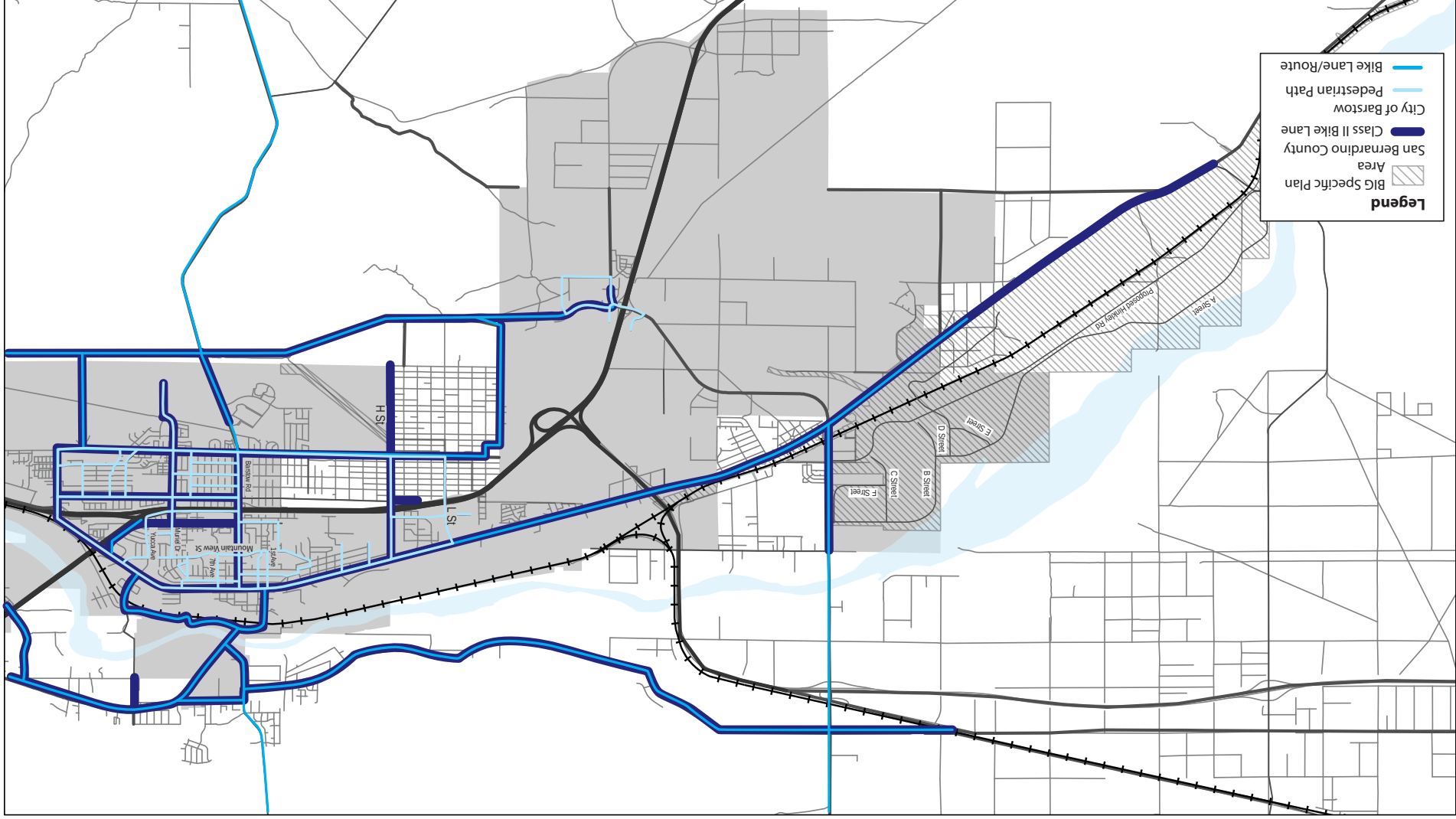
Source:
County of San Bernardino, 2021

Figure 5.15-8
San Bernardino County - Future Bicycle Facilities Map



Source:
City of Barstow, 2015b

Figure 5.15-9
City of Barstow - Planned Pedestrian Paths, Bicycle Routes and Park and Ride Facilities

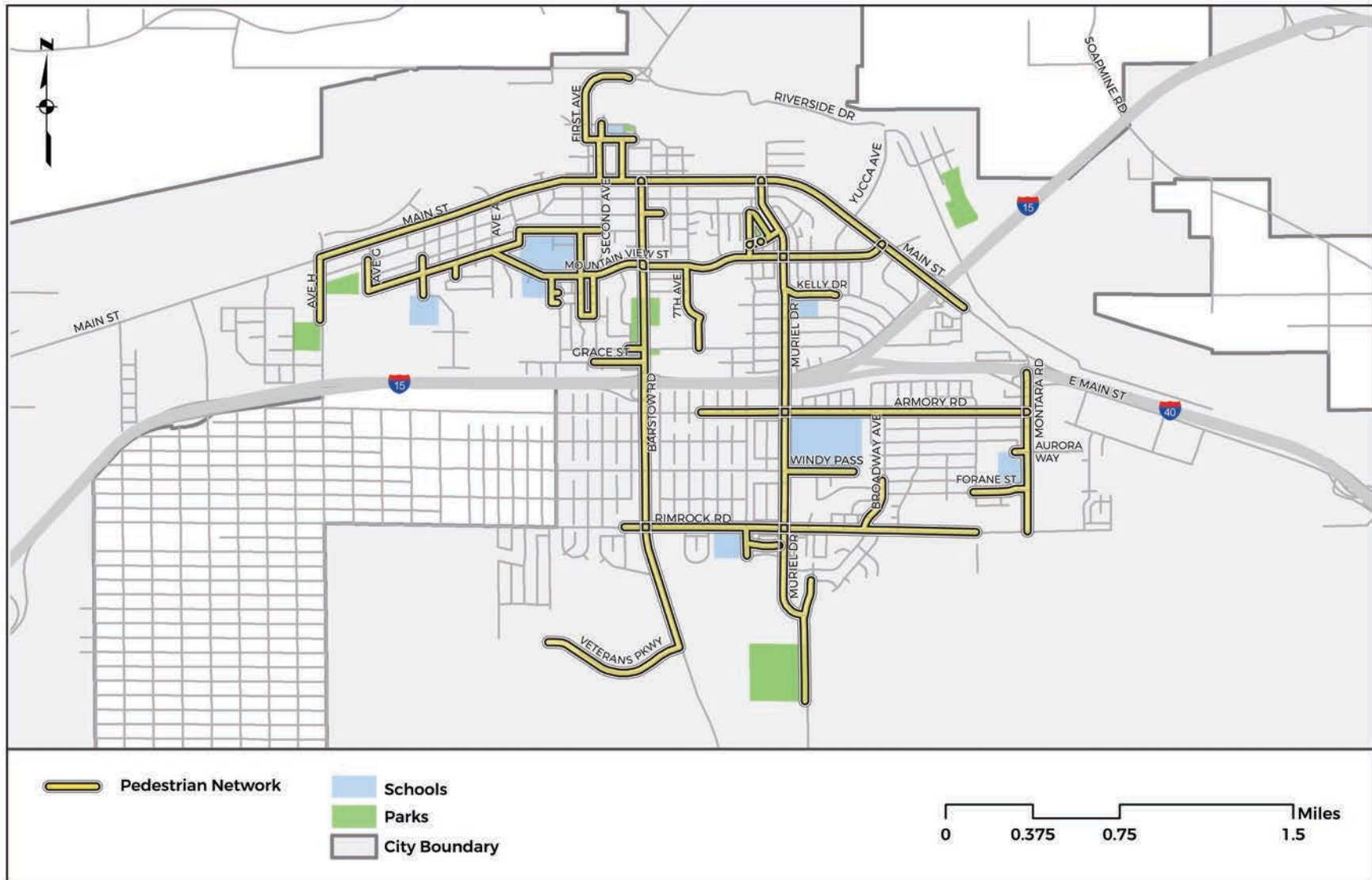


Sources:

City of Barstow, 2015b

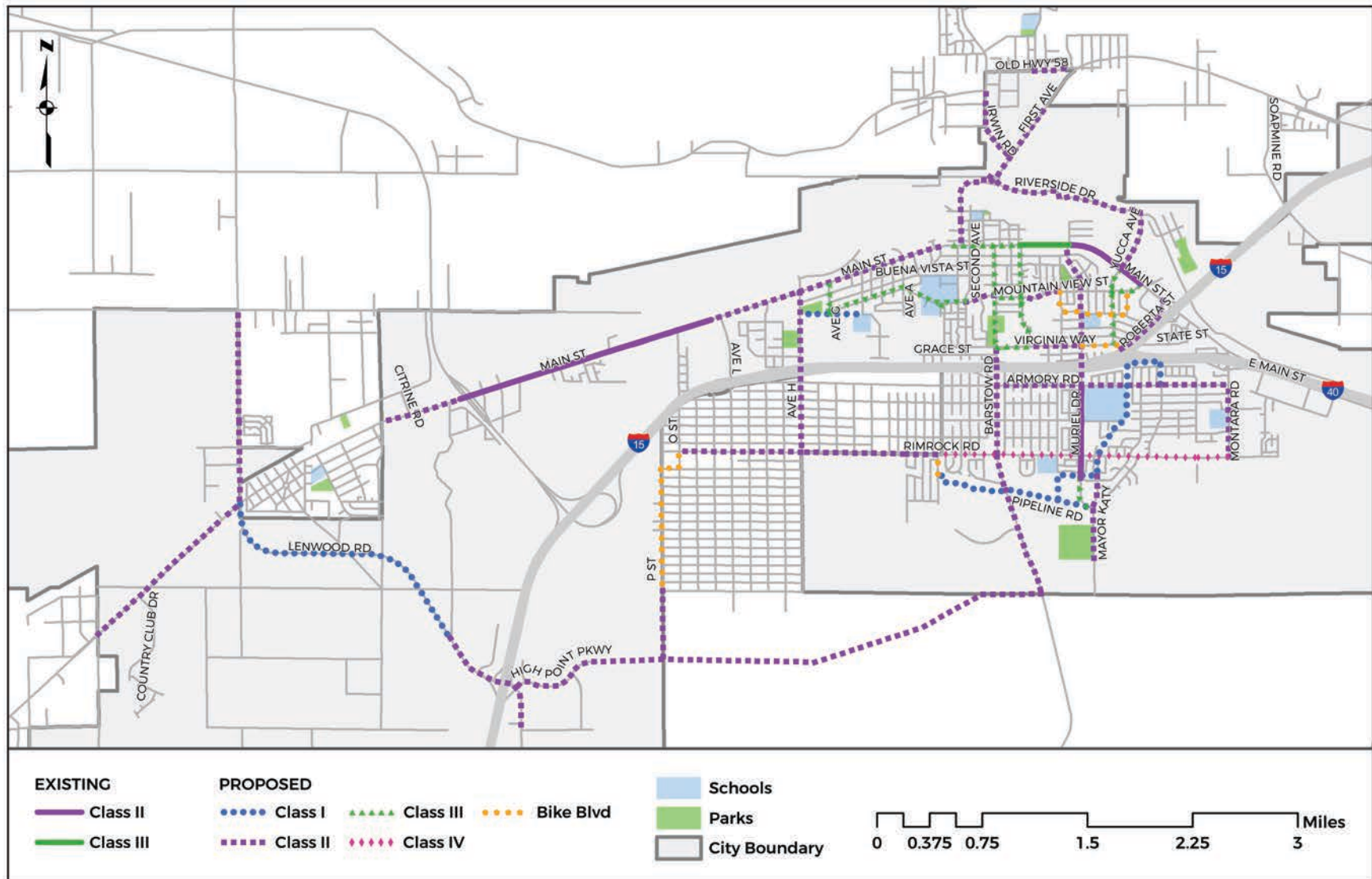
County of San Bernardino, 2021

Figure 5.15-10
City and County Planned Pedestrian Paths and Bike Lanes



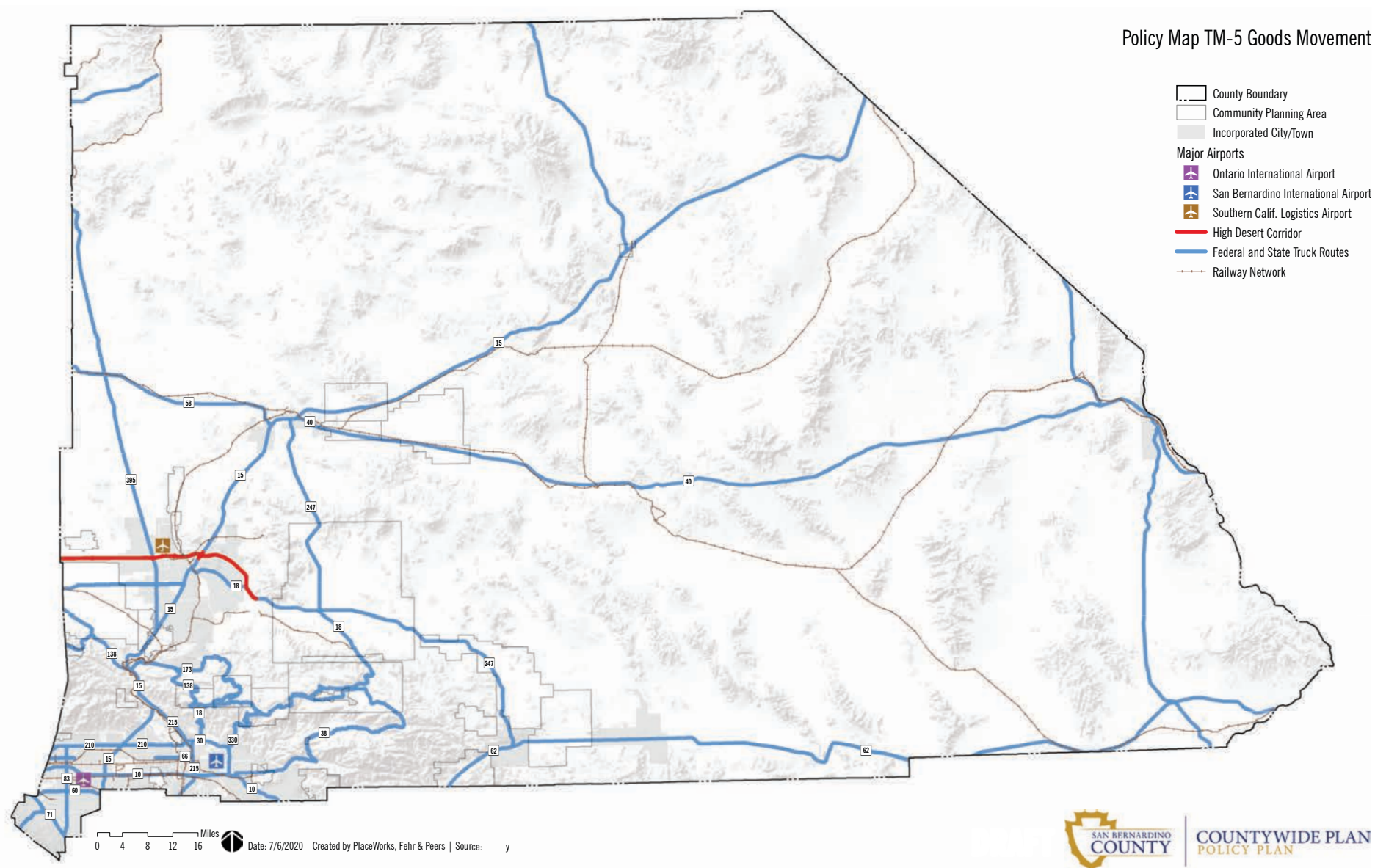
Source:
City of Barstow, 2018

Figure 5.15-11
City of Barstow - Active Transportation Plan Proposed Pedestrian Network



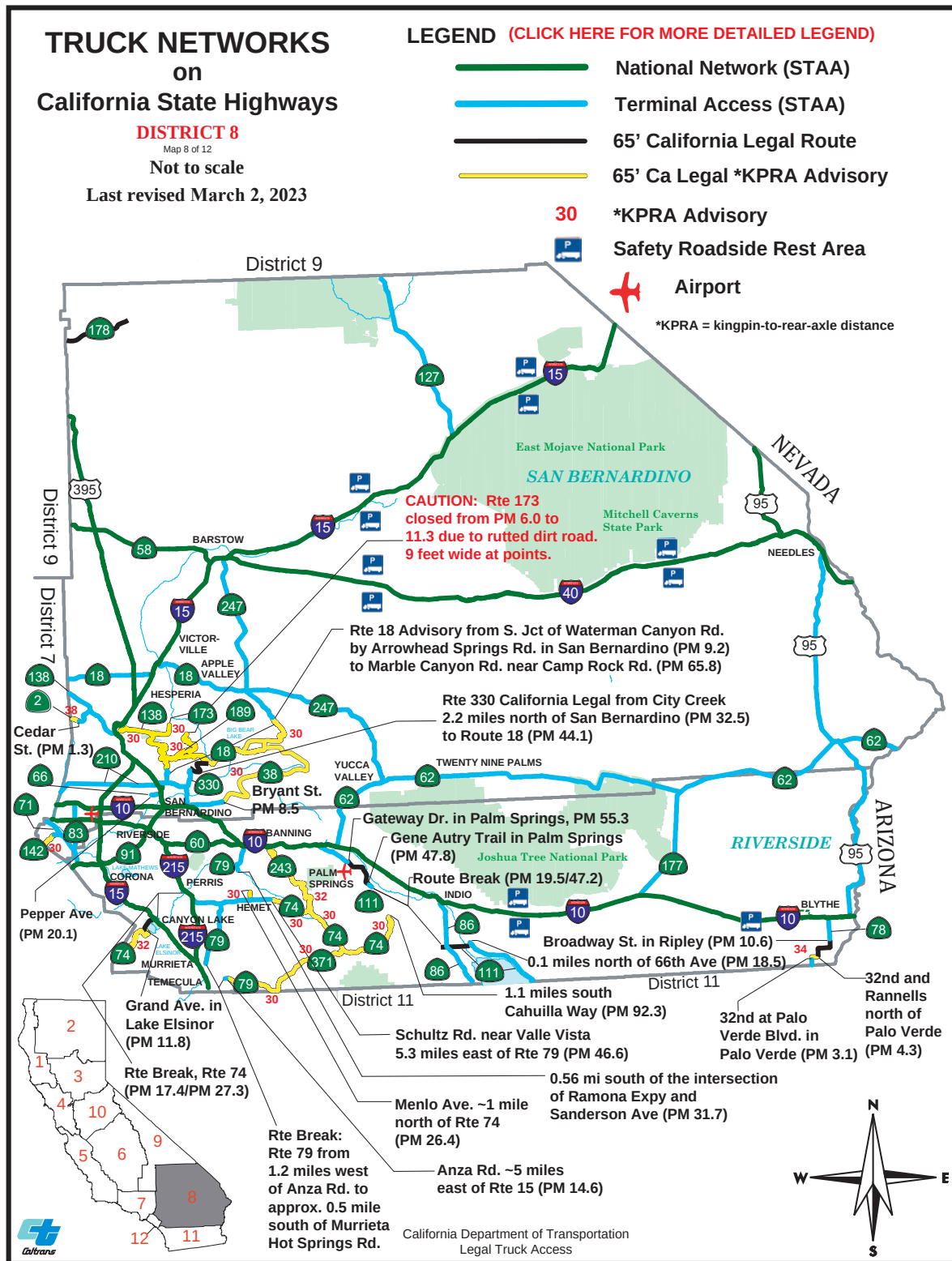
Source:
City of Barstow, 2018

Figure 5.15-12
City of Barstow - Active Transportation Plan Proposed Bicycle Network



Source:
County of San Bernardino, 2021

Figure 5.15-13
San Bernardino County - Goods Movement



Source:
Caltrans, 2023

Figure 5.15-14
Caltrans District 8 - National Network Truck Routes

Barstow International Gateway

The BIG footprint totals approximately 5,000 acres and is composed of the BIG Specific Plan area (totaling approximately 4,300 acres) and off-site improvements (totaling approximately 600 acres). BIG's proposed Specific Plan area is generally bordered by the Mojave River to the north, Main Street (also referred to as National Trails Highway or Route 66) to the south, Lenwood Road to the east, and Hinkley Road to the west.

The BIG footprint, and the City, and County jurisdictional areas are depicted in **Figure 5.15-15: Map of Existing Jurisdictional Areas**. As shown in the figure, approximately 62 percent of the BIG footprint is currently within unincorporated County and approximately 38 percent is within Barstow City limits.

Existing Major Freeways and State Routes

Regional and interregional vehicular access to the proposed BIG Specific Plan area is provided via the existing freeways and State Routes. For information on existing major freeways and State routes, refer to **Section 5.15.4: Environmental Setting, Proposed General Plan**.

County and City Roadway Networks

For information on the County and City roadway network, refer to **Section 5.15.4: Environmental Setting, Proposed General Plan**. The CWP and 2015 General Plan do not identify any specific improvements within BIG's study area.

Nonmotorized Transportation

For information related to nonmotorized transportation within the County and City, refer to **Section 5.15.4: Environmental Setting, Proposed General Plan** above. Nonmotorized transportation information for the proposed BIG Specific Plan area is described below.

The *San Bernardino County Non-Motorized Transportation Plan Update* (SBCTA, 2018) recommends Class II³ bike lanes along Main Street and Lenwood Road along BIG's Specific Plan area frontage; see **Figure 5.15-7: San Bernardino County Non-Motorized Transportation Plan Update – Existing and Planned Bicycle Facilities**. The plan does not show any planned pedestrian facilities in the Barstow area.

³ Class II (Bike Lane): A portion of roadway that has been designated by striping and pavement markings for the preferential or exclusive use of bicyclists (Non-Motorized Transportation Plan, page ES-6).

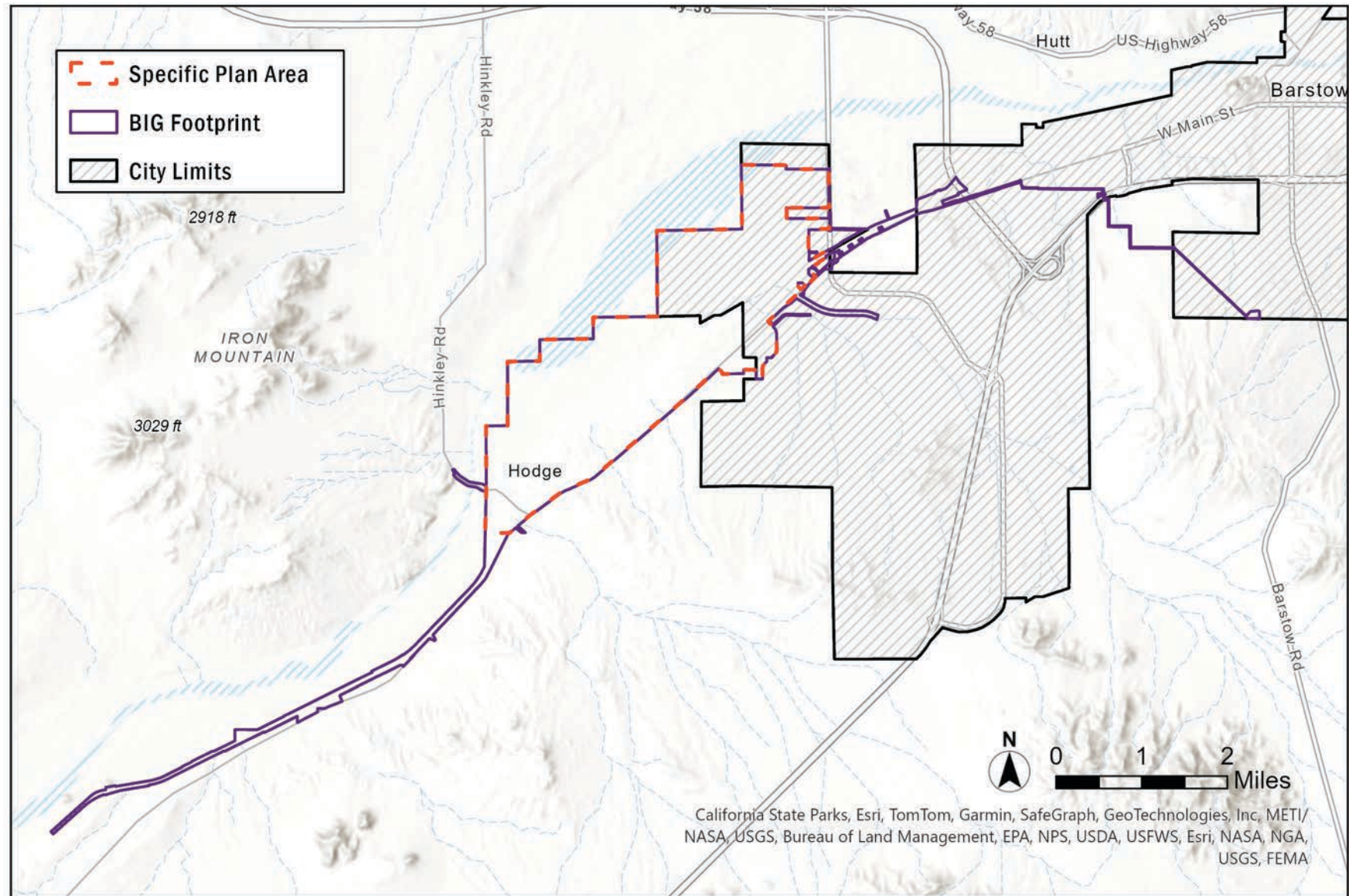


Figure 5.15-15
Map of Existing Jurisdictional Areas

The CWP designates planned pedestrian and bike routes (see **Figure 5.15-8: San Bernardino County – Future Bicycle Facilities Map**). The plan recommends Class II bike lanes along Main Street and Lenwood Road along BIG’s Specific Plan area frontage. The plan does not show any planned pedestrian facilities in the Barstow area.

The 2015 General Plan Circulation Element designates planned pedestrian and bike routes (see **Figure 5.15-9: City of Barstow – Planned Pedestrian Paths, Bicycle Routes and Park and Ride Facilities**). The plan recommends Class II bike lanes along Main Street and Lenwood Road along BIG’s Specific Plan area frontage. The plan does not show any planned pedestrian facilities along BIG’s Specific Plan area frontage. City and County planned pedestrian and bicycle facilities are depicted in **Figure 5.15-10**. The pedestrian and bicycle networks within the study area are discussed below.

Main Street. There are existing intermittent sidewalks along Main Street between Lenwood Road and I-40. The County plans Class II bike lanes along Main Street between Hinkley Road and I-40. The City of Barstow designates a Bike Lane/Route along this same segment, within the City. According to the San Bernardino County Non-Motorized Transportation Plan, bicycle improvements along Main Street from I-40 to the western City limit are a priority.

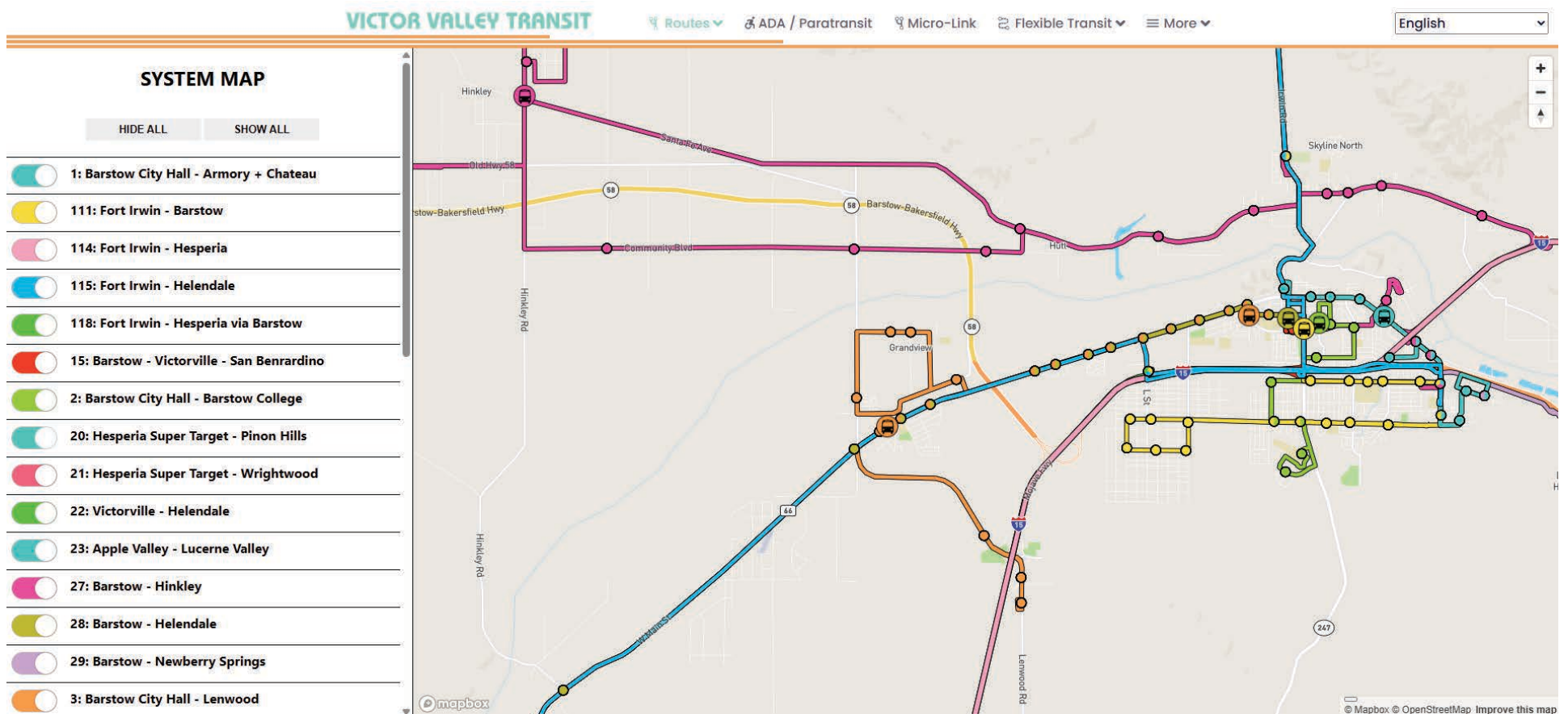
Lenwood Road. There are existing intermittent sidewalks along portions of Lenwood Road. The County plans Class II bike lanes along Lenwood Road between Main Street and Agate Road. The City designates a Bike Lane/Route along Lenwood Road between Main Street and Community Boulevard.

Barstow Road. There are existing sidewalks along Barstow Road between Main Street and Barstow Community College. San Bernardino County plans Class II bike lanes along Barstow Road between Main Street and the edge of the City limits. The City of Barstow designates a Bike Lane/Route between along this same segment and south of the City limits. According to the San Bernardino County Non-Motorized Transportation Plan, improvements along Barstow Road from Main Street to SR-247 are a priority.

Hinkley Road. No County or City bike lanes or sidewalks are designated or planned along the entirety of Hinkley Road.

Existing Transit Conditions

Transit within BIG’s study area is operated by Victor Valley Transit Authority (VVTA) and includes fixed route buses, paratransit, and other flexible transit services. **Figure 5.15-16: Victor Valley Transit Map** shows the existing VVTA transit services within BIG’s study area and indicates VVTA bus lines 3, 28, and 115 run adjacent to the BIG Specific Plan area. Line 3 has one-hour headways and stops east of the BIG Specific Plan area at Lenwood Road and Camino Del Sol, near a single-family residential area. Line 28 has two-hour headways connecting Barstow and Helendale and stops near the BIG Specific Plan area at the intersections of Main Street with Hinkley Road and Lenwood Road. Line 115 runs once per day connecting Fort Irwin and Helendale and stops east of the BIG Specific Plan area at the L Street Park & Ride.



Source:
Victor Valley Transit, Undated. Accessed May 2025.

Figure 5.15-16
Victor Valley Transit Map

VVTA Direct Access paratransit service provides curb-to-curb service to complement the VVTA fixed-route bus system and accommodates passengers with certain disabilities. The service applies to all fixed routes.

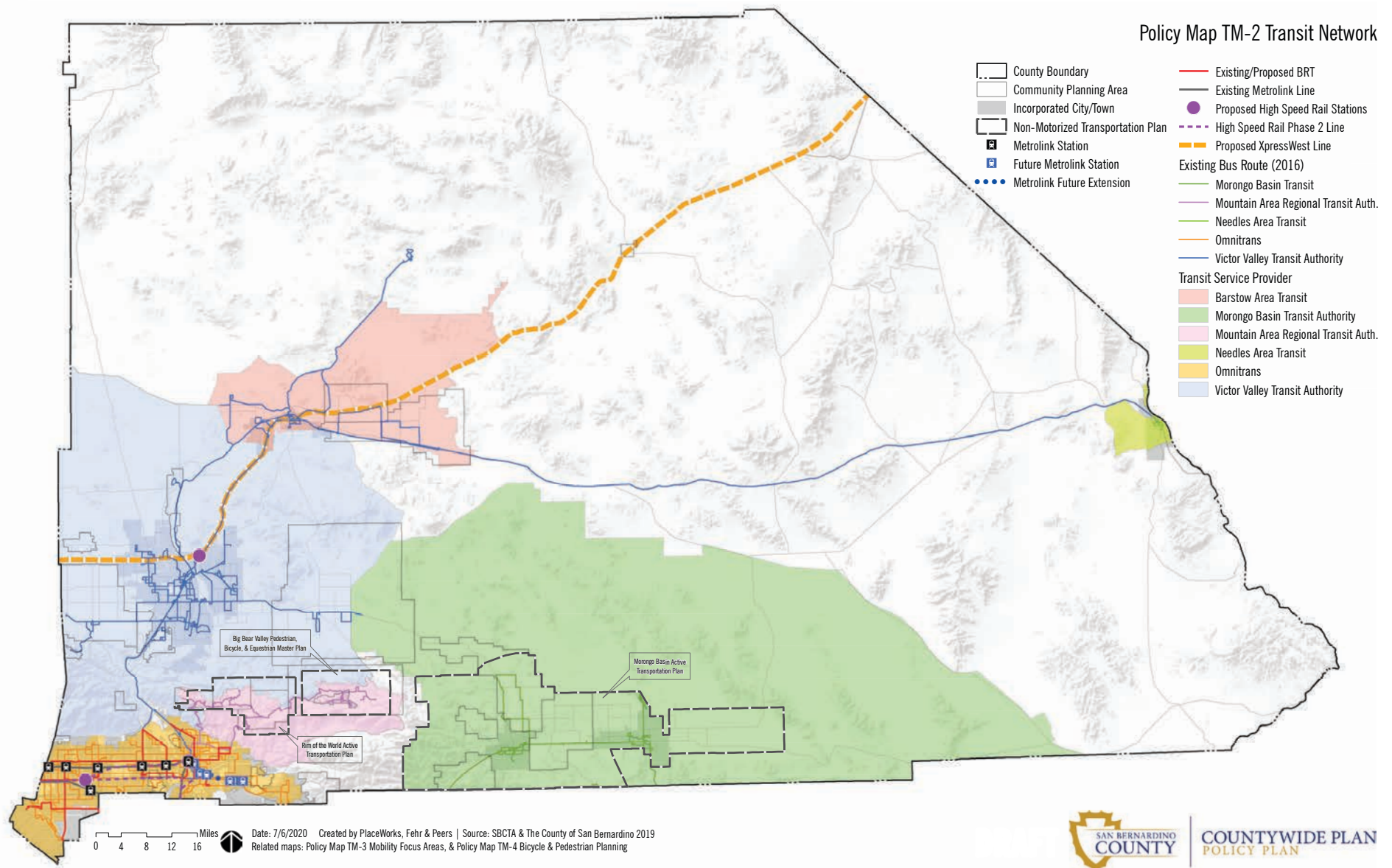
VVTA Vanpool allows employers to lease a specially equipped commuter van to groups of five or more individuals through one of three vendors. VVTA subsidizes qualified vanpools and ridership costs. Vanpools are advertised to the public and any empty seats must be made available to any rider who shares the same work commute.

Figure 5.15-17: San Bernardino County – Transit Network depicts the County’s existing and planned transit services as presented in CWP Policy Map TM-2: Transit Network (2020). Within BIG’s study area, VVTA operates lines that run along Main Street, Lenwood Road, and Barstow Road. The Brightline West (formerly XpressWest) high speed rail line is planned along the I-15 corridor within BIG’s study area. However, besides Brightline West, no additional transit services are planned within BIG’s study area.

Goods Movement

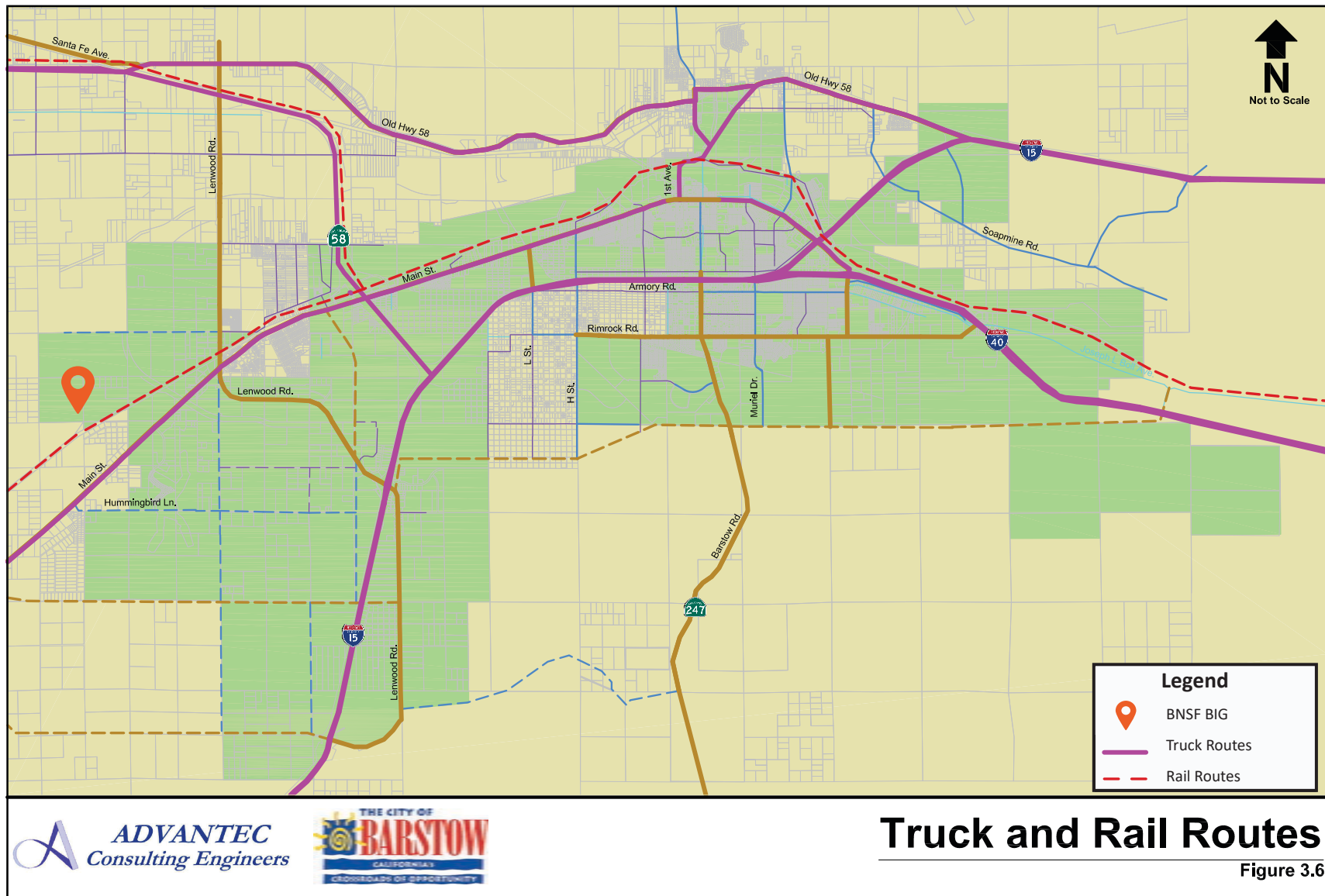
San Bernardino County serves as a gateway between the Ports and the rest of the U.S. **Figure 5.15-18: City of Barstow – Existing Truck and Rail Routes** depicts truck and rail routes that traverse the City, as presented in the Traffic Study for Barstow 2014 General Plan Amendment. **Figure 5.15-13: San Bernardino County – Goods Movement** depicts goods movement within the County, as presented in CWP Policy Map TM-5: Goods Movement (2020). Union Pacific Railroad (UPRR) and BNSF freight railroad lines traverse the County.

Additionally, the region around the proposed General Plan area contains truck routes that are part of the National Network as defined by the Federal Surface Transportation Assistance Act of 1982. **Figure 5.15-14: Caltrans District 8 – National Network Truck Routes** shows these truck routes, including I-15, I-40, SR-58, and SR-247.



Source:
County of San Bernardino, 2021

Figure 5.15-17
San Bernardino County - Transit Network



Source:
City of Barstow, 2014

Figure 5.15-18
City of Barstow - Existing Truck and Rail Routes

5.15.5 IMPACT THRESHOLDS AND SIGNIFICANCE CRITERIA

State CEQA Guidelines **Appendix G: Environmental Checklist Form** includes questions concerning transportation. The issues presented in the Environmental Checklist Form have been used as thresholds of significance in this Section. Accordingly, the Project would have a significant effect on the environment if it would:

- **Impact 5.15-1:** Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- **Impact 5.15-2:** Conflict or be inconsistent with State CEQA Guidelines § 15064.3(b).
- **Impact 5.15-3:** Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- **Impact 5.15-4:** Result in inadequate emergency access.

State CEQA Guidelines § 15064.3(b) as noted in the threshold above provides that, for land use projects, “vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact.” Also concerning the State CEQA Guidelines § 15064.3(b) threshold above, the City-adopted VMT Impact Thresholds are applied to the analysis of VMT impacts in this analysis. The Project-level and Cumulative-level VMT Significance Criteria are described in **Section 5.15.3 Methodology For Evaluating Impacts**.

It is noted that these thresholds apply to project operations. The City, County, and State have not identified/adopted thresholds that apply to a project’s construction activities, which would be temporary and the associated VMT would cease once project construction is complete.

5.15.6 PROJECT IMPACTS AND MITIGATION MEASURES

Applicable Proposed General Plan Policies

This section lists the proposed General Plan policies, which would serve to avoid or reduce environmental impacts concerning transportation.

- **Policy CM-1.1 Level of service.** Strive to maintain a Citywide level of service (LOS) standard not exceeding LOS D for roadways and LOS C for City-controlled intersections for weekday peak. Allow LOS D for intersections in the downtown in recognition of the built-out nature and desire for lower speeds for safety (motorist, bicyclist, or pedestrian), and greater business exposure.
- **Policy CM-1.2 Regional network.** Support the development of regional transportation facilities that ensure the safe and efficient movement of people and goods between the City and outside areas, accommodating regional travel demands while minimizing adverse transportation impacts on Barstow residents and businesses.
- **Policy CM-1.3 Interagency coordination.** Coordinate with the County and other local, regional, State, and federal agencies on long-term plans, proposed development projects, and capital improvements while minimizing adverse traffic impacts on Barstow residents and businesses.

- **Policy CM-1.4 Traffic management.** Utilize intelligent transportation systems and research changing trends in mobility to more efficiently and safely move people and vehicles while managing motor vehicle speeds.
- **Policy CM-1.5 Road maintenance.** Regularly update the pavement management plan and maintain roadways to ensure safety and functionality, as an investment strategy, and to improve the City's image and quality of life.
- **Policy CM-1.6 Fair share of transportation improvements.** Require new development to pay a fair share of needed transportation improvements based on a project's impacts on the City's motorized and non-motorized transportation networks.
- **Policy CM-1.7 Bridges and rail crossings.** Coordinate with regional, state, and federal agencies as well as BSNF to provide and maintain multiple options for vehicles to safely cross the Mojave River and railway facilities, even during 100-year flooding and seismic events.
- **Policy CM-2.1 Pedestrian network.** Establish and maintain pedestrian walkways that promote safe and convenient travel to transit stops and between residential and commercial areas, schools, parks, recreation facilities and other key destination points.
- **Policy CM-2.2 Bicycle network.** Establish and maintain a citywide bicycle network that consists primarily of Class I multipurpose trails, Class II bike lanes, or Class IV separated bikeways. Class III bike routes are acceptable facilities in constrained circumstances to attain connectivity.
- **Policy CM-2.3 Electric bikes.** Support and encourage the use of electric bicycles to reduce resident and employee reliance on cars, resulting in greater mobility while lowering vehicle miles traveled and associated emissions.
- **Policy CM-2.4 Transit service.** Coordinate with Victor Valley Transit Authority (VVTa) to provide residents and workers with accessible and convenient service between residential neighborhoods, commercial centers, educational facilities, employment nodes, and medical facilities. Coordinate with VVTa to install, improve, and maintain safe, clean, comfortable, well-lit, and rider-friendly transit stops that are well marked and visible to motorists.
- **Policy CM-2.5 Downtown Barstow.** Enhance the public realm to create a pedestrian- and transit-friendly environment along and connecting to Main Street between Otis and 7th Avenues.
- **Policy CM-2.6 Design of new facilities.** Design new streets and streetscape improvements to accommodate vehicles, transit, bicycles, and pedestrians based on a combination of the land use and roadway context to promote safety and efficiency for all users.
- **Policy CM-2.7 Public space and networks.** Leverage public rights-of-way, easements, and other public spaces to maintain and expand bicycle and pedestrian networks.
- **Policy CM-2.8 Access management.** Minimize access points and curb cuts along primary and secondary arterials and in the proximity of an intersection to improve traffic flow and safety for vehicles, pedestrians, and bicycles. Eliminate and/or consolidate driveways when new development occurs or when traffic operation or safety warrants.

- **Policy CM-2.9 Site design.** Require new development to incorporate amenities and pathways so that pedestrians and bicyclists can access the site and onsite businesses safely and conveniently from the public right-of-way and parking areas.
- **Policy CM-2.10 VMT reduction.** Promote new development and transportation demand management (TDM) strategies that will reduce household and employment vehicle miles traveled (VMT). Prioritize the implementation of TDM strategies over the expansion of roadway capacity.
- **Policy CM-3.1 Truck routes.** Maintain a network of City truck routes that provides for the safe and efficient transport of goods while minimizing negative impacts on local circulation, noise-sensitive land uses, and sensitive receptors.
- **Policy CM-3.2 Truck parking.** Require new truck-intensive land uses to design and incorporate space and facilities in order to reduce truck parking and idling in the public rights-of-way (ROWs); exceptions may be allowed for portions of ROWs entirely surrounded by land designated as General Industrial. Prohibit truck parking except on property designated for General Industrial or General Commercial along Interstate 15 south of SR-58.
- **Policy CM-3.3 Train facilities.** Support improvements to roadways and rail facilities that increase the efficiency of goods movement; enhance the safety of rail operations, motor vehicles, and non-motorized modes of mobility; and minimize noise and vibration impacts on sensitive land uses.

Impact 5.15-1: *Would the Project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Proposed General Plan

The proposed General Plan includes several policies aimed at enhancing the efficiency, safety, and connectivity of the circulation system for all modes of travel. For example, Policy CM-1.4 (Traffic management) is intended to balance roadway use and improve overall mobility for motorists, bicyclists, pedestrians, and transit users. To strengthen the active transportation network, Policy CM-2.1 (Pedestrian network) and Policy CM-2.2 (Bicycle network) promote the development and enhancement of sidewalks, trails, and bikeways, with an emphasis on connectivity and closing infrastructure gaps. These policies are foundational to the City's complete streets approach, which supports multimodal access and safety. In addition, Policy CM-2.4 (Transit service) encourages continued coordination with the Victor Valley Transit Authority (VVTA) to enhance public transit accessibility and service coverage.

The General Plan also includes a broader suite of policies intended to reduce VMT by supporting compact, mixed-use development, improved land use planning, and expanded transportation choices. Collectively, these policies are consistent with regional, State, and federal goals for sustainable mobility and VMT reduction. Future development under the proposed General Plan would be subject to compliance with the proposed General Plan policies intended to enhance the efficiency, safety, and connectivity of the circulation system for all modes of travel. Therefore, the proposed General Plan would not conflict with

any program, plan, ordinance, or policy addressing the circulation system, and impacts would be considered less than significant.

Impact 5.15-1: General Plan: Level of Significance Before Mitigation: Less than Significant Impact.

Impact 5.15-1: General Plan: Mitigation Measures: No mitigation required.

Impact 5.15-1: General Plan: Level of Significance After Mitigation: No significant impact would occur.

Barstow International Gateway

This analysis evaluates BIG's potential to conflict with relevant policies, plans, ordinances, and programs addressing the circulation system (e.g., including transit, roadway, bicycle, and pedestrian facilities). The circulation system conflict evaluation is summarized below; see a detailed policy evaluation in **Table 23** through **Table 35** of **Appendix 5.15 BIG-1**. BIG would not conflict with programs, plans, ordinances, or policies addressing transit, roadway, bicycle, and pedestrian facilities. BIG would result in a less than significant impact in this regard, and no mitigation is required.

Construction

BIG's construction activities would result in increased heavy-duty truck traffic within the study area and may result in temporary lane or roadway closures. Consistent with City standards and construction best practices, the contractor would prepare a detailed Traffic Control Plan (TCP) pursuant to City of Barstow Standard Plan 138 requirements to minimize the impact of construction activities and construction traffic on adjoining and nearby roadways and land uses. A TCP is required for any work in the public right-of-way and would show how to safely manage vehicles, bicyclists, and pedestrians through or around construction zones.

The TCP would be prepared in close consultation with the City, local law enforcement, and fire department officials. The City would review and approve the TCP before commencement of any construction activities. The County would review and approve the TCP portions relevant to work within County rights-of-way before commencement of construction activities within County rights-of-way. The TCP must adhere to the California Manual on Uniform Traffic Control Devices (Caltrans, 2025), which outlines standards for temporary traffic control devices, equipment placement, and personnel, with specific requirements set by the City or County. Key elements of the TCP include maps of the work area, placement of signs, temporary traffic control devices (cones, barricades, channelizers), equipment, and personnel such as flaggers. In instances of long-term lane closures, additional elements (e.g., temporary striping, contra-flow, or crash cushions) would be required. The use of a TCP is a typical best practice.

The contractor's exact means and methods are not yet detailed, but the TCP would require provisions to minimize access disruption to residents, businesses, customers, delivery vehicles, and buses to the extent practicable (and where road closures are required during construction, limit to the hours that are least disruptive to access for the adjacent land uses), provisions for 24-hour access by emergency vehicles, and safe vehicular and pedestrian access to local businesses and residences during construction.

For example, BIG proposes to replace the bridge crossing at Lenwood Channel to accommodate the proposed Lenwood Channel widening. To maintain traffic flow and access through the corridor for the duration of the Main Street at Lenwood Channel bridge reconstruction, BIG proposes to construct a temporary bypass, which would include private driveways for access to nearby land uses; see **Figure 5.15-22: Main Street at Lenwood Channel Bridge Reconstruction – BIG - BIG** later in this section.

Thus, circulation network access for transit, vehicle traffic, bicycles, and pedestrians would be maintained throughout BIG construction. Therefore, BIG construction activities would not conflict with a program, ordinance, or policy addressing transit, roadway, bicycle, or pedestrian facilities.

Operations

BIG would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. An analysis of BIG's potential to conflict with each relevant policy, plan, ordinance, and program is provided in **Table 23** through **Table 35** of **Appendix 5.15 BIG-1**.

Additionally, to assess whether BIG would conflict with a City circulation program, plan, ordinance or policy, BIG was evaluated against the City's proposed General Plan circulation maps. **Figure 5.15-19: City Proposed Draft Roadway Classification Map** depicts the City's draft existing and future roadway network. **Figure 5.15-20: City Proposed Draft Truck Routes** depicts the draft of the City's truck routes and **Figure 5.15-21: City Proposed Draft Bike Classification Map** depicts the draft of the City's existing and proposed bicycle facilities per the proposed General Plan.

BIG proposes to construct, or dedicate right-of-way for future construction by others, the planned bicycle and pedestrian facilities that are identified in the relevant adopted policies, plans, ordinances, and programs along BIG's Specific Plan area frontage.

Table 5.15-15: Planned Bicycle Facilities Along BIG's Specific Plan Area Frontage notes the planned bicycle facilities along BIG's Specific Plan area frontage, along with BIG's proposed improvements, and the analysis conclusion. While bike lanes are planned along Lenwood Road, BIG does not propose to implement them because BIG would only own intermittent right-of-way fronting Lenwood Road between Main Street and proposed Hinkley Road/Jasper Road. Instead, BIG proposes to dedicate right-of-way to accommodate the improvement for future construction by others, as noted in the table.

Table 5.15-15: Planned Bicycle Facilities Along BIG's Specific Plan Area Frontage				
Roadway	San Bernardino County Non-Motorized Transportation Plan Update – Existing and Planned Bicycle Facilities	San Bernardino County – Future Bicycle Facilities Map	City Proposed General Plan Bike Classification Map	City of Barstow – Active Transportation Plan Proposed Bicycle Network
Main Street: western Specific Plan area limit to Main Street Driveway/Country Club Drive	- Class II bike lanes - BIG proposes to dedicate R/W to accommodate future bike lane construction by others - No conflict	- Class II bike lanes - BIG proposes to dedicate R/W to accommodate future bike lane construction by others - No conflict	- No bike facilities proposed - BIG proposes to dedicate R/W to accommodate future bike lane construction by others - No conflict	- No bike facilities proposed - BIG proposes to dedicate R/W to accommodate future bike lane construction by others - No conflict
Main Street: Main Street Driveway/Country Club Drive to Lenwood Road	- Class II bike lanes - BIG proposes Class II bike lanes in both directions - No conflict	- Class II bike lanes - BIG proposes Class II bike lanes in both directions - No conflict	- Class II bike lanes - BIG proposes Class II bike lanes in both directions - No conflict	- Class II bike lanes - BIG proposes Class II bike lanes in both directions - No conflict
Lenwood Road: Main Street to northern Specific Plan area limit	- Class II bike lanes - BIG proposes to dedicate R/W to accommodate future bike lane construction by others - No conflict	- Class II bike lanes - BIG proposes to dedicate R/W to accommodate future bike lane construction by others - No conflict	- Class II bike lanes - BIG proposes to dedicate R/W to accommodate future bike lane construction by others - No conflict	- Class II bike lanes - BIG proposes to dedicate R/W to accommodate future bike lane construction by others - No conflict
Notes: Each cell notes the relevant proposed classification, then BIG's proposed improvements, and finally the analysis conclusion. R/W = right-of-way				
Sources: City of Barstow Active Transportation Plan, 2018 City of Barstow proposed General Plan San Bernardino County Non-Motorized Transportation Plan, 2018 San Bernardino Countywide Plan Transportation & Mobility Element, 2021				

Additionally, BIG proposes to construct sidewalk on the north side of Main Street between Main Street Driveway/Country Club Drive and 250 feet west of Lenwood Road, where the existing sidewalk begins. These proposed active transportation improvements to Main Street would provide pedestrian and bicycle access to BIG.

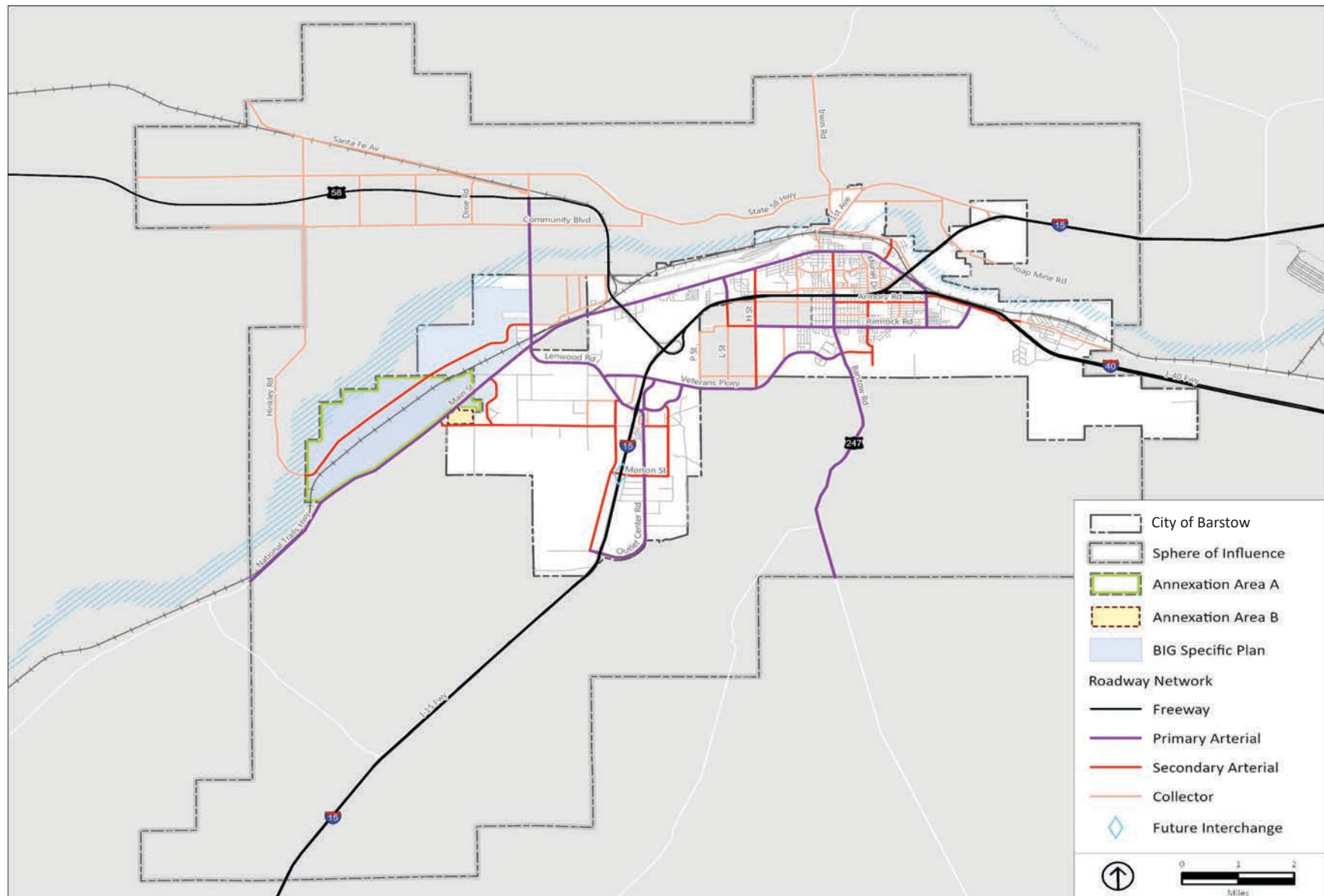
As discussed in **Appendix 5.15 BIG-2**, BIG proposes several transportation modifications (TMs) to address forecast operational deficiencies of intersections, roadway segments, and freeway off-ramps. Most BIG TMs take the form of intersection modifications – signalization, restriping, or lane additions. All TMs would be designed to meet relevant agency standards.

Therefore, BIG would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Impact 5.15-1: BIG: Level of Significance Before Mitigation: Less than Significant Impact.

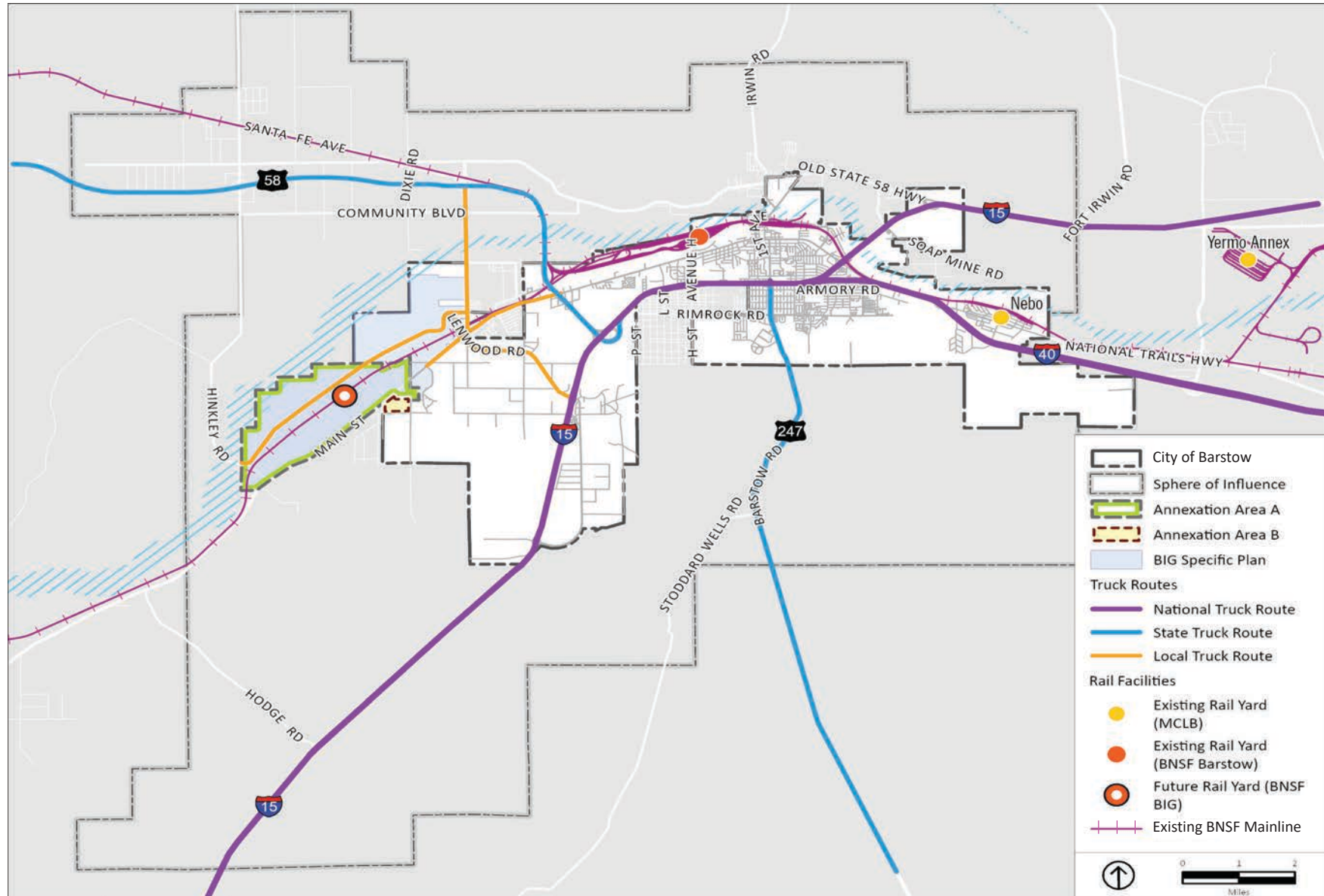
Impact 5.15-1: BIG: Mitigation Measures: No mitigation required.

Impact 5.15-1: BIG: Level of Significance After Mitigation: No significant impact would occur.



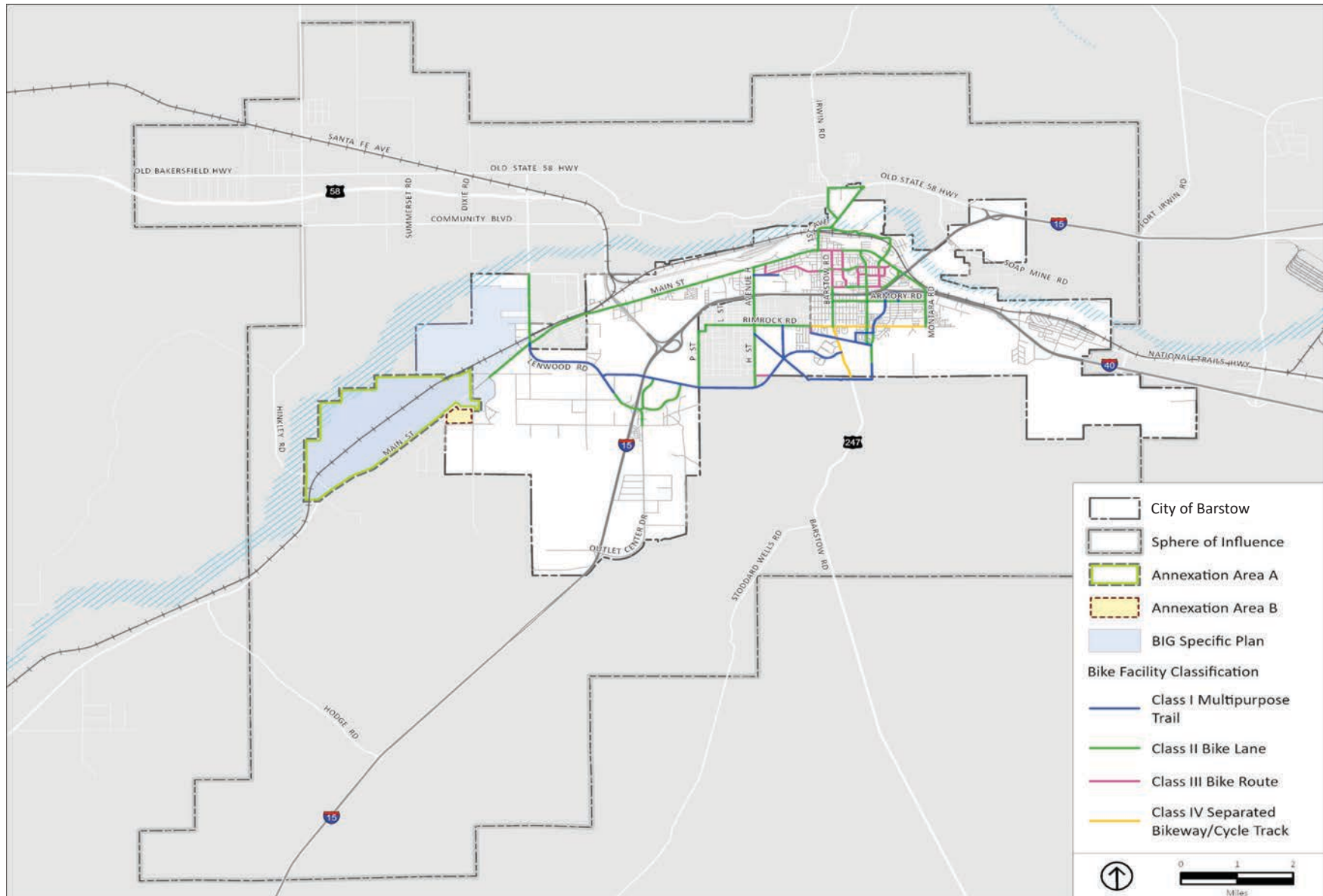
Source:
City of Barstow proposed General Plan

Figure 5.15-19
City Proposed Draft Roadway Classification Map



Source:
City of Barstow proposed General Plan

Figure 5.15-20
City Proposed Draft Truck Routes



Source:
City of Barstow proposed General Plan

Figure 5.15-21
City Proposed Draft Bike Classification Map

Impact 5.15-2: Would the Project conflict or be inconsistent with CEQA Guidelines §15064.3(b)?

Proposed General Plan

The VMT assessment comparing Proposed General Plan Buildout Conditions to 2015 General Plan Buildout Conditions was prepared. **Table 5.15-16: Project VMT Summary – Proposed General Plan** summarizes the proposed General Plan generated VMT and **Table 5.15-17: Cumulative VMT Summary – Proposed General Plan** summarizes the proposed General Plan’s impact on VMT within the City and SOI boundary.

While total VMT is expected to increase under the proposed General Plan as compared to the 2015 General Plan, the VMT per service population (VMT/SP) is projected to decrease. The proposed General Plan reflects a more balanced land use plan and improves the City’s jobs-housing balance through efforts such as BIG.

The proposed General Plan is designed to support long-term reductions in VMT by encouraging a mix of land uses and improved connectivity to regional transportation corridors. However, as a program-level document, the proposed General Plan outlines a flexible development framework that may be implemented in phases and in any order, depending on market conditions, development interests, and infrastructure availability. Given this flexibility, individual development projects may proceed in ways that, if evaluated in isolation, could result in VMT levels that exceed CEQA thresholds, particularly if built in peripheral locations or ahead of planned infrastructure.

To address this, the City taking a conservative and transparent approach by identifying a significant and unavoidable VMT impact at the proposed General Plan’s program level analysis contained in this EIR. This acknowledges the potential for VMT impacts as the City grows, while also allowing the City to address VMT reduction comprehensively through citywide policies and mitigation strategies.

By disclosing and analyzing this impact now, the City aims to:

- Provide programmatic coverage for VMT under CEQA, and
- Reduce the need for future projects that are consistent with the proposed General Plan to prepare extensive project-level VMT analyses.

Future development proposals would still be reviewed for consistency with the proposed General Plan and may need to incorporate feasible VMT mitigation measures. However, because this EIR has already analyzed and disclosed a significant VMT impact, individual projects may be able to tier from this analysis, thereby streamlining the CEQA process while still meeting the intent of SB 743 and the State CEQA Guidelines.

Table 5.15-16: Project VMT Summary – Proposed General Plan

Metric	Existing Year (2023)	Horizon Year (2048) No Proposed General Plan	Horizon Year (2048) Plus Project
Population	34,432	45,603	52,833
Employment	14,416	19,810	26,475
City of Barstow SOI OD VMT (Daily total)	1,632,350	2,728,034	2,627,923
City of Barstow SOI Service Population	48,848	65,413	79,308
OD VMT per Service Population (OD VMT/SP)	33.4	41.7	33.1
Percent Change (Cumulative Plus Project as Compared to Cumulative No Project):			- 20.6 %
Source: Fehr and Peers, 2025; see Appendix 5.15 GP-1: Transportation Analysis .			

Table 5.15-17: Cumulative VMT Summary – Proposed General Plan

VMT Metric	Horizon Year (2048) No Project	Horizon Year (2048) Plus Project
Population	45,603	52,833
Employment	19,810	26,475
City of Barstow SOI VMT (Daily total)	2,834,130	2,804,193
City of Barstow SOI Service Population	65,413	79,308
VMT per Service Population (VMT/SP)	43.3	35.4
Percent Change	-	-18.2%
Source: Fehr and Peers, 2025; see Appendix 5.15 GP-1: Transportation Analysis .		

While the proposed General Plan includes policies and standard conditions of approval that are intended to reduce citywide VMT, the effectiveness and applicability of these strategies as project-level mitigation would depend on the context, scale, and significance of individual future development projects. Under CEQA, mitigation measures must be proportional to the impact they are intended to address. Many VMT-reducing strategies, such as improved land use mix, transit access, and active transportation infrastructure, require coordinated implementation at a citywide or regional level, as envisioned in the proposed General Plan.

Since this EIR has disclosed a significant and unavoidable VMT impact at the program level, future projects that are consistent with the proposed General Plan may be able to tier from this analysis pursuant to State CEQA Guidelines §§ 15152 and 15183. This approach can help streamline future CEQA reviews by avoiding repetitive analysis, provided the future project does not result in additional or more severe VMT impacts than those evaluated in this EIR. However, if a future project exceeds the proposed General Plan assumptions or is located in an area where VMT is not adequately mitigated by the proposed General Plan policies, additional project-specific VMT analysis and mitigation may be required.

Even with the proposed General Plan policies and strategies to reduce VMT, the effectiveness of these measures in fully offsetting impacts cannot be guaranteed. The success of these mitigation strategies depends on factors such as citywide implementation, infrastructure funding, and long-term changes in

travel behavior, all of which introduce uncertainty—particularly in the short term. As a result, despite the inclusion of these proposed General Plan policies, the VMT impact under the proposed General Plan remains significant and unavoidable.

Impact 5.15-2: General Plan: Level of Significance Before Mitigation: Potentially Significant Impact.

Impact 5.15-2: General Plan: Mitigation Measures: No feasible mitigation.

Impact 5.15-2: General Plan: Level of Significance After Mitigation: Significant and Unavoidable.

Barstow International Gateway

Construction

Vehicle trips used for construction purposes would be temporary, and generated VMT would generally be limited to construction equipment and construction workers. VMT is typically analyzed in the horizon year because it provides a long-term perspective of the effects of projects and plans, but construction activities would not result in long-term trip generation. Additionally, BIG would transport construction materials using the BNSF rail line to the extent practicable. Further, neither the City, County, nor State provide thresholds specific to construction VMT. Therefore, BIG’s VMT impacts during the construction period would be less than significant.

Operations

BIG’s VMT effects are summarized in **Table 5.15-18: BIG VMT Effects Summary**. Additional detail is provided in **Table 5.15-19: BIG VMT Detail** and **Appendix 5.15 BIG-1**.

Table 5.15-18: BIG VMT Effects Summary			
Project Threshold			
Metric	Horizon Year 2048 No BIG Baseline – City of Barstow and SOI	Horizon Year 2048 Plus BIG – BIG Specific Plan Area	Significant Impact?
Home-Based Work VMT per Worker (PA Method) (Horizon Year)	15.7	13.6	No
Cumulative Threshold			
Metric	Horizon Year 2048 No BIG Baseline – City of Barstow and SOI	Horizon Year 2048 Plus BIG – City of Barstow and SOI	Significant Impact?
Total Daily VMT per Service Population (Boundary Method) (Horizon Year)	37.3	35.4	No
Notes: PA = production-attraction VMT = vehicle miles traveled SOI = sphere of influence. City VMT results include Lenwood and nearby areas.			
Source: SBTAM+, 2025.			

Table 5.15-19: BIG VMT Detail		
Metric	Horizon Year 2048 No BIG Baseline	Horizon Year 2048 Plus BIG
City of Barstow and Sphere of Influence TAZs		
Daily Total Home-Based Work VMT (PA Method)	331,314	383,724
Employees (Workers)	21,100	26,475
Home-Based Work VMT per Worker (PA Method)	15.7	14.5
Boundary VMT (Daily Total)	2,760,396	2,804,193
Service Population	73,933	79,308
Boundary VMT per Service Population	37.3	35.4
BIG TAZs		
Daily Total Home-Based Work VMT (PA Method)	1,279	73,932
Employees (Workers)	80	5,455
Home-Based Work VMT per Worker (PA Method)	16.0	13.6
Notes: PA = production-attraction VMT = vehicle miles traveled SOI = sphere of influence. City VMT results include Lenwood and nearby areas. Values used for CEQA effect determination are shaded and bolded .		
Source: SBTAM+, 2025		

As noted in **Table 5.15-18: BIG VMT Effects Summary**, BIG's Home-Based Work VMT per Worker is forecast to be less than the citywide average Home-Based Work VMT per Worker under Horizon Year 2048 conditions. Therefore, BIG would have a less than significant VMT impact according to the City's Project Threshold. Additionally, the citywide total daily VMT/SP is forecast to be lower with BIG than the No BIG baseline under the Horizon Year 2048 conditions. Therefore, BIG would have a less than significant cumulative VMT impact according to the City's Cumulative Threshold.

Impact 5.15-2: BIG: Level of Significance Before Mitigation: Less than Significant Impact.

Impact 5.15-2: BIG: Mitigation Measures: No mitigation required.

Impact 5.15-2: BIG: Level of Significance After Mitigation: No significant impact would occur.

Impact 5.15-3: *Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Proposed General Plan

The City has adopted street improvement standards as approved by the City's Engineering Services Division, to ensure consistency in the geometric design of their roads and driveways. Such standards include centerline survey tie standards, fire hydrant locations, residential and driveway approaches, street design standards, etc. (Barstow, 2020). All requested plans for development undergo a review process at

the City by the City Engineer, Planning Department, Barstow Police Department, and Barstow Fire Protection District to ensure consistency with the adopted standards. The review process addresses both changes to access during construction, and access after completion of the development. As the proposed General Plan would not alter this process, and all future projects would be subject to these reviews, the proposed General Plan would not substantially increase hazards due to a geometric design feature or incompatible uses. This impact is considered less than significant, and no mitigation is required.

Impact 5.15-3: General Plan: Level of Significance Before Mitigation: Less than Significant Impact.

Impact 5.15-3: General Plan: Mitigation Measures: No mitigation required.

Impact 5.15-3: General Plan: Level of Significance After Mitigation: No significant impact would occur.

Barstow International Gateway

Construction

BIG construction activities would not substantially increase hazards due to geometric design features or incompatible uses. BIG's construction activities would be temporary and would occur mostly within the BIG footprint. Also, the TCP and construction plans and specifications would be designed to meet relevant design standards (City, County, and Caltrans) and sight distance requirements. Therefore, BIG construction activities would not increase hazards due to a geometric design feature or incompatible uses. BIG construction would result in a less than significant impact concerning safety hazards and incompatible uses.

Operations

BIG would not substantially increase hazards due to geometric design features or incompatible uses. The proposed roadway and intersection improvements would be designed to meet relevant design standards (City, County, Caltrans). Further, BIG proposes to remove the at-grade crossing at Hinkley Road, which would reduce potential conflicts between vehicles and trains, reducing hazards. BIG does not propose any incompatible uses. Therefore, BIG would not increase hazards due to a geometric design feature or incompatible uses. BIG would result in a less than significant impact, and no mitigation is required.

Impact 5.15-3: BIG: Level of Significance Before Mitigation: Less than Significant Impact.

Impact 5.15-3: BIG: Mitigation Measures: No mitigation required.

Impact 5.15-3: BIG: Level of Significance After Mitigation: No significant impact would occur.

Impact 5.15-4: *Would the Project result in inadequate emergency access?*

Proposed General Plan

Future development under the proposed General Plan would be subject to the City's development review process, which includes oversight by the City Engineer, Planning Department, Barstow Police Department,

and Barstow Fire Protection District. This review ensures that site access is designed to accommodate emergency vehicles and maintains compliance with all applicable fire and building codes.

Emergency access would be achieved through appropriate roadway design, circulation patterns, and access provisions that would allow fire trucks and other emergency responders to navigate development sites efficiently. In areas where direct street access may be limited, dedicated easements or alternative access routes would be incorporated, as necessary. Gated communities and similar developments would be required to provide systems that allow emergency entry at all times.

The City's planned circulation network provides connectivity between neighborhoods and major corridors, which supports reliable and timely emergency response. Because emergency access would be considered and ensured as part of the entitlement and permitting process for individual development projects, implementation of the proposed General Plan would not result in inadequate emergency access, resulting in a less than significant.

Impact 5.15-4: General Plan: Level of Significance Before Mitigation: Less than Significant Impact.

Impact 5.15-4: General Plan: Mitigation Measures: No mitigation required.

Impact 5.15-4: General Plan: Level of Significance After Mitigation: No significant impact would occur.

Barstow International Gateway

Construction

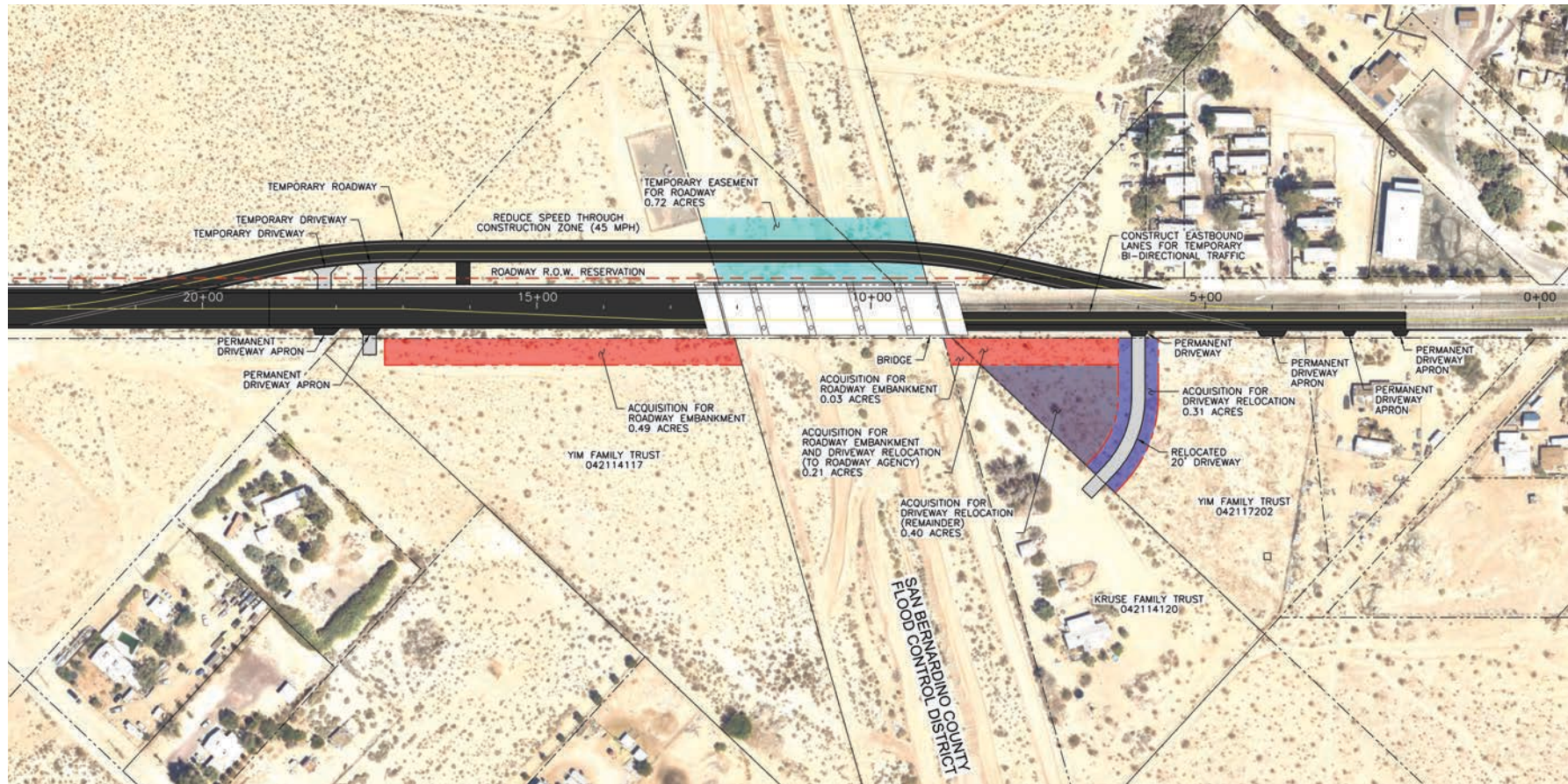
BIG's construction activities may result in temporary lane or roadway closures. As discussed above, the contractor would prepare a TCP, which would minimize the impact of BIG's construction activities (e.g., road and lane closures) and construction traffic on adjoining and nearby roadways and land uses in close consultation with the City (including local law enforcement and fire department officials). Incorporating the TCP would maintain emergency access to the BIG construction site and nearby land uses.

To maintain access through the corridor for the duration of the Main Street at Lenwood Channel bridge reconstruction, BIG proposes to construct a temporary bypass, which would include private driveways for access to nearby land uses; see **Figure 5.15-22: Main Street at Lenwood Channel Bridge Reconstruction – BIG**.

BIG proposes to vacate the southern approximately 0.6-mile of Hinkley Road (i.e., between the south side of the Mojave River bridge crossing and Main Street), terminating the existing at-grade rail crossing and removing direct access to Hinkley Road via Main Street. BIG also proposes to realign Jiggs Road slightly north/west to align with realigned Hinkley Road; see **Figure 5.15-23: Emergency Access (Fire Service) to Hinkley Road Area**. The area along Hinkley Road north of the Mojave River Bridge crossing ("Hinkley Road area") is within the unincorporated County and comprised primarily of vacant land with very few land uses interspersed throughout. The two County Fire stations closest to the Hinkley Road area are Hinkley Fire Station 56 (Station 56) located to the north at 37284 Flower Road, Hinkley, and Helendale Fire Station 4 (Fire Station 4) located to the southwest at 27089 Helendale Road, Helendale; see **Figure 5.15-23:**

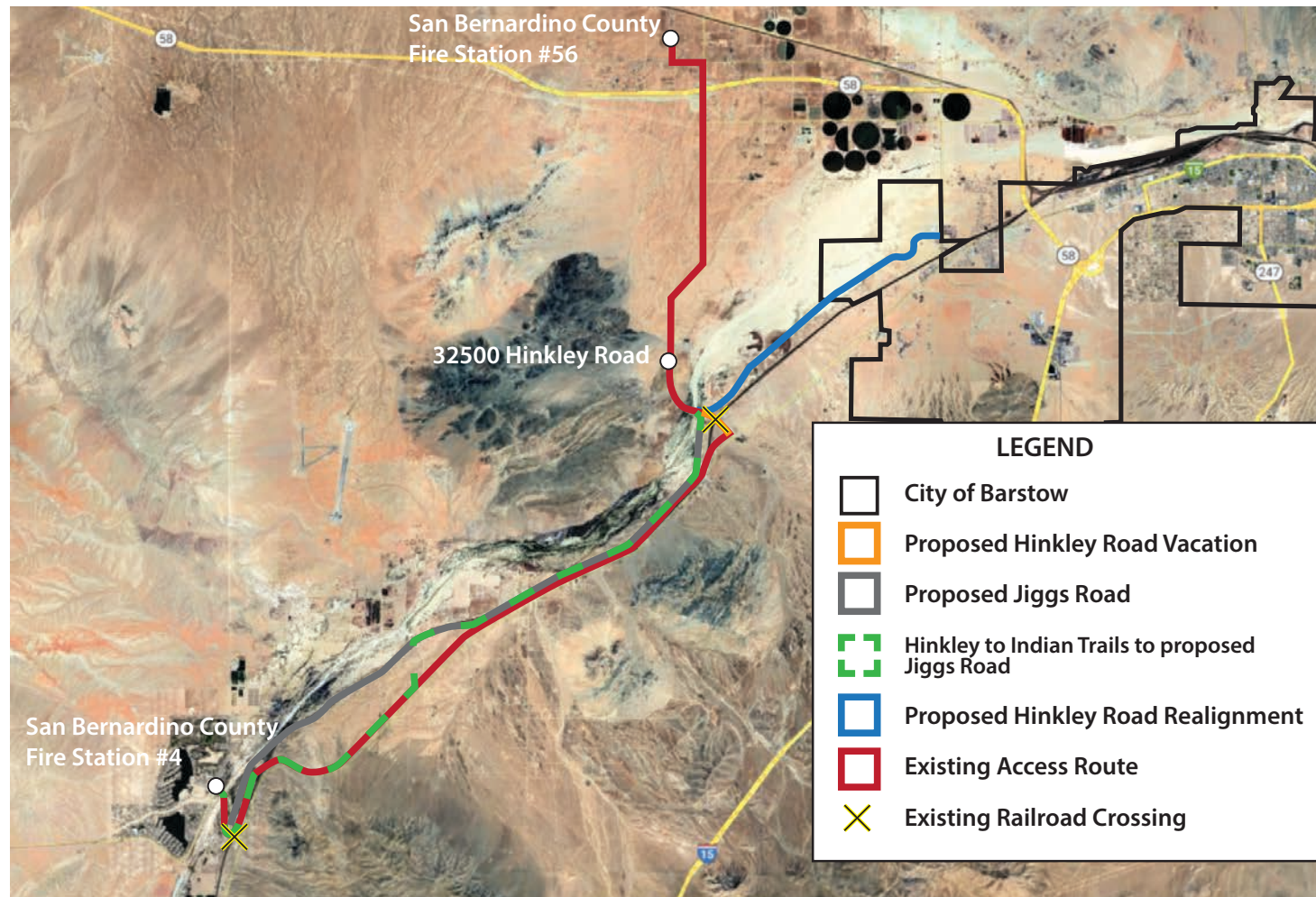
Emergency Access (Fire Service) to Hinkley Road Area. Station 56 is staffed by volunteer County firefighters requiring them to assemble at the station and then proceed to the incident.

During BIG's construction phase, while Hinkley Road and Jiggs Road are being reconstructed/realigned (approximately 30 months of the total 34-month construction duration), Fire Station 56 would have access to the Hinkley Road area, as under existing conditions. Vacating the southern portion of Hinkley Road would remove Fire Station 4's direct access to the Hinkley Road area via Main Street. However, while Hinkley Road and Jiggs Road are being reconstructed/realigned, access from Station 4 to the Hinkley Road area would be provided from the northeast via SR-58.



Source:
Transystems, 2024

Figure 5.15-22
Main Street at Lenwood Channel Bridge Reconstruction - BIG



Source:
Google Earth, 2025

Figure 5.15-23
Emergency Access (Fire Service) to Hinkley Road Area

Additionally, Barstow Fire Protection District (BFPD) Headquarters Fire Station 366 (Fire Station 366) is located to the east, at 2600 Main Street. Station 366 would have access to the Hinkley Road area via SR-58 or Community Boulevard; see **Figure 5.15-23: Emergency Access (Fire Service) to Hinkley Road Area**. Pursuant to existing mutual aid agreements between the County and Barstow, emergency response to the Hinkley Road area would first rely on County resources, but assistance would be available from Barstow resources (e.g., Fire Station 366, as well as other nearby jurisdiction resources) when necessary.

Overall, emergency access from Station 56 and Station 4 to the Hinkley Road area would be provided during BIG's construction phase, emergency response assistance could be provided (e.g., from Station 366 and other jurisdiction resources) when needed through the mutual aid agreements, and construction-related access interruptions are temporary (access to the Hinkley Road area would be restored once construction of realigned Hinkley Road and Jiggs Road is complete (see Operations discussion below)). Additionally, as discussed above, BIG would implement a TCP which would minimize the impact of BIG's construction activities (e.g., road and lane closures) and construction traffic on nearby land uses. Therefore, BIG's impacts concerning emergency access to the Hinkley Road area during the construction phase would be less than significant.

Operations

Proposed roadway and intersection improvements would be designed to meet relevant design criteria (City, County, Caltrans). BIG proposes to vacate select roads to allow for BIG construction; as applicable, BIG also proposes to acquire and vacate the existing parcels adjacent to the vacated roadways to eliminate the need for vehicle access to these parcels. The proposed site design would also allow for adequate emergency access to the BIG Specific Plan area. Internal and off-site roadways and transportation improvements would be designed to meet City Code, including Fire Code, and County Code, as applicable.

During BIG's operational phase, vacating the southern portion of Hinkley Road would remove Fire Station 4's direct access to the Hinkley Road area via Main Street. However, once Hinkley Road and Jiggs Road are reconstructed/realigned, alternate emergency access to the Hinkley Road area would be provided via the following routes: realigned Jiggs Road to Hinkley Road; Indian Trails to realigned Jiggs Road to Hinkley Road; and Main Street to Lenwood Road to realigned Hinkley Road to Hinkley Road; see **Figure 5.15-23: Emergency Access (Fire Service) to Hinkley Road Area**. Pursuant to existing mutual aid agreements, assistance from Fire Station 366 would be available from Barstow resources (as well as other nearby jurisdictions) when necessary. Overall, emergency access from Fire Station 56 and Fire Station 4 to the Hinkley Road area would be provided during BIG's operational phase, and emergency response assistance could be provided (e.g., from Fire Station 366 and other jurisdiction resources) when needed through the mutual aid agreements. Also, as discussed in **Section 5.14: Public Services and Recreation**, one reestablished and two new fire stations would be required to maintain acceptable performance objectives for fire protection services to meet future needs under the proposed General Plan. It is anticipated that a new fire station would be constructed in an as yet unidentified location in the eastern part of the City. Emergency response assistance could also be provided when needed from the new facilities. Therefore, BIG's impacts concerning emergency access to the Hinkley Road area during the operational phase would be less than significant.

Impact 5.15-4: BIG: Level of Significance Before Mitigation: Less than Significant Impact.

Impact 5.15-4: BIG: Mitigation Measures: No mitigation required.

Impact 5.15-4: BIG: Level of Significance After Mitigation: No significant impact would occur.

5.15.7 SIGNIFICANT UNAVOIDABLE IMPACTS

Proposed General Plan

The proposed General Plan would result in a significant and unavoidable impact concerning VMT; no other transportation-related significant and unavoidable impacts are anticipated to occur.

Barstow International Gateway

No transportation-related significant and unavoidable impacts are anticipated to occur as a result of BIG.

5.15.8 ADDITIONAL NON-CEQA ANALYSIS

The sections below present additional analyses which do not contribute to the determination of transportation impacts under CEQA. These additional analyses are provided for disclosure and are used to inform other relevant BIG environmental analyses included in **Section 5.0** (e.g., Air Quality, GHG Emissions, Energy, and Noise). In contrast, the proposed General Plan’s environmental analysis focuses on the General Plan’s broad policy and does not address potential site-specific impacts of individual projects that may occur within the City, since these are currently unknown. Therefore, because **Section 5.0** includes a programmatic approach to analysis of the proposed General Plan, additional analyses are not provided for the proposed General Plan.

Barstow International Gateway: Additional Non-CEQA Analysis

Truck Miles Traveled

As previously mentioned, under State CEQA Guidelines § 15064.3(a), VMT refers to the amount and distance of *automobile* travel attributable to a project. The Governor’s LCI (formerly known as OPR) has advised that the term “automobile” in CEQA Guidelines § 15064.3(a) refers to on-road passenger vehicles, specifically cars and light trucks, as distinguished from heavy-duty trucks (OPR, 2018). Therefore, analysis of the heavy-duty truck miles traveled (TMT) attributable to BIG operations is provided in the CEQA Assessment independent of VMT and does not inform the transportation impact analysis under CEQA. It is noted, however, that the TMT analysis included in this Assessment would be used to inform CEQA analysis of BIG’s impacts in other relevant impact areas (e.g., Air Quality, GHG Emissions, Energy, and Noise).

The proposed electric hostler operations are not included in the TMT calculations. Under BIG operations, electric hostlers would transport containers within the rail yard, and between the rail yard and the transload warehouse center. The electric hostlers would not leave BIG or access any public roads; instead, they would drive on private roads between the intermodal facility and the transload warehouse center

within BIG (see **Figure 3-26**). Therefore, the electric hostlers are excluded from the TMT analysis because they are not “on-road” vehicles (i.e., they would not use public roadways or result in impacts to off-site transportation facilities).

BIG is anticipated to reduce regional and national heavy-duty TMT by 1) increasing the use of trains for cargo transportation; and 2) providing an intermodal facility (IMF) closer to container origins/destinations than currently exists. TMT calculations are broken into two separate categories: transload warehouse center TMT (“transload TMT”), which includes the TMT for heavy-duty trucks accessing the transload warehouse center and reductions due to increased use of trains for cargo transportation; and IMF TMT, which includes the TMT for heavy-duty trucks accessing the IMF and reductions due to the proposed BIG IMF location. Total annual TMT reductions are determined by combining the calculated Plus BIG transload TMT minus No BIG Baseline transload TMT, and Plus BIG IMF TMT minus No BIG Baseline IMF TMT.

Transload warehouse center TMT reductions are calculated based on the forecast number of containers served by the BIG transload warehouse center. To calculate TMT, the forecast number of containers served by the BIG transload warehouse center is multiplied by the number of heavy-duty truck trips per container and by the relevant trip distance for No BIG Baseline or Plus BIG conditions. Under existing conditions, the containers that would be served by the transload warehouse center are trucked from the Ports to transload facilities around the Los Angeles basin, Orange County, and the Inland Empire, and then trucked from the transload facilities to their final destinations across the United States. BIG would reduce the number of heavy-duty truck trips required to serve these transload containers by providing a train connection directly from the Ports to BIG’s transload warehouse center (via BIG’s IMF and electric hostlers) and from the transload warehouse center to nationwide hub cities near the containers’ final destinations.

The transload warehouse center would also serve a portion of containers destined for the Inland Empire from the Ports. Under existing conditions, these containers are transported by truck from the Ports to the Inland Empire. Under Plus BIG conditions, these goods would travel by train from the Ports to BIG’s transload warehouse center (via BIG’s IMF and electric hostlers), be transloaded, and then trucked from BIG’s transload warehouse center to their destinations in the Inland Empire. The containers from BIG would then be re-filled with goods in the Inland Empire and transported by heavy-duty truck back to BIG’s transload warehouse center, to be transloaded and sent east by train.

IMF TMT reductions are calculated based on the forecast number of containers that would be trucked to BIG’s IMF. Under existing conditions, these containers are served by BNSF IMFs in San Bernardino or Hobart, or do not use an IMF and are trucked directly to their destinations across the U.S. (“nationwide destinations”). To calculate TMT, the forecast number of containers trucked to the BIG IMF is multiplied by the number of heavy-duty truck trips per container and by the relevant trip distance per container for the No BIG Baseline or Plus BIG conditions.

BIG’s TMT analysis is not limited to California’s boundaries. The geographic scope of this analysis is the national road network, which accounts for the full scope of TMT changes due to BIG’s implementation. As BIG is intended to serve the national market stream, specifically acting as a point of service for goods traveling from the Ports to destinations eastward across the United States, TMT savings are not limited to

within California. Instead, the following TMT analysis reviews the bigger picture of BIG's TMT effects as goods travel from the Ports or their domestic origins to their final nationwide destinations.

TMT estimations were completed for the following scenarios:

- Opening Year 2028
 - Opening Year 2028 No BIG Baseline
 - Opening Year 2028 Plus BIG
- Interim Year 2033
 - Interim Year 2033 No BIG Baseline
 - Interim Year 2033 Plus BIG
- Horizon Year 2048
 - Horizon Year 2048 No BIG Baseline
 - Horizon Year 2048 Plus BIG

As previously noted, analysis of the TMT attributable to BIG operations is provided here independent of VMT and does not inform the transportation impact analysis under CEQA. The TMT methodology and analysis results are discussed in more detail in **Appendix 5.15 BIG-1** and are summarized below. **Table 5.15-20: BIG Truck Miles Traveled Summary** summarizes BIG's total TMT estimates by summing the transload warehouse center TMT and the IMF TMT. **Table 5.15-21: Transload Warehouse Center Truck Miles Traveled Summary** summarizes the transload warehouse center TMT and **Table 5.15-22: IMF Truck Miles Traveled Summary** summarizes the IMF TMT. As noted in the **Table 5.15-20**, BIG would decrease heavy-duty TMT nationwide by hundreds of millions of miles per year, with an estimated annual reduction of 333 million heavy-duty TMT in 2048.

Table 5.15-20: BIG Truck Miles Traveled Summary

Annual Truck Miles Travelled									
Scenario	2028			2033			2048		
	No BIG Baseline	Plus BIG	Delta	No BIG Baseline	Plus BIG	Delta	No BIG Baseline	Plus BIG	Delta
Annual Truck Miles Traveled (TMT)	234,616,000	16,791,000	-217,825,000	307,625,000	21,312,000	-286,312,000	359,342,000	26,218,000	-333,123,000
Source: BNSF, 2025									
Note: Estimates rounded to the nearest thousand.									

Table 5.15-21: Transload Warehouse Center Truck Miles Traveled Summary

Annual Truck Miles Traveled									
BNSF BIG Transload Warehouse Component	2028			2033			2048		
	No BIG Baseline	Plus BIG	Delta	No BIG Baseline	Plus BIG	Delta	No BIG Baseline	Plus BIG	Delta
Goods Travelling to Nationwide Destinations									
20-foot and 40-foot international containers	17,992,000	384,000	-17,608,000	23,767,000	507,000	-23,260,000	27,593,000	588,000	-27,004,000
53-foot domestic containers	193,915,000	4,623,000	-189,292,000	255,118,000	6,088,000	-249,030,000	296,184,000	7,068,000	-289,116,000
Goods Travelling to the Inland Empire									
20-foot and 40-foot international containers	5,670,000	-	-5,670,000	7,499,000	-	-7,499,000	8,706,000	-	-8,706,000
53-foot domestic containers	-	4,620,000	4,620,000	-	6,110,000	6,110,000	-	7,094,000	7,094,000
Total Annual Truck Miles Traveled (TMT)	217,577,000	9,627,000	-207,950,000	286,384,000	12,705,000	-273,679,000	332,483,000	14,750,000	-317,733,000
Source: BNSF, 2025. Appendix 5.15 BIG-1: CEQA Assessment – Transportation Analysis , Transload TMT Summary Table, 2025									
Note: Estimates rounded to the nearest thousand.									

Table 5.15-22: IMF Truck Miles Traveled Summary									
Annual Truck Miles Traveled									
Scenario	2028			2033			2048		
	No BIG Baseline	Plus BIG	Delta	No BIG Baseline	Plus BIG	Delta	No BIG Baseline	Plus BIG	Delta
Annual Truck Miles Traveled (TMT)	17,038,000	7,164,000	-9,874,000	21,241,000	8,607,000	-12,634,000	26,859,000	11,468,000	-15,390,000
Source: BNSF, 2025. Appendix 5.15 BIG-1: CEQA Assessment – Transportation Analysis , IMF TMT Summary Table, 2025									
Note: Estimates rounded to the nearest thousand.									

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