

IV. Environmental Impact Analysis

K. Transportation

1. Introduction

This section analyzes the Project's potential impacts on Transportation. The analysis is primarily based on the *Transportation and Traffic Safety Review for the Metro TCN Program Memorandum* (Transportation Memo) prepared for the Project by Gibson Transportation Consulting, Inc. (Gibson) on August 29, 2022, and included in Appendix K of this Draft EIR.

2. Environmental Setting

a. Regulatory Framework

There are several plans, regulations, and programs that include policies, requirements, and guidelines regarding transportation at the federal, state, regional, and City of Los Angeles levels. As described below, these plans, guidelines, and laws include:

- Complete Streets Act
- Assembly Bill 32 and Senate Bill 375
- California Vehicle Code
- California Outdoor Advertising Permit Requirements
- CEQA Guidelines Section 15064.3
- Southern California Association of Governments 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy
- Metro 2028 Vision Plan
- City of Los Angeles Mobility Plan 2035
- Los Angeles Municipal Code
- Vision Zero

- Plan for A Healthy Los Angeles

(1) State

(a) Complete Streets Act

Assembly Bill (AB) 1358, the Complete Streets Act (Government Code Sections 65040.2 and 65302), was signed into law by Governor Arnold Schwarzenegger in September 2008. As of January 1, 2011, the law requires cities and counties, when updating the part of a local general plan that addresses roadways and traffic flows, to ensure that those plans account for the needs of all roadway users. Specifically, the legislation requires cities and counties to ensure that local roads and streets adequately accommodate the needs of bicyclists, pedestrians and transit riders, as well as motorists.

At the same time, the California Department of Transportation (Caltrans), which administers transportation programming for the State, unveiled a revised version of Deputy Directive 64 (DD-64-R1 October 2008), an internal policy document that now explicitly embraces Complete Streets as the policy covering all phases of State highway projects, from planning to construction to maintenance and repair.

(b) Assembly Bill 32 and Senate Bill 375

With the passage of Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, the State of California committed itself to reducing Statewide greenhouse gas (GHG) emissions to 1990 levels by 2020. The California Air Resources Board (CARB) is coordinating the response to comply with AB 32.

On December 11, 2008, CARB adopted its Scoping Plan for AB 32. This scoping plan included the approval of Senate Bill (SB) 375 as the means for achieving regional transportation-related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks can help the state comply with AB 32.

There are five major components to SB 375. First, regional GHG emissions targets: California ARB's Regional Targets Advisory Committee guides the adoption of targets to be met by 2020 and 2035 for each Metropolitan Planning Organization (MPO) in the State. These targets, which MPOs may propose themselves, are updated every eight years in conjunction with the revision schedule of housing and transportation elements.

Second, MPOs are required to prepare a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. The SCS and the Regional Transportation Plan (RTP) must be consistent with each other, including action items and

financing decisions. If the SCS does not meet the regional target, the MPO must produce an Alternative Planning Strategy that details an alternative plan to meet the target.

Third, SB 375 requires that regional housing elements and transportation plans be synchronized on eight-year schedules. In addition, Regional Housing Needs Assessment (RHNA) allocation numbers must conform to the SCS. If local jurisdictions are required to rezone land as a result of changes in the housing element, rezoning must take place within three years.

Fourth, SB 375 provides CEQA streamlining incentives for preferred development types. Certain residential or mixed-use projects qualify if they conform to the SCS. Transit-oriented developments (TODs) also qualify if they (1) are at least 50 percent residential, (2) meet density requirements, and (3) are within 0.5 mile of a transit stop. The degree of CEQA streamlining is based on the degree of compliance with these development preferences.

Finally, MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC). Regional Transportation Planning Agencies, cities, and counties are encouraged, but not required, to use travel demand models consistent with the CTC guidelines.

(c) California Vehicle Code

The California Vehicle Code (CVC) provides requirements for ensuring emergency vehicle access regardless of traffic conditions. Sections 21806(a)(1), 21806(a)(2), and 21806(c) define how motorists and pedestrians are required to yield the right-of-way to emergency vehicles. The CVC also regulates traffic signs, signals, and markings used within the state, including those of off-site billboard signs. CVC 21466.5 sets the criteria for illuminated signs in view of highways in the state. Specifically, it ensures that signage brightness would not impair driver vision and cause a safety risk to roadway users. The text of the statute is as follows:

No person shall place or maintain or display, upon or in view of any highway, any light of any color of such brilliance as to impair the vision of drivers upon the highway. A light source shall be considered vision impairing when its brilliance exceeds the values listed below:

The brightness reading of an objectionable light source shall be measured with a 1 1/2-degree photoelectric brightness meter placed at the driver's point of view. The maximum measured brightness of the light source within 10 degrees from the driver's normal line of sight shall not be more than 1,000 times the minimum measured brightness in the driver's field of view,

except that when the minimum measured brightness in the field of view is 10 foot-lamberts or less, the measured brightness of the light source in footlambert shall not exceed 500 plus 100 times the angle, in degrees, between the driver's line of sight and the light source.

The provisions of this section shall not apply to railroads as defined in Section 229 of the Public Utilities Code.

(b) Caltrans Outdoor Advertising Permit Requirements

Caltrans regulates signage that are visible from Caltrans facilities (i.e., freeways and highways) and generally requires the following criteria be met when an Outdoor Advertising Permit is being considered:

- Must be outside the right of way of any highway.
- Must be existing business activity within 1,000 feet of proposed display location on either side of the highway.
- Location may not be adjacent to a landscaped freeway.
- Location may not be adjacent to a scenic highway.
- Display must be 500 feet from any other permitted display on the same side of any highway that is a freeway.
- Display must be 100 feet from any other permitted display on same side of any primary highway that is not a freeway and is within the limits of an incorporated city.
- An electronic changeable message center display must meet the above spacing requirements and be 1,000 feet from another electronic message center display.
- Maximum height for the advertising display area is 25 feet in height and 60 feet in length, not to exceed an overall maximum of 1,200 square feet.

(e) CEQA Guidelines Section 15064.3

As discussed above, recent changes to the CEQA Guidelines include the adoption of Section 15064.3, *Determining the Significance of Transportation Impacts*. CEQA Guidelines Section 15064.3 establishes VMT as the most appropriate measure of transportation impacts. Generally, land use projects within 0.5 mile of either an existing

major transit stop¹ or a stop along an existing high-quality transit corridor² should be presumed to cause a less than significant transportation impact. Projects that decrease VMT in the project area compared to existing conditions should be presumed to have a less than significant transportation impact. A lead agency has discretion to choose the most appropriate methodology to evaluate VMT, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may also use models to estimate VMT, and may revise those estimates to reflect professional judgment based on substantial evidence. As discussed further below, City of Los Angeles Department of Transportation (LADOT) developed City of Los Angeles VMT Calculator Version 1.3 (May 2020) (VMT Calculator) to estimate project-specific daily household VMT per capita and daily work VMT per employee for developments within City limits. The methodology for determining VMT based on the VMT Calculator is consistent with CEQA Guidelines Section 15064.3 and the City's Transportation Assessment Guidelines (TAG).

(2) Regional

(a) Metro 2028 Vision Plan

The Metro 2028 Vision Plan (Vision Plan) is the agency-wide strategic plan for Metro that creates the foundation for transforming mobility in Los Angeles County (County).³ The Vision Plan establishes the mission, vision, and goals that will guide the agency's other specific plans, such as its Long Range Transportation Plan (LRTP) and NextGen Bus Study. The Vision Plan addresses the root cause of LA County's transportation problem: population and economic growth are increasing travel demand on a system that is inadequately meeting the needs of its users. It states that the current system is congested because roadway space is inefficiently used: limited street space is largely given over to single occupancy vehicles, which are too often stuck in traffic, while the most disadvantaged members of our community are confined to a patchwork of transportation options that frequently fail to meet their basic mobility needs. The Vision Plan explains that improved mobility in the County can be achieved by prioritizing the movement of people over vehicles. This means using the limited street space more effectively and giving people higher-quality options for getting around, regardless of how they choose to travel. The Vision Plan aims to create high-quality alternatives to solo driving so that individuals have reliable, convenient, and safe options for taking transit, walking, biking, sharing rides,

¹ "Major transit stop" is defined in Public Resources Code Section (PRC) 21064.3 as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

² "High-quality transit corridors" are defined in (PRC) Section 21155 as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

³ LA Metro, *Metro Vision 2028 Plan*, 2018.

and carpooling. By better managing roadway capacity, more efficient goods movement and greater mobility for all users will occur. The Vision Plan also articulates a set of principles that Metro will apply in making decisions and conducting business.

(b) Southern California Association of Governments 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy

In compliance with SB 375, on September 3, 2020, the Southern California Association of Governments (SCAG) Regional Council adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS), a long-range visioning plan that incorporates land use and transportation strategies to increase mobility options and achieve a more sustainable growth pattern while meeting GHG reduction targets set by CARB. The 2020–2045 RTP/SCS contains baseline socioeconomic projections that are used as the basis for SCAG’s transportation planning, as well as the provision of services by the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG policies are directed towards the development of regional land use patterns that contribute to reductions in vehicle miles and improvements to the transportation system.

The 2020–2045 RTP/SCS builds on the long-range vision of SCAG’s prior 2016–2040 RTP/SCS to balance future mobility and housing needs with economic, environmental and public health goals. A substantial concentration and share of growth is directed to Priority Growth Areas (PGAs), which include high quality transit areas (HQTAs), Transit Priority Areas (TPAs), job centers, Neighborhood Mobility Areas (NMAs) and Livable Corridors. These areas account for four percent of SCAG’s total land area but the majority of directed growth. HQTAs are corridor-focused PGAs within 0.5 mile of an existing or planned fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes (or less) during peak commuting hours. TPAs are PGAs that are within 0.5 mile of a major transit stop that is existing or planned. Job centers are defined as areas with significantly higher employment density than surrounding areas which capture density peaks and locally significant job centers throughout all six counties in the region. NMAs are PGAs with robust residential to nonresidential land use connections, high roadway intersection densities, and low-to-moderate traffic speeds. Livable Corridors are arterial roadways, where local jurisdictions may plan for a combination of the following elements: high-quality bus frequency; higher density residential and employment at key intersections; and increased active transportation through dedicated bikeways.

The 2020–2045 RTP/SCS’ “Core Vision” prioritizes the maintenance and management of the region’s transportation network, expanding mobility choices by co-locating housing, jobs, and transit, and increasing investment in transit and complete streets. Strategies to achieve the “Core Vision” include, but are not limited to, Smart Cities

and Job Centers, Housing Supportive Infrastructure, Go Zones, and Shared Mobility. The 2020–2045 RTP/SCS intends to create benefits for the SCAG region by achieving regional goals for sustainability, transportation equity, improved public health and safety, and enhancement of the regions’ overall quality of life. These benefits include, but are not limited to, a 5 percent reduction in VMT per capita, a 9 percent reduction in vehicle hours traveled, and a 2 percent increase in work-related transit trips.

(3) Local

(a) *City of Los Angeles Mobility Plan 2035*

In August 2015, the City Council adopted Mobility Plan 2035 (Mobility Plan), which serves as the City’s General Plan circulation element. The City Council has adopted several amendments to the Mobility Plan since its initial adoption, including the most recent amendment on September 7, 2016.⁴ The Mobility Plan incorporates “complete streets” principles and lays the policy foundation for how the City’s residents interact with their streets. The Mobility Plan includes five main goals that define the City’s high-level mobility priorities:

- (1) Safety First;
- (2) World Class Infrastructure;
- (3) Access for All Angelenos;
- (4) Collaboration, Communication, and Informed Choices; and
- (5) Clean Environments and Healthy Communities.

Each of the goals contains objectives and policies to support the achievement of those goals.

(b) *Los Angeles Municipal Code*

With regard to construction traffic, Los Angeles Municipal Code (LAMC) Section 41.40 limits construction activities to the hours from 7:00 A.M. to 9:00 P.M. on weekdays and from 8:00 A.M. to 6:00 P.M. on Saturdays and national holidays. No construction is permitted on Sundays. Construction activities outside of these limitations may occur if a permit has been duly obtained beforehand from the Board of Police Commissioners

⁴ *Los Angeles Department of City Planning, Mobility Plan 2035: An Element of the General Plan, approved by City Planning Commission on June 23, 2016, and adopted by the City Council on September 7, 2016.*

The LAMC regulates all aspects of building development in the City, including aesthetic aspects, such as lighting and signage. Article 4.4 of the LAMC regulates signs within the City. These regulations address various signage types, prohibited sign types, prohibited locations, maintenance, hazards to traffic as determined by LADOT, and freeway exposure. These regulations are not applicable to signs located primarily within a public right-of-way. With regard to lighting, Section 14.4.4 E of these regulations require that, “No sign shall be arranged and illuminated in a manner that will produce a light intensity of greater than three-foot candles above ambient lighting, as measured at the property line of the nearest residentially zoned property.”

Article 3 of the LAMC also provides for Specific Plan–Zoning and Supplemental Use Districts. Within this Article, Section 13.11 provides for the establishment of “SN” Sign Districts in areas of the City, the unique characteristics of which can be enhanced by the imposition of special sign regulations designed to enhance the theme or unique qualities of that district, or which eliminate blight through a sign reduction program. Each “SN” Sign District shall include only properties in the C or M Zones, with some specified limited exceptions. The development regulations for each “SN” Sign District shall be determined at the time the district is established. The sign regulations shall enhance the character of the district by addressing the location, number, square footage, height, light illumination, hours of illumination, sign reduction program, duration of signs, design and types of signs permitted, as well as other characteristics, and can include murals, supergraphics, and other on-site and off-site signs. However, the regulations for a “SN” Sign District cannot supersede the regulations of an Historic Preservation Overlay District, a legally adopted specific plan, supplemental use district or zoning regulation needed to implement the provisions of an approved development agreement.

(c) Vision Zero Program

The Vision Zero Program, implemented by LADOT, represents a citywide effort to eliminate traffic deaths in the City by 2025. Vision Zero has two goals: a 20-percent reduction in traffic deaths by 2017 and zero traffic deaths by 2025. In order to achieve these goals, LADOT has identified a network of streets, called the High Injury Network, which has a higher incidence of severe and fatal collisions. The High Injury Network, which was last updated in 2018, represents 6 percent of the City’s street miles but accounts for approximately two thirds (64 percent) of all fatalities and serious injury collisions involving people walking and biking.

(d) *Plan for a Healthy Los Angeles*

Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan (Plan for a Healthy Los Angeles) provides guidelines to enhance the City's position as a regional leader in health and equity, encourage healthy design and equitable access, and increase awareness of equity and environmental issues.⁵ The Plan for a Healthy Los Angeles addresses GHG emission reductions and social connectedness, which are affected by the land use pattern and transportation opportunities.

b. Project Location and Existing Conditions

The City has an approximate land area of 478 square miles (297,600 acres) with a population of nearly four million residents in 2020. The City lies within Los Angeles County, which encompasses 4,000 square miles, 88 incorporated cities, and more than 10 million residents.⁶ The City is divided into 15 City Council Districts and 35 Community Plan Areas. More than 87 percent of the City is developed with urban uses.

The Site Locations are located within property owned and operated by Metro along freeways and major streets, within the City. A portion of the Site Locations contain existing static displays. The majority of the Site Locations are located on vacant land with limited vegetation and are generally inaccessible to the public. Further, the proposed sites are used primarily for Metro operations, which include rail corridors, stations, parking, bus depots, and equipment lots. The Site Locations are located within 20 Community Plans and are generally designated and zoned as commercial, public facilities, and manufacturing uses. No Site Locations are zoned for residential use.

The City has roughly 8,000 off-premise signs within its boundaries, the vast majority of which are static signs, with a large majority located along surface streets. These off-premise signs are predominantly along commercial and industrial thoroughfares, with roughly 500 signs located on residentially zoned properties. The vast majority of these off-premise signs pre-date the City's ban on new off-premise signs, which was enacted in 2002. The ban on new off-premise signs also prohibits conversion of existing signs to digital displays, and any new off-premise sign must be within an adopted Sign District, Specific Plan, or Supplemental Use District which preclude the ability to place signage on residentially zoned properties. The City currently has approximately 15 adopted Sign

⁵ *City of Los Angeles Department of City Planning, Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan, 2015.*

⁶ *United States Census Bureau Quick Facts, City and County of Los Angeles, 2020, Census.gov/quickfacts/US, accessed April 4, 2022.*

Districts, though not all allow for off-premise signs. Adopted Sign Districts are scattered throughout the City.

3. Project Impacts

a. Thresholds of Significance

In accordance with the State CEQA Guidelines Appendix G, the Project would have a significant impact related to transportation/traffic if it would:

Threshold (a): Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities; or

Threshold (b): Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);

Threshold (c): Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or

Threshold (d): Result in inadequate emergency access.

For this analysis, the Appendix G Thresholds listed above are relied upon.

b. Methodology

(1) Consistency with Plans, Programs, Ordinances, or Policies

With implementation of the updated Appendix G thresholds and the City's revised guidance on thresholds of significance for transportation impacts under CEQA, vehicle delay is not considered a potential significant impact on the environment. As described above, CEQA Guidelines threshold (a) has been updated to require an analysis of the Project's potential to conflict with plans, programs, ordinances, or policies that address the circulation system including transit, roadway, bicycle, and pedestrian facilities. Therefore, the impact analysis below evaluates the Project's potential to conflict with the plans, programs, ordinances, and policies listed above in the Regulatory Framework section. In accordance with the TAG, a project that generally conforms with, and does not obstruct the City's development policies and standards will generally be consistent.

(2) Hazardous Geometric Design Features

Gibson analyzed the Project to assess whether the TCN Structures present potentially significant traffic safety concerns on the surrounding street system.

As part of the Transportation Memo, Gibson reviewed relevant published studies and articles concerning the potential impacts of Commercial Electronic Variable Message Signs (CEVMS) or digital billboards on roadway safety, and analyzed state and local signage regulations outlining the requirements for CEVMS systems. With numerous reports available on digital signage, the following criteria were established to narrow the focus of research included in the Transportation Memo:

- Studies included measured the relationship between digital displays and roadway safety in order to include the most pertinent information related to the Metro TCN Program.
- Studies included were conducted in the United States. The United States has a unique set of roadway characteristics defined by the United States Department of Transportation (USDOT), state agencies (i.e., Caltrans) and local governments (i.e., LADOT) through documents such as the Manual on Uniform Traffic Control Devices (MUTCD). While some of these characteristics may be the same or similar to those in other countries, for the purpose of consistency in roadway conditions, only studies in the United States were included.
- Studies included were conducted by a government agency or have their results published in an academic journal. Both government agencies and academic journals have rigorous standards for research that may include, but are not limited to, peer reviewed findings, feedback through a formal public engagement process, and technical expertise on the subject matter. Thus, these are verifiable and fact-based sources.
- Studies included were required to provide the latest information available from that resource. Numerous studies on billboards and traffic safety were conducted in the late 1990s and early 2000s that have since been updated, such as the Federal Highway Administration (FHWA) study referenced below. Thus, only studies that provided the most current information were included in the literature review.

Based on these established criteria, three studies were selected by Gibson for inclusion in the literature review portion of the Transportation Memo: *Driver Visual Behavior in the Presence of Commercial Electronic Variable Message Signs*, U.S. Department of Transportation Federal Highway Administration, September 2012 (FHWA Study); *Driving Performance and Digital Billboards*, Foundation for Outdoor Advertising Research and Education, 2007 (Driving Performance Study); and *A Study of the Relationship Between*

Digital Billboards and Traffic Safety in Cuyahoga County, Ohio, Foundation for Outdoor Advertising Research and Education, 2007 (Cuyahoga County Study). It should be noted that this is not an exhaustive list of studies that meet these criteria, as dozens of published studies have been conducted over the past few decades. The selected studies were specifically relevant and can inform the potential safety effects of the Metro TCN Program.

Gibson also conducted a review of the Site Locations, adjacent roadways, and adjacent freeways in the surrounding community for consistency with the requirements and best practices for digital displays. Gibson reviewed data, such as traffic volumes, locations, Council District, Community or Specific Plan areas, etc., to assess the potential for roadway safety hazards. Average daily traffic (ADT) counts were collected where data were available from the Caltrans Performance Measurement System (PeMS) for Freeway Facing Site Locations from January 2019 to January 2020. For Non-Freeway Facing Site Locations, the most recent available traffic data were collected from NavigateLA, which ranged from Years 2005 to 2019. In addition to traffic count data, a review of each Site Location was conducted in June 2022 to determine if other signage, scenic highways, or businesses are located within close proximity to the proposed TCN Structures.

c. Project Design Features

No Project Design Features related to transportation are proposed as part of the Project.

d. Analysis of Project Impacts

Threshold (a): Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

(1) Impact Analysis

As discussed in Section II, Project Description, of this Draft EIR, the TCN Program would provide a network of structures with digital displays (TCN Structures) that would incorporate intelligent technology components to promote roadway efficiency, improve public safety, augment Metro's communication capacity, provide for outdoor advertising where revenues would fund new and expanded transportation programs consistent with the goals of the Metro 2028 Vision Plan, and result in an overall reduction in static signage displays throughout the City. Implementation of the Project would include the installation of up to 34 Freeway-Facing TCN Structures and 22 Non-Freeway Facing TCN Structures all on Metro-owned property. The total maximum amount of digital signage associated with the TCN Structures would be up to approximately 55,000 square feet. As part of TCN Program, a take-down component would be implemented including the removal of at least

110,000 square feet (2 to 1 square footage take-down ratio) of existing static displays. Signage to be removed would include at minimum approximately 200 static displays located within the City.

Each TCN Structure would have one or two digital display faces depending on the location and line of sight visibility. The digital display faces would be designed to provide efficient and effective illumination while minimizing light spill-over, reducing sky-glow, and improving nighttime visibility through glare reduction. The digital display faces of the TCN Structures would use light-emitting diodes (LED) lighting with a daytime maximum up to 6,000 maximum candelas and 300 maximum candelas at nighttime, depending on the Site Location. Louvers would be installed to shade the LED lights from creating unintentional light spillage, assist in reducing reflection, and in turn would create a sharper image. Further, the digital display faces would be set to refresh every 8 seconds and would transition instantly with no motion, moving parts, flashing, or scrolling messages. Illumination of the digital displays would conform to applicable Federal and State regulations for signs oriented towards roadways and freeways. The digital displays would be in compliance with Metro's System Advertising Content Restrictions, which prohibit advertisement of alcohol, smoking, and cannabis, and any content containing violence, obscenities, and other related subject matters.

The Project's potential to conflict with programs, plans, ordinances, and policies addressing the circulation system is analyzed below.

(a) Consistency with Regional Plans

(i) Metro 2028 Vision Plan

The Project's general consistency with the applicable goals and initiatives set forth in the Vision Plan are discussed in detail in Table 2 of Appendix I of this Draft EIR. The Project would support Initiative 1.2 to improve the County's overall transit network and assets, as well Goal 2 to deliver outstanding trip experiences for all users of the transportation systems. Specifically, the Project would integrate Metro's Regional Integration of Intelligent Transportation Systems (RIITS), which provides comprehensive, timely, and real-time information among freeway, traffic, transit, and emergency systems across various agencies, including local and regional transit agencies, to improve traffic and transportation systems, and to disseminate information regarding roadway improvements and during emergency events. The additional intelligent technology components of the TCN Program would assist Metro in increasing the quantity and speed of data collection of real time travel/traffic data, processing, and transmission to transportation agencies. The TCN Program would also assist Metro's transportation public messaging and ability to broadcast information to commuters in a variety of ways to increase public safety, maximize efficiency of the congested road network, and promote public awareness of travel alternatives based on geography and time constraints. Further,

the TCN Program would create advertising revenue that would be utilized by both Metro and the City to fund new and expanded transportation programs. For example, the TCN Program would aim to improve bus passengers' experience by helping to facilitate transit signal priority and bus wi-fi and efficiently relay bus arrival time information to riders. Therefore, the Project would not conflict with the applicable goals and initiatives set forth in the Vision Plan.

(ii) 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS)

The Project's general consistency with the applicable goals set forth in the 2020–2045 RTP/SCS is discussed in detail in Table 3 of Appendix I of this Draft EIR. As detailed therein, the Project would be generally consistent with the whole of applicable goals set forth in the 2020–2045 RTP/SCS adopted for the purpose of avoiding or mitigating an environmental effect. Specifically, the Project would support Goal 2 through Goal 8 of the 2020–2045 RTP/SCS, including increasing the travel choices within the transportation system by creating advertising that would be utilized by both Metro and the City to fund new and expanded transportation programs. The TCN Structures would incorporate real time data collection to aid in traffic signal timing, micro-transit data, and Metro vanpool on-demand services. The TCN Program would also improve bus passengers' experience by helping to facilitate transit signal priority and bus wi-fi and efficiently relay bus arrival time information to riders. Further, the Project would leverage new transportation technologies and data-driven solutions that result in more efficient travel through integration of Metro's RIITS, which provides comprehensive, timely, and real-time information among freeway, traffic, transit, and emergency systems across various agencies, including local and regional transit agencies, to improve traffic and transportation systems, and to disseminate information regarding roadway improvements and during emergency events. The additional intelligent technology components of the TCN Program would assist Metro in increasing the quantity and speed of data collection of real time travel/traffic data, processing, and transmission to transportation agencies. The TCN Program would also assist Metro's transportation public messaging and ability to broadcast information to commuters in a variety of ways to increase public safety, maximize efficiency of the congested road network, and promote public awareness of travel alternatives based on geography and time constraints. Therefore, the Project would not conflict with the applicable goals of the 2020–2045 RTP/SCS.

(b) Local

(i) Mobility Plan

The Project's general consistency with the applicable goals, objectives, and policies set forth in the Mobility Plan is discussed in Table 5 of Appendix I of this Draft EIR. As detailed therein, the Project would support Policy 2.5, to improve the performance and

reliability of existing and future bus service and Policy 3.4, to provide all residents, workers and visitors with affordable, efficient, convenient, and attractive transit services. Specifically, the Project would improve the performance, efficiency, and reliability of existing and future bus and transit service for all residents, workers, and visitors by developing a TCN Program would create advertising revenue that would be utilized by both Metro and the City to fund new and expanded transportation programs. For example, the TCN Program would aim to improve bus passengers' experience by helping to facilitate transit signal priority and bus wi-fi and efficiently relay bus arrival time information to riders. Further, the Project would be consistent with Policy 3.7, to improve transit access and service to major regional destinations, job centers, and inter-modal facilities, by improving transit access and service to major regional destinations, job centers, and intermodal facilities as the TCN Structures would be equipped with Metro's RIITS, which provides comprehensive, timely, and real-time information among freeway, traffic, transit, and emergency systems across various agencies, including local and regional transit agencies, to improve traffic and transportation systems, and to disseminate information regarding roadway improvements, and during emergency events. Specifically, the TCN Program would support the collection of event congestion data for Los Angeles International Airport, Dodger Stadium, the Hollywood Bowl and other large venues, including travel demand management services for the 2028 Olympic and Paralympic Games, and would also provide information regarding available parking spaces in park-and-ride lots. Therefore, the Project would not conflict with the applicable goals, objectives, and policies set forth in the Mobility Plan.

(ii) LAMC

As discussed above, the TCN Program would be implemented through the adoption of an enabling Zoning Ordinance by the City. The proposed Zoning Ordinance would amend the City's sign regulations to authorize the TCN Structures. The Zoning Ordinance would create a mechanism for the review and approval of the TCN Structures and would not authorize new signage other than the TCN Structures. The Zoning Ordinance would address the time, manner, and place aspects of the TCN Program, including the allowable locations, size and height limitations, urban design requirements, and applicable community benefits including the take-down requirements for the removal of existing static off-premise signs. The Zoning Ordinance would not otherwise change the existing regulations for signs, including off-site and digital signage, in the City. Based on the above, the anticipated development from the Zoning Ordinance would be limited to the 56 TCN Structures, and would incorporate a take-down component which would include the removal of at least 110,000 square feet (2 to 1 square footage take-down ratio) of existing static displays. Signage to be removed would include, at a minimum, approximately 200 static displays located within the City. Therefore, with implementation of the Zoning Ordinance for the TCN Structures, the Project would not conflict with the LAMC.

(iii) Vision Zero

As discussed above, the Vision Zero Program implemented by LADOT, represents a citywide effort to eliminate traffic deaths in the City by 2025. The TCN Structures would be located outside of the public right-of-way on Metro-owned property. Thus, the TCN Structures would not preclude the City from installing Vision Zero improvements to enhance the safety of the High Injury Network and, therefore, would not conflict with the Vision Zero Program.

(iv) Health and Wellness Element (Plan for a Healthy Los Angeles)

The Project would support applicable goals and objectives of the Health and Wellness Element, including reducing air pollution from stationary and mobile sources and reducing per capita greenhouse gas emissions. Specifically, the Project would create advertising revenue that would be utilized by both Metro and the City to fund new and expanded transportation programs that promote a decrease in VMT, reduction of traffic congestion, and improvement of air quality by reducing dependence on single-occupancy vehicles. Therefore, the Project would not conflict with the applicable goals set forth in the Health and Wellness Element. Refer to Section IV.B, Air Quality, of this Draft EIR for further discussion with regard to air quality improvement.

(v) California Vehicle Code and California Outdoor Advertising Permit Requirements

As discussed further below, under Threshold (c), the Project would comply with the outdoor signage requirements set forth in the California Vehicle Code, as well as California Outdoor Advertising Permit requirements.

Therefore, the Project's impacts related to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities is less than significant.

(2) Mitigation Measures

Project-level impacts related to the consistency with adopted plans, programs, ordinances and policies regarding the circulation system would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to the consistency with adopted plans, programs, ordinances, and policies regarding circulation were determined to be less than significant

without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

Threshold (b): Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

As discussed in Section VI, Other CEQA Considerations, of this Draft EIR, and evaluated in the Initial Study prepared for the Project, included as Appendix A of this Draft EIR, operation of the Project would not result in new uses that would generate vehicle miles traveled on a daily basis. Any vehicle trips and associated VMT resulting from maintenance activities would be infrequent. Additionally, in accordance with LADOT's TAG, construction worker trips are not evaluated under CEQA. As such, the Project would not result in significant impacts with regard to VMT. **As such, as determined in the Initial Study, the Project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b), and there would be no impact.**

Threshold (c): 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)?

(1) Impact Analysis

The following analysis addresses the potential of the Project to substantially increase hazards due to a geometric design feature or incompatible use.

(a) TCN Structure Design and Locations

The Project would include up to 34 Freeway Facing TCN Structures with digital display faces that would range in size from 672 square feet to 1,200 square feet per sign with the majority being approximately 672 square feet. Additionally, as several of the Freeway Facing TCN Structures are located adjacent to elevated freeways or freeway on/off ramps, the Freeway Facing TCN Structures would be located up to 50 feet in height above finished grade of the adjacent highway. Also, the Project includes 22 Non-Freeway Facing TCN Structures with digital display faces that would range in size from 300 square feet to 672 square feet per sign, with the majority being approximately 300 square feet. The Non-Freeway Facing Structures would be located up to 30 feet in height above finished grade.

As discussed above, the digital display faces of the TCN Structures would use LED lighting with a daytime maximum of up to 6,000 candelas and 300 maximum candelas at nighttime, depending on the Site Location. Louvers would be installed to shade the LED lights from creating unintentional light spillage, assist in reducing reflection, and in turn

would create a sharper image. Further, the digital displays would be set to refresh every 8 seconds and would transition instantly with no motion, moving parts, flashing, or scrolling messages. Illumination of the digital displays would conform to applicable Federal and State regulations for signs oriented toward roadways and freeways.

(b) Literature Review

The following provides an overview of the findings of the FHWA Study, Driving Performance Study, and Cuyahoga County Study, as defined in Section 3.b above.

(i) Federal Highway Administration

The FHWA Study investigated the effect of CEVMS on driver visual behavior utilizing an eye tracking system. The research was conducted during daytime and nighttime conditions on freeways and roadways adjacent to CEVMS, standard billboards, and areas without billboard signage in the cities of Richmond, Virginia and Reading, Pennsylvania. The CEVMS used in the study were all considered standard signs with a refresh rate of 8 to 10 seconds and adjustable brightness. Additionally, the CEVMS did not include blinking or flashing.

The FHWA Study analyzed the probability of drivers looking at the road ahead for each scenario. The findings indicated that for the control condition (i.e., areas without billboards), the proportion of time spent looking at the road ahead ranged between 78 to 92 percent for freeways and arterial streets. The conditions for both the CEVMS and static billboard scenarios indicated that the proportion of time spent looking at the road ahead slightly decreased to between 73 and 85 percent. However, multiple factors contributed to this variability, including nearby businesses, on-site signage, and traffic conditions. The FHWA Study concluded that “the drivers in this study directed the majority of their visual attention to areas of the roadway that were relevant to the task at hand (i.e., the driving task). Furthermore, it is possible, and likely, that in the time that the drivers looked away from the forward roadway, they may have elected to glance at other objects in the surrounding environment (in the absence of billboards) that were not relevant to the driving task. When billboards were present, the drivers in this study sometimes looked at them, but not such that overall attention to the forward roadway decreased.”

The FHWA Study found that drivers were generally more likely to fixate on a CEVMS than a static billboard; however the results varied by location. In Pennsylvania, participants were more likely to fixate on static billboards on freeways, with drivers fixating on static billboards 67 percent of the time compared to 33 percent for CEVMS. On arterial streets, the opposite was true, with 63 percent fixation on CEVMS compared to 37 percent for static billboards. The analysis conducted in Virginia found that drivers were more likely to fixate on CEVMS on both arterials and freeways. On arterials the results were a near

even split, with 55 percent fixation on CEVMS compared to 45 percent on static billboards. On freeways, drivers fixated on CEVMS 68 percent of the time compared to 32 percent for static billboards. Per the FHWA Study, likely causes for the discrepancies may be due to the slower speed of arterial streets and the placement of signage in more visible locations.

The FHWA Study also tracked the drivers' longest and average fixation duration to roadside objects, including CEVMS and static billboard signage. The FHWA Study found that the longest fixation duration on a CEVMS was 1.34 seconds, which is slightly higher than the highest static billboard fixation of 1.28 seconds. However, both fixation durations were found to be well below the accepted standard set by the National Highways Traffic Safety Administration (NHTSA), which considers 2.0 seconds to be the threshold at which roadway safety concerns arise. Furthermore, the study found that the mean fixation duration on a CEVMS was 379 milliseconds (ms) compared to 335 ms on a static billboard. These results show that average fixation durations were similar between CEVMS and static billboards, with no long single fixation rate lengths (in excess of 2 seconds) occurring for either type of sign. Thus, the FHWA Study found that drivers still dedicated their visual attention to driving with minimal fixation durations at CEVMS, billboards, and/or other objects in the surrounding environment.

(ii) Foundation for Outdoor Advertising Research and Education

Two studies were prepared by the Foundation for Outdoor Advertising Research and Education that met the established criteria for the literature review by Gibson. These include the Driving Performance Study and the Cuyahoga County Study, as defined in Section 3.b above. The findings of these studies are summarized below.

Driving Performance Study

The Driving Performance Study conducted an experiment with drivers using an instrumented vehicle which tracked eye movement. Drivers were asked to drive around a 50-mile loop in Cleveland, Ohio, that contained a variety of roadway environments, including five digital billboards, 15 static billboards, 12 comparison sites (i.e., logo boards, on-site signage, and other roadside items), and 12 baseline sites with no signage. Thirty-six drivers drove the route during daytime conditions, and 12 drivers drove the route during nighttime conditions. Drivers were not made aware of the type of study being conducted. In addition to the data gathered from the vehicle, a survey of the drivers was completed after their participation in the experiment.

The result of the Driving Performance Study showed that several driving performance measures in the presence of digital billboards are similar to those associated with everyday driving, such as the on-site signs located at businesses. The Driving Performance Study also found that while the fixations on CEVMS, billboards, and

comparison sites were similar, fixation duration was higher for the CEVMS and comparison sites relative to the static billboards and baseline sites. The Driving Performance Study found that mean fixation duration was less than one second, which is well below the two second fixation duration threshold that is considered dangerous, as established by the NHTSA. Additionally, as stated in the Driving Performance Study, “[b]ecause of the lack of crash causation data, no conclusions can be drawn regarding the ultimate safety of digital billboards. Although there are measurable changes in driver performance in the presence of digital billboards, in many cases these differences are on a par with those associated with everyday driving, such as the on-premises signs located at businesses.”

Cuyahoga County Study

The Cuyahoga County Study conducted research to find a statistical correlation between digital billboards and traffic safety. The Cuyahoga County Study looked at traffic and collision data near seven digital billboards in Cuyahoga County, Ohio, for a 12-month period and an 18-month period prior to and after the installation of the digital billboards in 2005. The study also included an analysis to determine if a spatial statistical correlation existed between the locations of digital billboards and traffic crashes.

Using both methods to analyze traffic crashes and digital billboards, no statistical relationship was found. Furthermore, the study found no statistical difference between conventional and digital billboards and concluded, “[t]he accident statistics on sections of Interstate routes near billboards are comparable to the accident statistics on similar sections that have no billboards.”

(c) Consistency with Literature Review

The TCN Program would be implemented through the adoption of an enabling Zoning Ordinance by the City. The Zoning Ordinance would address the time, manner, and place aspects of the TCN Program, including the allowable locations, size and height limitations, urban design requirements, and applicable community benefits including the take-down requirements for the removal of existing static off-premise signs. Further, as discussed in Section II, Project Description, of this Draft EIR, the TCN Structures would provide digital messaging with a refresh rate of every 8 seconds. As part of the TCN Structures digital display faces would be set to refresh every eight seconds and would transition instantly with no motion, moving parts, flashing, or scrolling messages. Light emitted by the TCN Structures would also be adjustable throughout the day and night, ensuring that the signs would not cause excessive glare on nearby roadways. The digital display faces of the TCN Structures would use LED lighting with a daytime maximum up to 6,000 maximum candelas and 300 maximum candelas at nighttime, depending on the Site Location. Louvers would be installed to shade the LED lights from creating unintentional light spillage, assist in reducing reflection, and in turn would create a sharper image. Thus,

the Project would be consistent with the CEVMS studied in the literature review and conclusions can be drawn for this Project based on those in the studies.

As indicated in the FHWA study, the addition of new CEVMS may result in a higher frequency of fixations than would a static billboard. However, as previously discussed, the data in both the FHWA Study and the Driving Performance Study suggest that drivers overwhelmingly pay attention to the road ahead, regardless of the presence of CEVMS or static billboards. Furthermore, the difference between CEVMS and static billboards are effectively negligible in terms of focus on the road ahead. Specifically, the mean fixation durations on both CEVMS and billboards were less than one second and the longest fixation on a CEVMS was 1.34 seconds, which is well below the 2.0-second threshold for potentially dangerous driving conditions established by the NHTSA. Since the Metro TCN Program would be consistent with the signage analyzed in these studies, it is not anticipated that the Project would lead to a significant safety risk on adjacent roadways.

Consistent with the Cuyahoga County Study, it is not anticipated that the number of crashes would increase or occur in close proximity to the digital signage due to the Project. The study found no statistical correlation between the quantity of collisions or clusters near similar CEVMS structures in Ohio. Since the Metro TCN Program would be consistent with the signage analyzed in the Cuyahoga County Study, it is not anticipated that the Project would lead to a significant safety risk on adjacent roadways.

Ultimately, the findings within the literature review did not provide evidence that CEVMS would lead to an increase in road hazards. As the Metro TCN Program would be deploying similar CEVMS signage throughout the City, it can be concluded that the Project would be consistent with the findings of the literature review.

(d) Consistency with Caltrans Regulations

Each of the proposed Freeway Facing TCN Structures would be compliant with all Caltrans requirements. All of the locations would be located at least 500 feet away from any freeway designated as a Scenic Highway and their locations would be outside of the freeway right-of-way. All locations would also be at least 500 feet away from a landscaped freeway, consistent with the Caltrans guidelines. Further, at Project completion, none of the TCN Structures would be located within 500 feet of an existing sign or within 1,000 feet of an existing digital display on the same side of the freeway. Additionally, all TCN Structures would be located within proximity of a business, as well as be located on Metro-owned property and would be equipped with Metro's RIITS, which provides comprehensive, timely, and real-time information among freeway, traffic, transit, and emergency systems across various agencies, including local and regional transit agencies, to improve traffic and transportation systems, and to disseminate information regarding

roadway improvements and during emergency events. Thus, the Project would be generally consistent with Caltrans guidelines for digital signage locations near freeways.

(e) Consistency with CVC Section 21466.5

The potential roadway glare impacts were analyzed with respect to the Project luminance compliance with the California Vehicle Code requirements for night, twilight, and day conditions. Bright sources within the driver's field of view, from the centerline of the roadway to angles up to 90 degrees from the centerline of the roadway, may create glare if the light source is brighter than the limits established by the California Vehicle Code. As discussed in detail in Section IV.A, Aesthetics, of this Draft EIR, a detailed lighting study was prepared to evaluate potential light and glare impacts associated with the TCN Structures. As discussed therein, the results of the lighting study demonstrate that the maximum Project luminance is less than the limits established by the CVC for excessive luminance, or glare, during night, twilight (sunset and sunrise) and during the day. Specifically, the maximum Project Sign luminance is 82 percent less than the maximum permitted by the California Vehicle Code during the night and during the day. Accordingly, the Project luminance is far below the maximum permitted luminance by the CVC requirements for roadways approaching the Signs from all directions.

(f) Conclusion

Per the literature review, while the frequency of fixations and fixation duration was shown to increase with a CEVMS when compared to a static billboard, the mean fixation was well below the NHTSA threshold for a dangerous driving distraction of 2.0 seconds. Therefore, since the TCN Program would operate similarly to the CEVMS in the studies reviewed, it is anticipated that driver fixation on the TCN Structures that are part of the TCN Program would similarly be below the NHTSA threshold for dangerous driver distraction of 2.0 seconds.

Furthermore, as part of the TCN Program operation, motion and flashing images would be prohibited and transitions between messages would be instant without using a black screen between messages. Light emitted by the TCN Structures would also be adjustable throughout the day and night, ensuring that the signs would not cause excessive glare on nearby roadways. The signs would also be positioned to focus on the intended roadways and minimize visibility from adjacent streets. As described in Section IV.A, Aesthetics, of this Draft EIR the Project would be consistent with regulations regarding allowable sign luminance, shadows, and glare, and specifically with CVC 21466.5.

Additionally, the Freeway Facing TCN Structures were reviewed for consistency with Caltrans guidelines and all of the signs were found to be compliant with the guidelines for digital signage adjacent to a freeway. Also, the non-freeway facing signs would operate

based on established industry standards for refresh rate and would not include any motion or flashing, which may increase distractions for nearby drivers. The signs would also be positioned to focus on the intended roadways and minimize visibility from adjacent streets. Thus, the TCN Structures would operate similarly to static signs.

Based on the above and the detailed analysis provided in Appendix K of this Draft EIR, impacts with regard to hazards due to a geometric design feature or incompatible use would be less than significant.

(2) Mitigation Measures

Project-level impacts related to a substantial increase in hazards due to a geometric design feature or incompatible use would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to a substantial increase in hazards due to a geometric design feature or incompatible use were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

Threshold (d): Would the Project result in inadequate emergency access?

As discussed in Section VI, Other CEQA Considerations, of this Draft EIR, and evaluated in the Initial Study prepared for the Project, included as Appendix A of this Draft EIR, while it is expected that the majority of construction activities for the Project would be confined to the Site Locations, limited offsite construction activities may occur in adjacent street rights-of-way during certain periods of the day, which could potentially require temporary lane closures. However, if lane closures are necessary, the remaining travel lanes would be maintained in accordance with standard construction management plans that would be implemented to ensure adequate circulation and emergency access. With regard to operation, the Project would not alter the existing traffic patterns. Furthermore, one of the primary benefits of the TCN Program is to provide communication to travelers during emergency events. Therefore, the Project would not result in inadequate emergency access to the Site Locations or surrounding uses. **As such, as determined in the Initial Study, impacts regarding emergency access would be less than significant.**

e. Cumulative Impacts

(1) Impact Analysis

(a) Consistency with Transportation Plans and Policies

The majority of the programs, plans, policies, and ordinances reviewed above do not apply cumulatively to multiple development projects. Also, in many cases, the Project would specifically support key policies, such as supporting transit ridership, while most of related projects would neither support nor interfere with such policies. In addition, related projects would be separately reviewed and approved by Metro and/or the City, including a check for their consistency with applicable policies. **Therefore, the Project, together with related projects, would not create inconsistencies or result in cumulative impacts with respect to the identified programs, plans, policies, and ordinances.**

(b) Hazardous Geometric Design Features

Due to their site-specific nature, impacts related to hazardous design features would be specifically assessed on a project-by-project basis or for a particular localized area. Therefore, as with the Project, related projects would address potential site-specific impacts related to hazardous design features through the implementation of site-specific recommendations and/or mitigation measures. **Therefore, the Project and related projects would not result in significant cumulative impacts to hazardous design features. The Project's contribution would not be cumulatively considerable, and cumulative impacts would be less than significant.**

(2) Mitigation Measures

Cumulative impacts related to the consistency with adopted plans, programs, ordinances, and policies as well as hazardous geometric design features would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Cumulative impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.