



Introduction to Mobility

The Mobility Element provides the framework for decisions concerning the city’s multimodal transportation system, which includes roadway, transit, bicycle, pedestrian, and rail modes of travel. The Mobility Element provides for coordination with the Orange County Transportation Authority (OCTA), which serves as the coordinating agency for transportation funding for Orange County.

State law (California Government Code Section 65302(b)) mandates that the Mobility Element contain the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, military airports and ports, and other public utilities and facilities, to the extent these items exist in the planning area. The Mobility Element reflects the City’s desire to provide for complete street, bicycle, and pedestrian facilities and explore the application of new technologies and best practices for mobility planning in Lake Forest.

Organization of Element

The Mobility Element will address each of the topics below as they relate to Lake Forest. The goals and policies of this element are organized around the following topics:

- Regional and Local Roads
- Traffic Flow-System Efficiency
- Complete Streets
- Public Transit
- Bicycle, Pedestrian, and Equestrian Use
- Safety
- Parking
- Vehicle Miles Traveled
- Goods Movement
- Funding

Contents:

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GOAL M-1 REGIONAL AND LOCAL ROADS

A transportation system that meets and balances local and regional mobility needs.

M-1 Policies

- M-1.1 **Master Plan of Arterial Highways (MPAH).** Coordinate with OCTA with respect to regional vehicular access as documented in the OCTA MPAH.
- M-1.2 **New Development.** Work with developers to minimize the effects of new development on the local and regional transportation system, and require developers to contribute fair share payments or make improvements in order to maintain the LOS standards established under Policy M-2.1.
- M-1.3 **Traffic Diversion.** Explore discouraging non-local traffic through neighborhoods and diverting traffic to arterial roadways using tools such as traffic control devices, restrictions, speed limits, and other strategies.
- M-1.4 **Adjacent Jurisdictions.** Work with adjacent jurisdictions and agencies to ensure that there is cross-jurisdictional consistency in transportation facilities and coordinated implementation.
- M-1.5 **OCTA CMP.** Continue to participate in the OCTA Congestion Management Program (CMP)'s regional planning and continue to require analysis of traffic impacts on relevant facilities in accordance with CMP standards.
- M-1.6 **Freeway Coordination.** Coordinate with Caltrans and Transportation Corridor Agencies (TCA) on matters such as:
- Reducing the effects of I-5 and SR-241 ramp operations on City streets
 - Participating in discussions pertaining to ramp improvements currently being studied and any future improvements in the vicinity of Lake Forest
 - Encouraging freeway improvements that would ease local congestion
- M-1.7 **Regional Agency Coordination.** Coordinate with regional agencies such as OCTA, County of Orange, Metrolink, Caltrans, and TCA to meet the needs of people living in, working in, or visiting Lake Forest.

COUNTY PLANS

County of Orange Master Plan of Arterial Highways (MPAH)

The MPAH forms part of the Orange County General Plan and designates the arterial system in the circulation element of the General Plan. Defined according to specific arterial functional classifications, the MPAH serves to define the intended future road system for the County. Cities within the County are expected to achieve consistency with the MPAH in individual General Plan circulation elements. The Lake Forest Circulation Plan is consistent with the MPAH.

OCTA Congestion Management Plan (CMP)

The goals of the OCTA CMP are to reduce traffic congestion and to provide a mechanism for coordinating land use development and transportation improvement decisions. For the most part, the CMP is a composite of local agencies' submittals in which each local jurisdiction develops the required data in accordance with the guidelines established by OCTA. Two Lake Forest arterials, El Toro Road and Trabuco Road north of El Toro Road, are components of the Congestion Management Plan system.

M-1 Actions

- M-1a Periodically coordinate with OCTA regarding the OCTA Master Plan of Arterial Highways and inform OCTA regarding Lake Forest's long-term mobility plans and priorities.
- M-1b As part of the development review process, the Community Development Department and the Public Works Department shall require developers to complete and fund the following:
1. A local transportation analysis to ensure that the site plan incorporates City transportation goals, policies, and standards, that identifies the effects of the project on the local transportation system, and identifies improvements to maintain adopted LOS standards for operations at signalized city-controlled intersections;
 2. The project's proportional share of the effects on the City's circulation network through payment of fees; and
 3. For local project-related circulation effects requiring improvements that are not included in an adopted fee program, either complete the necessary improvements or pay a proportional-share of the cost.
- M-1c Periodically review and update the City's standard street plans to ensure that the plans reflect the City's goals and policies for the circulation system.
- M-1d Participate in regional planning forums to ensure that the City's concerns are considered at the regional level.
- M-1e Monitor land use, circulation planning, and the development review process of neighboring jurisdictions, so that the City has an opportunity to recommend that impacts to Lake Forest are considered by those jurisdictions.

GOAL M-2 TRAFFIC FLOW-SYSTEM EFFICIENCY

Provide a vehicular transportation system with adequate levels of traffic flow and operations while maximizing efficiency.

M-2 Policies

- M-2.1 **Vehicle Level of Service (LOS).** Strive to maintain or improve vehicular level of service along City facilities, defined as roadway segments and intersections. Given the unique land use and operational context near the freeways and the City's commercial areas, the City acknowledges that lower LOS standards may exist in these locations.
- M-2.2 **Intersection Capacity.** Monitor capacity at key intersections in the City.
- M-2.3 **Monitoring and Implementing Improvements.** Monitor roadway operations and ensure that LFTM and other appropriate improvements are implemented in a timely manner.
- M-2.4 **Transportation System Efficiency.** Continue to maximize transportation network efficiency and minimize delay and congestion by investing in Traffic System Management (TSM) and signal maintenance and coordination.
- M-2.5 **Effects of New Technologies on Traffic Flow.** Monitor and evaluate the development of new mobility technologies (such as autonomous vehicles and rideshare) and the potential local effects on vehicular facilities and operations.

M-2 Actions

- M-2a Periodically review and assess the vehicular level of service along City facilities to determine, what, if any, improvements are warranted to maintain a safe and efficient flow of traffic throughout Lake Forest. Based on a thorough review of facility operations and funding availability, improvements may be included in the City's Capital Improvement Plan and/or required as part of project approval through the development review process.
- M-2b Maintain traffic signal-interconnect systems to efficiently coordinate and control traffic flow.
- M-2c Evaluate the use of roundabouts or other innovative design solutions when a through traffic impact assessment has been conducted demonstrating that such an intersection design alternative would manage traffic flow, and improve compatibility, if it is physically and economically feasible.
- M-2d Periodically review and update, as necessary, the City's Signal Coordination Plans.

LEVEL OF SERVICE (LOS)

LOS is a qualitative measure used to describe roadway operations for different user types, including vehicles, transit riders, bicyclists, and pedestrians. LOS is assigned letter grades ranging from "A" (free flow conditions) to "F" (severe congestion).

Vehicular LOS should not be viewed like school grades where A is best and F is worst. Providing free-flow conditions (LOS A) at all hours of the day requires wide streets, large intersections, substantial right-of-way and considerable funding for maintenance. LOS A or B for vehicles also tends to lead to poor LOS for pedestrians and bicyclists because the wider streets, higher speeds, and longer waiting times to cross makes bicycling and walking less safe and less appealing.

Vehicle LOS should be balanced against mobility needs for pedestrians, bicyclists, and transit users, impacts on existing development, and the cost to construct and maintain the facilities.

GOAL M-3 COMPLETE STREETS

Provide a citywide a transportation network that is safe and accessible for all transportation modes and users.

M-3 Policies

- M-3.1 **Transportation Improvements for All Users.** Strive to apply Complete Streets principles to new roadways and to new transportation improvements on City facilities to serve all types of travel (including pedestrians, bicyclists, motorists, public transportation, and goods movement) and all abilities.
- M-3.2 **Eliminating Gaps.** Continue to identify and address gaps in networks serving automobiles, bicyclists, pedestrians, transit users, equestrians, and other users. Remove man-made barriers to accessibility and connectivity.
- M-3.3 **ADA Accessibility.** Ensure the City's transportation network is safe, accessible, and consistent with the Americans with Disabilities Act (ADA), to allow impaired users, such as disabled persons and seniors, to safely travel within and beyond the city.
- M-3.4 **Safe Routes to School.** Work with the Saddleback Valley Unified School District and other schools in the City to establish a Safe Routes to School Program, encouraging parents and children to walk or bike to schools within the city.
- M-3.5 **Context Sensitivity.** Consider the land use and design context of the surrounding areas when designing Complete Streets.
- M-3.6 **Local and Regional Collaboration.** Cooperate and collaborate with regional and local partners, stakeholders, and agencies to ensure the implementation of Complete Streets within and connecting to the City.
- M-3.7 **Effects of New Technologies on Complete Streets.** Monitor and evaluate the development of new mobility technologies (e.g., scootershare and bikeshare) and the potential impacts on designing a transportation network that accommodates all modes and users.

COMPLETE STREETS

Complete streets are streets designed considering the full range of users including vehicles, trucks, pedestrians, bicycles, children, the disabled, and seniors. There is no one single design for a complete street; complete streets are context-sensitive and respond to the land use and travel needs of users at a particular location. Complete streets may include sidewalks, bike lanes, transit lanes, frequent crossings, median islands, curb extensions, and other transportation facilities.

Complete streets make it easier and safer to use transportation modes other than a car and are a key component of Lake Forest's mobility network.

M-3 Actions

- M-3a Design, construct, operate, and maintain the street network depicted in the Mobility Element network map that provides safe and efficient access to all areas of the City.
- M-3b Develop and implement the Capital Improvement Plan to maintain and repair roadways; construct and improve roadways to build out the roadway network to ensure adequate levels of service.
- M-3c When planning roadway facilities, incorporate the concept of complete streets. Complete streets include design elements for all modes that use streets, including autos, transit, pedestrians, and bicycles. Complete streets shall be developed in a context-sensitive manner. For example, it may be more appropriate to provide a Class I bike path instead of bike lanes along a major arterial.
- M-3d Consider the standards set forth in the latest editions of the California MUTCD and American Association of State Highway and Transportation Officials (AASHTO) Green Book for improvement and re-striping of appropriate major collector and arterial streets to accommodate Class II bike lanes or Class IV protected bikeways in both directions, as applicable to the City of Lake Forest.

GOAL M-4 PUBLIC TRANSIT

Support increased public transportation use in the City.

M-4 Policies

- M-4.1 **Public Transit Use.** Support programs encouraging public transit use by people living in, working in, or visiting Lake Forest.
- M-4.2 **New Transit Facilities.** Promote the provision of public transit and supportive transit facilities within areas of major development.
- M-4.3 **Improve Local Public Transit Service and Stops.** Work with OCTA to improve local transit service in the City and bus stop amenities along roads that have local transit service.
- M-4.4 **Paratransit Service.** Continue to support OCTA ACCESS paratransit and other special transit services in Lake Forest.
- M-4.5 **Regional Transit Connectivity.** Encourage OCTA to provide access and public transit service between Lake Forest and the Irvine Transportation Center and other regional-serving transportation centers.
- M-4.6 **Metrolink Service.** Monitor and participate in discussions pertaining to Metrolink service to encourage a level of service that meets Lake Forest's needs.
- M-4.7 **Park and Ride Facilities.** Continue to encourage the provision of additional regional public transportation services and support facilities, such as park and ride lots near the San Diego Freeway (I-5) and the Foothill Transportation Corridor (SR-241).
- M-4.8 **Effects of New Technologies on Transit Use.** Monitor and evaluate the development of new mobility technologies (such as rideshare and microtransit) and the potential effects on transit demand and the way users access public transit.

M-4 Actions

- M-4a Continue to participate in regional transit planning with OCTA through regular communication and coordination.
- M-4b Monitor Federal, State, and OCTA transit funding programs to identify potential sources of funds for transit programs in Lake Forest. Pursue any potential funding through the identified programs.

GOAL M-5 BICYCLE, PEDESTRIAN, AND EQUESTRIAN USE

Support and promote the use of pedestrian, bicycle, and equestrian facilities.

M-5 Policies

- M-5.1 **Promote Non-Vehicular Modes.** Promote the provision of non-vehicular circulation modes within Lake Forest.
- M-5.2 **Pedestrian Access Between Uses.** Improve pedestrian access between complementary uses such as residential and commercial areas and seek to increase the number of bridges and/or grade-separated crossings over freeways and major roadways.
- M-5.3 **Recreational Trails.** Work with the County of Orange to ensure local trails are open and maintained and facilitate access to and from the trails within Lake Forest.
- M-5.4 **Effective Roadway Projects.** Consider the implementation of active transportation improvements (such as high visibility crosswalks) when roadways are undergoing rehabilitation, resurfacing, or other modifications.
- M-5.5 **Coordination with Adjacent Jurisdictions.** Coordinate with adjacent jurisdictions to ensure connected and consistent non-vehicular facilities, including bridges and grade-separate crossings, as appropriate.
- M-5.6 **Effects of New Technologies on Active Transportation.** Monitor and evaluate the development of new mobility technologies (such as bikeshare, scootershare, and electric bikes) and the potential effects on non-vehicular travel and mode choice in Lake Forest and the region.
- M-5.7 **Equestrian Facilities.** Ensure that existing equestrian facilities in the community are maintained.

M-5 Actions

- M-5a Review and update the City's Municipal Code, as necessary, to consider bicycle and pedestrian access as part of the site plan review for new development projects.

GOAL M-6 SAFETY

Provide a safe transportation system for all users.

M-6 Policies

- M-6.1 **Speeds on Residential Streets.** Explore innovative ways to reduce vehicular speeds through residential neighborhoods to posted speed limits, such as implementing traffic calming strategies.
- M-6.2 **Speeds on Arterial Roadways.** Encourage programming and design strategies to maintain safe vehicular speeds on its arterial roadways.
- M-6.3 **Site Designs and Safety.** Ensure, through the development review process, that development projects follow best design practices to reduce conflicts between multiple travel modes.
- M-6.4 **Bicyclist and Pedestrian Safety.** Develop safe and convenient bicycle and pedestrian facilities and crossings at key intersections and other locations.
- M-6.5 **Freeway Ramp Safety.** Encourage Caltrans and the Transportation Corridor Agencies (TCA) to provide safe pedestrian crossings and other facilities at freeway ramps in Lake Forest.

M-6 Actions

- M-6a Evaluate the applicability of traffic calming tools in appropriate areas.

GOAL M-7 PARKING

Ensure an adequate and convenient parking supply in the City.

M-7 Policies

- M-7.1 **Adequate Parking Supply.** Ensure, through the development review process, that residential and non-residential developments provide adequate off-street parking supply to meet demand.
- M-7.2 **Efficient Use of Parking.** Strive to efficiently utilize existing parking supply in the City.
- M-7.3 **Parking Demand and Supply Trends.** Monitor and consider trends in the region pertaining to reduced parking demand for mixed-use developments and the allocation of parking for shared vehicles, alternative energy vehicles, bicycles, and other modes of transportation.
- M-7.4 **Flexible Parking Supply.** Permit developments to meet parking requirements through strategies such as shared parking.
- M-7.5 **Effects of New Technologies on Parking Demand.** Monitor and evaluate the development of new technologies and trends (such as autonomous vehicles, bicycle parking, rideshare, shared parking, flexible parking structures, and zoning overlays) and the potential effects on parking demand.

M-7 Actions

- M-7a Periodically review the City’s parking code to ensure that it adequately addresses new types and patterns of development and new mobility technologies which may have an impact on parking supply and/or demand in the City.
- M-7b Consider the establishment of a parking permit program in areas of the City with higher concentrations of street parking complaints, and ensure that existing parking restrictions and requirements are properly enforced by the City.

GOAL M-8 VEHICLE MILES TRAVELED

Reduce citywide vehicle miles traveled per capita and contribute to regional and statewide greenhouse gas emission targets.

M-8 Policies

- M-8.1 **VMT Thresholds.** Establish vehicle miles traveled (VMT) thresholds and Transportation Demand Management (TDM) mitigation requirements for the purposes of environmental review under the California Environmental Quality Act (CEQA). The City shall continue to maintain LOS standards for the purposes of planning and designing street improvements.
- M-8.2 **Existing Transportation Demand Management Efforts.** Continue to support the implementation of existing regional efforts such as the employer TDM provisions of the Air Quality Management Plan (AQMP) and the Congestion Management Program (CMP).

M-8 Actions

- M-8a Review and update the City’s Municipal Code, as necessary, to reflect Transportation Demand Management best practices.
- M-8b Consider allowing for a reduction in parking standards if comprehensive TDM programs and/or other parking strategies are provided.
- M-8c Require developments that are approved based on TDM plans to incorporate monitoring and enforcement of TDM targets as part of those plans.

TRANSPORTATION DEMAND MANAGEMENT (TDM)

Transportation Demand Management uses incentives, information, and encouragement programs to reduce reliance on single-occupant vehicles and decrease traffic congestion.

These programs help people walk, bike, ride transit, and telecommute and encourage shifting driving trips from peak hours. Transportation Demand Management measures may be implemented by governments or employers.

GOAL M-9 GOODS MOVEMENT

Accommodate safe goods movement through the City's transportation network.

M-9 Policies

- M-9.1 **Goods Movement Along City Arterials.** Continue to restrict truck traffic through the City to its arterial roadways in order to facilitate goods movement to regional facilities; continue to prohibit truck traffic on residential streets.
- M-9.2 **Roadway Design.** Maintain roadway design standards along City arterials to facilitate truck access to light industrial, manufacturing, commercial, and mixed-use areas along designated truck routes.
- M-9.3 **Effects of New Technologies on Goods Movement.** Monitor and evaluate the development of new technologies and trends (such as e-commerce) and the potential effects on the goods movement network (including increased curbside loading demand).

M-9 Actions

- M-9a Update and implement the City's Freight Routes Map to ensure it serves the City's goods movement needs while considering the potential mobility conflicts and the location of sensitive land uses in the City.
- M-9b Require traffic index calculations (consistent with the State Department of Transportation) for construction on streets that are designated as truck routes, in order to provide structural sections that will accommodate the projected truck volumes.

GOAL M-10 FUNDING

Ensure the utilization of various financing methods to improve and provide a fiscally sound transportation system.

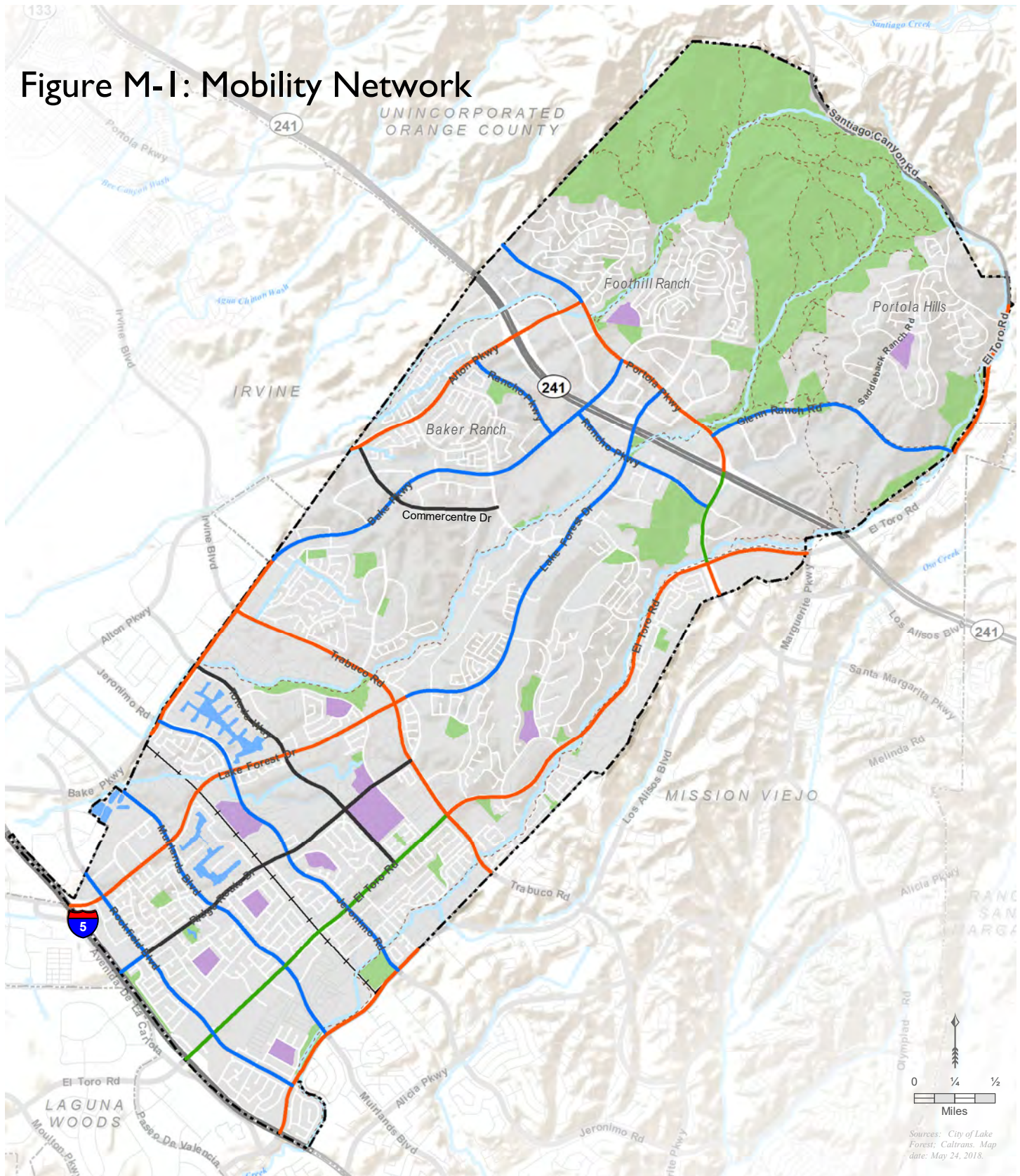
M-10 Policies

- M-10.1 **Funding Sources.** Leverage existing available funding methods and sources to fund the transportation system in Lake Forest while also researching innovative funding sources at the federal, state, regional, and county levels.
- M-10.2 **New Developments.** Ensure that new development projects contribute their appropriate fair share to transportation network improvements and that existing funding commitments are met.
- M-10.3 **Monitor Funding.** Monitor and ensure adequate funding of LFTM and other programmed transportation improvements.
- M-10.4 **Regional Funding.** Maintain standards to qualify for regional transportation revenues while encouraging regional agencies to continue to provide adequate transportation funding to local jurisdictions.

M-10 Actions

- M-10a Develop and support a flexible financing program to fund the construction, maintenance, and improvement of the roadway system.

Figure M-1: Mobility Network



Legend

- | | |
|------------------------|--------------------------------|
| City of Lake Forest | Roadway Classifications |
| Other City Boundaries | Principal Arterial |
| Public School | Major Arterial |
| City or County Park | Primary Arterial |
| Riding & Hiking Trails | Secondary Arterial |
| | Collector |

Lake Forest
2040

Our Vision. Our Plan.

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Sources: City of Lake Forest; Caltrans. Map date: May 24, 2018.

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