



**Citizens Advisory Committee  
January 21, 2014**

*1:00 – 3:00 p.m.*

*600 South Main Street, Orange, California, 92863  
Conference Room 103*

**Agenda**

- 1. Chairman's Remarks** Patrick Pepper, *Chair, CAC*
  
- 2. Bike/Ped Subcommittee Pedestrian Priorities** (15 min)  
*Discussion* Roy Shahbazian, *Chair, Bike/Ped Subcommittee*
  
- 3. Long Range Transportation Plan (LRTP) Strategies & Results** (30 min)  
*Discussion* Ellen Burton, *Executive Director, External Affairs*  
Greg Nord, *Sr. Transportation Analyst, Planning*
  
- 4. Freeway Program & Construction Outreach Update** (20 min)  
*Presentation* Rose Casey, *Director, Highway Programs*  
Christina Byrne, *Community Relations Officer*
  
- 5. Title VI Vehicle Deployment Policy** (10 min)  
*Presentation* Scott Holmes, *Transit Manager*
  
- 6. Update Reports** (5 minutes each)
  - February Service Change
  - Government Affairs
  - Bicycle/Pedestrian Subcommittee
  - Marketing
  - Mobility 21Scott Holmes, *Transit Manager*  
Lance Larson, *Executive Dir, Gov Relations*  
Roy Shahbazian, *Chair, Bike/Ped. Subcommittee*  
Stella Lin, *Marketing Manager*  
Kelley Jimenez, *Assoc Strategic Comm Specialist*
  
- 7. Committee Member Comments**
  
- 8. Public Comments**
  
- 9. Adjournment / Next Meeting:**  
April 15, 2014

**Agenda Descriptions/Public Comments on Agenda Items**

The Agenda descriptions are intended to give notice to members of the public of a general summary of items of business to be transacted or discussed. Members from the public wishing to address the Committee will be recognized by the Chairman at the time the Agenda item is to be considered. A speaker's comments shall be limited to three (3) minutes.

Any person with a disability who requires a modification or accommodation in order to participate in this meeting should contact the OCTA at (714) 560-5611, no less than two (2) business days prior to this meeting to enable OCTA to make reasonable arrangements to assure accessibility to this meeting.



**Citizens Advisory Committee  
Meeting Notes  
October 15, 2013  
1:00 p.m. to 3:00 p.m.  
At The Orange County Transportation Authority  
600 S. Main Street, Orange, Calif.  
Conference Room 103/104**

**Members Present**

Phil Bacerra, *Santa Ana Resident*

Hamid Bahadori, *Automobile Club of So. CA*

Ralph Bauer, *Council on Aging & City of Hunt. Bch*

Michael Brandman, *Building Industry Association*

Vince Buck, *Cal State Fullerton*

Doug Davert, *Tustin Resident*

John Frankel, *Rancho Santa Margarita Architectural  
Review*

Merlin "Bud" Henry, *North Tustin Advisory Committee*

Dan Kalmick, *Huntington Beach Tomorrow*

Leonard Lahtinen, *North O.C. Community College District*

James Leach, *OC Taxpayers Association*

Derek McGregor, *Trabuco Canyon Advisory Committee*

Michael McNally, *UC Irvine*

David Mootchnik, *Southern California Commuters Forum*

Frank Murphy, *Orange Rotary*

Pat Pepper, *Anaheim Hills Citizen Coalition*

Jane Reifer, *Transit Advocates of Orange County*

Roy Shahbazian, *Transit Advocates of Orange Co.*

Schelly Sustarsic, *Seal Beach Parks & Recreation Comm.*

Jeff Thompson, *Tustin Planning Commission*

Kara Watson, *Transit Advocates of Orange Co*

Craig Young, *Yorba Linda Resident*

Greg Winterbottom, *OCTA Board Member*

**Members Absent**

Paul Adams, *Fountain Valley Resident*

Dan Bane, *San Clemente Resident*

Dr. David Chapel, *O.C. School Boards Assoc.*

Barbara Delgleize, *Huntington Beach Chamber*

Carla DiCandia, *Mission Hospital*

Tom Garner, *Retired Lieutenant, Laguna Hills*

Dolores Gonzales-Hayes, *Latino Health Access*

Dan Oregel, *Santa Ana Resident*

Lyle Overby, *Santa Ana Resident*

Laurel Reimer, *Orange County Young Planners Group*

Greg Smith, *Irvine Resident*

Jacqueline Tran, *Santa Ana Resident*

**1. Chairman's Remarks**

Chairman Pat Pepper called the Citizens Advisory Committee (CAC) meeting to order at 1:00 p.m. and welcomed everyone. He introduced new CAC public member Frank Murphy from the City of Tustin.

Pat Pepper reminded the CAC of their mission statement. They are an advisory group and what the OCTA Board looks at dictates what the CAC looks at. A number of agenda items are just status updates because the projects being looked at are in the implementation stage. Currently the main focus of the CAC is the Long Range Transportation Plan (LRTP). Some of the other projects, like the I-405, already have several working groups of people looking at them. The CAC is meant to be a source of feedback and input for OCTA programs and outreach efforts.

## **2. Government Affairs Update**

Lance Larson, Executive Director of Government Relations gave a report on Government Affairs pertaining to transportation. He reported on his recent trip to Washington DC and the status of the California bills in Sacramento.

Jane Reifer asked whether there have been any efforts to have the “Cap and Trade” money go to transit operations rather than capital. Lance Larson said it has been used characteristically just for transit capital, but it was determined to let the local agencies make the decision.

Jeff Thompson asked, since the CAC has been studying a Bicycle/Pedestrian Plan, will pedestrians be considered under the SEQA exemption for all Bicycle Plans? Lance Larson said he would get back to him on this question. The SEQA exemption is called the Bicycle Collaborative but he is not sure. The bill number is AB 417.

Jeff Thompson said Lance Larson reported the Design-Build Authority is for highways not transit. Does this only affect OCTA and Caltrans, or does it affect municipalities? Lance Larson said some municipalities have the authority to perform Design-Build, for example the Transportation Corridor Agencies (TCA) whose Joint Powers Authority (JPA) gives them authority for Design-Build. Also some charter cities such as Anaheim have the authority for Design-Build. Lance Larson said keep in mind, Design-Build works well for some projects and not as well for others.

Roy Shahbazian said he heard the State Transit Assistance Fund (STAF) has decreased this year. Is this becoming a trend and is the legislature addressing it? Lance Larson said he knows there have been talks about the STAF decreasing. “Cap and Trade” has been a big issue for this. People look at “Cap and Trade” and think it is going to be a big check book but in reality there will be a line around the corner with people looking for these funds. The real genesis for “Cap and Trade” revenues was to invest in transit infrastructure.

## **3. Long Range Transportation Plan (LRTP)**

Ellen Burton, Executive Director of External Affairs, said OCTA is starting its LRTP process and gathering input from the public. To provide some context for discussion she showed a video entitled Outlook 2035 – Because Mobility Matters.

Ellen Burton explained why they are doing this. The majority of the resources projected in a constrained plan will go towards the Measure M Program. If there is no vision and plans beyond Measure M and there are additional funding sources that come up we will not be ready. OCTA has always tried to get projects “shelf ready.” The LRTP is looking for the next tranche of projects the planners should be looking at for the future.

The following are the comments given by the CAC in a roundtable discussion about the LRTP:

### **OC Autocentric?**

- No→oil getting too expensive
- “FB” not “a thing” anymore
- Kids living at home longer
- More hybrid cars in future and “self-driving” cars
- Aging population is driving longer
- Who is paying for transit?
- US is now #1 energy producer→more pressure for cleaner air
  - Too affluent to give up cars
- Rome: overloaded with small cars and scooters which provide flexibility
- 1988: gas→\$1.25; now it’s \$4.00 - people still use cars to get around
- Will overwhelming need/burden still be carried by cars? →YES
- Need a realistic alternative first
- Plan for using difference modes for different trips

### **What technology? What systems?**

- LRTP should focus on next 5 years (not beyond)
- Does that mean OCTA shouldn’t plan for future while considering existing infrastructure/technology?
- People like solutions that solve traffic for “other people”
  - Look at existing data
- Look at assumptions on development: Transit Oriented Development (densities)
  - Development of transit needs to fit
- Who is traveling in OC?
  - Look at all traveling needs (i.e. tourists)
- Choices: need to accommodate
- Complete systems (241)
  - What does it mean to not complete?
- Focus on Bottlenecks
  - 91 transition west to 55 South
- Technology is influencing: smart sensors. How to automate highways!  
(Entrepreneurs need government to integrate)
- Most international cities were rebuilt
  - Need rezoning for densities

- Need transit; West OC doesn't have plans for transit
- Bus system is ineffective to get people out of cars (should have reasonable travel times)
  - Public policy to pay for transit?
- Driverless cars; inter-car communication systems (increase capacity)
  - Leader in setting technology standards!
- Fare collection system is antiquated
  - Cash pickup in back
- 34 agencies→competing/diverse interests
  - Educate cities to make them more aware regionally

### HOV Lanes

- Focus on air quality instead of speed
- LEV's aren't cause of degradation
- Managed lanes (like 91 express lanes) are misunderstood
- HOV system is connected to encourage carpooling
  - Do more of it
- Need data to support decisions
  - Why do people carpool (use of park and ride lots?)
- Look at demographics to make decisions (household communities vs. individuals)
- 1984 Olympics Model/techniques
  - Staggered work hours
- Look outside of what happens outside of county (at county line)
  - Must consider regionally (most people on 91 not from OC)
  - Talk to other agencies
- Look at success
  - i.e. 91 managed lanes→started with 91 planning many years ago that builds on success
- Many solutions needed
- Transit needs more frequency
- Criteria of keeping HOV speeds is irrelevant (wrong federal criteria - needs to be tackled)
- 241 needs to go through
- Traffic generated by other counties
  - Learn more about what Mobility 21 is doing for collaboration

Ellen Burton distributed the Long Range Transportation Plan Questionnaire and asked the committee members to fill it out. The Questionnaire contained 22 questions on Orange County demographics, Streets and Roads, Transit/Non-motorized, and Freeways/Toll Issues. The committee members were asked for their opinions and to check either Yes, No, or Not Sure for every question. At the end of the questionnaire she asked each person to list their top three priorities for Orange County's transportation system.

Ellen Burton then went over the questions with the group one at a time and asked for their opinions by holding up either a green card for Yes (you agree), a red card for No (you do not agree), or a yellow card for Not Sure. She went over each questions with the members and asked a random member why that person voted the way he/she did.

#### **4. Update Reports**

Bicycle/Pedestrian Subcommittee: Roy Shahbazian, Chairman of the Bike and Pedestrian Subcommittee reported the Subcommittee met last month and gave a brief summary of the meeting.

Marketing: Stella Lin, Marketing Manager. This report was postponed to the following CAC meeting.

Staff Liaison: Alice Rogan, Strategic Communications Manager had nothing further to report.

#### **5. Committee Member Comments**

There were no further committee member comments.

#### **6. Public Comments**

There were no comments from the public.

#### **7. Adjournment – Next Meeting January 21, 2014**

The meeting adjourned at 3:00 p.m. The next meeting will be at the OCTA offices on January 21, 2014 at 1:00 p.m.

**Citizens Advisory Committee  
Fiscal Year 2013-2014 Attendance Record**

● = Present

⊙ = Absent

R = Resigned

Member	7/16/13	10/15/13	1/21/14	4/15/14
Adams, Paul	●	⊙		
Bacerra, Phil	⊙	●		
Bahadori, Hamid	●	●		
Bane, Dan	●	⊙		
Bauer, Ralph	⊙	●		
Brandman, Michael	●	●		
Buck, Vince	●	●		
Chapel, David	⊙	⊙		
Davert, Doug	●	●		
Delgleize, Barbara	●	⊙		
DiCandia, Carla	●	⊙		
Frankel, John	●	●		
Garner, Tom	⊙	⊙		
Gonzales-Hayes, Dolores	⊙	⊙		
Henry, Merlin "Bud"	●	●		
Kalmick, Dan	●	●		
Lahtinen, Leonard	●	●		
Leach, James	⊙	●		
McGregor, Derek	⊙	●		
McNally, Michael	●	●		
Mootchnick, David	●	●		
Murphy, Frank	⊙	●		
Oregel, Dan	●	⊙		
Overby, Lyle	⊙	⊙		
Pepper, Pat	●	●		
Reifer, Jane	●	●		
Reimer, Laurel	●	⊙		
Shahbazian, Roy	●	●		
Smith, Greg	⊙	⊙		
Schelly Sustarsic	●	●		
Thompson, Jeff	⊙	●		
Tran, Jacqueline	⊙	⊙		
Watson, Kara	●	●		
Young, Craig	●	●		

# *Presentation Items*



## **Citizens Advisory Committee's Bicycle and Pedestrian Subcommittee**

### **Suggested Pedestrian Priorities**

During the past year, the CAC Bicycle and Pedestrian (Bike/Ped) Subcommittee developed a list of priorities for improving pedestrian mobility in Orange County. These priorities address the following: Policy, Design, Funding, Implementation Recommendations and Marketing / Education. The Subcommittee identified five of the highest priorities in the following order.

#### **1. POLICY – Implement / or and strengthen pedestrian policies in:**

- Master Plan of Arterial Highways (MPAH)
- Complete Streets
- Highway Design Manual
- M2 Guidelines

Guidelines of the Caltrans Highway Design Manual should be followed to improve pedestrian safety and mobility. Complete Streets policies should be included in Circulation Elements. The pedestrian policies of the Master Plan of Arterial Highways should be strengthened and flexibility given to local agencies wanting to improve pedestrian mobility. Consideration of bicyclist and pedestrian mobility should be included in the Measure M2 Guidelines.

#### **2. DESIGN – Optimize conditions for pedestrians through design guidelines for sidewalks**

- Provide driveway safety
- Minimize intersections with missing crosswalks (i.e. has less than 4 crosswalks)
- Ensure pedestrians have a direct route
- Consider pedestrian access in new developments

By developing a set of design guidelines analogous to the guidelines found in OCTA's Commuter Bikeway Strategic Plan, consistent recommendations can be included in local agency circulation elements. Pedestrian mobility can be improved by developing standards that include promotion of driveway safety. This can be provided by consolidating driveways to avoid interruption of pedestrian pathways and providing driveway design that alert motorists and pedestrians of each other's presence. Standards should be developed to minimize prohibiting pedestrian crossing at controlled intersections while balancing motor vehicle turning traffic flow. A standard identifying a maximum amount of lateral movement should be developed to avoid pathways with excessive winding. New developments should have pedestrian access at convenient locations and avoid long stretches without pedestrian access.

**3. FUNDING – Support and seek opportunities to increase pedestrian funding**

**4. IMPLEMENTATION – Identify critical pedestrian/sidewalk gap closures, high intensity areas and conflict areas (e.g. freeway ramps).**

Some areas with significant pedestrian usage don't have sidewalks (e.g. some industrial areas). These areas should be identified for possible gap closure where needed. *Note: It is not the intent to add sidewalks in residential areas that have not expressed a desire for sidewalks.*

There should be a priority to improve areas with high intensity pedestrian usage, for example hospitals, colleges, schools, large retail developments.

It should also be a priority to improve safety at freeway ramps with uncontrolled free right-turn lanes and pedestrian usage consistent with the Caltrans Highway Design Manual.

**5. MARKETING / EDUCATION – Share best practices and policies with public, designers and cities**

To improve pedestrian mobility and safety efforts should be made to share policy and design suggestions such as the Model Design Manual for Living Streets which can be incorporated into local planning documents such as General Plan Transportation Elements.

## Policy

Implement and / or strengthen pedestrian policies in:

- Master Plan of Arterial Highways (MPAH)
- Complete Streets
- Highway Design Manual
- M2 Guidelines

Development of Pedestrian Principles

Detour Policies for construction projects

- Include all modes in Draft Traffic Management Plans (TMP)

## Design

Optimize conditions for pedestrians through design guidelines for sidewalks

- Provide driveway safety
- Minimize intersections with missing crosswalk
- Ensure pedestrians have a direct route (i.e. avoid excessive winding of pedestrian pathways)
- Consider pedestrian access in new developments

Multi-modal Level of Service Grades

- Countywide standard based on scoring/inventories for pedestrian infrastructure to ensure consistency

## Funding

Support and seek opportunities to increase pedestrian funding

## Implementation

Identify critical pedestrian/sidewalk gap closures, high intensity areas and conflict areas (e.g. freeway ramps)

Identify high-volume pedestrian areas for potential bridge placement

OC Parks Partnership

Injury/Fatality Mapping (SWITRS, TIMS and local police data)

Data collection opportunities through crosswalk signals and/or cameras

- Utilize data to study pedestrian needs along signal sync arterials

“Share the road” signage on shared-use paths

## Marketing / Education

Share best practices and policies with public, designers and cities

Bicycle/Pedestrian Etiquette

Marketing message of the month, such as:

- Promotion/Message given during Holidays (possible sponsorship by Chamber of Commerce)
- Walking Promotions/ Incentives campaign
- Use existing venues to promote walking
- Economics of Walking
- Dangers of distracted driving



*January 6, 2014*

**To:** Regional Planning and Highways Committee  
**From:** Darrell Johnson, Chief Executive Officer  
**Subject:** 2014 Long-Range Transportation Plan Update

**Overview**

The Long-Range Transportation Plan provides the vision for Orange County's transportation network over the next 20 years. A report on preliminary technical and public outreach activities for the 2014 plan are presented for review and feedback. This report includes an overview of various strategies that are expected to be part of the draft plan which will be presented to the Board of Directors in spring 2014.

**Recommendation**

Direct staff to return with the draft plan in spring 2014.

**Background**

In June 2013, staff presented the goals and objectives for the 2014 Long-Range Transportation Plan (LRTP). The goals of the LRTP are to deliver on commitments, improve system performance and efficiency, expand transportation choices, and support fiscal and environmental sustainability initiatives. These goals, along with input from key stakeholders and the public, provide the framework for identification of projects and programs to be included in the LRTP – within the limits of revenues projected to be available over the life of the LRTP.

In July 2013, staff provided an analysis of the 2035 baseline scenario. This analysis showed Orange County's population and employment growth projected for 2035. Growth in population and employment are expected to result in increased traffic and travel delay. Orange County's transportation system performance will decline substantially without the implementation of Measure M2 (M2) projects and services, as well as other critical infrastructure investments. Also in July, issues were raised for consideration by the Board of Directors (Board), such as growing interest in active transportation,

increasing state and federal regulations, changing characteristics of segments of the population, and increased focus on inter- and intra-county transportation coordination.

Since these items were presented to the Board, key meetings have been held to gather stakeholder input for the LRTP. Stakeholders were informed about projected travel conditions and M2 commitments, and were encouraged to voice opinions on future transportation enhancements through a dialogue and survey. The stakeholders include, but are not limited to, local agency elected officials, city managers and staff, business leaders, transportation professionals, seniors, students, and advocates of various interests (Attachment A).

Below are the key themes gathered from Orange County elected officials:

- Continue developing M2 solutions - as promised to the voters
- Maximize existing networks
- Offer mobility choices
- Improve connections -- both locally and regionally
- Consider emerging technologies
- Plan for changing demographics
- Consider goods movement in planning
- Educate the public about travel options

In addition, the following themes have been raised consistently at all of the stakeholder discussions to date:

- Optimize transportation systems (signal synchronization, rapid bus, and managed lanes)
- Maintain streets and highways
- Educate the public about transportation alternatives, bicycle safety, and managed lane strategies
- Innovate new transit strategies, especially rail, and provide real-time information
- Collaborate on regional solutions, and work with local jurisdictions to link land use and transportation plans
- Explore incentives for carpools on toll roads, expansion of bus service and the vanpool program, dedicated lanes for transit on streets and freeways, and potential for managed lanes

These outreach efforts continue to underscore the need to deliver M2 commitments, improve efficiencies, and offer new travel choices that complement and enhance all modes – and do this through collaborative work

with other public agencies, private groups, and the public at large. OCTA staff is continuing this outreach effort, and a full outreach report will accompany the draft 2014 LRTP.

### ***Discussion***

Three scenarios will be included in the draft 2014 LRTP: baseline, preferred, and conceptual scenarios – all focused on 2035 (horizon year) travel conditions, with increasing investment levels in transportation services and projects. The baseline scenario includes projects and services with committed or programmed funding; the preferred scenario adds future investments that can be funded by M2 and a reasonable level of future state and federal funds; and the conceptual scenario adds projects and services that go beyond planned funding levels. Conceptual scenario projects generally require more research, development, funding, and/or public input. These projects are often further developed and considered as part of project studies that support future LRTPs. The preferred scenario is financially constrained, and is the focus of this report.

To achieve the goals and objectives of the LRTP, projects are recommended for inclusion in the preferred scenario based on system needs, project readiness, and input received from the Board and stakeholders. As mentioned above, the preferred scenario is constrained by a revenue forecast over the life of the LRTP, consistent with current trends. All M2 projects and programs are included in the preferred scenario, consistent with the 2014 LRTP goal to deliver on commitments. This ensures that M2 continues to form the core of the LRTP. Projects that are above and beyond M2 are identified from previous long-range plans, completed planning studies, and input from the Board and stakeholders, and must be funded by future state/federal funds. These projects are then evaluated based on consistency with:

- Board-approved policies
- LRTP goals and objectives
- Stakeholder priorities

Using these criteria as guidelines, a draft 2035 preferred scenario is under development. Although the draft 2035 preferred scenario is pending a final revenue forecast as well as additional input from the Board and stakeholders, an initial analysis was performed on projects and services that are expected to be included in the 2014 LRTP's preferred scenario. The initial model results in the table below indicate that investment in M2 and other key improvements will effectively increase transit ridership, raise travel speeds, and reduce future congestion compared to baseline investments alone.

## Draft 2035 Preferred Scenario - Initial Model Results

	2010 Base Year	2035 Baseline	Draft 2035 Preferred	Percent Change from 2035 Baseline
Daily Transit Trips	133,469	165,219	189,426	14.7% Increase
Daily Vehicle Trips	8,170,633	9,318,002	9,293,636	0.3% Decrease
Total Vehicle Hours of Delay	274,646	729,432	506,142	30.6% Decrease
Daily Vehicle Hours Traveled	1,617,452	2,485,786	2,261,412	9.0% Decrease
Daily Vehicle Miles Traveled	63,404,082	81,112,113	81,750,024	0.8% Increase
Average Speed – Freeway General Purpose Peak	40.4	34.5	39.0	13.2% Increase
Average Speed - HOV Peak	48.4	57.4	59.5	3.6% Increase
Average Speed–Arterial Peak	30.3	22.7	27.2	20.0% Increase

HOV - High-occupancy vehicle. Modeled at HOV three-plus in 2035.

Source: Orange County Transportation Analysis Model 3.4.1

It should be noted that the above results for the 2035 Baseline and Draft 2035 Preferred scenarios assume that the Federal Highway Administration (FHWA) will require the HOV system to operate on a three-plus occupancy basis by the horizon year (and probably sooner) in order to meet federal mandates. Furthermore, Attachment B depicts some of the major transportation improvement programs assumed in this initial analysis. Compared to the 2010 base year conditions, this set of improvements would result in the addition of:

- New bus and streetcar service on key, high-demand corridors
- Enhancements to bus routes to maintain on-time performance
- 20 new weekday Metrolink trains
- 650 miles of bikeways
- 820 lane miles on the Master Plan of Arterial Highways network
- 200 freeway lane miles
- 192 tollway lane miles
- 450 vanpools and station vans

Weaving together these projects and services into an integrated and comprehensive plan is a key outcome of the 2014 LRTP. These projects and services will result in a multi-layered transportation system that results in better connectivity between modes, multiple use of the same infrastructure, and improved travel time for all travelers. For example, more Metrolink trains on the Orange County Line will reduce vehicular demand on the congested Interstate 5 (I-5), better pedestrian and bikeway connections to Metrolink

stations will increase Metrolink ridership, and improved bikeway connections will reduce demand on city streets.

Other network effects for the 2014 LRTP will include:

- Express bus/vanpool service on freeways and tollways that increase overall facility usage (and average occupancy)
- Enhanced connectivity between price managed facilities (e.g., 91 Express Lanes and State Route 241 {SR-241}) that improves travel time reliability
- Coordination with local jurisdictions to implement bikeway and pedestrian projects on local streets that reduce vehicular demand and offer new travel choices
- New signal synchronization projects that improve auto and bus travel times on congested corridors

As the draft 2014 LRTP is prepared, additional Board discussion on several key issues is needed to ensure that the LRTP accurately reflects Board direction. These issues range from OCTA's involvement in intercounty planning to the influence emerging technology could have on the LRTP. These issues are presented below:

#### Three-Plus HOV Occupancy Requirement By 2035

The California Department of Transportation (Caltrans) is required by the FHWA to resolve the HOV degradation issue. The implementation of a three-plus HOV policy is being considered as a solution that could be implemented without increasing the freeway system footprint. It is also possible that a three-plus HOV policy could be mandated by FHWA. While a three-plus HOV policy is being considered, it may not be the ultimate solution. However, for forecasting purposes, a three-plus HOV assumption may be appropriate to allow the transportation model to account for FHWA standards. Staff recommends using this approach for modeling purposes, while not explicitly stating support for any particular solution prior to the completion of ongoing Caltrans studies.

#### Express Lane System

While the toll roads are projected to be at capacity by the horizon year of 2035, even after planned improvements, these facilities present an opportunity for agency coordination and strategic planning. Staff recommends continued discussion between OCTA and the Transportation Corridor Agencies (TCA) to identify projects that improve operations and avoid bottlenecks, such as the



SR-241/State Route 91 high-occupancy toll (HOT) connector, and studying the potential for transit options on the TCA system.

Furthermore, the Southern California Association of Governments (SCAG) and Caltrans District 12 are each currently preparing managed lane studies for the Southern California region and Orange County, respectively. The SCAG study is focusing specifically on HOT lane opportunities, and developing a conceptual operations strategy that is amenable to all of the involved agencies. Caltrans is also conducting various managed lane studies to determine a managed lanes system in Orange County. All these efforts are proposing managed lane improvements and include HOT lane strategies.

### Intercounty Connections

The San Diego Association of Governments' express lanes project on the I-5 appears to be moving forward. This will add lanes south of the Orange County/San Diego border, and would result in a bottleneck entering Orange County. Based on feedback from the Board and stakeholders, staff is proposing to include an extension of the HOV lanes from Avenida Pico to the San Diego border in the preferred scenario. However, this is not an M2 project and would require that projected state/federal funds come to fruition to move forward in the project development process.

Additionally, a study proposed by SCAG would look to improve transit connections between Orange County and Los Angeles County Metropolitan Transportation Authority's (Metro) Green Line light rail system. If the proposed study moves forward, it would look to improve the transit connection between Orange County's Metrolink stations and the Los Angeles International Airport (LAX). Connecting the Green Line to the Norwalk Metrolink station could provide a viable transit option to and from LAX, which in turn would help to relieve regional congestion. Staff recommends that the conceptual scenario notes that this potential study could result in project recommendations for future consideration.

Metro is also preparing to select an alignment for the Gold Line Eastern Extension – Phase II. The project will extend the Gold Line from the existing terminus at Pomona Boulevard and Atlantic Boulevard in East Los Angeles along one of two potential alignments:

- State Route 60 (SR-60) alignment - generally following SR-60 to the City of South El Monte
- Washington Boulevard – generally following Garfield Avenue and Washington Boulevard to Lambert Road in the City of Whittier

The Washington Boulevard alignment would present an opportunity to study future connections into Orange County, with a potential alignment along Lambert Road and the Union Pacific right-of-way (ROW) to the City of Brea. If the SR-60 alignment is selected, there would be limited potential for an Orange County connection.

#### New Streetcar Connections

Based on feedback from the Board and stakeholders, a north/south connection between the proposed Santa Ana/Garden Grove and Anaheim streetcar projects is recommended for further study. Additional connections to the north and south of the two proposed streetcar lines could also be explored as part of this analysis. For example, plans for a shared transit and active transportation use of the Pacific Electric ROW could be further developed.

#### Technology Influences

Substantial progress is being made with transportation related technologies. Major auto manufacturers, such as Nissan and Mercedes Benz, have stated that autonomous vehicles will be available at dealerships by 2020, and Google and Tesla are targeting 2016-17. Impacts on roadways and freeways are speculative, but there is potential for increased capacity on existing infrastructure over the life of the LRTP.

Alternative fuel vehicles are also becoming more commonplace. As battery efficiencies and charging technologies improve, electric vehicles will become more viable to more people. Hydrogen fuel cell technology also continues to advance and could become more prevalent in coming years. While the alternative fuel vehicles reduce emissions, the vehicles still contribute to wear and tear on infrastructure. Therefore, as these vehicles gain in market share, the issue of the gas tax revenue shortfalls will be worsened.

Other technologies such as electronic boarding passes, real-time transit information, and social networking could influence future travel behaviors. Furthermore, private sector companies offering new transportation services including bike sharing and car sharing may look to invest in Orange County. The state is currently developing a framework of regulations for peer-to-peer car sharing, which could standardize such services and potentially make it easier for businesses and local jurisdictions to coordinate implementation. While these issues may not impact the preferred scenario for the 2014 LRTP, these should continue to be monitored to evaluate future infrastructure investment needs.

**Summary**

Staff is continuing to develop the 2014 Long-Range Transportation Plan based on policies approved by the Board of Directors, established goals and objectives, and stakeholder priorities. The Long-Range Transportation Plan will take into consideration growth projections, financial constraints, and related impacts to the transportation systems through 2035. Issues that have been highlighted by the Board of Directors and stakeholders have been identified for further discussion. Staff will use feedback from the Board of Directors to further develop the preferred and conceptual scenarios, and return with a draft 2014 Long-Range Transportation Plan in spring.

**Attachments**

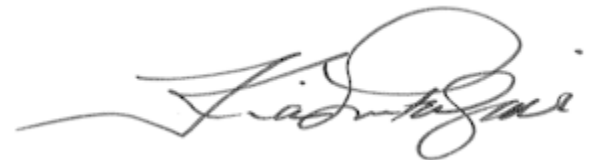
- A. Long-Range Transportation Plan Outreach Events
- B. Draft Preferred Scenario System Improvements

**Prepared by:**



Gregory Nord  
Senior Transportation Analyst  
(714) 560-5885

**Approved by:**



Kia Mortazavi  
Executive Director, Planning  
(714) 560-5741

**Long-Range Transportation Plan Outreach Events**

	<b>2013</b>	
1	April 2	Orange County Council of Governments Technical Advisory Committee
2	April 16	Citizens Advisory Committee
3	May 7	Orange County Council of Governments Technical Advisory Committee
4	June 4	Orange County Council of Governments Technical Advisory Committee
5	July 2	Orange County Council of Governments Technical Advisory Committee
6	July 16	Citizens Advisory Committee
7	August 6	Orange County Council of Governments Technical Advisory Committee
8	August 13	Orange County Business Council
9	August 27	Special Needs Advisory Committee
10	September 3	Orange County Council of Governments Technical Advisory Committee
11	September 11	Orange County City Managers Association
12	September 25	Elected Officials City Workshop
13	September 26	Orange County Council of Governments Board Meeting
14	October 1	Orange County Council of Governments Technical Advisory Committee
15	October 2	Youth Roundtable – Garden Grove School District
16	October 3	Orange County Emergency Services Organization
17	October 15	Citizens Advisory Committee Roundtable
18	October 21	Environmental Roundtable
19	October 23	OCTA Technical Advisory Committee
20	October 24	Youth Roundtable – Tustin High School
21	October 30	Youth Roundtable – Beckman High School
22	October 30	Transportation Corridor Agencies

23	November 1	Transportation Professionals Roundtable hosted by Women in Transportation - Orange County
24	November 5	Orange County Council of Governments Technical Advisory Committee Roundtable
25	November 12	Youth Roundtable – Foothill High School
26	November 12	Caltrans Executive Committee Roundtable
27	November 14	Transit Advocates
28	November 15	Active Transportation Roundtable – Bike/Pedestrian Subcommittee
29	November 19	Youth Roundtable – Cal State University, Fullerton
30	November 20	Association of California Cities – Orange County Board Meeting
31	December 3	Orange County Council of Governments Technical Advisory Committee
<b>Upcoming Outreach for 2014</b>		
1	January 7	Orange County Council of Governments Technical Advisory Committee
2	January 21	Citizens Advisory Committee
3	January 28	Special Needs Advisory Committee
4	January 29	Multicultural Roundtable
5	February 4	Orange County Council of Governments Technical Advisory Committee
6	March 4	Orange County Council of Governments Technical Advisory Committee
7	March 13	Senior Citizens Advisory Council Housing/Transportation Committee Roundtable
8	March 19	City Workshop
9	March 19	Orange County Visitors Association Presentation
10	April 1	Orange County Council of Governments Technical Advisory Committee
11	April 15	Citizens Advisory Committee
12	April 22	Special Needs Advisory Committee
13	May 6	Orange County Council of Governments Technical Advisory Committee
14	May 7	Open House

## Draft Preferred Scenario Systems Improvements

## Map Listings

1. 2035 High-Frequency Bus Corridors
2. 2035 Metrolink Service Expansion and Fixed Guideways
3. 2035 Planned Regional Bikeways Corridors – North County
4. 2035 Planned Regional Bikeways Corridors – South County
5. Future Roadway Projects by 2035 – North County
6. Future Roadway Projects by 2035 – South County
7. 2010 Base Year AM Peak Freeway Congestion Levels
8. 2035 Baseline Scenario AM Peak Freeway Congestion Levels
9. 2035 Preferred Scenario Freeway and Tollway Lane Additions
10. 2035 Preferred Scenario AM Peak Freeway Congestion Levels
11. 2035 Preferred Scenario AM Peak Congestion Levels – Percent Improvement over 2035 Baseline Scenario
12. 2035 Preferred Scenario AM Peak – High-Occupancy Vehicle (HOV) Lanes and Toll Road Congestion Levels
13. Orange County Managed Lanes Network
14. 2035 Baseline Scenario AM Peak HOV Lanes and Toll Road – Congestion Levels
15. 2035 Preferred Scenario AM Peak HOV Lanes and Toll Road Congestion Levels – Percent Improvement over 2035 Baseline Scenario

# 2035 High-Frequency Bus Corridors



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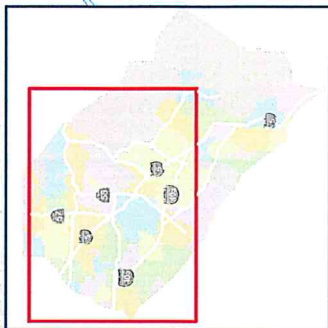
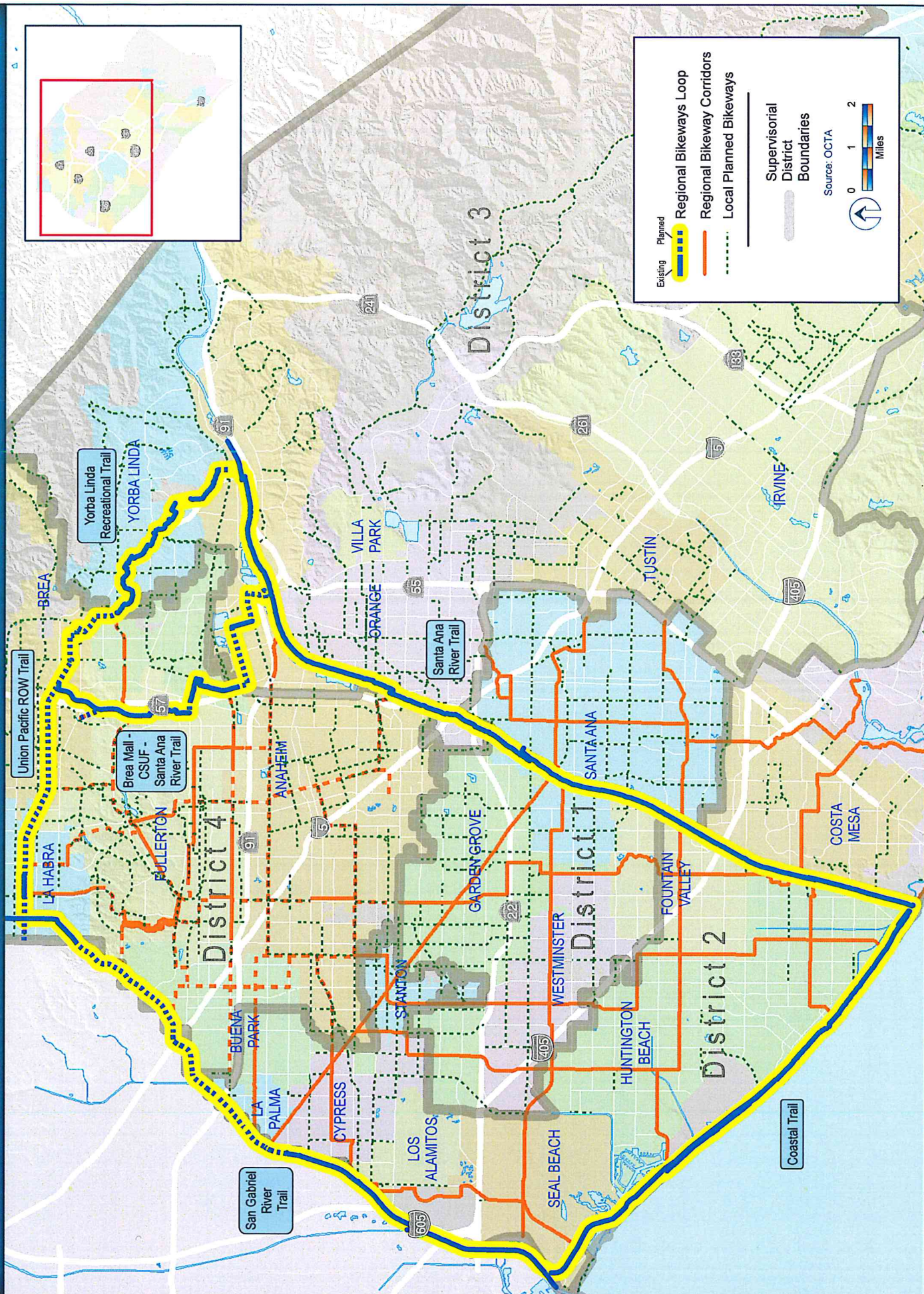


# 2035 Metrolink Service Expansion and Fixed Guideways





# 2035 Planned Regional Bikeways Corridors - North County



**Legend**

- Existing (Solid Blue Line)
- Planned (Dashed Blue Line)
- Regional Bikeways Loop (Thick Yellow Line)
- Regional Bikeway Corridors (Solid Orange Line)
- Local Planned Bikeways (Dashed Orange Line)
- Supervisory District Boundaries (Grey Dotted Line)

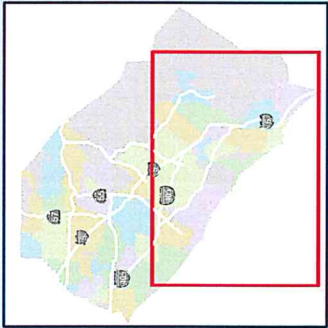
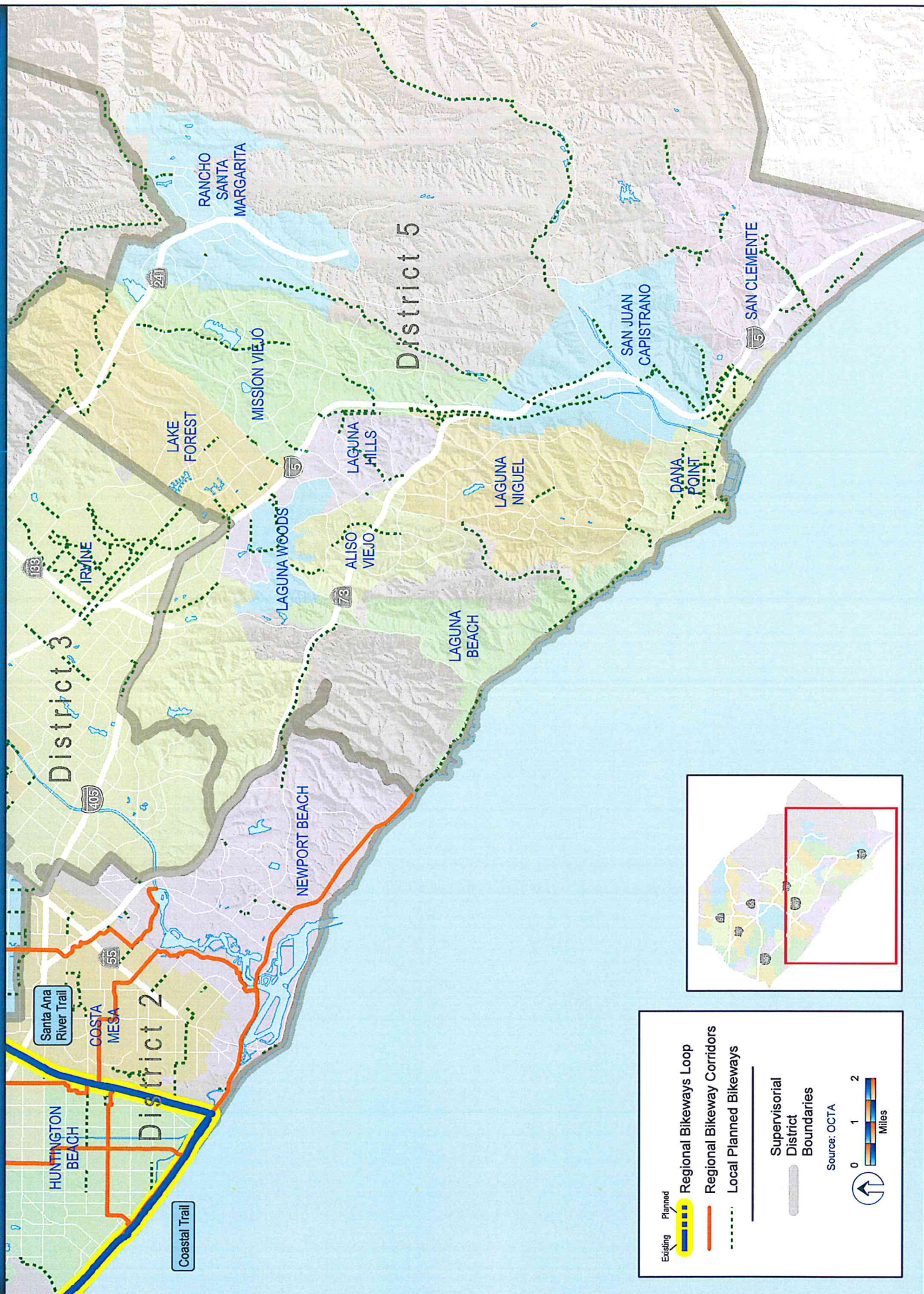
Source: OCTA

Scale: 0, 1, 2 Miles

North Arrow



# 2035 Planned Regional Bikeways Corridors - South County



**Existing** **Planned**

**Regional Bikeways Loop**

**Regional Bikeway Corridors**

**Local Planned Bikeways**

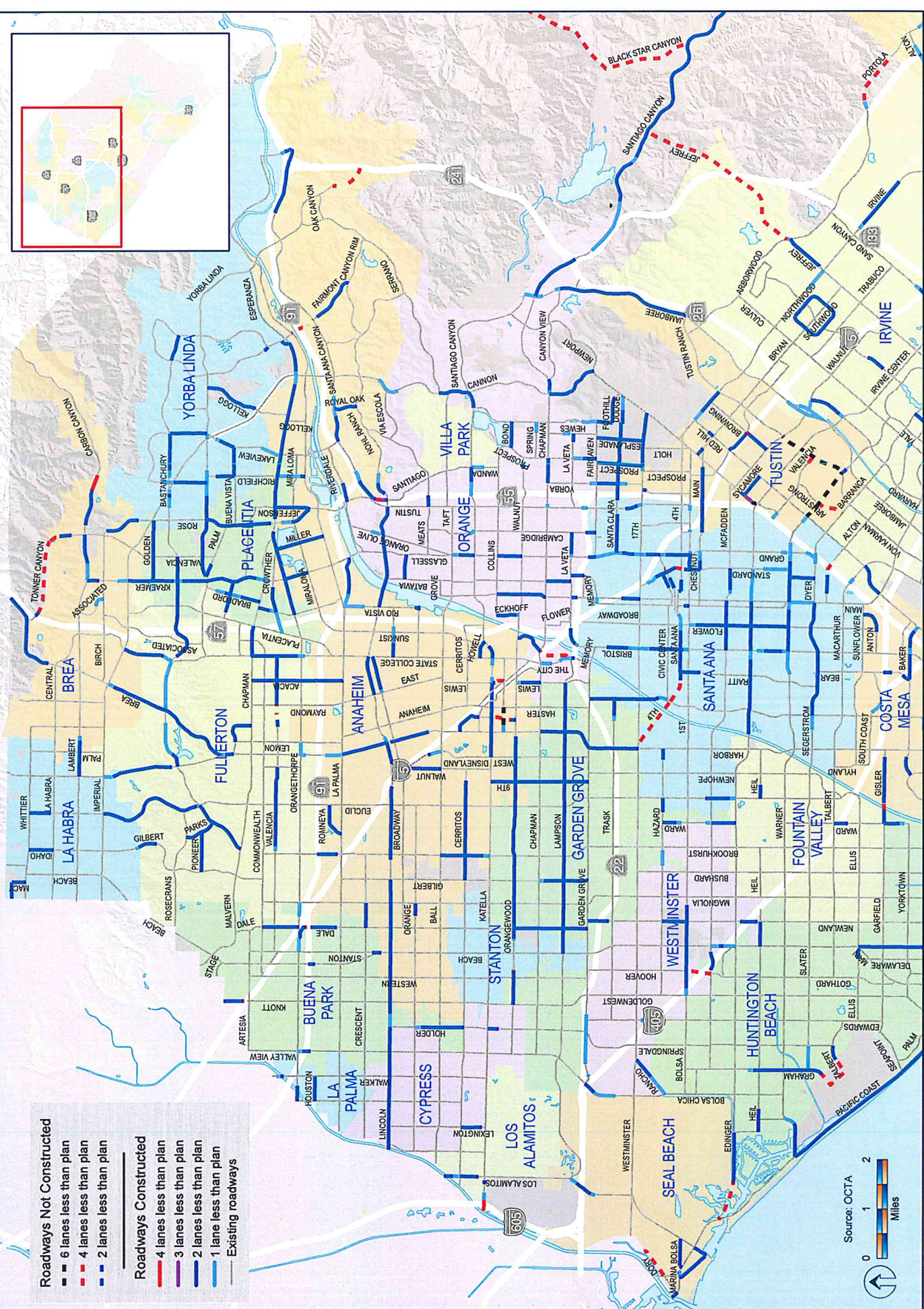
**Supervisory District Boundaries**

Source: OCTA

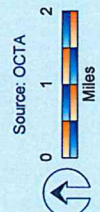
0 1 2 Miles



# Future Roadway Projects by 2035 - North County



- Roadways Not Constructed**
- 6 lanes less than plan
  - 4 lanes less than plan
  - 2 lanes less than plan
- Roadways Constructed**
- 4 lanes less than plan
  - 3 lanes less than plan
  - 2 lanes less than plan
  - 1 lane less than plan
  - Existing roadways

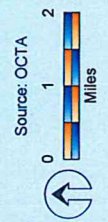




# Future Roadway Projects by 2035 - South County



- Roadways Not Constructed**
- 6 lanes less than plan
- 4 lanes less than plan
- 2 lanes less than plan
- Roadways Constructed**
- 4 lanes less than plan
- 3 lanes less than plan
- 2 lanes less than plan
- 1 lane less than plan
- Existing roadways



# 2010 Base Year AM Peak Freeway Congestion Levels



# 2035 Baseline Scenario AM Peak Freeway Congestion Levels



# 2035 Preferred Scenario Freeway and Tollway Lane Additions





# 2035 Preferred Scenario AM Peak Freeway Congestion Levels



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# 2035 Preferred Scenario AM Peak Congestion Levels Percent Improvement over 2035 Baseline Scenario



# 2035 Preferred Scenario AM Peak High-Occupancy Vehicle (HOV) Lanes and Toll Road Congestion Levels



**2035 Preferred Scenario AM Peak**

**High-Occupancy Vehicle (HOV) Lanes Congestion Levels**

- Severely Congested
- Consistently Congested
- Moderately Congested
- Not Congested

**Toll Road Congestion Levels**

- Toll Roads At or Near Capacity
- Toll Roads Below Capacity

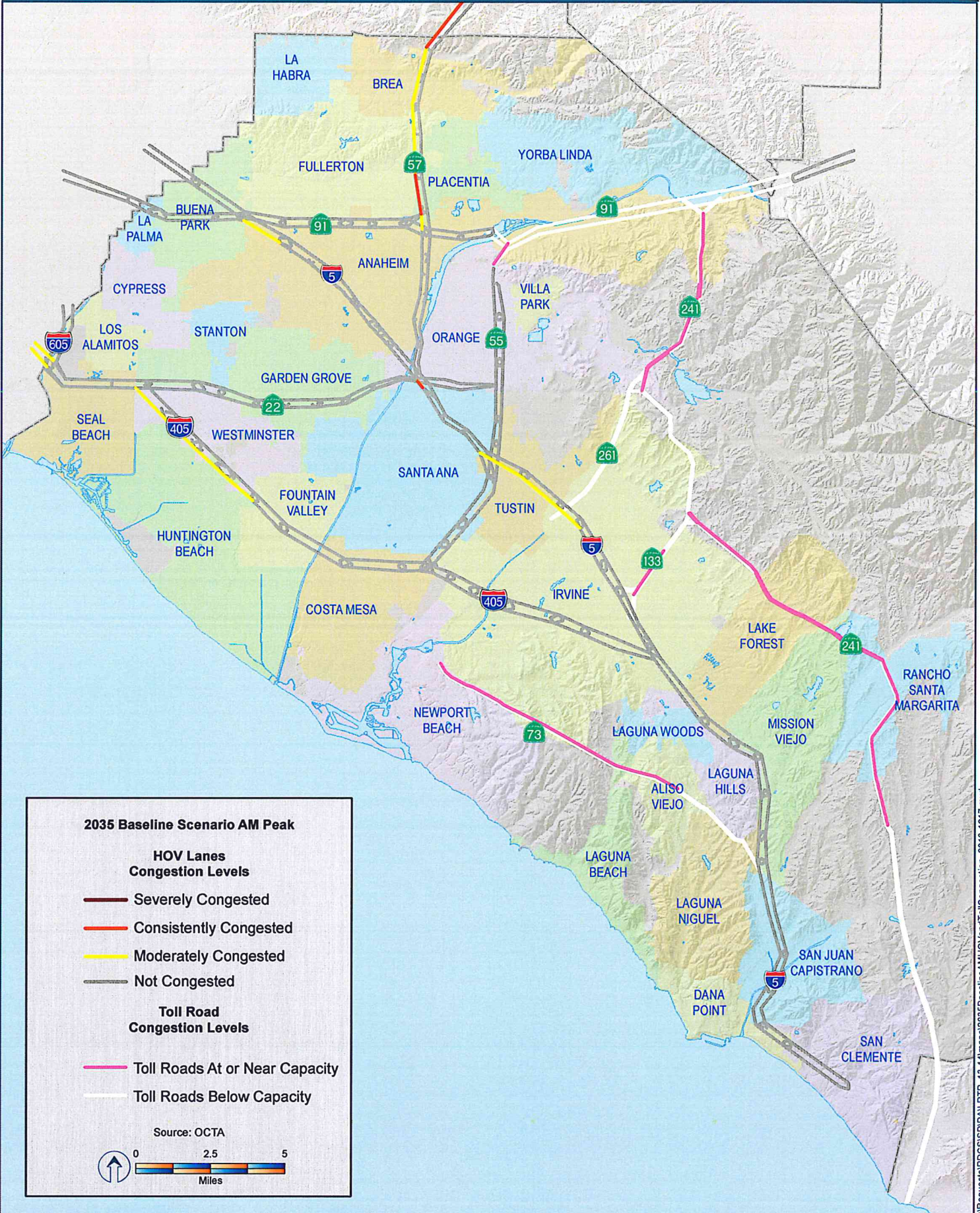
Source: OCTA

0 2.5 5  
Miles

# Orange County Managed Lanes Network



# 2035 Baseline Scenario AM Peak HOV Lanes and Toll Road Congestion Levels



**2035 Baseline Scenario AM Peak**

**HOV Lanes Congestion Levels**

- Severely Congested
- Consistently Congested
- Moderately Congested
- Not Congested

**Toll Road Congestion Levels**

- Toll Roads At or Near Capacity
- Toll Roads Below Capacity

Source: OCTA

0 2.5 5  
Miles

# 2035 Preferred Scenario AM Peak HOV Lanes and Toll Road Congestion Levels Percent Improvement over 2035 Baseline Scenario

