



MISSION  
VIEJO



*Comprehensive Bikeway* **Master Plan**





MISSION  
VIEJO

BIKEWAY  
connectivity  
MASTER PLAN

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# Preface

The City of Mission Viejo Comprehensive Bikeway and Transportation Connectivity Master Plan was prepared by City staff with assistance from LSA Associates, Inc., Nuvis Landscape Architecture and Arellano Associates. The plan will serve as a guide for developing a safe, efficient and convenient system of bike trails. It will also enhance and promote biking as a viable alternative to motorized transportation in Mission Viejo and the region.

The City implemented a robust public outreach program to engage the community throughout the 18-month process. Community meetings and the survey provided a forum for gauging the plan's perception and how it could be improved. The result reflects the goals and visions of the community as a whole.

The plan is intended initially to expand and enhance the existing bike network by addressing gaps and barriers in the current system to improve the overall experience of riding a bike in Mission Viejo for recreation or commuting to various destinations. Trail recommendations are supplemented by bicyclist and motorist education and programs; development of wayfinding signage; and programming to encourage trail etiquette and non-motorized transportation in general.

The Comprehensive Bikeway and Transportation Connectivity Master Plan is designed to be flexible and adaptable as new opportunities become available. It will be implemented over multiple decades as funding becomes available and as new development opportunities create trail easements that will continue to enhance the long-term success of the plan. To reflect any improvements or changes, the plan should be updated for community use every 5 to 7 years.

The City encourages community members to enjoy and embrace the more than 800 acres of recreational open space Mission Viejo has to offer.

# Overview

## MUNICIPAL BACKGROUND

The City of Mission Viejo is one of the largest cities in South Orange County and among the largest master-planned communities in the United States. According to the State Department of Finance (May 2018), the City's population is **95,987**. With a land area of 11,520 acres, the City's density is **8.4 people per acre**. Residents are comprised of 66.5% White, 18.9% Hispanic, 8.9% Asian, and 1.4% Black (U.S. Census Bureau American Community Survey, 2014).

The City is bounded by the City of San Juan Capistrano to the south, the City of Laguna Niguel to the west, the City of Lake Forest to the north, and the City of Rancho Santa Margarita, along with the O'Neill Regional Park, to the east. While primarily residential, the City is home to Saddleback College (serving over 25,000 students), Mission Hospital, and the Shops at Mission Viejo regional shopping center. Traffic congestion can be significant around these activity centers, especially during morning/evening commute times.

The City of Mission Viejo is seeking to develop a Comprehensive Bikeway and Transportation Connectivity Master Plan that will identify existing multi-use and biking trail gaps and propose linkages to interconnect residents, workers and students to jobs, schools, homes, parks, community facilities, and commuter rail, via an interconnected trail system.

## GENERAL TRAILS SETTING

Nearly 100 miles of trails stretch throughout Mission Viejo. The City of Mission Viejo currently has eight recreation and community center facilities and fifty-four parks and trails, totaling 1,200 acres of parks and natural open space slopes. There are seven community parks that include lighted baseball and soccer fields. The backbone of the City's trail system, Oso Creek Trail, is a 5.5-mile multi-use trail that connects several City facilities from Marguerite Parkway and Estanciero north to Jeronimo Road. Also popular with residents is the Oso Creek Trail Lake Loop, a 3-mile multi-use trail that runs around Lake Mission Viejo and along Alicia Parkway and Olympiad Road east and west and Marguerite Parkway north and south. (See Appendix A for Oso Creek Lake Loop Connectivity Plan.)

The City offers a variety of transportation options for residents and employees. Orange County Transportation Authority (OCTA) buses link the community to other areas of the county via five bus routes, and the City shares responsibility for the Laguna Niguel/Mission Viejo Metrolink Rail Station, located outside the westerly boundaries of the City of Mission Viejo in the City of Laguna Niguel. The rail station is a component of the Orange County Metrolink rail line that provides service from Oceanside in northern San Diego County to Orange County and downtown Los Angeles. The City also recently initiated a new "MV Shuttle" program, funded by OCTA's Measure M Project V Community-Based Transit program. The MV Shuttle provides transportation to several city facilities and community amenities, including the Norman P. Murray Community and Senior Center, Mission Hospital, the Metrolink station, Lake Mission Viejo, the Shops at Mission Viejo and the Marguerite Recreation Center. The shuttle also makes stops at Saddleback College, Capistrano Valley High School and Mission Viejo High School.

Despite the existence of the City's existing trails and transportation options, gaps exist that create a barrier to walking and biking as modes of transportation. One of the biggest issues facing residents and workers is the First/Last-Mile access to the Metrolink station using a seamless network of active transportation routes. Another issue is that due to high traffic volumes, residents are uncomfortable riding in the streets using the existing Class II bike lanes.

The current biking system within Mission Viejo has disjointed portions of Class I trails, including the Oso Creek Trail (Marguerite Parkway to Olympiad Road), Cordova Canyon (El Retiro to Jardines) and Los Alisos Boulevard (Entidad to Mustang Run). Mission Viejo has a significant number of Class II bike lane trails (82 miles) on all the major arterials in the City as well as a small number of Class 3 bike routes (.5 miles) located on Olympiad Road.

## LINKAGES WITHIN THE COUNTY AND REGION

Mission Viejo, as a master planned community, was carefully designed with curving streets and slopes, yet, there was no deliberate connection made to the regional trail system surrounding Mission Viejo. The Aliso Creek Regional Trail runs along the northern and western borders of Mission Viejo. The Arroyo Trabuco Regional Trail runs along the eastern border of the City at the base of the arroyo. There are limited or no direct connections to these regional trails.

In March 2015, the Orange County Transportation Authority (OCTA) released a study summarizing the results of a collaborative effort to identify and rank potential regional bikeways in south Orange County. Public input gathered from the bicyclists from Mission Viejo and other South County communities indicated to OCTA a higher interest in bike trails, especially for long distance rides. Over 55% of those surveyed in the District 5 Bikeways Strategy Report (2015), indicated that they ride their bicycles for recreation and exercise, with 54% reporting that they usually ride over 10 miles.

The proposed Mission Viejo N/S Corridor Commuter Trail is consistent with the adopted 2015 OCTA District 5 Bikeways Strategy Report (March 2015). The proposed trail will serve to connect residents from Mission Viejo to the Cities of Laguna Niguel and Lake Forest. The City's goal is that the trail will ultimately connect from the Laguna Niguel/Mission Viejo Metrolink Station to the Irvine Metrolink Station. The one-mile Jeronimo/Chrisanta Trail will connect residents from the local neighborhood along Jeronimo Road to the proposed regional trail.

## GENERAL USER PROFILE

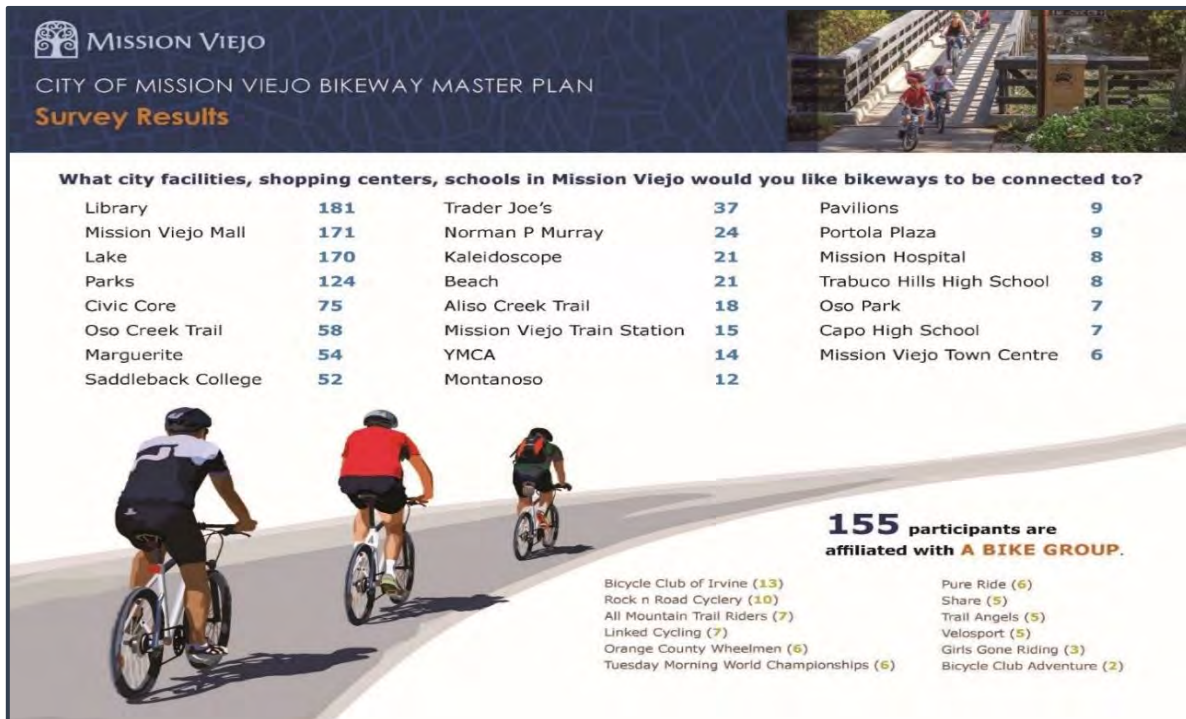
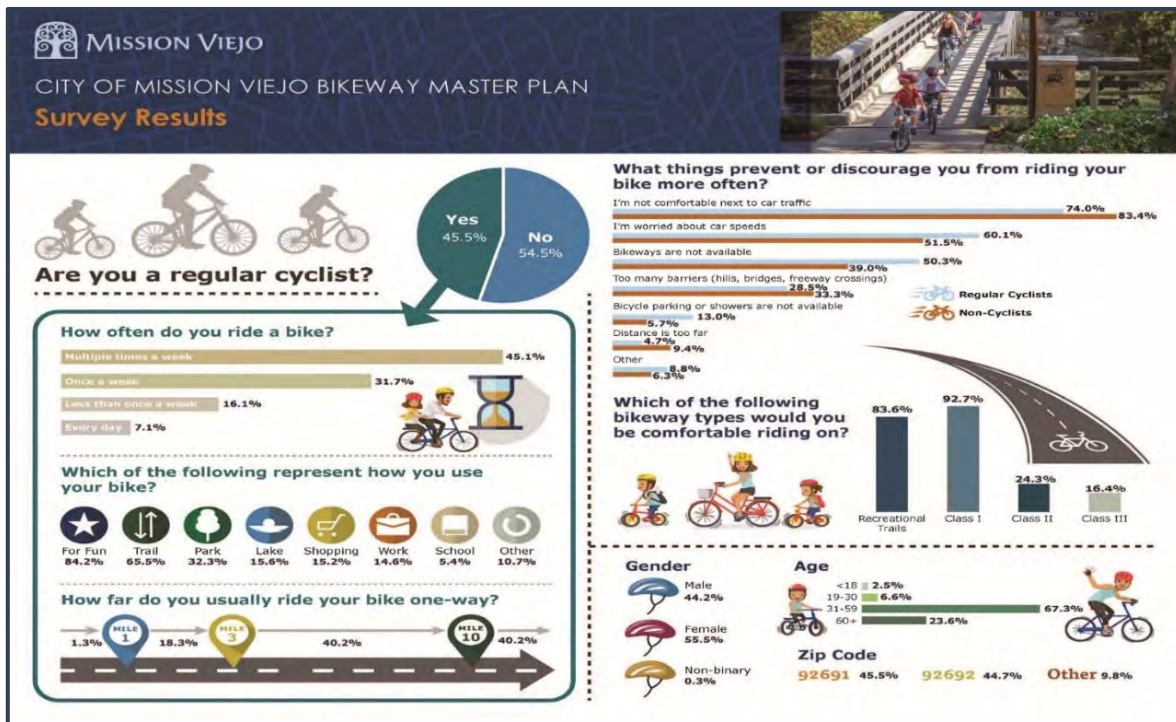
The City of Mission Viejo, in collaboration with Arellano Associates, conducted an online survey for 6 weeks in November and December 2018. The intent of the survey was to aid the City in understanding current cycling trends and preferences in order to improve the overall cycling experience for its residents. The results identified types of bicycle users, frequency of rides, destinations and the types of hindrances that prevent the community from using the current system.

Summary of bike survey results:

- We received 1,740 unique visits to the survey with 1,381 responses for a 79.4% completion rate
- Over half of participants are regular cyclists
- Over 75% of participants ride their bikes at least once a week
- Approximately 85% of participants ride "just for fun"

- Car traffic is the biggest hindrance to bike riding

The following "Pictographs" summarize the results of the survey:



(Individual comments are provided in Appendix B of this report.)

## STATEMENT OF PURPOSE OF THE PLAN

To support active transportation and recreation, the City of Mission Viejo seeks to develop a system of bikeways and trails that connect throughout the City. The City envisions the bikeways and trails network to be an integral part of its system of parks, open spaces and trails, which are considered some of **the City's** most valuable assets and a catalyst for current and future economic growth. Once implemented, the Comprehensive Bikeway and Transportation Connectivity Master Plan will allow people of all ages and abilities to experience the City using active transportation. However, The City must overcome a few unique challenges, including an extremely hilly terrain. Physical barriers like the freeway along the western City limit that provides access to the adjacent communities and crossing the Arroyo Trabuco valley along the eastern City limit are other potential challenges facing the City. Each of these topographical obstacles makes biking in Mission Viejo, especially for the recreation/casual rider, very difficult.

The City aims to increase the numbers of shopping, dining, school, and recreational trips made via bikeways and trails in order to improve public health, air quality, traffic congestion and overall quality of life for its residents. The City will provide access for cyclists, pedestrians and trail users to all areas of Mission Viejo to encourage cycling and walking as viable transportation options and to provide recreation opportunities, resulting in an improved quality of life. The system will be implemented in partnership with multiple agencies and will be based on consensus and sensitivity to the diverse viewpoints within the community.

The City of Mission Viejo has identified the following goals:

### Goal 1 Promote safe bicycle riding

- |             |  |
|-------------|--|
| Objective 1 | Design trails and bike lanes using industry standards where possible.  |
| Objective 2 | Install signage and striping to reinforce safe trail usage when appropriate.   |
| Objective 3 | Improve non-motorized safety by identifying areas of safety concern, and exploring linkages of residences, schools, and other activity centers through an internal system of Class I trails, integrated with Class II, Class III and recreational multi- use trail shared sidewalks (MUTSS). |

### Goal 2 Increase bicycle riding and trail usage

- |             |  |
|-------------|--|
| Objective 1 | Improve <b>“First/Last-Mile”</b> transit connectivity to the Laguna Niguel/Mission Viejo Metrolink Station and established bus routes. |
| Objective 2 | Conduct a comprehensive inventory of the existing and planned trail systems, identify gaps, conduct a                                  |



community survey, and identify destinations of City facilities and community assets.

Objective 3 Practice environmental stewardship by utilizing existing trails (local, county and regional) located in designated open space and riparian corridors, allow bike trail users access to enjoy the natural parks and open space corridors and convert designated existing sidewalks within Mission Viejo to Multi-Use Trail Shared Sidewalks (MUTSS).

### Goal 3 Improve access to the regional bikeway networks

Objective 1 Where possible, incorporate new trail linkages in the north, south and central portions of Mission Viejo that connect to regional bikeway systems.

### Goal 4 Increase public awareness of safe bike riding as a form of transportation and recreation and reinforce the health benefits

Objective 1 Develop an annual bike safety program with the Orange County Sheriff's Department at various schools throughout the community.

Objective 2 Create awareness with each school district of the improved bikeway system throughout Mission Viejo.

Objective 3 Work with Mission Hospital to increase awareness of bicycle safety and the health benefits of bicycle riding.

### Goal 5 Bring awareness to residents on bike trail etiquette.

Objective 1 Develop a marketing campaign aimed at trail etiquette awareness and to increase trail usage.

## STATEMENT OF NEED FOR THE PLAN

The City's current bikeway and trail system provides its residents with a functional but fractured recreation and non-motorized transportation system. The current system lacks continuity in some areas and has a number of barriers that are difficult to cross, such as the I-5 Freeway and the Arroyo Trabuco Canyon. Other challenges of the current system are the gap closures necessary to access City facilities and community assets.

This analysis provides a summary of trail and bikeway user volumes and behaviors, discusses public input gathered, and examines cyclist safety by analyzing reported bicycle accident data. GIS-based, geographic analytical tools were used to determine the quality and connectedness of the existing bikeway system. This information was used in conjunction with field visits, input gathered at public meetings, an online survey, and analysis of the existing bikeways and multi-use trail system to develop future project recommendations.

This plan also recognizes the “societal shift” and increased use of “personalized transportation,” such as non-docking scooters, bikes and e-bikes. Each of these trends will increase bikeway and trail usage.

This Bikeway Master Plan outlines the planning criteria and includes descriptions of each proposed bikeway route. The plan will be implemented over time as funding opportunities become available through grant programs, implementation of roadway improvements, regular roadway maintenance or new development.

## PUBLIC OUTREACH SUMMARY

In an effort to reach a broad section of the community, Mission Viejo implemented a public outreach program for the development of the Comprehensive Bikeway and Transportation Connectivity Master Plan. Over a 7-month period, City staff attended large and small-scale City events seeking input and bringing awareness to the master planning process.

In partnership with LSA Associates, Inc. and Arellano Associates, City staff developed an online survey that ran for 6 weeks to seek input on destinations, trip frequency, safety concerns, etc. Additionally, Mission Viejo held a public meeting and bike fair on January 26, 2019 at the Norman P. Murray Community and Senior Center. At the event, attendees were given an overview of proposed bicycle facilities and then asked to view and comment on the existing and proposed bikeways in Mission Viejo. Kiosks and laptops equipped with online, interactive tools and Social Pinpoint maps were also provided, allowing residents to add categorized feedback to a live map. The City posted the interactive Social Pinpoint maps on City websites for 6 weeks to receive additional comments from the public.

A second activity, a bike rodeo, was conducted by Safe Moves, a non-profit organization recognized as the leading authority in traffic safety education in the country. The Safe Moves program is designed to simulate the diverse traffic environments in a large city and to create problem-solving experiences for each participant via interactive “rodeos.” A Safe Moves city is a miniature version of a community and includes an interactive streetscape with scenarios that illustrate safe walking and bike riding.

All public involvement and recommendations were considered in the planning process for the City of Mission Viejo's Bikeway and Transportation Connectivity Master Plan.

The City also presented its initial master plan to the public at the Planning and Transportation and Community Services Commissions in February and March 2019, and again in September 2019, and to the City Council for review and adoption at the meeting in November 2019.

Prior to seeking City Council approval, City staff promoted the plan via social media, its daily blog and weekly newsletters, and posted the draft report on the City website for four weeks.

Documents related to the City's public outreach efforts and the online survey are available in Appendix B.

### Issues and Themes

The following summarizes the basic issues identified throughout the public input process:

1. Due to excess traffic on arterial streets adjacent to Class II bike lanes, residents prefer safer, off-road trails.

2. Shoulder widths for Class II trails vary and some are too narrow.
3. Bike related signage should be improved and pedestrian-oriented street devices should be more “bike” friendly.
4. Improved maintenance of street shoulders and increased street sweeping should be considered.
5. Line of site issues at various intersections need improvement.

### Gaps and Opportunities Analysis

Based on the public input process, the following summarizes potential gaps and missing trail links:

Trail Classification	Street	From	To	Ownership
Oso Creek Trail				
1		Jeronimo Rd.	Casta Del Sol Rd.	American Golf
1		Marty Russo Park	La Barca	Evergreen Lakeview HOA
1		La Barca	Santa Margarita Pkwy.	California Colony/Lago Vista Apts.
1		Santa Margarita Pkwy	Los Alisos	Mission Viejo/SMWD
2	Montanoso Dr.	Montanoso Rec. Center	Oso Parkway	Mission Viejo
MUTSS*		Potocki Center	Marguerite Pkwy.	Mission Viejo/Pacific Hills HOA
MUTSS	Jeronimo Road	Pavion	Olympiad Rd.	Mission Viejo

\*MUTSS – Multi-Use Trail Shared Sidewalk

Marguerite Trail				
MUTSS	Marguerite Pkwy.	La Paz Rd.	Olympiad Rd.	Mission Viejo
MUTSS	Marguerite Pkwy.	Santa Margarita Pkwy.	El Toro Rd.	Mission Viejo

Oso Creek Lake Loop Trail				
MUTSS	Olympiad Rd.	Alicia Pkwy.	Marguerite Pkwy.	Mission Viejo
MUTSS	Alicia Pkwy.	Marguerite Pkwy.	Olympiad Rd.	Mission Viejo

Santa Margarita Pkwy.				
MUTSS	Santa Margarita Pkwy.	Pinecrest	El Toro	Mission Viejo

Arroyo Trail				
MUTSS	Felipe Rd.	Marguerite Pkwy.	Jeronimo Rd.	Mission Viejo
MUTSS	Olympiad Rd.	Jeronimo Rd.	Alicia Pkwy.	Mission Viejo

Alicia Pkwy. Trail				
MUTSS	Alicia Pkwy.	Marguerite Pkwy.	Charlinda	Mission Viejo

Cross Valley Trail				
1	Arroyo Trabuco	Felipe Rd.	Tijeras Creek Golf Course	Mission Viejo/COO/RSM

Jeronimo Connector Trail				
1		Jeronimo	Chrisanta	MOO Church/Education Capital

N/S Connecting Commuter Trail				
1		Los Alisos	Alicia Pkwy.	OCTA/Mission Viejo
1		Alicia Pkwy.	La Paz Rd.	OCTA/Mission Viejo
1 & 3		La Paz Rd.	Camino Capistrano	OCTA/Freeway Center/Laguna Niguel

Arroyo Trabuco Trail				
1		Crown Valley Pkwy.	Avery Pkwy.	County of Orange

### Bicycle Crash Analysis 2008-2017

The City of Mission Viejo reviewed traffic collision data produced by the Statewide Integrated Traffic Records System (SWITRS) for the period of 2008-2017 for pedestrian and bicycle accidents. In general, bicycle and pedestrian accidents are underreported, as most minor collisions that do not involve injury or significant property damage are unlikely to produce a police report.

A summary of the accident crash rate is shown on the next page. The majority of the reported crashes occurred along the arterial system. Crash incidents per capita in Mission Viejo are generally below the state average for the 5-year comparison. The data indicates that while the crash incident rate is low, providing alternative bikeways to many of the major streets will enable residents to get around the City safely and will help to reduce the number of crashes.

State of California

	<b>Total Bicycle/Pedestrian Crashes</b>	<b>State Population</b>	<b>Bicycle/Pedestrian Crash Rate</b>
2013	13,378	38,347,383	0.000349
2014	13,112	38,701,278	0.000339
2015	12,761	39,032,444	0.000327
2016	11,880	39,296,476	0.000302
2017	11,274	39,536,653	0.000285

City of Mission Viejo

	<b>Total Bicycle/Pedestrian Crashes</b>	<b>City of Mission Viejo Population</b>	<b>Bicycle/Pedestrian Crash Rate</b>
2013	44	94,202	0.000467
2014	23	94,433	0.000244
2015	16	94,985	0.000168
2016	24	95,510	0.000251
2017	20	95,985	0.000208

## GENERAL DESIGN PARAMETERS

### Use of State and Regional Standard Plans and Details

The design of the Comprehensive Bikeway and Transportation Connectivity Master Plan will rely on state and county standard plans for trail design and details to provide clear and consistent messaging and to provide “**familiarity**” to bicyclists as they ride through the City of Mission Viejo. In some areas, trail system standards will be implemented for safety purposes and to accommodate the unique spatial and topographical challenges of the City.

### Signage and Marking

To improve the biking experience in Mission Viejo and to facilitate more regional trips by bike, marking of the on-street bikeways and wayfinding on the Multi-Use Trail Shared Sidewalks (MUTSS) will provide information on direction and distance to key destinations and other routes. Bicycle wayfinding signs also caution motorists that bike riders may be present. The wayfinding program will include both signage and pavement markings to create the most effective system and to reduce excessive sign blight.

### Trail Safety

The Comprehensive Bikeway and Transportation Connectivity Master Plan will require analyzing, on a case by case basis, critical street crossings for the Multi-Use Trail Shared Sidewalks (MUTSS), updating City ordinances to legitimize sidewalks that will be used as MUTSS bikeways and implementing a comprehensive public outreach program that educates bicyclists on traffic laws and trail etiquette.

## PLAN LAYOUT AND DEFINITIONS

The following section provides descriptions of the various types of cyclists currently using the City's trail system. Additionally, this section includes descriptions of existing and proposed trails that will make up the Comprehensive Bikeway and Transportation Connectivity Master Plan.

Mission Viejo's existing bikeways and trails provide the City with a functioning non-motorized transportation system. However, the current trail network lacks continuity in some areas. Our plan to close key gaps in the system includes repurposing off-road opportunities, existing sidewalks, dirt trails and drainage channels and adding signage and striping as necessary to designate these areas as multi-use.

It is our goal to make each trip as safe and comfortable as possible by providing a range of options across the city. Most bicyclists, particularly less experienced riders, are more comfortable riding on a trail or busy street if it has a dedicated, striped bike lane and appropriate signage. Providing these marked safety features and amenities will also encourage new riders who would otherwise be hesitant to try bicycling.

## Users

The needs and preferences of cyclists vary depending on skill level, equipment, and/or trip purpose. For instance, bicyclists who ride strictly for recreational purposes may prefer scenic trails, while cyclists who ride to work may prefer more direct routes. A properly planned trail system can reduce conflicts between user groups and effectively accommodate a variety of users.

Based on the survey conducted during the analysis process of the plan, the City is home to a variety of bicycle users of varying skill and need levels, as described below:

### *Advanced Cyclists*

Experienced cyclists are riding for speed and convenience. Cyclists who ride their bikes to work or to run errands and who ride multiple times per week may find that on-street facilities are the most convenient and direct. They are not as concerned about riding near traffic on street trails. In addition, these riders may prefer more direct connections to their destinations rather than scenic and winding trails. Finally, these riders are less likely to encounter conflicts between user types (pedestrians, skaters, etc.).

### *Beginning Cyclists, Recreational Cyclists & Children*

This category includes a larger user profile of cyclists. The users in this category include children, seniors, and beginner adults. In our survey, all the respondents in this group prefer riding on off-road, Class 1 trails and Multi-Use Trail Shared Sidewalks (MUTSS) because they do not feel safe riding on Class II roads with fast and busy motor vehicle traffic. In spite of this, there is generally a portion of every trip that requires using the street system. With education, encouragement and experience, users in this group may develop the confidence to ride on other types of bikeways.

## Existing Facilities

Mission Viejo's bikeway and trail system consists of Class I, II and III bike routes. The City currently has roughly 100 miles of Bike Trails. Approximately 82 miles of the City's bicycle facilities are Class II, on-street bike lanes. The City currently has 18 miles of Class I bike trails. Class I trails are completely separated from any street or highway. A map of the existing trails for bicyclists and trail users is available in Appendix C.



The following is a description of the existing and proposed trail types located in Mission Viejo:

### Bicycle Trail Types

Class I Bike Trail – Typically called a trail or bike path, this shared path for bicycle travel is on a paved right-of-way, completely separated from any street or highway. These trails are particularly popular with novice cyclists. Because they are used by all skill levels of riders and can become crowded, they are generally avoided by experienced cyclists. Caltrans guidelines contained in the Highway Design Manual Guidelines Chapter 1000 allow for both bicycle and pedestrian use of these trails.

in Mission Viejo, the most notable Class I trail is the Oso Creek Trail.



Class I trails are typically 8-**12'** wide depending on the anticipated volume of use. A 10' wide path is standard with a 2' flat shoulder on either side of the trail.

### Class I Trails

Oso Creek Trail (5.5 miles of total trails)

- Character Garden Trailhead (25552 Marguerite Parkway)
- Potocki/World Cup Soccer Center Trailhead (27301 La Paz Road)
- Pavion Park Trailhead (24051 Pavion)
- Oso Creek Trailhead - Norman P. Murray Community and Senior Center (24932 Veterans Way)

Class II Bike Lane- These are often referred to as bike lanes and provide a striped and stenciled lane for one-way travel on a street or highway. A bike lane is defined as a minimum 1.5 meter (5 foot) portion of the roadway, against a curb or adjacent to a parking lane, that has been designated by striping, signage, and pavement markings for the exclusive use of bicyclists. When properly designed, bike lanes help improve the visibility of bicyclists and enable bicyclists to ride along a roadway or highway without interference from prevailing traffic conditions.



In Mission Viejo, all of the City's arterial streets (La Paz Road, Alicia Parkway, Marguerite Parkway, Los Alisos Boulevard, Crown Valley Parkway, Oso Parkway, Trabuco Road, Jeronimo Road, and Olympiad Road) have dedicated, Class II bike lanes.

### Class II Trails

Marguerite Parkway from El Toro Road to Avery Parkway (Arroyo Trabuco Trailhead)

Crown Valley Parkway from the east city limit to the 5-Freeway

Felipe Road/Olympiad Road from Marguerite Parkway to Santa Margarita Parkway

Santa Margarita Parkway from the east city limit to the west city limit/boundary

Los Alisos Blvd. from the east city limit to the city limit north of Rockfield in Lake Forest

Alicia Parkway from the east city limit to the 5-Freeway

La Paz Road from the 5-Freeway to Felipe Road/Olympiad Road

Jeronimo Road from Los Alisos Blvd. to the Pavilion Park Trailhead

Muirlands Blvd. from Los Alisos Blvd. to the 5-Freeway

Oso Parkway from the east city limit to the 5-freeway

Trabuco Road from Marguerite Parkway to the west city limit

Multi-Use Trail Shared Sidewalk (MUTSS) - This trail designation is unique to Mission Viejo and is based on the design parameters of a Class I bike trail with varying standards based on existing conditions. The intent of this designation is to convert certain existing 8' wide sidewalks to multi-use trails that support both pedestrians and bicyclists.

These MUTSS are critical to the plan and will encourage and increase opportunities for riders of all abilities to safely ride off of the traveled Class II lanes. *This was the number one request of community members who responded to the online survey.*

Adequate signage and minor pavement markings will be installed along the MUTSS trails to communicate trail etiquette, to indicate right-of-way use between pedestrians and cyclists, and to provide notice when trail widths narrow due to existing conditions. Trail "passing zones" will be installed in areas where trail width can only accommodate a single direction bicyclist, allowing an opportunity for safe passing.



This new designation of trails, MUTSS, will be located along portions of Alicia Parkway, Marguerite Parkway, Jeronimo Road, Olympiad Road/Felipe Road, Los Alisos Boulevard, Santa Margarita Parkway and La Paz Road.

### Multi-Use Trails

Arroyo Trabuco Trail (15-mile Mountains to Sea trail)

- Beebe Park Trailhead (24190 Olympiad Road)
- Arroyo Trabuco Trailhead (End of Avery Parkway)

Oso Creek Lake Loop Trail (3.1-mile loop around Lake Mission Viejo)

- Florence Joyner Olympiad Park Trailhead (22760 Olympiad Road)

Wilderness Glen (2.1 miles of total trails)

- Wilderness Glen Trailhead (22500 Los Alisos Blvd at Vista Del Lago)

Aliso Creek Trail (18.5-mile trail corridor) ~ *Most of this trail is located outside of Mission Viejo City Limits* ~

- Aliso Creek Trailhead (20702 El Toro Road at Marguerite Parkway)

Class III Bike Routes- Generally referred to as a bike routes, these provide for shared use with pedestrian or vehicular traffic and are identified solely by signage along the route. This is only recommended when there is enough right-of-way for both bicyclists and motorists to safely pass.



Olympiad Road, along the lakefront, is the only arterial in the City with a small section of Class III bike route.

#### Existing Trailheads

##### Arroyo Trabuco Trail - Beebe Park Trailhead

24190 Olympiad Road Mission Viejo CA 92691

##### Arroyo Trabuco Trail - Arroyo Trabuco Trailhead

26772 Avery Pkwy Mission Viejo CA 92691

##### Oso Creek Trail - Character Garden Trailhead

25552 Marguerite Parkway Mission Viejo CA 92691

##### Oso Creek Trail - Potocki/World Cup Soccer Trailhead

27301 La Paz Road Mission Viejo CA 92691

##### Oso Creek Trail - Pavion Park Trailhead

24051 Pavion Mission Viejo CA 92691

##### Oso Creek Trail – Norman P. Murray Community and Senior Center

24932 Veterans Way, Mission Viejo, CA 92692

##### Arroyo Trail (Cordova Park)

26931 El Retiro Mission Viejo CA 92692

Oso Creek Trail Lake Loop - Florence Joyner Olympiad Park Trailhead  
22760 Olympiad Road Mission Viejo CA 92691

Wilderness Glen Trail - Wilderness Glen Trailhead  
22500 Los Alisos Blvd at Vista Del Lago Mission Viejo CA 92691

Aliso Creek Trail - Aliso Creek Trailhead  
20702 El Toro Road at Marguerite Parkway Mission Viejo CA 92691

Sycamore Park  
25101 Charlinda, Mission Viejo CA 92691

Existing City Facilities with Bike Racks

Mission Viejo Library

Mission Viejo City Hall

Marguerite Aquatics Complex

Norman P. Murray Community and Senior Center

Marguerite Tennis Pavilion

Felipe Recreation Center

Cordova Park

Sierra Recreation Center

## City Standard Bicycle Rack

The City of Mission Viejo strongly encourages city standard bike rack installation for all new development. This allows users an adequate, consistent and secure bike parking program as they travel throughout the City.

Model	Description	Weight
1702-03P	Round-Up Bollard Bike Rack 3-1/2" Post with 2 Rails	75 lbs.

Post and rails are fabricated with galvanized steel. All Rails are 2-3/8 O.D. Post caps are cast aluminum and secured with rivets at the factory. Comes standard as In-Ground Mount.



Bike racks at Mission Viejo Civic Center

# Plan Vision

## PURPOSE AND NEED

The City of Mission Viejo Comprehensive Bikeway and Transportation Connectivity Master Plan was developed to meet the following basic goals

- To increase, improve and enhance bicycling in the City of Mission Viejo as a safe, healthy, and enjoyable means of transportation and recreation
- To provide a reference document that can be used to guide future decisions regarding land use and future development, to prioritize funding for capital expenditures and to give guidance on funding future bicycle projects
- To provide a plan that is adaptive and flexible and seeks to use existing City assets in combination with newly developed City facilities to

provide a comprehensive bikeway plan that increases access and encourages more community members to utilize the City's trail system

- To educate the community on the need for having a clearly defined network of trails that connect residents and businesses to City recreation and civic facilities, Lake Mission Viejo, and local and regional shopping and eating establishments
- To connect Mission Viejo to regional trail systems along the eastern and western edges of the City

## GENERAL PLAN FRAMEWORK

The following sections are taken from the various City of Mission Viejo adopted planning documents that support the implementation of trails:

### Circulation Element Policies (August 2013)

#### Bicycle, Pedestrian and Equestrian Facilities

**Goal 14** Protect and encourage non-motorized transportation such as bicycle, pedestrian, and equestrian travel.

**Policy 14.2** Provide safety of pedestrians, bicycles and equestrians by adhering to national standards and uniform practices.

**Goal 15** Plan, provide and maintain a comprehensive bicycle trail network that links with the regional trail system and encourages use of bicycle trails for commuter and recreational purposes.

**Policy 15.2** Support and coordinate the development and maintenance of bikeways in conjunction with the County of Orange Master Plan of County Bikeways and the Orange County Transportation Authority Commuter Bikeways Strategic Plan, to ensure that local bicycle routes will be compatible with routes of neighboring jurisdictions.

**Policy 15.3** Encourage the provision of an accessible and secure area to bicycle storage at all new and existing developments.

**Policy 15.4** Provide bicycle racks and storage facilities at all areas of public forum whenever possible.

**Goal 16** Plan and provide a pedestrian network that links residential, employment, schools and commercial facilities to public sidewalks and bus stop locations.

**Policy 16.1** Maintain existing pedestrian facilities and encourage new development to provide pedestrian walkways between developments.

**Policy 16.2** Ensure accessibility of pedestrian facilities to students, the elderly and disabled.

**Goal 17** Promote linkage of residences, schools, shopping centers and other public facilities through an internal system of trails.

**Policy 17.1** Utilize easements and or rights-of-ways along flood control channels, public utilities rights-of-way, railroad rights-of-way and street rights-of-way wherever possible for the use of bicycles and or equestrian trails.

**Policy 17.5** Explore potential trail linkages with regional bicycle, riding, hiking and equestrian trails, where possible.

## Conservation/Open Space Element Policies (August 2013)

### Establish a Balanced Recreational Facility System

A comprehensive recreational system should contain components aimed at providing recreational opportunities to meet the needs of all residents living in the community. A recreational system generally contains active and passive recreational opportunities such as parks, sports fields, hiking and biking trails and natural open spaces. As Mission Viejo has approached buildout, the need to complete its recreational system has become more important. Several opportunities exist in the City to extend and expand recreational facilities to enhance Mission Viejo's recreational and open space system.

**Goal 3** Provide for the orderly development of exceptional recreation programs, recreation facilities, parks, and open space areas in the City.

**Policy 3.9** Provide a range of recreational facilities, including physical, cultural, and social types serving all ages, to meet the needs of City residents.

**Policy 3.10** Preserve public and private open space lands for active/passive recreational opportunities

**Policy 3.11** Utilize easements as open space linkage corridors.

## Open Space Plan (August 2013)

### Relation to the Land Use Plan

The open space in the City plays an important role in the lives of Mission Viejo residents. Mission Viejo was developed with several open space amenities including local and community parks, recreation facilities, pedestrian and bicycle trails and other public open spaces. Due to its proximity to regional trails that connect the Cleveland National Forest to the Pacific Ocean and to local recreational facilities (see Figure COS-4 in Appendix D), regional recreational opportunities also exist in Mission Viejo. Further opportunities exist to complete the linkages between the open space resources in the City to form a contiguous system of open space. (See Figure COS-6 Existing and Proposed Open Space and Trail opportunities in Appendix E).

## Community Services Master Plan (January 2015)

**Policy 3.3** Coordinate and cooperate with adjacent jurisdictions to develop and enhance adjacent open space lands, regional parks, and access to parkland.



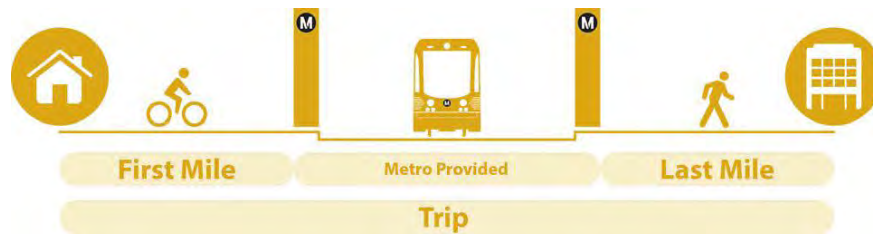
**Objective 3.3.a** Prepare a precise open space and trail plan integrating parks, open space features, and school sites, and connecting the City system to the regional system, preserving wildlife and habitat corridors, sensitive lands, and important topographic features in the City.

**Policy 3.4** Participate and assist in the implementation of the regional parks/open space/trails corridors such as the Aliso Creek, Arroyo Trabuco Creek and San Juan Creek Corridors.

**Objective 3.4.a** Develop a trail system that integrates open space and develop areas to create trail corridors.

## FIRST/LAST MILE FACILITIES

The first and last miles are terms used to describe missing links in urban areas where most of the geographic area of a city lies beyond an easy walking distance to mass transit. One goal of the plan is to increase the perception of cycling from a recreational activity to an efficient transportation mode by developing a cycle-friendly environment that addresses first and last mile barriers to transit services. This is accomplished by providing new facilities that encourage people to ride who may not otherwise consider biking.



The Mission Viejo Comprehensive Bikeway Master Plan proposes a few of these “connecting links”:

Jeronimo/Chrisanta Trail - Class I - The master plan includes a connecting link from Jeronimo Road to Chrisanta Road and from Chrisanta Road to the proposed “South County Commuter Bikeway Trail.” The proposed link-trail is about 1 mile long and connects residents from the heart of the residential areas to a proposed regional trail that runs along the railroad right-of-way.

There are several MUTSS (Multi-Use Trail Shared Sidewalks) that will also serve as “connecting links” to other Class I trails and regional trails bordering Mission Viejo. These connecting links include the following trails:

Alicia Parkway MUTSS - Connects to Lake Mission Viejo and the Aliso Creek Trail

Jeronimo MUTSS - Connects the Class I Oso Creek Trail to the Marguerite Parkway MUTSS and the Lake Loop Trail MUTSS

Marguerite Parkway MUTSS - Connects the proposed north extension of the Oso Creek Trail to the Aliso Creek Regional Trail

Santa Margarita Parkway MUTSS - Connects the Proposed north extension of the Oso Creek Trail to the Aliso Creek Regional Trail at El Toro Road and Trabuco Hills High School

## RIDE SHARE PARKING LOTS

Park and ride facilities or parking lots provide public transport connections that allow commuters traveling to local and regional destinations to leave their vehicles and transfer to public transportation or to carpool to their final destinations. Park and ride locations in Mission Viejo include the following:

1. William S. Craycraft Park  
23650 Via Linda, Mission Viejo, CA 92691
2. Civic Center Parking Lot  
200 Civic Center, Mission Viejo, CA 92691

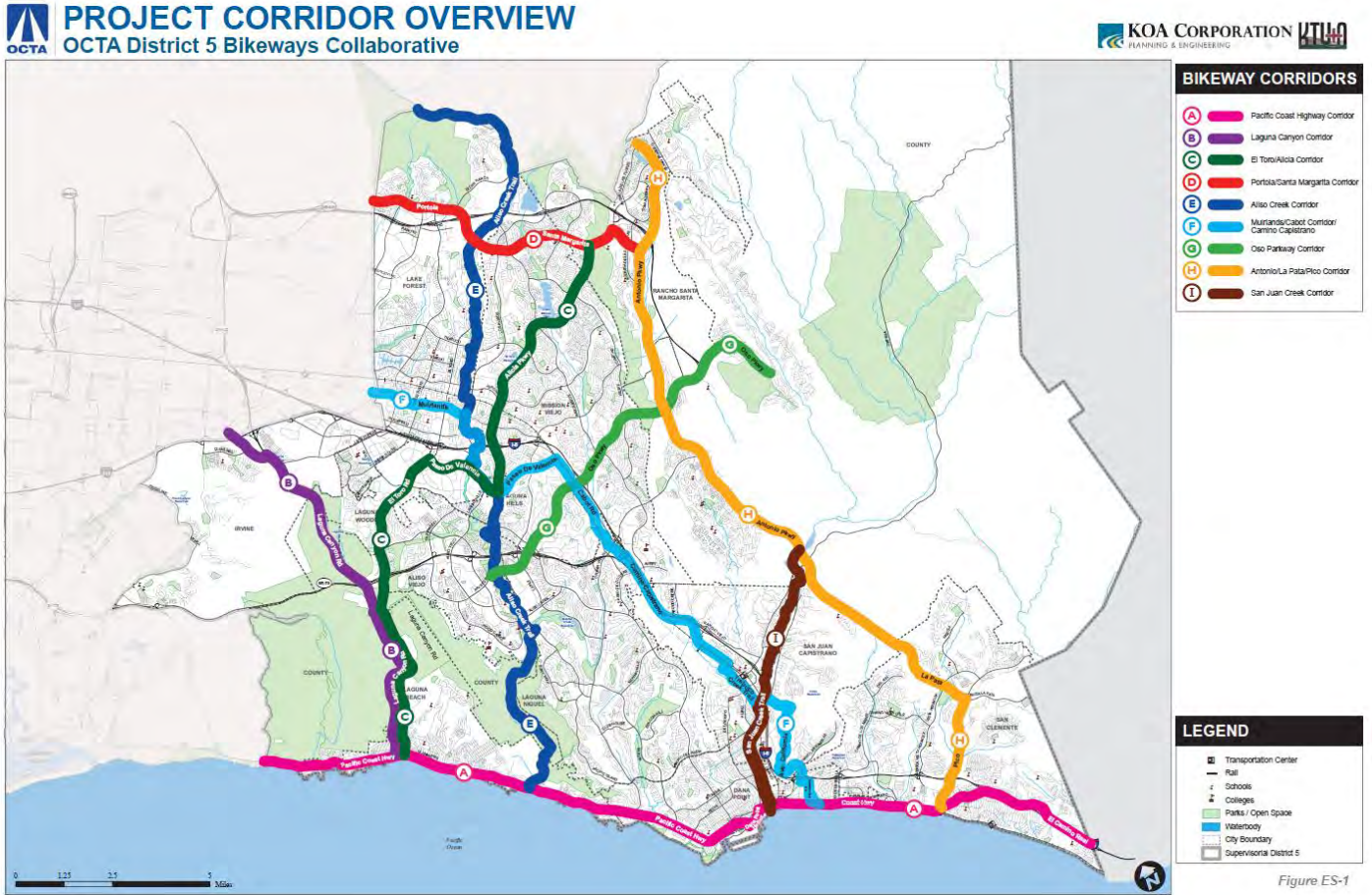
## REGIONAL CONTEXT

Over 400 miles of recommended regional bikeway corridors were identified as part of a countywide effort involving OCTA, the Orange County Council of Governments, local jurisdictions, and bicycle stakeholders. Beginning in 2011, four subareas of Orange County were studied: North, West/Central, South, and the Foothills.

As part of this effort, bicyclists from Mission Viejo and other South County communities indicated to OCTA a higher interest in bike trails, especially for long distance rides. Over 55% of those surveyed in the District 5 Bikeways Strategy Report (2015), indicated that they ride bicycles for recreation and exercise with 54% reporting that they usually ride over 10 miles.

The OCTA District 5 Bikeways Strategy Report (March 2015) proposed nine regional bikeway corridors to improve bikeway connectivity throughout South Orange County. The bikeways are comprised of both existing and new proposed segments. After evaluating each of the segments in terms of relative potential benefit for regional connectivity, improved safety, access to key destinations, significant public support and limited physical barriers, Corridor F – Muirlands/Cabot/Camino Capistrano ranked among the top three.

The Mission Viejo N/S Corridor Trail is consistent with Orange County District 5 Bikeway Corridor F (adopted 2015 OCTA District 5 Bikeways Strategy Report). However, although the endpoints are the same, the proposed route of the Mission Viejo N/S Corridor Trail differs from OCTA District 5 Bikeway Corridor F in that it connects directly into the heart of Mission Viejo. (See Appendix F for detailed maps of Orange County District 5 Bikeway Corridor F.)



See Appendix F for large-scale version of this map

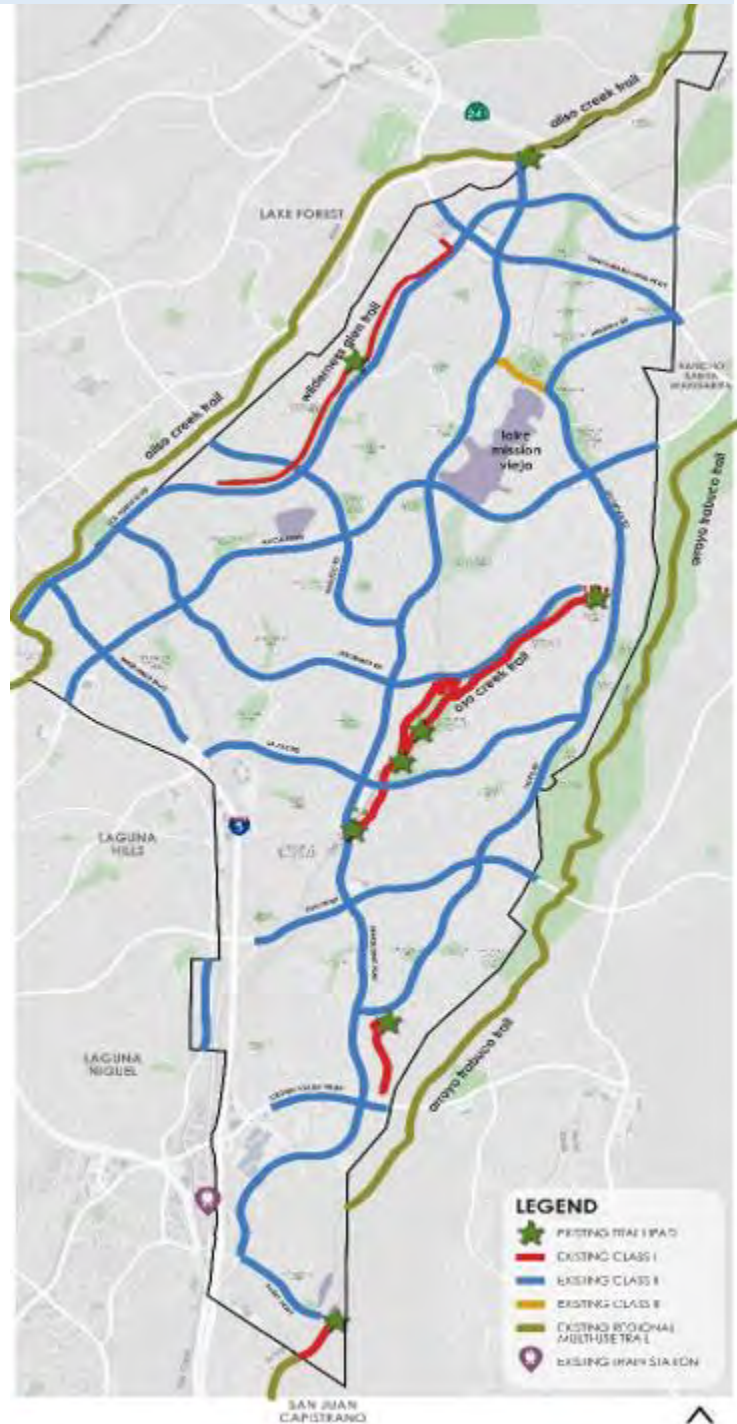
# Existing Setting

## EXISTING BICYCLE NETWORK

The existing trail system for the City of Mission Viejo is fractured and disconnected. Although the City was developed as a master planned community, the trail system provides limited connections to local activity nodes and minimal access to regional facilities.

The current system is comprised of 18 miles of Class I routes, primarily along the Oso Creek Trail and portions of Wilderness Glen. The majority of the City's bicycle trails are Class II lanes along arterial streets. At present, the City has 82 miles of Class II trails. These include the following:

1. Marguerite Parkway
2. Santa Margarita Pkwy
3. Jeronimo Road
4. Alicia Parkway
5. La Paz Road
6. Trabuco Road
7. Olympiad Road
8. Oso Parkway
9. Crown Valley Parkway
10. Muirlands Blvd
11. Cabot Road
12. Felipe Road
13. Los Alisos Blvd.



See Appendix C for large-scale version of this map



MISSION VIEJO  
CITY OF MISSION VIEJO BIKEWAY MASTER PLAN  
Survey Results



**What city facilities, shopping centers, schools in Mission Viejo would you like bikeways to be connected to?**

Library	181	Trader Joe's	37	Pavilions	9
Mission Viejo Mall	171	Norman P Murray	24	Portola Plaza	9
Lake	170	Kaleidoscope	21	Mission Hospital	8
Parks	124	Beach	21	Trabuco Hills High School	8
Civic Core	75	Aliso Creek Trail	18	Oso Park	7
Oso Creek Trail	58	Mission Viejo Train Station	15	Capo High School	7
Marguerite	54	YMCA	14	Mission Viejo Town Centre	6
Saddleback College	52	Montanoso	12		

**155 participants are affiliated with A BIKE GROUP.**

Bicycle Club of Irvine (13)	Pure Ride (6)
Rock n Road Cyclery (10)	Share (5)
All Mountain Trail Riders (7)	Trail Angels (5)
Linked Cycling (7)	Velosport (5)
Orange County Wheelmen (6)	Girls Gone Riding (3)
Tuesday Morning World Championships (6)	Bicycle Club Adventure (2)

## EXISTING ACTIVITY NODES

The City of Mission Viejo is a vibrant community and has several primary activity nodes. These nodes can be categorized into three basic areas in Mission Viejo.

The Northern Activity Node runs along Santa Margarita Parkway and provides easy access to shopping and restaurants. Trabuco Hills High School is also located within this node.

The Central Activity Node is located from Alicia Parkway south to Oso Parkway. This is the largest activity node and includes the Civic Core along with Lake Mission Viejo. Activities within this node include Lake Mission Viejo, the Library, City Hall and the Norman P. Murray Community and Senior Center. Community-based shopping can also be found within this node.

The Southern Activity Node, located from Crown Valley Parkway to Avery Parkway, is the regional activity node. Within this area, you will find the Shops at Mission Viejo regional mall, Mission Hospital Regional Medical Center, Kaleidoscope Entertainment Center and other national merchandise chains.

## CURRENT PROGRAMS

At this time, the City does not have a long-term bicycle safety program in place, nor do we routinely offer programs to the community to promote bicycling. While on-road bicycling is a part of Mission Viejo's rich Olympic history, the City needs to increase programming efforts to encourage bicycling to school and for recreational use and will continue to promote bicycle transportation citywide.

# Mission Viejo

## COMPREHENSIVE BICYCLE PLAN

### THE PLAN

The proposed plan evaluated the existing conditions and trail system, developed a list of activity nodes and destinations, solicited comprehensive public input and took advantage of unused infrastructure to develop a long-term, comprehensive Bicycle Master Plan. The plan identifies gaps and missing links and exploits existing sidewalk infrastructure to fill trail gaps and to link critical activity nodes together.

### MISSING LINKS

#### Major Linkages and Gaps

Although the City is currently home to Class I, Class II and multi-use bicycle facilities, major north/south and east/west gaps remain. Our plan proposes new bikeways and trails in locations where connectivity needs to be enhanced in addition to new routes that do not currently exist.

The Mission Viejo N/S Corridor Trail & Jeronimo/Chrisanta Trail is a high priority corridor for the South County Region. This is a new, 10-12 ft. shared bicycle facility, connecting the City of Mission Viejo to and from the Laguna Niguel/Mission Viejo Metrolink Station at the south end and continuing north to the Lake Forest boundary line and the Aliso Creek Trail. This trail runs primarily along the OCTA railroad corridor and may potentially continue north to the Irvine Metrolink Train Station. A second trail, a first/last mile connector trail, is the Jeronimo/Chrisanta trail. This trail is an existing flood control channel/open space, and it will serve to connect the residents of central Mission Viejo to the Mission Viejo N/S Corridor Trail.

Located on the western edge of Mission Viejo, the Mission Viejo N/S Corridor Trail is bounded by Los Alisos Blvd and connects to the Aliso Creek Regional Trail to the north and the Laguna Niguel/Mission Viejo Metrolink Station to the south. The Jeronimo/Chrisanta Trail is bounded by Jeronimo Road to the east and Chrisanta Drive and the Mission Viejo N/S Corridor Trail to the west.

This proposed trail builds upon other efforts by OCTA to expand non-motorized transportation choices by improving safety, addressing existing barriers and increasing the number of Metrolink riders who walk or bicycle to and from the stations. The majority of the trail is off-street Class I with some Class II segments and provides a safer alternative to all Class II on-street bike lanes that cross over the I-5 freeway. It also provides a more direct path, thus reducing trip length. The design of the off-street trail will minimize potential conflicts with motor vehicles and will attract a wider range of age and bicycle skill groups, which helps promote active transportation choices for a greater number of residents.

In order to extend the Oso Creek Trail to the north, another proposed multi-use trail runs from La Paz Road on the east side, using the existing concrete sidewalk along Marguerite Parkway to Alicia Parkway. This trail continues around Lake Mission Viejo and runs north of Olympiad Road, down a new access ramp, and through the Marty Russo Youth Athletic Park, along the Oso Creek Open Space. The trail then crosses at La Barca and again at Santa Margarita Parkway, via a new, proposed traffic signal. Following that, it extends north through Pinecrest Park to Los Alisos Blvd., and then on-road to El Toro Road, ultimately connecting to the Aliso Creek Regional Trail. Proposed trailheads along this route include the Vista Del Lago Shopping Center Trailhead, the Marguerite Recreation Center Trailhead and the Alicia/Marguerite Lakeside Park Trailhead.

At the south end of the City, a proposed combination multi-use/Class I trail connects the existing Cordova Park Trail to the Arroyo Trail. The trail crosses under Crown Valley Parkway and connects to the County trail to the east. It then continues on to the existing Class I leg of the Arroyo Trabuco that begins at the Arroyo Trabuco Trailhead.

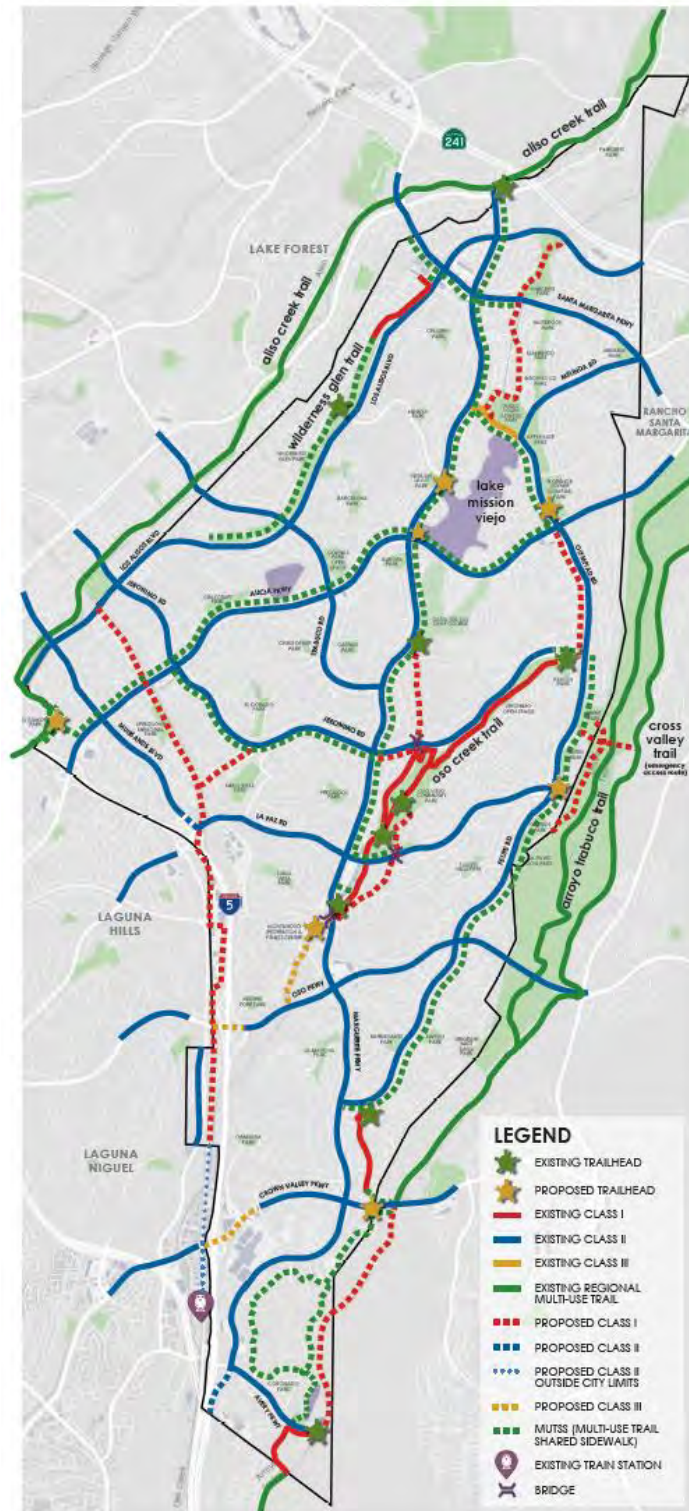
Just west of that is the proposed multi-use Arboretum Trail that runs from the south City limit, past Avery Parkway, and around Saddleback College.

On the City's east side, a proposed combination MUTSS/Class I trail begins at the existing Cordova Park Trailhead, running north on the eastern edge along Felipe Road/Olympiad Road, intersecting the Cross-Valley Trail to the east, and continuing around the east side of Lake Mission Viejo, ultimately connecting to the north Oso Creek Trail link at Marguerite Parkway.

At the eastern City limit, the existing Class I section of the Arroyo Trail runs through Cordova Park and crosses under Crown Valley Parkway. To the south, an access ramp at Jardines is proposed at the intersection of Crown Valley Parkway and will connect to the existing Arroyo Trabuco Trail. The City proposes to work with the County of Orange to pave the existing Arroyo Trabuco Trail to the San Juan Capistrano City limit on Via Escolar, and then to connect to the San Juan Capistrano Class I bike trail that ends on Ortega Highway near the center of the city.

# Mission Viejo Comprehensive Bike Plan

## Proposed City Bike Trails

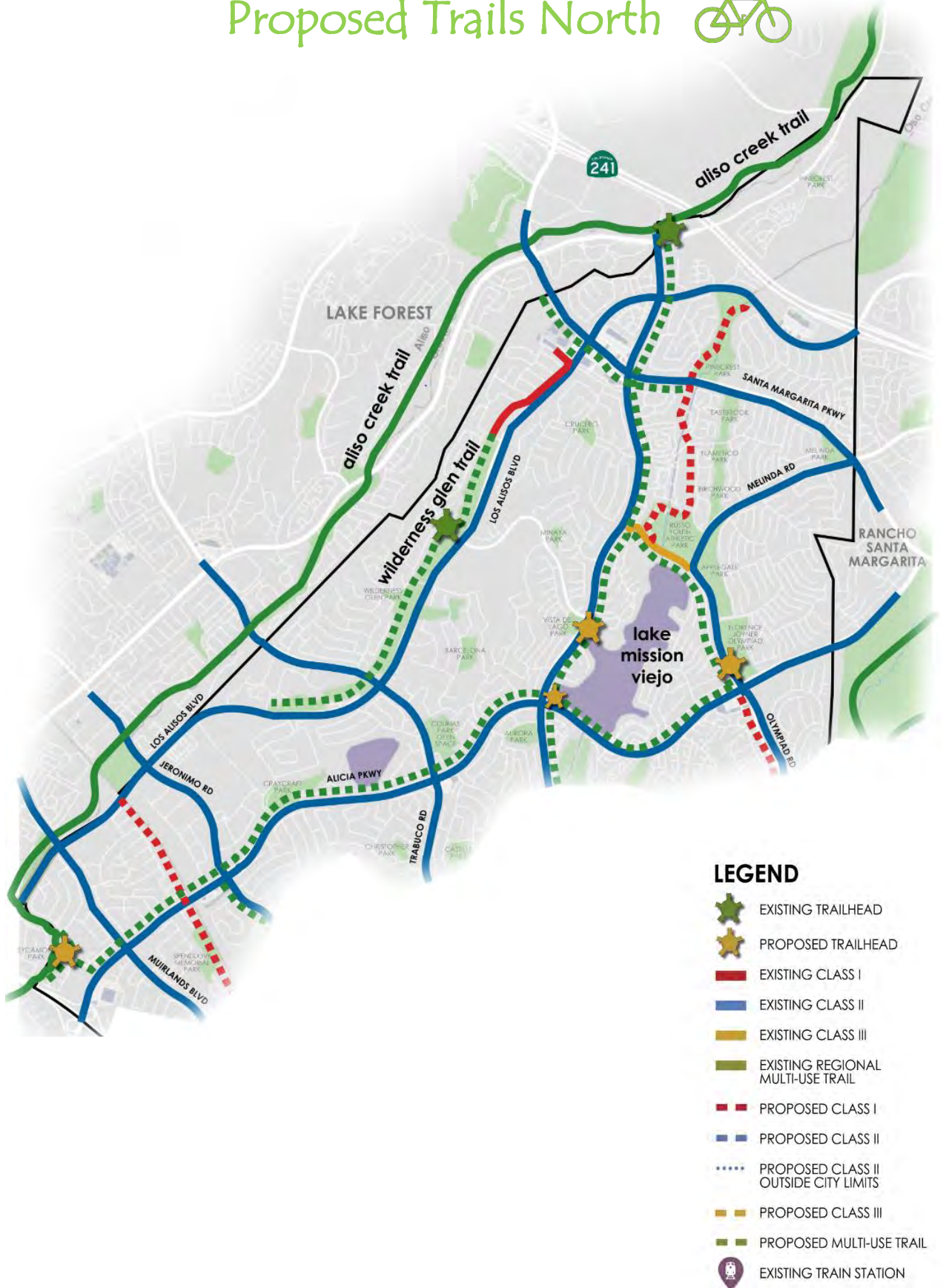


See Appendix D for large-scale version of this map 



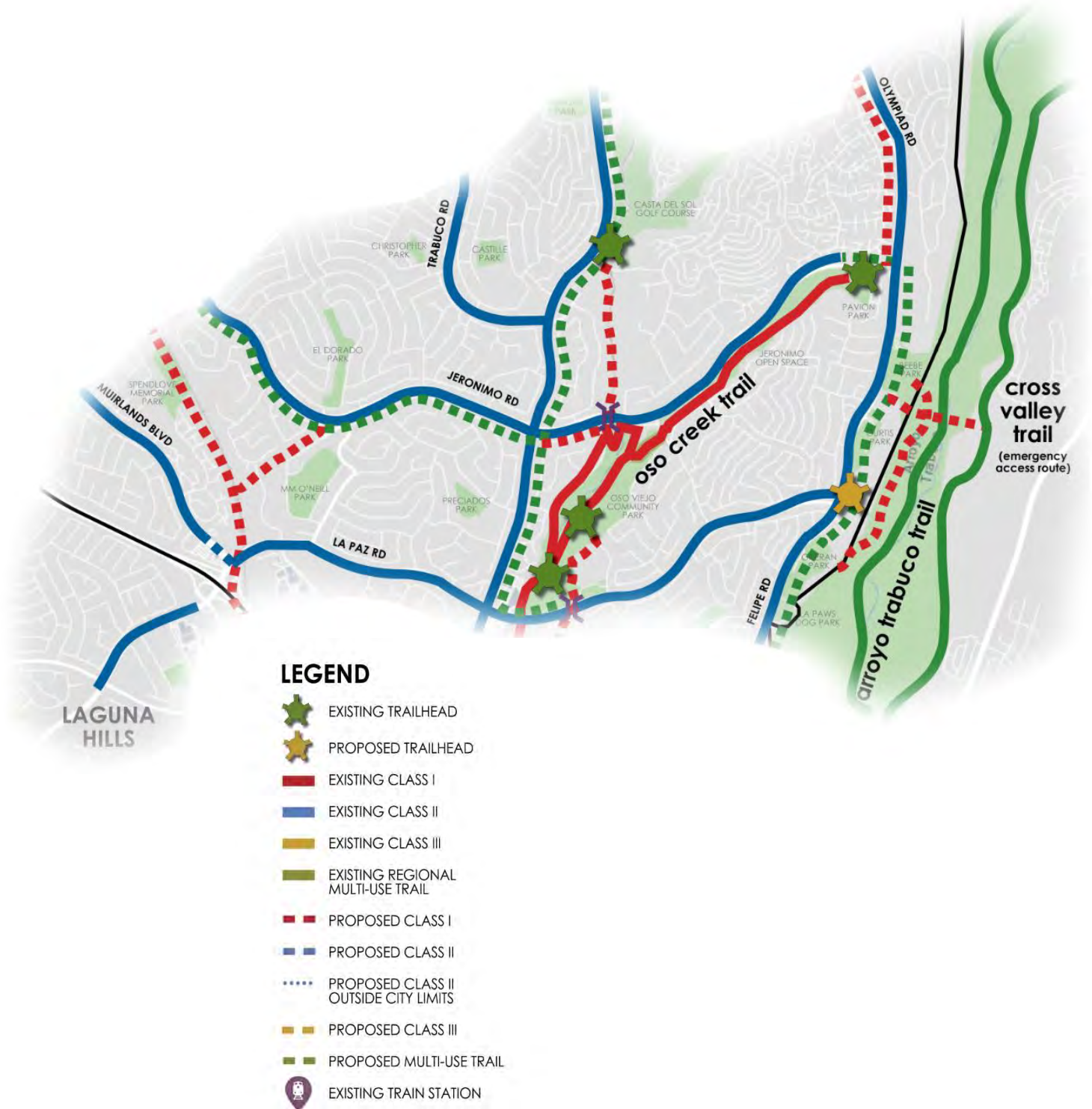
# Mission Viejo Comprehensive Bike Plan

## Proposed Trails North



# Mission Viejo Comprehensive Bike Plan

## Proposed Trails Central



# Mission Viejo Comprehensive Bike Plan

## Proposed Trails South



## DESIGN FEATURES

Our plan includes some unique design features that capitalize on the existing infrastructure to make a more functional and comprehensive bicycle master plan, and redefines existing infrastructure so it can be used in new ways.

Feature 1. Create an opportunity to legally and safely connect schools, business routes and neighborhoods using the existing sidewalk infrastructure (i.e. The creation of MUTSS (Multi-Use Trail Shared Sidewalks)). Since a significant number of public sidewalks in Mission Viejo **are 8' wide**, the addition of appropriate signage, a long-term commitment to adding bicycle passing zones along narrower routes, and increasing the allowable bicycle speed from 5 miles/hour to 12 miles per hour will make the sidewalks a safe and comfortable facility where people can ride.

This recommendation is in direct response to the public input received during the community input process. It is anticipated that this single solution will increase bicycle trips amongst school age children and casual recreational riders.

Feature 2. Connect the Oso Creek Trail from Jeronimo Road to the **“Oso Creek Trail -Lake Loop”** around Lake Mission Viejo. The intent of this feature is to combine the two most popular trail routes into an interconnected, citywide trail that links north and south from the Northern Activity Node down to the Central Activity Node.

## ACTIVITY NODES AND TRAILHEADS

The plan seeks to improve the interconnectivity of each of the activity nodes in Mission Viejo. The MUTSS trails along Marguerite Parkway and Felipe Road connect the activity nodes from the north to the south. The Alicia Parkway MUTSS trail runs from west to east connecting to the Aliso Creek Regional Trail in Sycamore Park and the Mission Viejo N/S Corridor Commuter Trail linking Lake Forest, Mission Viejo and Laguna Niguel to the Metrolink station.

The proposed Class I trail linkages that connect gaps in activity nodes include the new Mission Viejo N/S Corridor Commuter Trail located on the western edge of Mission Viejo along the railroad right-of-way. Another proposed trail link includes the Olympiad Road Trail from Pavion Park to the Oso Creek Lake Loop Trail at the corner of Alicia Parkway and Olympiad Road and the trailhead at Florence Joyner Olympiad Park. Additionally, a Class I trail linkage gap exists south of Crown Valley Parkway connecting Mission Viejo to the County open space south to San Juan Capistrano.

New trailheads are also being proposed as part of the plan. The trailheads include the following:

Proposed Trail Heads

Oso Creek Trail Lake Loop – Lakeside Park

Corner of Marguerite Parkway and Alicia Parkway

Oso Creek Trail Lake Loop

Corner of Vista Del Lago and Marguerite Parkway

Oso Creek Trail Lake Loop

Corner of Alicia Parkway and Olympiad Road (Florence Joyner Olympiad Park)

Arroyo Trail

Corner of La Paz Road and Felipe Road

Arroyo Trail

Crown Valley Parkway and Jardines

Oso Creek Trail - South

Located at Montanoso Recreation Center

Alicia MUTSS trail

Located at Sycamore Park Connecting to Aliso Creek trail

# Detailed Maps

## MULTI-USE TRAIL SHARED SIDEWALKS (MUTSS TRAILS)

🚲 El Toro Rd – Marguerite Pkwy. to Santa Margarita Pkwy.

🚲 Wilderness Glen Trail

🚲 Oso Creek Lake Loop Trail

🚲 Alicia Pkwy. – Marguerite Pkwy. to Jeronimo Rd.

🚲 Alicia Pkwy. – Jeronimo Rd. to Charlinda Dr.

🚲 Marguerite Pkwy. – La Paz Rd. to Alicia Pkwy.

🚲 Jeronimo Rd. – Alicia Pkwy. to Marguerite Pkwy.

🚲 Olympiad Rd. – La Paz Rd. to Jeronimo Rd.

🚲 Felipe Rd. – Marguerite Pkwy. to La Paz Rd.

# MUTSS

(MULTI-USE TRAIL SHARED SIDEWALKS)

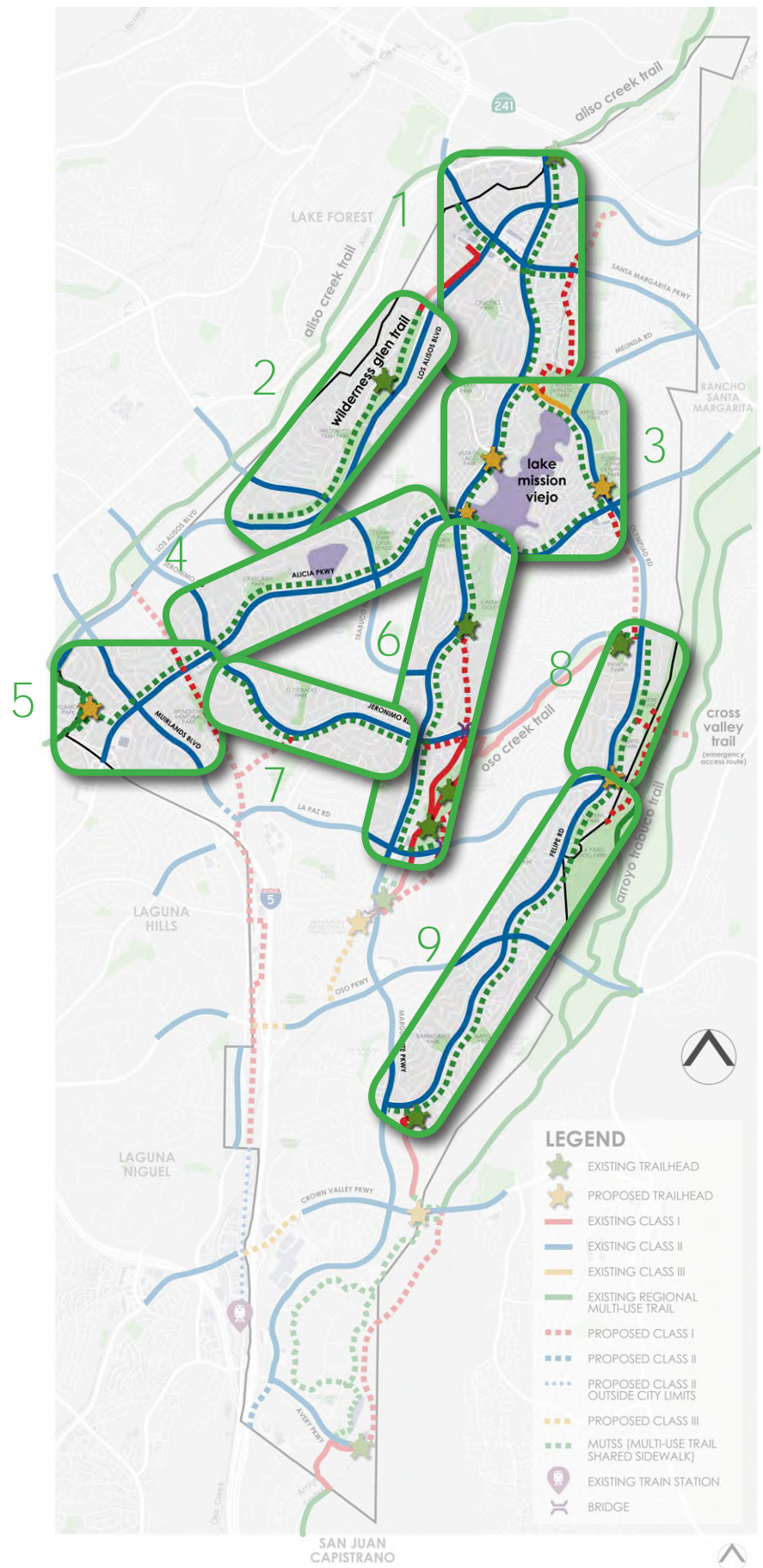
- 1 Along Marguerite Pkwy. north of Olympiad Rd.
- 2 Wilderness Glen Trail
- 3 Oso Creek Lake Loop Trail around Lake Mission Viejo
- 4 Alicia Pkwy. from Marguerite Pkwy. to Jeronimo Rd.
- 5 Alicia Pkwy. from Jeronimo Rd. to Charlinda Rd. and connecting to Sycamore Park
- 6 Marguerite Pkwy. from La Paz Rd. to Alicia Pkwy.
- 7 Jeronimo Rd. from Alicia Pkwy. to Marguerite Pkwy.
- 8 Olympiad Rd. from La Paz Rd. to Jeronimo Rd.
- 9 Felipe Rd. from Marguerite Pkwy. to La Paz Rd.

9  
key  
reaches

18.0  
miles of  
new trails\*

---

5  
new  
trail heads









\* represents miles of trail in one travel direction only

# Criteria & Matrix Evaluation – MUTSS #1

El Toro Rd  
 Marguerite Parkway to  
 Santa Margarita Parkway

CRITERIA	BIKE PATH:		
	Segment 1	Segment 2	Segment 3
<b>design</b>	El Toro to Olympiad	Olympiad to La Paz	Santa Margarita Parkway
<b>1. Width</b>			
8-10 ft Wide			
Less than 8' Wide, "Passing Zones Required"			
<b>2. Surface</b>			
Concrete			
Asphalt			
<b>3. Overhead Clearance</b>			
10 ft Vertical Clearance			
<b>land use compatibility</b>			
<b>1. Land Use Agencies</b>			
Connections to Residential Neighborhoods, Schools, Recreational Facilities			
Connecting to Commuter Route/Employment Centers			
Connections to Other Transit Modes (i.e., Transit, Metrolink)	N/A		
<b>route</b>			
<b>1. Completes Regional Linkage</b>			
Segments Link to Existing Bikeway and/or Regional Multi-use Trail			
<b>2. Right-Of-Way</b>			
City Owned			



	Segment 1	Segment 2	Segment 3
<b>3. Significant Crossings</b>			
Crossings at Intersections			
Multilane Arterial Crossing	N/A		
Median Refuge	N/A	N/A	N/A
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)	N/A		N/A
<b>regulatory investment</b>			
General Cost to Implement	N/A	N/A	(Traffic Signal Required)

# MUTSS 1

## DESCRIPTION

### GENERAL LOCATION

Multi-use Trail Shared Sidewalk connecting to Trabuco Hills High School & Aliso Creek Trail

### LINKS & CROSSINGS

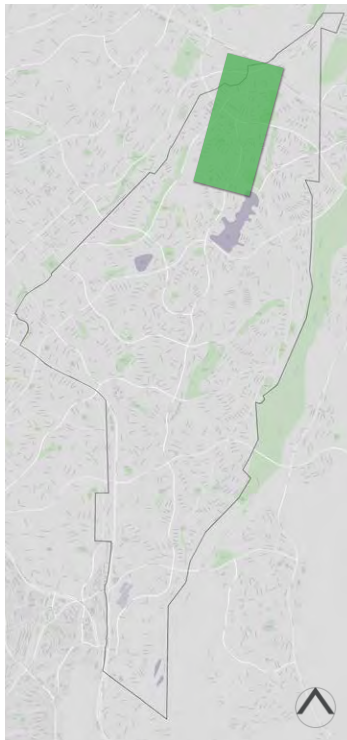
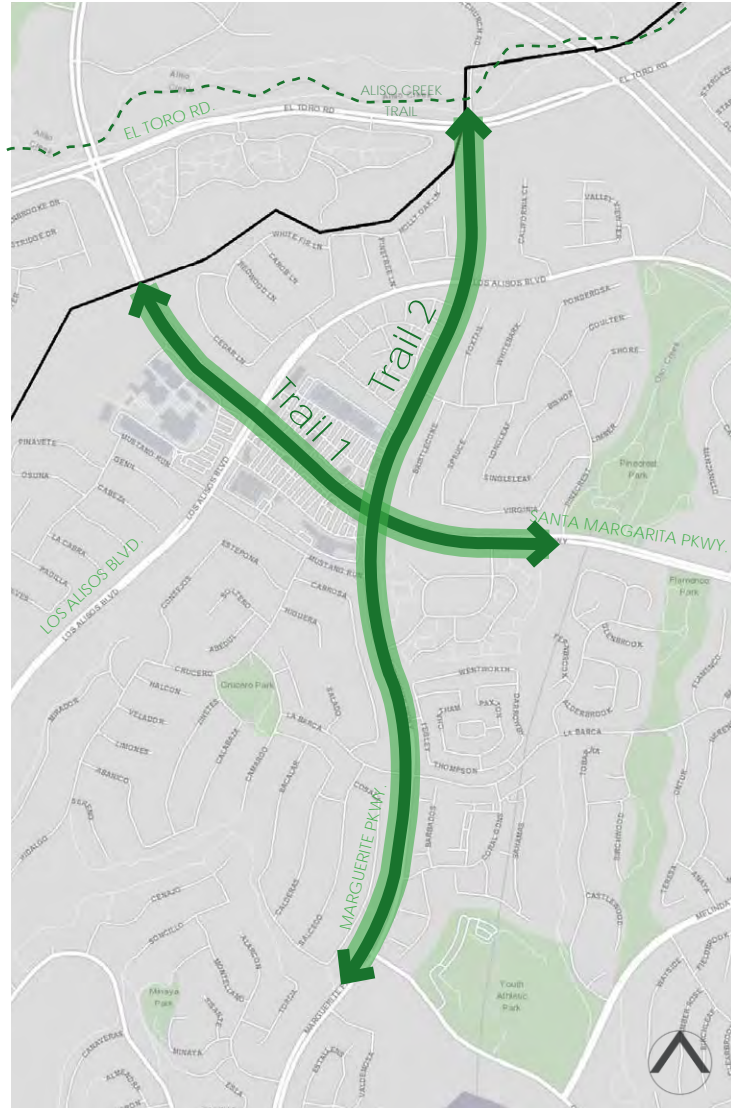
Crossings at Santa Margarita Parkway (new signal needed) and Marguerite Parkway

### GRADE CHANGE

Moderate grade changes

### ADJACENT LAND USES

City of Mission Viejo



key map

2.4  
miles\*

crossings at  
SANTA MARGARITA PKWY  
and MARGUERITE PKWY

CONCRETE  
SURFACING

262'  
elevation  
gain

*links to Aliso Creek Bikeway,  
Trabuco High School  
& Lake Mission Viejo*


247'  
elevation  
loss

\* represents miles of trail in one travel direction only

# Criteria & Matrix Evaluation – MUTSS #2

Wilderness Glen  
 BIKE PATH: Trail/Los Alisos Blvd.

CRITERIA	Segment 1	Segment 2	Segment 3
<b>design</b>	Via Damsco to Entidad		
<b>1. Width</b>			
8-10 ft Wide			
Less than 8' Wide, "Passing Zones Required"			
<b>2. Surface</b>			
Concrete			
Asphalt			
<b>3. Overhead Clearance</b>			
10 ft Vertical Clearance			
<b>land use compatibility</b>			
<b>1. Land Use Agencies</b>			
Connections to Residential Neighborhoods, Schools, Recreational Facilities			
Connecting to Commuter Route/Employment Centers	N/A		
Connections to Other Transit Modes (i.e., Transit, Metrolink)	N/A		
<b>route</b>			
<b>1. Completes Regional Linkage</b>			
Segments Link to Existing Bikeway and/or Regional Multi-use Trail			
<b>2. Right-Of-Way</b>			
City Owned			

	Segment 1	Segment 2	Segment 3
<b>3. Significant Crossings</b>			
Crossings at Intersections			
Multilane Arterial Crossing	N/A		
Median Refuge	N/A		
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)	N/A		
Sight Distance (125 ft for 20 mph, 175 ft for 25 mph, 230 ft for 30 mph)	N/A		
<b>regulatory investment</b>			
Widen Sidewalk, Signage, “Passing Zones” for Passing	N/A		

# MUTSS 2

## DESCRIPTION

### GENERAL LOCATION

Wilderness Glen Open Space in need of widening

### LINKS & CROSSINGS

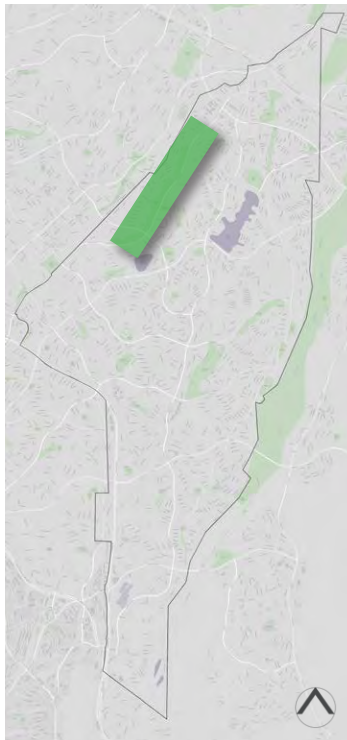
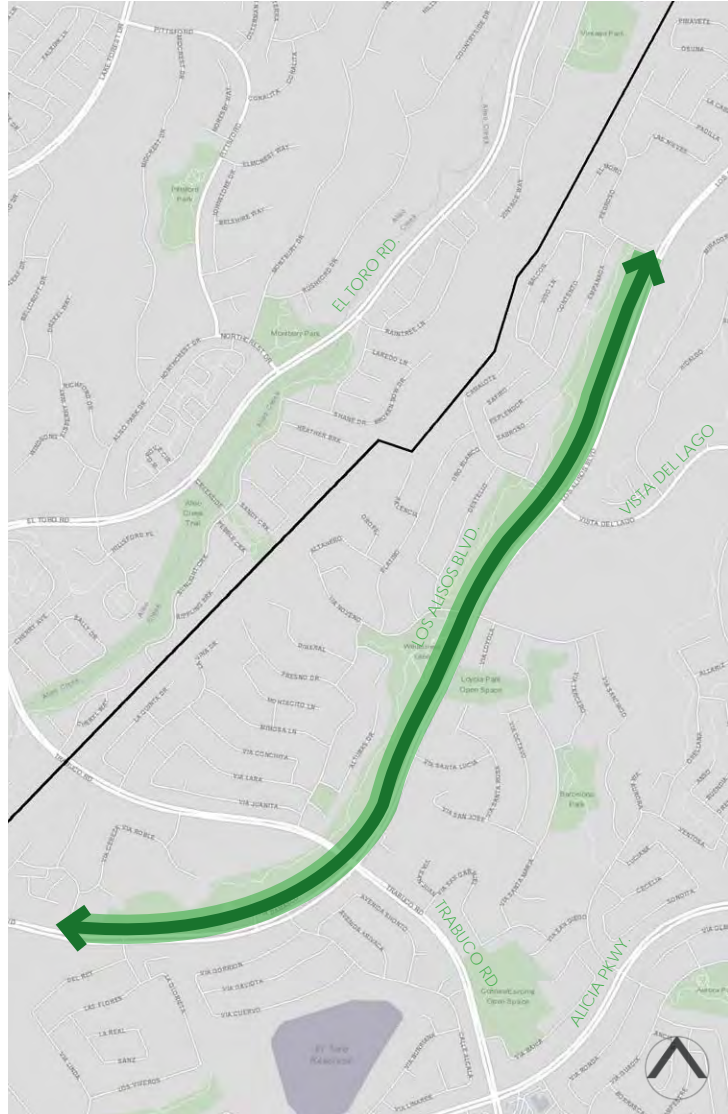
Crossings at Los Alisos Boulevard, Vista Del Lago, and Trabuco Road

### GRADE CHANGE

Moderate grade changes

### ADJACENT LAND USES

City of Mission Viejo



key map

2.1  
miles\*

crossings at  
TRABUCO ROAD AND  
LOS ALISOS BLVD.


CONCRETE  
SURFACING




106'  
elevation  
gain  
345'  
elevation  
loss

*links to Del Lago Elementary  
School and Oaktree Village*

\* represents miles of trail in one travel direction only

# Criteria & Matrix Evaluation – MUTSS #3

CRITERIA	BIKE PATH: <span style="color: #E67E22;">Oso Creek Lake Loop Trail</span>		
	Segment 1	Segment 2	Segment 3
<b>design</b>	Olympiad Rd - Marguerite to Alicia	Alicia Pkwy - Olympiad to Marguerite	Marguerite Pkwy - Olympiad to Alicia
<b>1. Width</b>			
8-10 ft Wide			
Less than 8' Wide, "Passing Zones Required"	N/A	N/A	
<b>2. Surface</b>			
Concrete			
Asphalt			
<b>3. Overhead Clearance</b>			
10 ft Vertical Clearance	N/A	N/A	N/A
<b>land use compatibility</b>			
<b>1. Land Use Agencies</b>			
Connections to Residential Neighborhoods, Schools, Recreational Facilities			
Connecting to Commuter Route/Employment Centers	N/A		N/A
Connections to Other Transit Modes (i.e., Transit, Metrolink)	N/A		N/A
<b>route</b>			
<b>1. Completes Regional Linkage</b>			
Segments Link to Existing Bikeway and/or Regional Multi-use Trail			
<b>2. Right-Of-Way</b>			
City Owned			

	Segment 1	Segment 2	Segment 3
<b>3. Significant Crossings</b>			
Crossings at Intersections			
Multilane Arterial Crossing	N/A	N/A	N/A
Median Refuge	N/A	N/A	N/A
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)	N/A	N/A	N/A
Sight Distance (125 ft for 20 mph, 175 ft for 25 mph, 230 ft for 30 mph)	N/A	N/A	N/A
<b>regulatory investment</b>			
Signage and “Passing Zones” for Bike Passing	N/A	N/A	N/A

# MUTSS 3

## DESCRIPTION

### GENERAL LOCATION

Critical loop connection in the City; one of the most popular locations

### LINKS & CROSSINGS

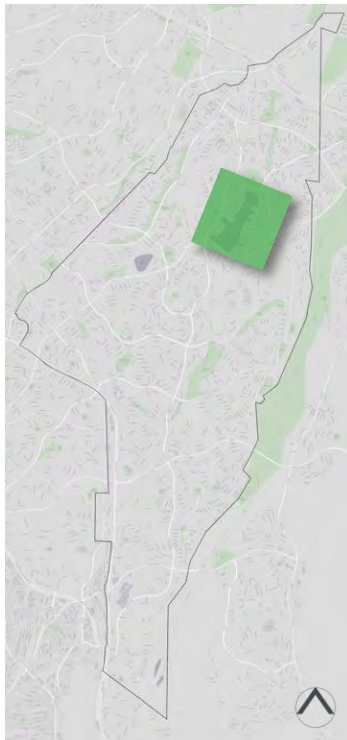
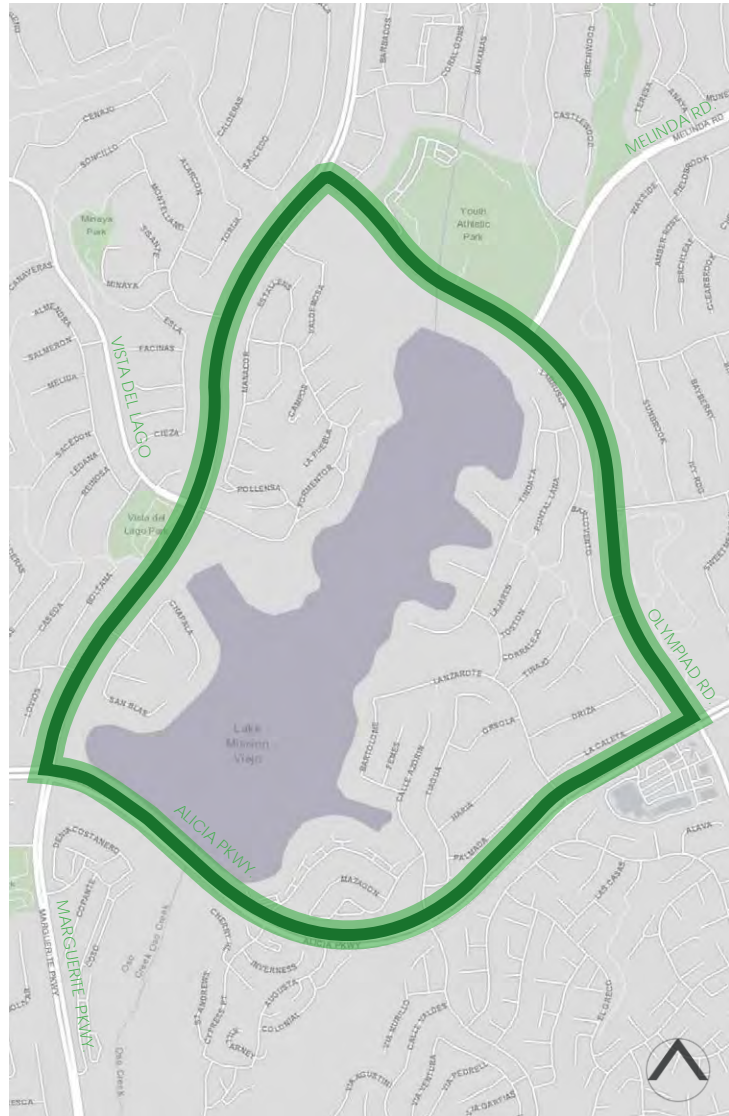
Connection point for the Oso Creek Trail traveling south and north

### GRADE CHANGE

Moderate grade changes

### ADJACENT LAND USES

City of Mission Viejo and private land



key map

3.2  
miles\*

crossings at  
OLYMPIAD RD., ALICIA  
PKWY & MARGUERITE PKWY

CONCRETE & ASPHALT  
SURFACING

361'  
elevation  
gain

361'  
elevation  
loss

*links to North Aliso Creek  
Trail & south to the  
Civic Core*














\* represents miles of trail in one travel direction only



# Criteria & Matrix Evaluation – MUTSS #4

Alicia Parkway  
 BIKE PATH: Marquerite to Jeronimo

CRITERIA	Segment 1	Segment 2	Segment 3
<b>design</b>	Marguerite to Trabuco	Trabuco to Jeronimo	Jeronimo to Charlinda
<b>1. Width</b>			
8-10 ft Wide			
Less than 8' Wide, "Passing Zones Required"			
<b>2. Surface</b>			
Concrete			
Asphalt			
<b>3. Overhead Clearance</b>			
10 ft Vertical Clearance			
<b>land use compatibility</b>			
<b>1. Land Use Agencies</b>			
Connections to Residential Neighborhoods, Schools, Recreational Facilities			
Connecting to Commuter Route/Employment Centers			
Connections to Other Transit Modes (i.e., Transit, Metrolink)			
<b>route</b>			
<b>1. Completes Regional Linkage</b>			
Segments Link to Existing Bikeway and/or Regional Multi-use Trail			
<b>2. Right-Of-Way</b>			
City Owned			

	Segment 1	Segment 2	Segment 3
<b>3. Significant Crossings</b>			
Crossings at Intersections			
Multilane Arterial Crossing			
Median Refuge	N/A	N/A	N/A
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)			
Sight Distance (125 ft for 20 mph, 175 ft for 25 mph, 230 ft for 30 mph)			
<b>regulatory investment</b>			
“Bike Passing Zones” & Trail Signage			

# MUTSS 4

## DESCRIPTION

### GENERAL LOCATION

Trail connects to the Aliso Creek Trail from the Oso Creek Trail Lake Loop along Alicia Parkway

### LINKS & CROSSINGS

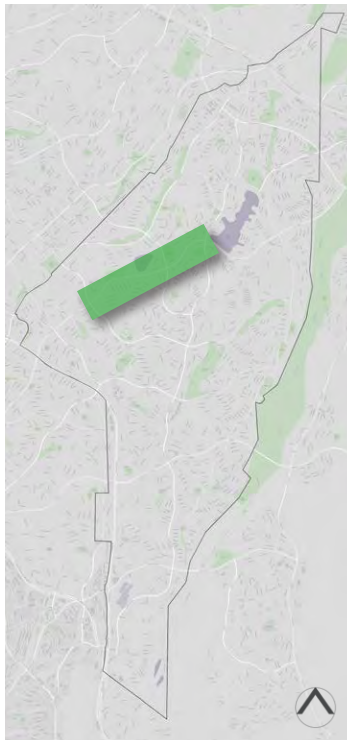
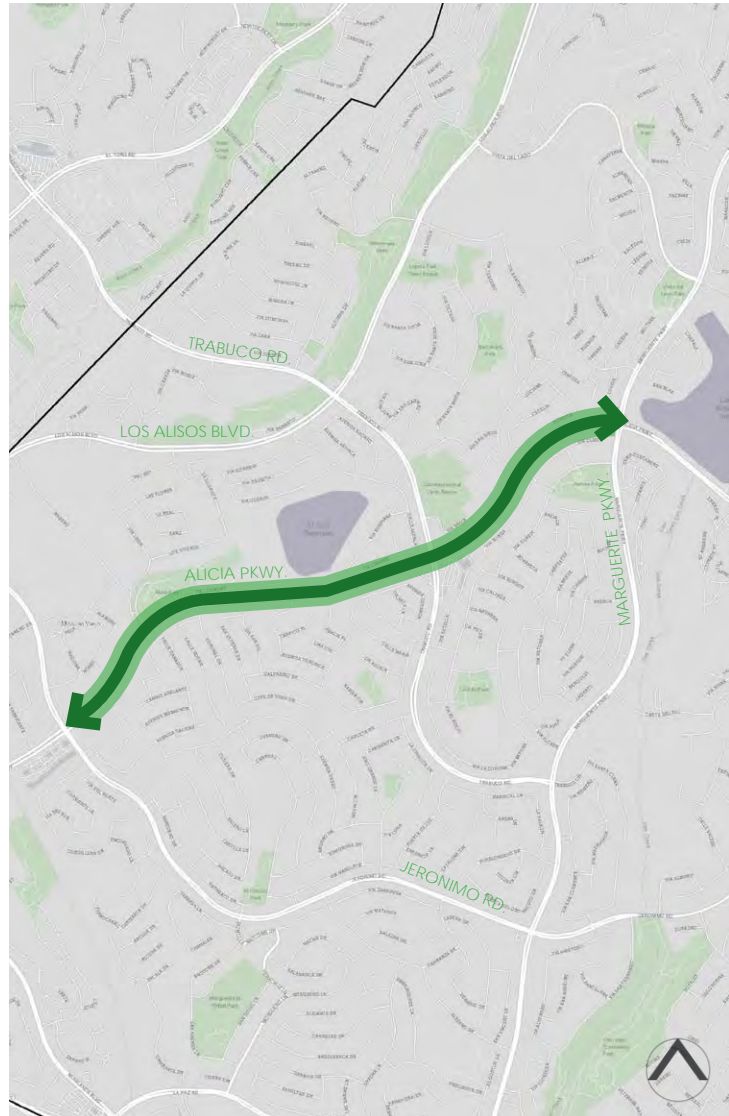
Connects to the Aliso Creek Trail and Sycaore Park with a crossing at Trabuco Road

### GRADE CHANGE

Moderate grade changes

### ADJACENT LAND USES

City of Mission Viejo



key map

1.9  
miles\*

crossings at  
TRABUCO ROAD AND  
ALICIA PARKWAY

CONCRETE  
SURFACING

126'  
elevation  
gain

*links to Lake Mission Viejo and  
Highpark Business Center*



407'  
elevation  
loss

\* represents miles of trail in one travel direction only

# Criteria & Matrix Evaluation – MUTSS #5

Alicia Parkway  
**BIKE PATH: Jeronimo to Charlinda**

CRITERIA	Segment 1	Segment 2	Segment 3
<b>design</b>	Jeronimo to Charlinda		
<b>1. Width</b>			
8-10 ft Wide			
Less than 8' Wide, "Passing Zones Required"			
<b>2. Surface</b>			
Concrete			
Asphalt	N/A		
<b>3. Overhead Clearance</b>			
10 ft Vertical Clearance			
<b>land use compatibility</b>			
<b>1. Land Use Agencies</b>			
Connections to Residential Neighborhoods, Schools, Recreational Facilities			
Connecting to Commuter Route/Employment Centers			
Connections to Other Transit Modes (i.e., Transit, Metrolink)			
<b>route</b>			
<b>1. Completes Regional Linkage</b>			
Segments Link to Existing Bikeway and/or Regional Multi-use Trail			
<b>2. Right-Of-Way</b>			
City Owned			

	Segment 1	Segment 2	Segment 3
<b>3. Significant Crossings</b>			
Crossings at Intersections			
Multilane Arterial Crossing			
Median Refuge	N/A		
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)	N/A		
Sight Distance (125 ft for 20 mph, 175 ft for 25 mph, 230 ft for 30 mph)	N/A		
<b>regulatory investment</b>			
Signage & “Bike Passing Zones”	N/A		

# MUTSS 5

## DESCRIPTION

### GENERAL LOCATION

Along Alicia Parkway and Charlinda Drive

### LINKS & CROSSINGS

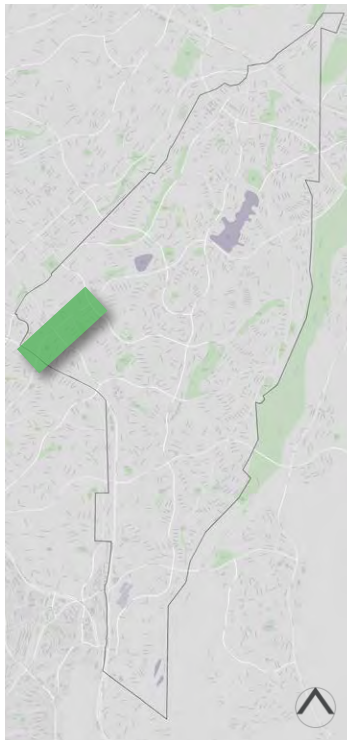
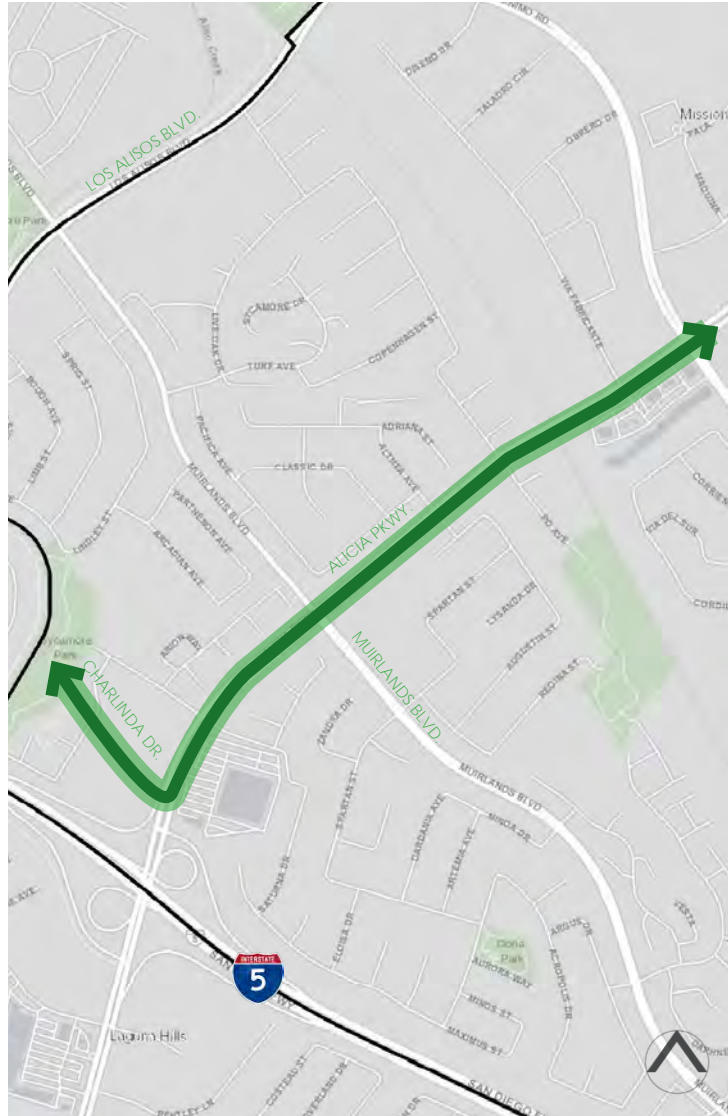
Connects to Sycamore Park and the Aliso Creek Trail

### GRADE CHANGE

Moderate grade changes

### ADJACENT LAND USES

City of Mission Viejo



key map

1.0  
miles\*

crossings at  
JERONIMO RD. AND  
MUIRLANDS BLVD.

CONCRETE  
SURFACING

67'  
elevation  
gain

*links to Highland Business  
Center & Aliso Creek Trail at  
Sycamore Park*



160'  
elevation  
loss

\* represents miles of trail in one travel direction only

# Criteria & Matrix Evaluation – MUTSS #6

Marguerite Parkway  
La Paz to Alicia

CRITERIA	BIKE PATH: Marguerite Parkway La Paz to Alicia		
	Segment 1	Segment 2	Segment 3
<b>design</b>	La Paz to Jeronimo	Jeronimo to Alicia	
<b>1. Width</b>			
8-10 ft Wide			
Less than 8' Wide, "Passing Zones Required"			
<b>2. Surface</b>			
Concrete			
Asphalt	N/A	N/A	
<b>3. Overhead Clearance</b>			
10 ft Vertical Clearance			
<b>land use compatibility</b>			
<b>1. Land Use Agencies</b>			
Connections to Residential Neighborhoods, Schools, Recreational Facilities			
Connecting to Commuter Route/Employment Centers	N/A	N/A	
Connections to Other Transit Modes (i.e., Transit, Metrolink)			
<b>route</b>			
<b>1. Completes Regional Linkage</b>			
Segments Link to Existing Bikeway and/or Regional Multi-use Trail			
<b>2. Right-Of-Way</b>			
City Owned			

	Segment 1	Segment 2	Segment 3
<b>3. Significant Crossings</b>			
Crossings at Intersections			
Multilane Arterial Crossing	N/A	N/A	
Median Refuge	N/A	N/A	
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)	N/A	N/A	
Sight Distance (125 ft for 20 mph, 175 ft for 25 mph, 230 ft for 30 mph)	N/A	N/A	
<b>regulatory investment</b>			
Signage & “Passing Zones” for Bike Passing	N/A	N/A	



# MUTSS 6

## DESCRIPTION

### GENERAL LOCATION

Along Marguerite Parkway from Lake Loop and Alicia Parkway south to La Paz Rd.

### LINKS & CROSSINGS

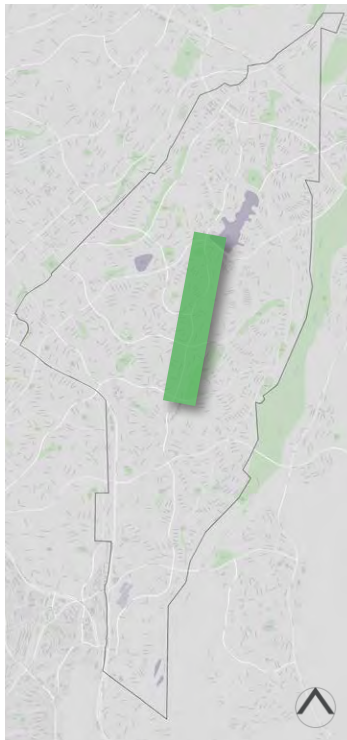
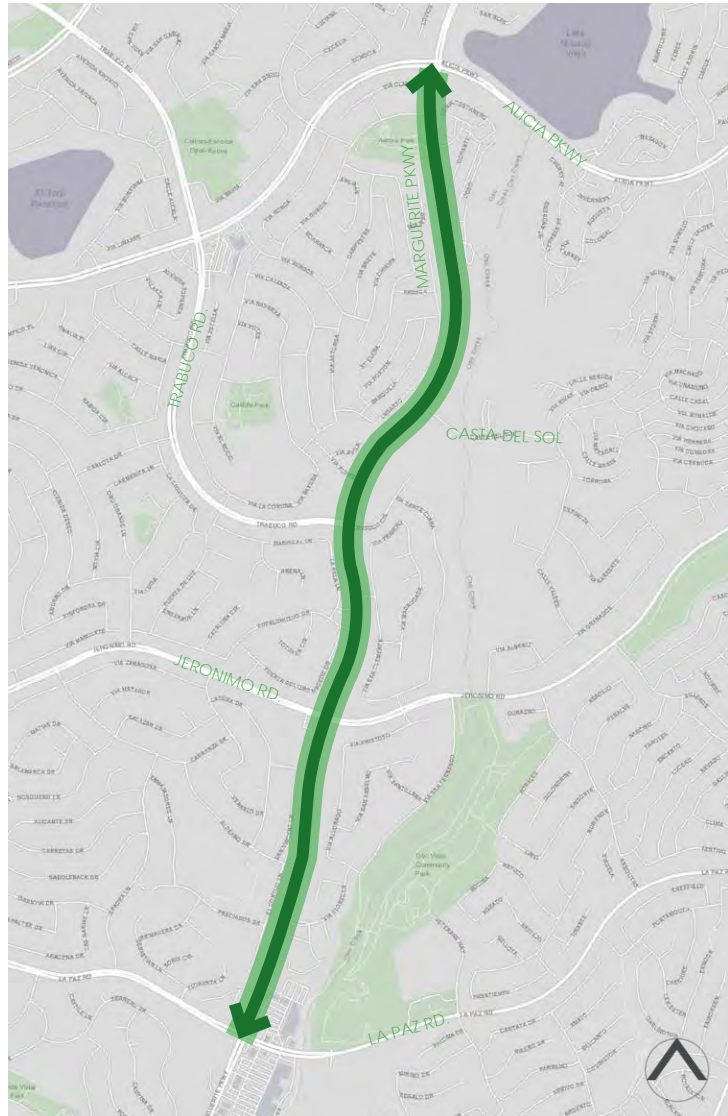
Crossings at Casta Del Sol, Trabuco Road, and Jeronimo Road

### GRADE CHANGE

Moderate grade changes

### ADJACENT LAND USES

City of Mission Viejo



key map

2.2  
miles\*

crossings at  
CASTA DEL SOL,  
TRABUCO RD., &  
JERONIMO RD.

CONCRETE  
SURFACING

225'  
elevation  
gain

*links to Lake Mission Viejo  
and Mission Viejo Civic Core*

507'  
elevation  
loss

\* represents miles of trail in one travel direction only




# Criteria & Matrix Evaluation – MUTSS #7

Jeronimo Rd  
 Alicia Parkway to  
 Marguerite Parkway

## CRITERIA

## BIKE PATH:

	Segment 1	Segment 2	Segment 3
<b>design</b>			
<b>1. Width</b>			
8-10 ft Wide			
Less than 8' Wide, "Passing Zones Required"			
<b>2. Surface</b>			
Concrete			
Asphalt			
<b>3. Overhead Clearance</b>			
10 ft Vertical Clearance			
<b>land use compatibility</b>			
<b>1. Land Use Agencies</b>			
Connections to Residential Neighborhoods, Schools, Recreational Facilities			
Connecting to Commuter Route/Employment Centers			
Connections to Other Transit Modes (i.e., Transit, Metrolink)	N/A		
<b>route</b>			
<b>1. Completes Regional Linkage</b>			
Segments Link to Existing Bikeway and/or Regional Multi-use Trail	N/A		
<b>2. Right-Of-Way</b>			
City Owned			

	Segment 1	Segment 2	Segment 3
<b>3. Significant Crossings</b>			
Crossings at Intersections			
Multilane Arterial Crossing			
Median Refuge	N/A		
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)	N/A		
Sight Distance (125 ft for 20 mph, 175 ft for 25 mph, 230 ft for 30 mph)	N/A		
<b>regulatory investment</b>			
("Bike Passing Zones" and Trail Signage)			

# MUTSS 7

## DESCRIPTION

### GENERAL LOCATION

Along Jeronimo Road from Alicia Parkway to Marguerite Parkway

### LINKS & CROSSINGS

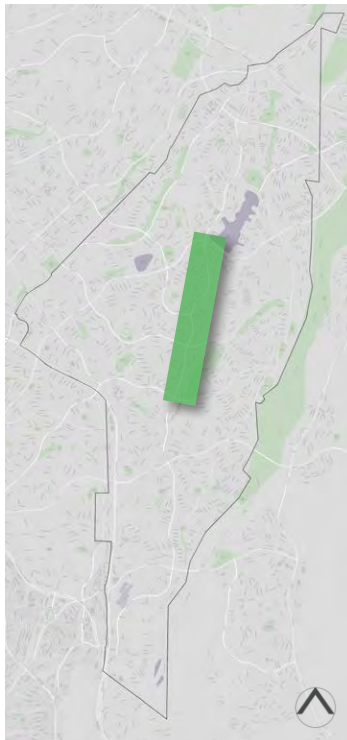
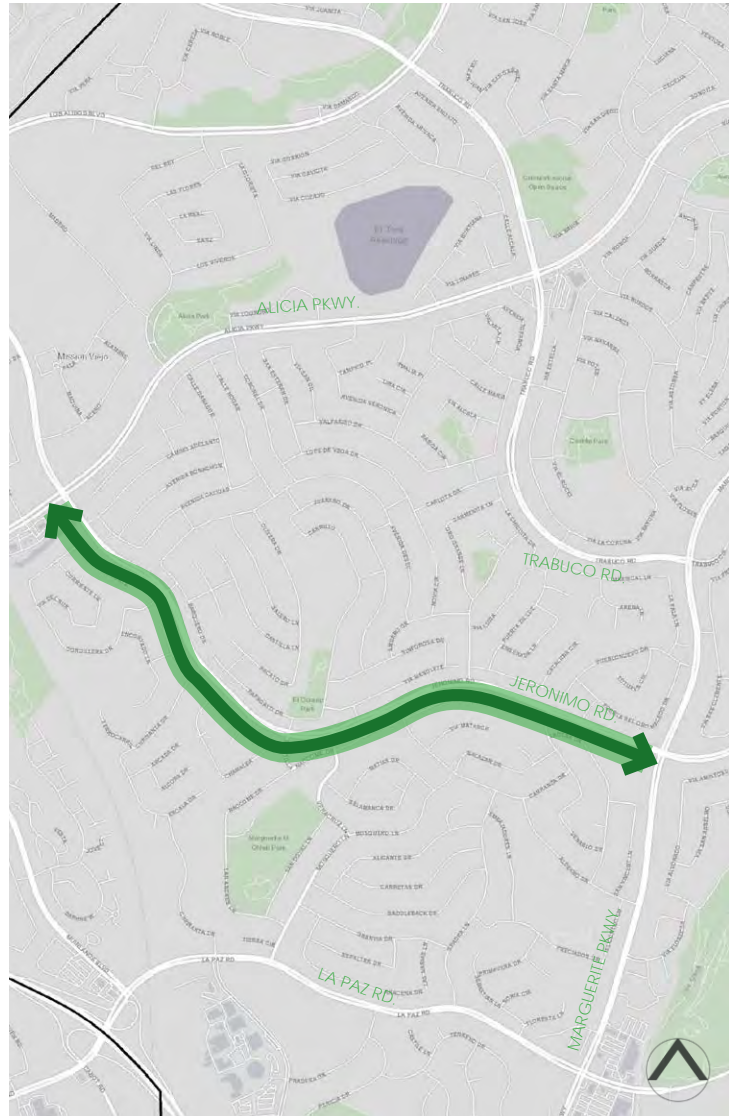
Connects with Class I trail along drainage channel to Class I trail along railroad right of way

### GRADE CHANGE

Moderate grade change

### ADJACENT LAND USES

City of Mission Viejo and private land



key map

1.6  
miles\*

crossings at  
QUINTANA DR.,  
CARRANZA DR., MONTILLA  
& CORDILLERA DR.

CONCRETE  
SURFACING

263'  
elevation  
gain  
201'  
elevation  
loss



*links to Alicia Pkwy,  
Marguerite Pkwy, & Class I trail  
along flood control channel*

\* represents miles of trail in one travel direction only

# Criteria & Matrix Evaluation – MUTSS #8

Olympiad Road  
La Paz to Jeronimo

CRITERIA	BIKE PATH:	Segment 1	Segment 2	Segment 3
<b>design</b>	La Paz to Jeronimo			
<b>1. Width</b>				
8-10 ft Wide				
Less than 8' Wide, "Passing Zones Required"				
<b>2. Surface</b>				
Concrete				
Asphalt				
<b>3. Overhead Clearance</b>				
10 ft Vertical Clearance				
<b>land use compatibility</b>				
<b>1. Land Use Agencies</b>				
Connections to Residential Neighborhoods, Schools, Recreational Facilities				
Connecting to Commuter Route/Employment Centers	N/A			
Connections to Other Transit Modes (i.e., Transit, Metrolink)	N/A			
<b>route</b>				
<b>1. Completes Regional Linkage</b>				
Segments Link to Existing Bikeway and/or Regional Multi-use Trail				
<b>2. Right-Of-Way</b>				
City Owned				

	Segment 1	Segment 2	Segment 3
<b>3. Significant Crossings</b>			
Crossings at Intersections			
Multilane Arterial Crossing	N/A		
Median Refuge	N/A		
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)	N/A		
Sight Distance (125 ft for 20 mph, 175 ft for 25 mph, 230 ft for 30 mph)	N/A		
<b>regulatory investment</b>			
“Bike Passing Zones” & Signage			

# MUTSS 8

## DESCRIPTION

### GENERAL LOCATION

The Arroyo Trail along Olympiad Road / Felipe Road

### LINKS & CROSSINGS

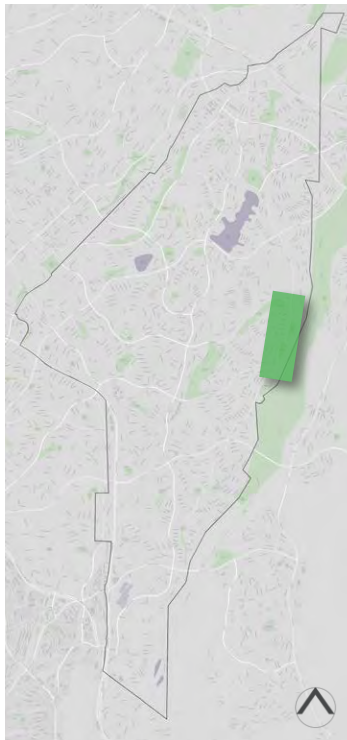
Connects southern Mission Viejo Cordova Park to Sports Fields and Olympiad Road

### GRADE CHANGE

Moderate grade changes

### ADJACENT LAND USES

City of Mission Viejo and private land



key map

1.0  
mile\*

recreation trail linking  
Curtis Park, Beebe Park, &  
Mission Viejo Skate Park

CONCRETE  
SURFACING

164'  
elevation  
gain

links from Pavier Park to  
Robert A Curtis Park

132'  
elevation  
loss





\* represents miles of trail in one travel direction only

# Criteria & Matrix Evaluation – MUTSS #9

Felipe Road  
 Marquerite to La Paz

CRITERIA	Segment 1	Segment 2	Segment 3
<b>design</b>	Marguerite to Oso	Oso to La Paz	
<b>1. Width</b>			
8-10 ft Wide			
Less than 8' Wide, "Passing Zones Required"			
<b>2. Surface</b>			
Concrete			
Asphalt			
<b>3. Overhead Clearance</b>			
10 ft Vertical Clearance			
<b>land use compatibility</b>			
<b>1. Land Use Agencies</b>			
Connections to Residential Neighborhoods, Schools, Recreational Facilities			
Connecting to Commuter Route/Employment Centers	N/A	N/A	
Connections to Other Transit Modes (i.e., Transit, Metrolink)	N/A	N/A	
<b>route</b>			
<b>1. Completes Regional Linkage</b>			
Segments Link to Existing Bikeway and/or Regional Multi-use Trail			
<b>2. Right-Of-Way</b>			
City Owned			



	Segment 1	Segment 2	Segment 3
<b>3. Significant Crossings</b>			
Crossings at Intersections			
Multilane Arterial Crossing			
Median Refuge	N/A	N/A	
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)	N/A	N/A	
Sight Distance (125 ft for 20 mph, 175 ft for 25 mph, 230 ft for 30 mph)	N/A	N/A	
<b>regulatory investment</b>			
(Bike Passing Zones & Trail Signage)	N/A	N/A	

# MUTSS 9

## DESCRIPTION

### GENERAL LOCATION

Along Felipe Road in the southern portion of Mission Viejo from La Paz Rd. down to Marguerite Pkwy.

### LINKS & CROSSINGS

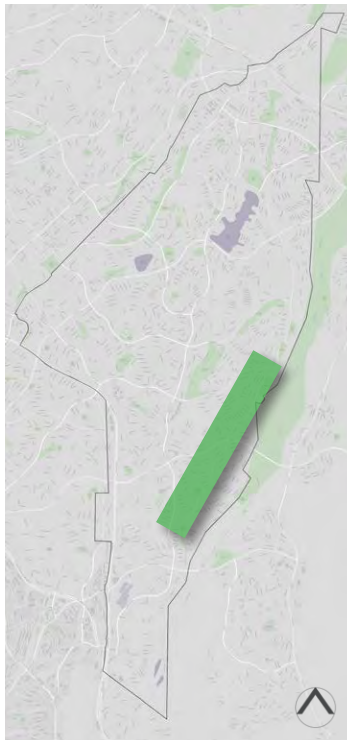
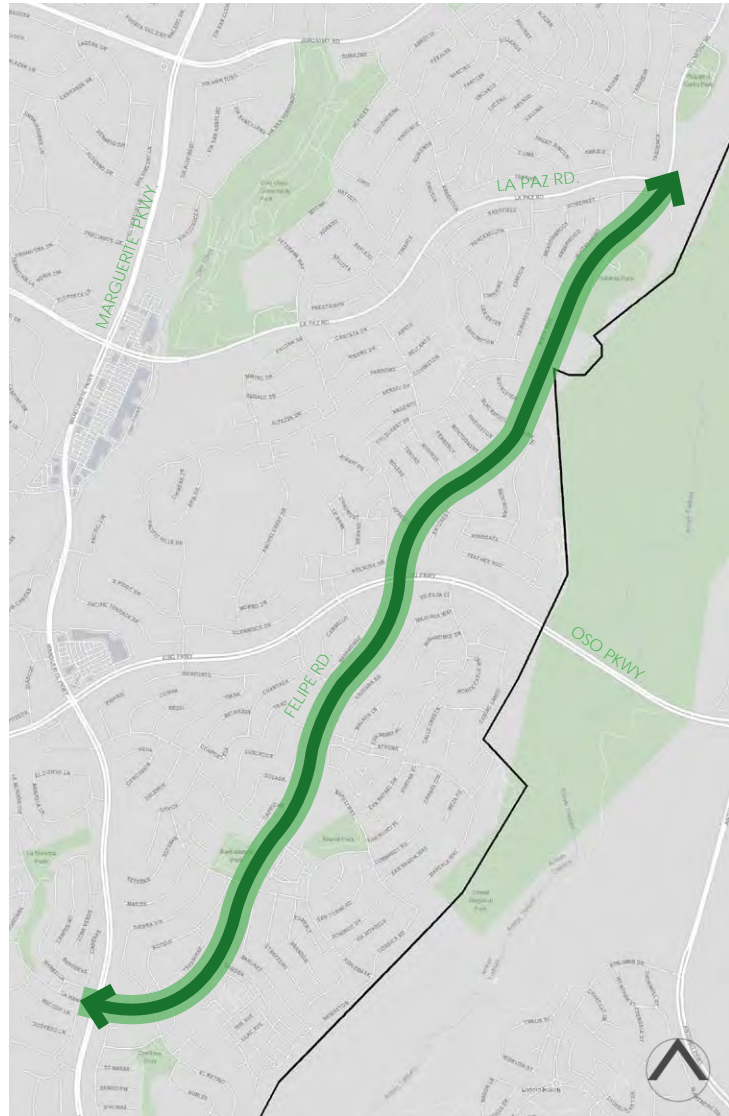
Connects southern Mission Viejo Cordova Park / Felipe Recreation Center to the Sports Parks along Olympiad Road

### GRADE CHANGE

Significant grade changes

### ADJACENT LAND USES

City of Mission Viejo



key map

2.6  
miles\*

crossings at  
OSO PARKWAY &  
JARDINES

CONCRETE  
SURFACING

214'  
elevation  
gain

links to James G. Gilleran Park  
and Felipe Tennis Rec. Center

466'  
elevation  
loss

\* represents miles of trail in one travel direction only


# Detailed Maps

## MISSING LINKS TRAILS

 Oso Creek Trail North

 Arroyo Trail – Olympiad Rd., Jeronimo to Alicia Pkwy.

 Oso Creek Trail – Jeronimo Rd. to Casta Del Sol Rd.

 N/S Commuter Trail – Along Railroad, Los Alisos Blvd. to La Paz Rd. and Drainage Channel

 Cross Valley Trail – Olympiad Rd. to Arroyo Trabuco Trail

 Oso Creek Trail – Civic Core Cultural Arts Center to Marguerite Pkwy.

 N/S Corridor Commuter Trail – Along Railroad, La Paz Rd. to South City Limit

 Arroyo Trabuco Trail – Avery Parkway to Jardines

# Missing Links

- 1 Oso Creek Trail (North) from Olympiad Rd. to Los Alisos Blvd. through Marty Russo Park
- 2 Arroyo Trail along Olympiad Rd. from Jeronimo Rd. to Alicia Pkwy.
- 3 Oso Creek Trail (North) from Jeronimo Rd. to Casta Del Sol Rd.
- 4 Along railroad tracks and drainage channel between La Paz Rd. and Los Aliso Blvd.
- 5 Cross Valley Trail and Arroyo Trabuco Trail connection
- 6 Oso Creek Trail extension the Cultural Arts Center to Marguerite Pkwy.
- 7 Along railroad tracks from the City limits to La Paz Rd.
- 8 Arroyo Trabuco Trail from Avery Pkwy. to Jardines

# 8

key links

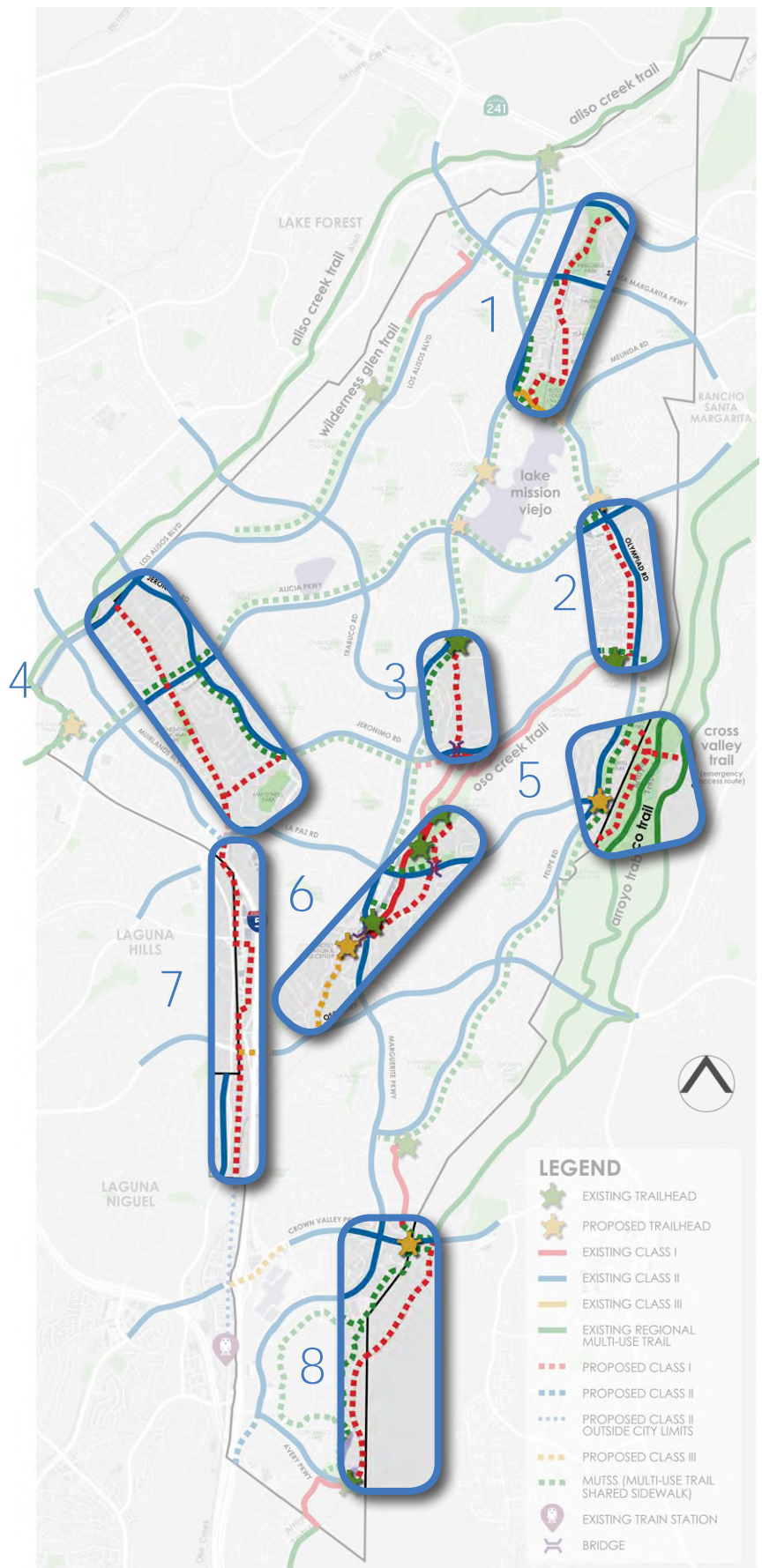
# 13.2

miles of new trails\*

---

# 3

new trail heads



\* represents miles of trail in one travel direction only










# Criteria & Matrix Evaluation – Missing Link Trail #1

## CRITERIA

## BIKE PATH: Oso Creek Trail North

	Segment 1	Segment 2	Segment 3
<b>design</b>	Marty Russo Park to La Barca	La Barca to Santa Margarita Parkway	Santa Margarita Parkway to Los Alisos
<b>1. Width</b>			
Class 1 Bikeway – 8-10 ft			
Class 2 Bikeway - 6 ft	N/A	N/A	N/A
Class 3 Bikeway	N/A	N/A	N/A
Class 4 Bikeway - 12 ft	N/A	N/A	N/A
Shoulder Width - 2 ft	N/A	N/A	N/A
<b>2. Grade</b>			
0-5%			
5-10%			
<b>3. Lighting</b>			
Bike Path Lighting (Future)			
<b>4. Surface</b>			
Asphalt or Other Percolating Material			
Smooth, Well Drained, All-Weather Riding Surface			
<b>5. Clearance</b>			
10 ft Vertical Clearance			
<b>6. Maintenance/Drainage</b>			
2-5% Cross Slope			
Existing Service Roads			

	Segment 1	Segment 2	Segment 3
<b>land use compatibility</b>			
<b>1. Land Use Agencies</b>			
Connections to Residential Neighborhoods, Schools, Recreational Facilities			
Connecting to Commuter Route/Employment Centers			
Connections to Other Transit Modes (i.e., Transit, Metrolink)			
<b>route</b>			
<b>1. Completes Regional Linkage</b>			
Segments Link to Existing Bikeway and/or Regional Multi-use Trail			
<b>2. Right-Of-Way</b>			
City Owned			
Agency/Private (Santa Margarita Water District/HOAs)			
<b>3. Barriers</b>			
Bikeway Gaps			
Rivers, Edges, Elevations			
Bike and Pedestrian Connectivity Across Major Barriers (Need Signal)	N/A		N/A
<b>4. Significant Crossings</b>			
Crossings at Intersections			
Multilane Arterial Crossing	N/A	N/A	N/A
Median Refuge	N/A	N/A	N/A
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)	N/A	N/A	N/A
Vehicular Congestion (i.e, Level of Service A-C) - Low	N/A	N/A	N/A
Sight Distance (125 ft for 20 mph, 175 ft for 25 mph, 230 ft for 30 mph)	N/A	N/A	N/A

regulatory investment			
Ease of Construction			
General Cost to Implement	 Moderate	 High	 Moderate
Community Support			

# Link 1

## DESCRIPTION

### GENERAL LOCATION

North Oso Creek Trail connecting Aliso Creek Trail and Oso Creek Lake Loop

### LINKS & CROSSINGS

Crossings at Marguerite Parkway, Olympiad Road, La Barca, Santa Margarita Parkway, and Los Alisos Boulevard (need new traffic signal)

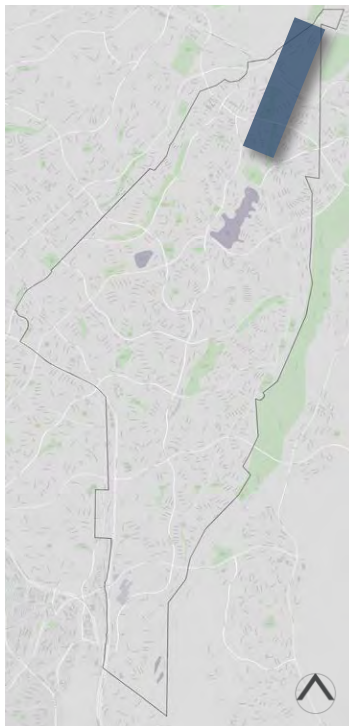
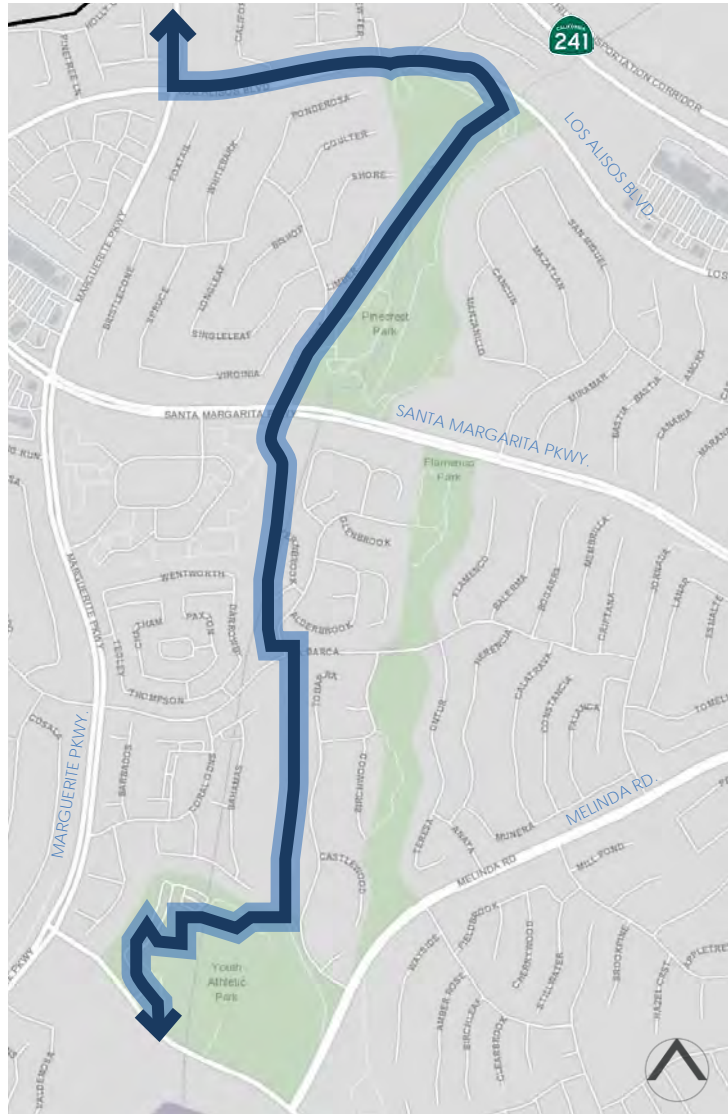
### GRADE CHANGE

Significant grade changes and ramp into Marty Russo Youth Athletic Park

### ADJACENT LAND USES

Marty Russo Youth Athletic Park, Pinecrest Park, Eastbrook HOA, Vista Del Lago Equity Apartment community, Coral Gardens HOA

TO ALISO  
CREEK TRAIL



key map

2.0  
miles\*

crossings at  
OLYMPIAD, LA BARCA  
SANTA MARGARITA &  
LOS ALISOS BLVD.

CLASS I ASPHALT  
SURFACING

302'  
elevation  
gain

links to Oso Creek Lake  
Loop and Pinecrest Park

402'  
elevation  
loss

\* represents miles of trail in one travel direction only




# Criteria & Matrix Evaluation – Missing Link Trail #2

Arroyo Trail  
 Olympiad Rd., Jeronimo  
 to Alicia Parkway

## CRITERIA

## BIKE PATH:

	Segment 1	Segment 2	Segment 3
<b>design</b>			
<b>1. Width</b>			
Class 1 Bikeway - 10 ft			
Class 2 Bikeway - 6 ft	N/A		
Class 3 Bikeway	N/A		
Class 4 Bikeway - 12 ft	N/A		
Shoulder Width - 2 ft	N/A		
<b>2. Grade</b>			
0-5%			
<b>3. Lighting</b>			
Bike Path Lighting	N/A		
<b>4. Surface</b>			
Asphalt or Other Percolating Material			
Smooth, Well Drained, All-Weather Riding Surface			
<b>5. Clearance</b>			
10 ft Vertical Clearance			
<b>6. Maintenance/Drainage</b>			
2-5% Cross Slope			
Existing Sidewalk			
<b>land use compatibility</b>			
<b>1. Land Use Agencies</b>			
Connections to Residential Neighborhoods, Schools, Recreational Facilities			
Connecting to Commuter Route/Employment Centers			

	Segment 1	Segment 2	Segment 3
Connections to Other Transit Modes (i.e., Transit, Metrolink)	N/A		
<b>route</b>			
<b>1. Completes Regional Linkage</b>			
Segments Link to Existing Bikeway and/or Regional Multi-use Trail			
<b>2. Right-Of-Way</b>			
City Owned			
<b>3. Barriers</b>			
Bikeway Gaps			
Rivers, Edges, Elevations	N/A		
Bike and Pedestrian Connectivity Across Major Barriers			
<b>4. Significant Crossings</b>			
Crossings at Intersections			
Multilane Arterial Crossing	N/A		
Median Refuge	N/A		
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)	N/A		
Vehicular Congestion (i.e, Level of Service A-C) - Low	N/A		
Sight Distance (125 ft for 20 mph, 175 ft for 25 mph, 230 ft for 30 mph)			
<b>regulatory investment</b>			
Ease of Construction – Easy (Striping, Signage)			
General Cost to Implement - Low			
Community Support			

# Link 2

## DESCRIPTION

### GENERAL CONDITIONS

Class I trail already in place; in need of signage and striping

### LINKS & CROSSINGS

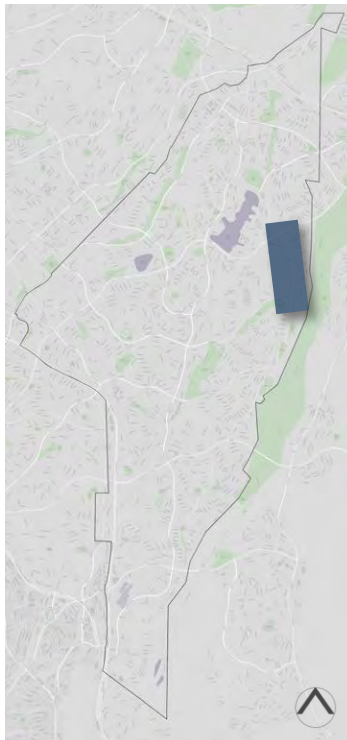
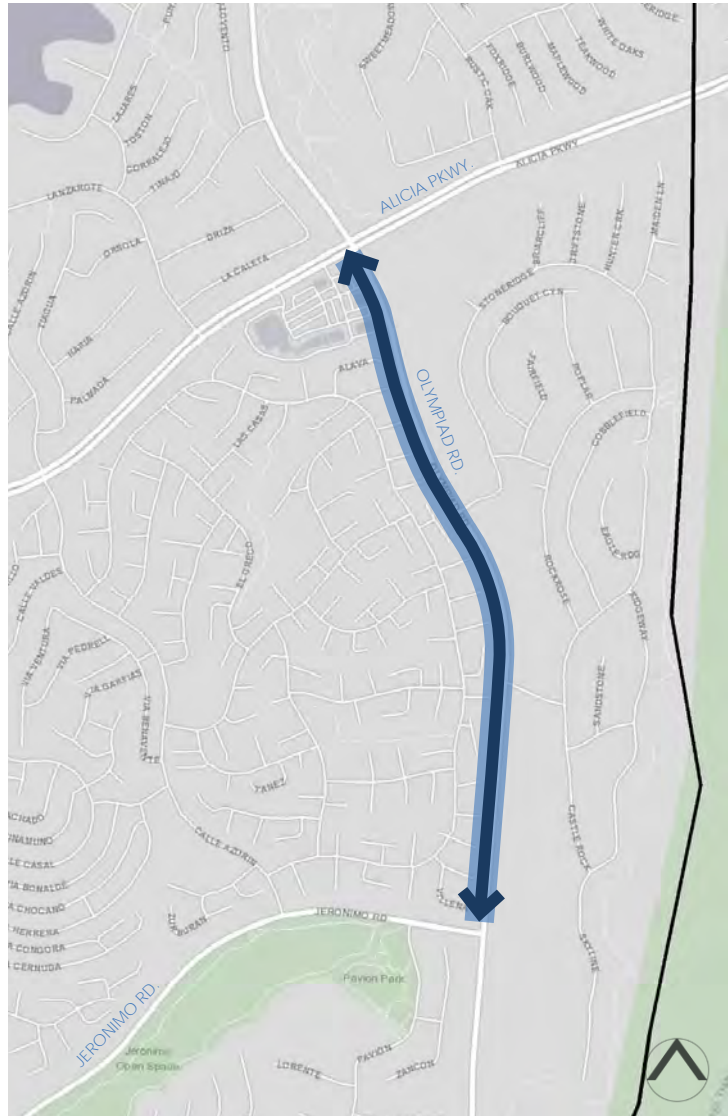
Extension of Oso Creek Trail with links to Olympiad Plaza, Oso Creek Lake Loop Trail, and Pavion Park

### GRADE CHANGE

Slight grade changes

### ADJACENT LAND USES

All City owned property



key map

0.9  
miles\*

Along OLYMPIAD ROAD  
from JERONIMO ROAD to  
ALICIA PARKWAY

CLASS I CONCRETE  
SURFACING

107'  
elevation  
gain

*links to Oso Creek Lake  
Loop Trail, Olympiad Plaza  
and Pavion Park*

146'  
elevation  
loss











\* represents miles of trail in one travel direction only









# Criteria & Matrix Evaluation – Missing Link Trail #3

Oso Creek Trail North  
Jerónimo to Casta Del Sol Rd.

## CRITERIA

## BIKE PATH:

	Segment 1	Segment 2	Segment 3
<b>design</b>	Jerónimo to Casta Del Sol		
<b>1. Width</b>			
Class 1 Bikeway - 10 ft			
Class 2 Bikeway - 6 ft	N/A		
Class 3 Bikeway	N/A		
Class 4 Bikeway - 12 ft	N/A		
Shoulder Width - 2 ft	N/A		
<b>2. Grade</b>			
0-5%			
<b>3. Lighting</b>			
Bike Path Lighting (Future)			
<b>4. Surface</b>			
Asphalt or Other Percolating Material			
Smooth, Well Drained, All-Weather Riding Surface			
<b>5. Clearance</b>			
10 ft Vertical Clearance			
<b>6. Maintenance/Drainage</b>			
2-5% Cross Slope			
Existing Service Roads			
<b>land use compatibility</b>			
<b>1. Land Use Agencies</b>			
Connections to Residential Neighborhoods, Schools, Recreational Facilities			
Connecting to Commuter Route/Employment Centers (San Juan Capistrano Connection)			

	Segment 1	Segment 2	Segment 3
Connections to Other Transit Modes (i.e., Transit, Metrolink)			
<b>route</b>			
<b>1. Completes Regional Linkage</b>			
Segments Link to Existing Bikeway and/or Regional Multi-use Trail			
<b>2. Right-Of-Way</b>			
In Transition			
<b>3. Barriers</b>			
Bikeway Gaps			
Rivers, Edges, Elevations			
Bike and Pedestrian Connectivity Across Major Barriers	N/A		
<b>4. Significant Crossings</b>			
Crossings at Intersections	N/A		
Multilane Arterial Crossing	N/A		
Median Refuge	N/A		
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)	N/A		
Vehicular Congestion (i.e, Level of Service A-C) - Low	N/A		
Sight Distance (125 ft for 20 mph, 175 ft for 25 mph, 230 ft for 30 mph)	N/A		
<b>regulatory investment</b>			
Ease of Construction – Moderate			
General Cost to Implement - Moderate			
Community Support			

# Link 3

## DESCRIPTION

### GENERAL CONDITIONS

Class I trail in Oso Creek Open Space

### LINKS & CROSSINGS

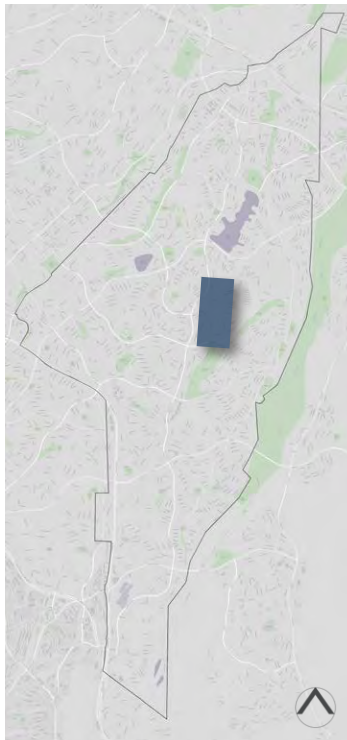
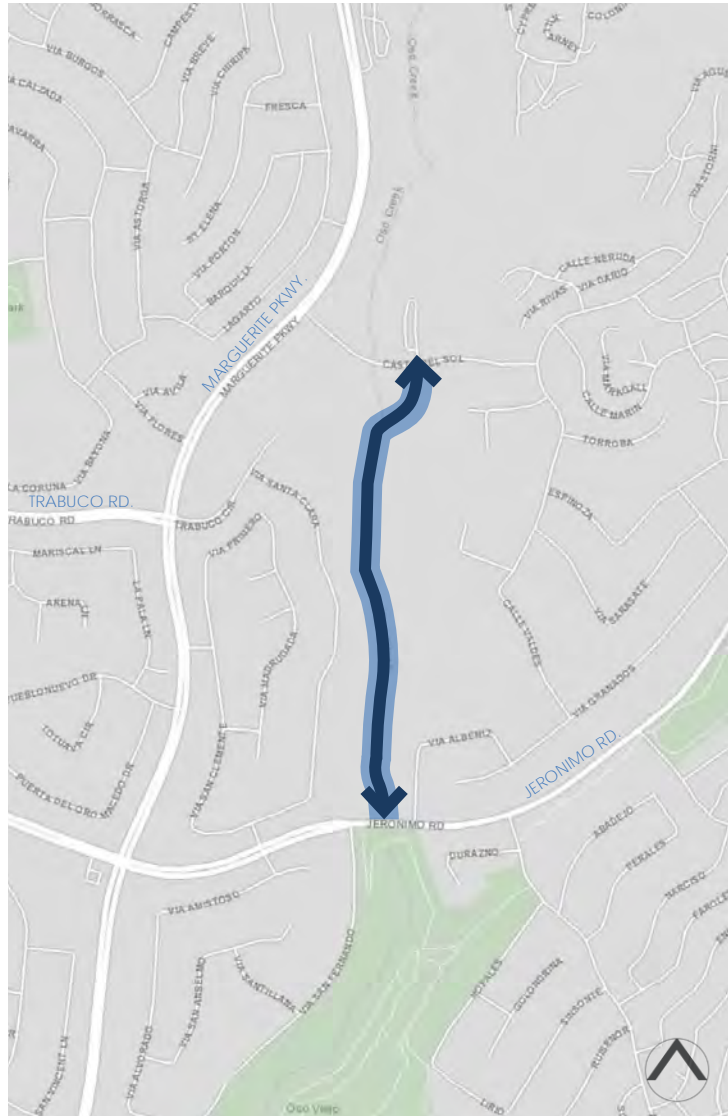
Existing Oso Creek Trail to Marguerite Recreation Center

### GRADE CHANGE

Slight grade changes

### ADJACENT LAND USES

Property ownership in transition



key map

0.6  
miles\*

under crossings at  
JERONIMO ROAD

CLASS I ASPHALT  
SURFACING

39'  
elevation  
gain

*links to Marguerite Recreation  
Center and Oso Creek Trail*

103'  
elevation  
loss

\* represents miles of trail in one travel direction only

# Criteria & Matrix Evaluation – Missing Link Trail #4

N/S Commuter Trail  
 Along Railroad – Los Alisos to  
 La Paz Rd. and Drainage Channel

CRITERIA	BIKE PATH:		
	Segment 1	Segment 2	Segment 3
design	Los Alisos to Alicia	Alicia to La Paz	La Paz to Chrisanta/ Jeronimo
<b>1. Width</b>			
Class 1 Bikeway - 10 ft			
Class 2 Bikeway - 6 ft	N/A	N/A	N/A
Class 3 Bikeway	N/A	N/A	N/A
Class 4 Bikeway - 12 ft	N/A	N/A	N/A
Shoulder Width - 2 ft	N/A	N/A	N/A
<b>2. Grade</b>			
0-5%	 Some Steeper		
<b>3. Lighting</b>			
Bike Path Lighting (Future)			
<b>4. Surface</b>			
Asphalt or Other Percolating Material			
Smooth, Well Drained, All-Weather Riding Surface			
<b>5. Clearance</b>			
10 ft Vertical Clearance			
<b>6. Maintenance/Drainage</b>			
2-5% Cross Slope			
Existing Service Roads			
<b>land use compatibility</b>			
<b>1. Land Use Agencies</b>			
Connections to Residential Neighborhoods, Schools, Recreational Facilities			

	Segment 1	Segment 2	Segment 3
Connecting to Commuter Route/Employment Centers (San Juan Capistrano Connection)			
Connections to Other Transit Modes (i.e., Transit, Metrolink)			
<b>route</b>			
<b>1. Completes Regional Linkage</b>			
Segments Link to Existing Bikeway and/or Regional Multi-use Trail			
<b>2. Right-Of-Way</b>			
City Owned	No	No	No
Agency/Private (OCTA)			
<b>3. Barriers</b>			
Bikeway Gaps			
Rivers, Edges, Elevations	N/A	N/A	N/A
Bike and Pedestrian Connectivity Across Major Barriers		N/A	N/A
<b>4. Significant Crossings</b>			
Crossings at Intersections			
Multilane Arterial Crossing	N/A	N/A	N/A
Median Refuge	N/A	N/A	N/A
Lateral Conflict (i.e., Free Right Turn Lanes, Bus Stops, Driveways, etc.)	N/A	N/A	N/A
Vehicular Congestion (i.e, Level of Service A-C) - Low	N/A	N/A	N/A
Sight Distance (125 ft for 20 mph, 175 ft for 25 mph, 230 ft for 30 mph)	N/A	N/A	N/A
<b>regulatory investment</b>			
Ease of Construction – Difficult			Moderate
General Cost to Implement – Moderate/High			
Community Support			