

OC BIKEWAYS

AB2766
Orange County Transportation Authority
Contract No. MS16029

Prepared for the Mobile Source Air Pollution Review Committee (MSRC) under the
AB 2766 Discretionary Fund Work Program.

Acknowledgments

The completion of the OC Bikeways required collaboration between the Orange County Transportation Authority (OCTA), City of Cypress, County of Orange, City Irvine, City of San Juan Capistrano, and Mobile Source Air Pollution Reduction Review Committee (MSRC).

This report was submitted in fulfillment of MS16029 and OC Bikeways by the OCTA under the partial sponsorship of the MSRC.

Disclaimer

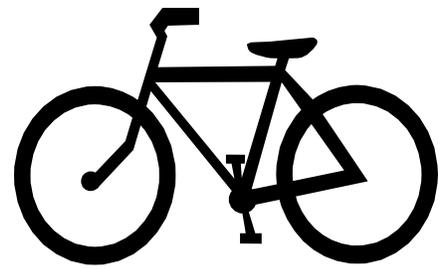
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Project Description

The OCTA expresses its gratitude to the MSRC and staff for their invaluable support of OCTA's OC Bikeways project. OCTA was awarded \$836,413 in MSRC grant funds for the following projects:

- Freeway Trail Lighting Improvements Project
- San Juan Capistrano Bicycles Lanes Gap Closure Project
- Lambert Road Bike Lanes Project
- Cerritos Avenue Bike Corridor Improvements Project

There are separate final reports for each project included in this report.



CITY OF IRVINE

Freeway Trail Lighting Improvements

AB2766
Contract No. MS16029

Prepared for the Mobile Source Air Pollution Review Committee (MSRC) under the
AB 2766 Discretionary Fund Work Program.

Acknowledgments

The completion of the Freeway Trail Lighting Improvements project required collaboration between OCTA, City of Irvine, and Mobile Source Air Pollution Reduction Review Committee.

Name	Title	Organization
Louis Zhao	Section Manager, Discretionary Funding Programs	OCTA
Reza Jafari	Senior Project Manager	City of Irvine

This report was submitted in fulfillment of MS16029 and Freeway Trail Lighting Improvements by the Orange County Transportation Authority (OCTA) under the partial sponsorship of the Mobile Source Air Pollution Reduction Review Committee (MSRC). Work was completed as of August 9, 2017 (open for use).

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Project Description

The project is on the existing trail commonly known as the Culverdale Trail which is located north of the Interstate 405 (I-405) freeway and runs parallel to the I-405 and Main Street from San Diego Creek to Culver Drive. The segment is approximately 6,000 feet in length and the project scope includes the installation of new pole mounted trail lights along the Class I bike path, to provide safety for bicycle commuters and pedestrians. Via the connection to Main Street by means of the Class I bicycle lanes on Harvard Avenue, the Freeway Trail project provides access to community parks, residential communities, retail centers and business parks.

Problems Encountered

None. The project was delivered as planned and at a reduced cost with no changes to the scope.

Benefits

Prior to the implementation of this project there was no bicycle or pedestrian scale lighting within the project location. Although there were existing streetlights along parallel Main Street, the cyclists would have to share the road with vehicles travelling at speeds of up to 50 miles per hour if they chose that route. The project increases visibility and enhances safety.

It also encourages early morning and evening use of the trail for all users including cycling commuters which according to the 2017 American Community Survey includes 1.5% of Irvine's residents which is higher than both the County average of 0.8% and the state average of 1.1%. Additionally, the project encourages active transportation creating healthier communities and encourages mode shift that replace vehicle trips, thereby reducing greenhouse gas emissions and improving local air quality.

Photographs & Outreach

Before



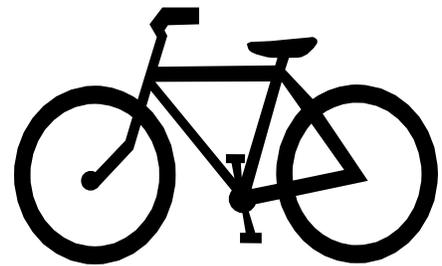
After



Two changeable message signs, which faced cyclists entering the bike trail were posted at the San Diego Creek and on Culver Drive before the project work began. The signs included a brief description of the project work, project start and completion dates, and the project hotline, answered by city staff, by which interested trail users could receive additional information.

Conclusions

In conclusion, the project installed lighting improvements along the existing off-street trail. The completed project increases safety and encourages the use of the segment for all users during early morning and evening times.



CITY OF SAN JUAN CAPISTRANO

City-wide Bikeway Gap Closure

AB2766
Contract No. MS16029

Prepared for the Mobile Source Air Pollution Review Committee (MSRC) under the
AB 2766 Discretionary Fund Work Program.

Acknowledgments

The completion of the City-wide Bikeway Gap Closure project required collaboration between OCTA, City of San Juan Capistrano, KOA Corporation for design, Unispec Construction Inc. for construction, and Mobile Source Air Pollution Reduction Review Committee. Key personnel include:

Name	Title	Organization
Louis Zhao	Section Manager, Discretionary Funding Programs	OCTA
Joe Mankawich	Associate Engineer	City of San Juan Capistrano

This report was submitted in fulfillment of MS16029 and City-wide Bikeway Gap Closure by the Orange County Transportation Authority (OCTA) under the partial sponsorship of the Mobile Source Air Pollution Reduction Review Committee (MSRC). Work was completed as of September 4, 2017 (open for use).

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City-wide Bikeway Gap Closure City of San Juan Capistrano Final Report

Project Description

The City of San Juan Capistrano Bikeway Gap Closure Project includes capital improvements throughout the City to enhance connectivity and safety. The improvements increased bicycle and walking, reduced automobile use, and improved air quality. The San Juan Capistrano Bikeway Gap Closure Project includes a total of 2.1 miles of new bikeways and improvements in five locations. The locations and work performed are briefly summarized below and shown on Attachment A:

Location	Work Performed	Status
The Trabuco Creek Bikeway Gap Connection	Installed sharrows and wayfinding signage to connect to the City of Mission Viejo Bike Path	Completed
East Open Space Bikeway Gap Connection	Constructed a new Class I bikeway from existing City bikeways on San Juan Creek Road to new County Trails in the new Rancho Mission Viejo development area.	Removed from scope. Contract amendment was considered and approved by the MSRC on May 16, 2019
Rancho Viejo Road Bikeway Gap Closure	Installed asphalt paving, signage, trail fencing and pavement markings to connect Rancho Viejo Road Trail to San Juan Creek Trail	Completed
La Novia Bikeway Gap Closure	Constructed Asphalt Paving, Pavement Markings, and Wayfinding Signage to fill gap in the La Novia Bikeway	Completed
Camino Capistrano Bikeway Gap Closure	Installed Sharrows and Wayfinding Signage to fill gap in the Camino Capistrano Bikeway	Completed
Del Obispo Street Bikeway Gap Connection	Road improvements, signage and pavement markings on the existing City Del Obispo Street Class III Bikeway to connect to Dana Point, Doheny Beach State Park and downtown San Juan Capistrano	Removed from scope. Contract amendment was considered and approved by the MSRC on May 16, 2019
Alipaz Street Bikeway Gap Closure	Installed bike lane pavement markings, ramp and wayfinding signage to connect with La Novia Bikeway to the County of Orange San Juan Creek Levee Bikeway	Completed

Problems Encountered

Scope Reduction

The originally approved scope of the project included seven locations of improvements as listed in the project description. However, the delivery of improvements in two of the project locations were not directly supported by the MSRC funds and were requested to be removed from the project scope, including the East Open Bikeway Gap Closure and the Del Obispo Bikeway Gap Closure.

East Open Space Bikeway Gap Closure

This segment of the project was initially requested to be evaluated for the possibility of an alternative alignment by the City Trails and Equestrian Commission. The result was a proposed extension of the San Juan Creek Trail which would provide even better connections to future trails, employment centers, and beach communities than the previously proposed alignment. The removal and replacement of the East Open Space Bikeway Gap Connection by the San Juan Creek Trail was approved by the California Transportation Commission as part of the construction allocation request for state Active Transportation Program (ATP) funds. The project was completed by a private developer.

Del Obispo Bikeway Gap Connection

This segment of the project overlaid the project location of a future widening of Del Obispo Street at the time. The schedule would require that if the bikeway project was built as planned, the future street widening project would remove the bikeway improvements soon after. The removal of the Del Obispo Bikeway Gap Connection was approved by the California Transportation Commission as part of the construction allocation request for state ATP funds. The project was completed as part of the Del Obispo Street Widening Project in Fiscal Year 2017-18.

This amendment was considered and approved by the MSRC on May 16, 2019. The amendment reduced the approved MSRC funding from \$66,360 to \$61,113.

Benefits

Benefits of the project include:

- Increase connectivity of existing bikeway systems, neighboring cities, recreational, employment centers, and multimodal transportation systems
- Increase safety of bikeway systems
- Provide clear direction to bicyclists and increase awareness of the bikeway system
- Increase bicycling and walking
- Improve air quality by reducing automobile use

Photographs & Outreach

Alipaz Bikeway Connection

Before



After



**City-wide Bikeway Gap Closure
City of San Juan Capistrano Final Report**

Rancho Viejo Bikeway Gap Closure

Before



After



La Novia Bikeway Gap Closure

Before



After



Camino Capistrano Gap Closure

Before



After



Trabuco Creek Gap

Before



After

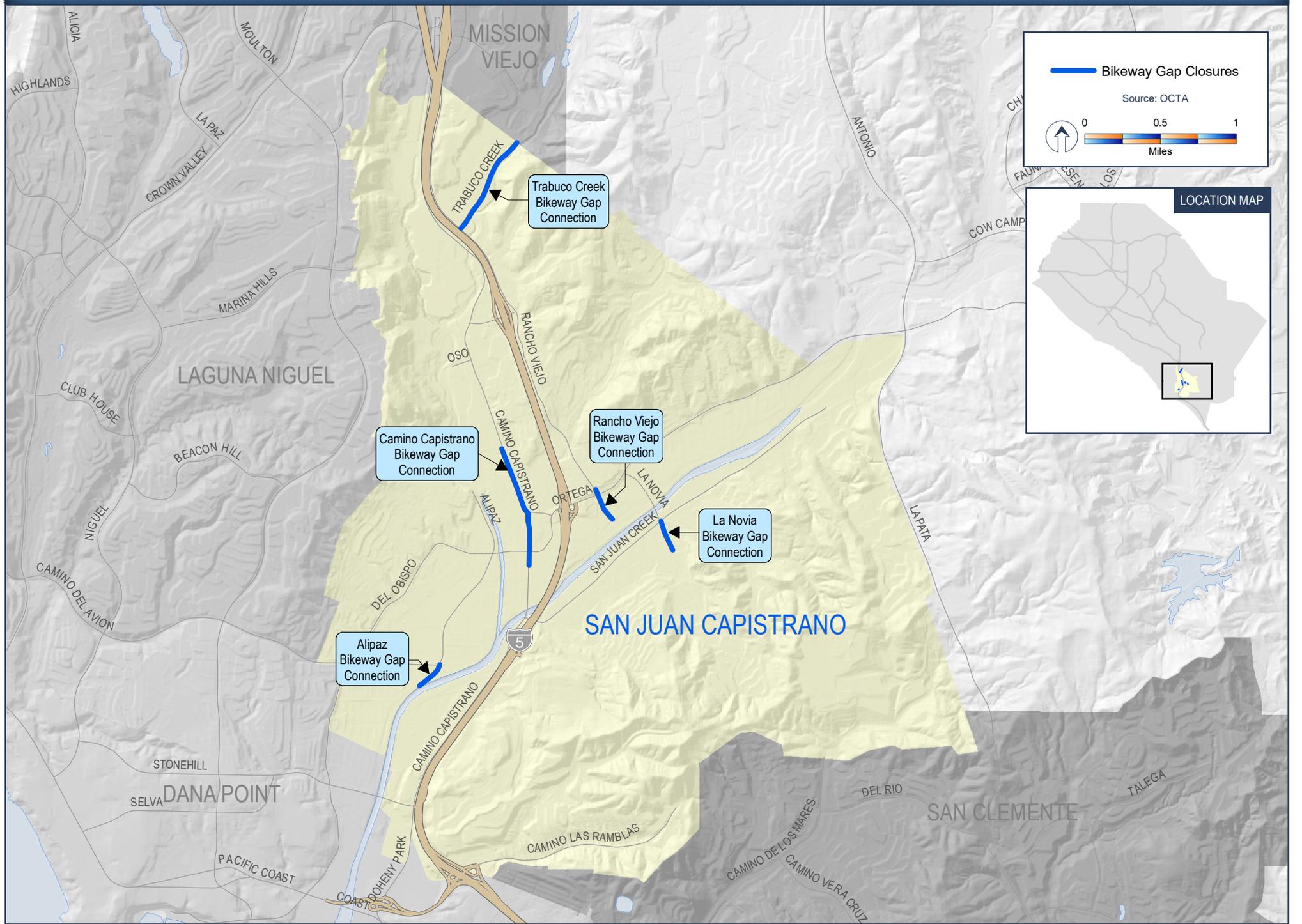


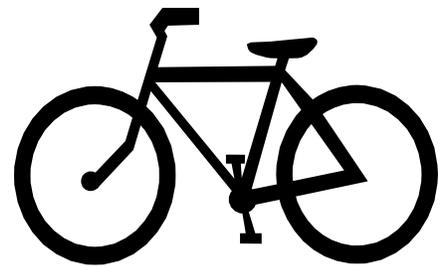
Conclusions

The City of San Juan Capistrano’s Bikeway Gap Closure constructed a total of 2.1 miles of new bikeways and improvements in five locations. The project improves connectivity throughout the City at multiple locations (Attachment A).

Attachments

Attachment A: Location Map





COUNTY OF ORANGE

Lambert Road Bikeway Project

AB2766
Contract No. MS16029

Prepared for the Mobile Source Air Pollution Review Committee under the AB 2766
Discretionary Fund Work Program.

Acknowledgments

The completion of the Lambert Road Bikeway Project required collaboration between the Orange County Transportation Authority (OCTA), County of Orange, California Department of Transportation (Caltrans), Southern California Edison (SCE) and Mobile Source Air Pollution Reduction Review Committee (MSRC).

This report was submitted in fulfillment of MS16029 and Lambert Road Bikeway Project by the OCTA under the partial sponsorship of the MSRC. Work was completed as of March 2018 (open for use).

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Project Description

The Lambert Road Bikeway Project is located along Lambert Road/Carbon Canyon Road between Sunflower Street and the entrance to Carbon Canyon Regional Park at Santa Fe Road. The project included the construction of a new five-foot wide Class II bikeway in both directions.

Problems Encountered

The Project encountered several delays prior to construction in the following areas:

Annexed Roadway

The City of Brea notified the County of plans to annex the roadway where the project is located. The design changes that were required to fulfill this request included modifying configurations to include two additional lanes, providing landscape corridors, drainage improvements, new curb and gutter, new sidewalk, major utility relocations, impacts to private property, and additional right of way acquisition. In total, this coordination delayed the project by three months.

Extensive right-of-way Coordination

The County initially anticipated the right-of-way acquisition process to follow straight forwards negotiation procedures. However, one private property owner submitted three requested conditions of the approval, that required additional time to analyze, design, coordinate, and finalize before proceeding with right-of-way negotiations.

Additionally, the new-right-of-way needs required an agreement between the City of Brea, SCE, and the private property owner. The County had very little control over the timing of the coordination and execution of this agreement.

Scope Reduction

The originally approved scope of the Lambert Road Bikeway project included the provision of a five-foot Class II bikeway in both directions, asphalt concrete improvements to accommodate the bikeways, and the installation of utility support poles, streetlights, bicycle racks and bicycle lockers. Consistent with OCTA's Master Plan of Arterial Highways, Lambert Road is planned to undergo a capacity increase which would increase the width of the roadway and may require the removal of the proposed lighting. Additionally, the County was notified that there was insufficient space in the designated bicycle parking area to accommodate bicycle lockers in the regional park and that the existing bicycle racks would be kept in place.

To address these constraints, the County of Orange requested a scope modification to remove the street lighting and bicycle lockers. This amendment was considered and approved by the MSRC on May 16, 2019.

Benefits

By providing connections, the project encourages mode shift that replace vehicle trips reducing greenhouse gas emissions and improving local air quality. It also improves the safety of bicycle commuters and encourages active transportation creating healthier communities.

The new Class II bikeways provide connections to the existing bike routes and amenities including:

- Class I facilities at Olinda Ranch Neighborhood Park
- Class II facilities along the intersecting Valencia Avenue
- Carbon Canyon Regional Park
- Chino Hills State Park
- Olinda Elementary School
- Brea Sports Park

Photographs & Outreach

A public notice was mailed out prior to the start of construction which detailed the scope and location of the project and the duration of construction. It also provided the contact information of OC Public Works staff so that the public would be able to reach out for additional information. The Construction Alter has been included as an attachment.

Before:



Lambert Road approximately 900 ft East of Sunflower Street, North side – Sudden change of road width with no designated bikeway creates unsafe condition for cyclists.



Lambert Road approximately 2,000 ft West of Valencia Avenue, Southside – Providing Class II facility on a major arterial highway will improve safety and convenience for bicycle commuters.



Carbon Canyon Road approximately 1,000 ft East of Valencia Avenue, Northside – Note on the right side the beginning of existing Class I bikeway. Proposed Class II bikeway connection.



Carbon Canyon Road approximately 2,000 ft East of Valencia Avenue, looking East, South side – Existing striped shoulder will be re-stripped to provide Class II facility

After:

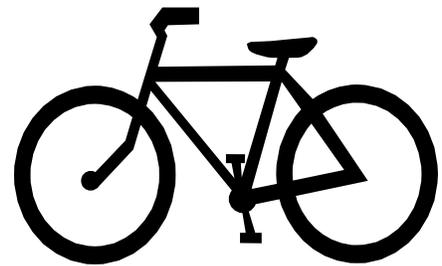


Conclusions

In conclusion, the project installed a Class II facility on both sides of Lambert Road/ Carbon Canyon Road between Sunflower Street and the entrance to Carbon Canyon Regional Park. The completed project now provides improved safety for riders and connectivity to the adjacent bike routes. The project helps maximize mobility and accessibility, improves air quality, and encourages active transportation.

Attachments

Attachment A: Lambert Road Bikeway Project Construction Alert



CITY OF CYPRESS

Cerritos Avenue Bicycle Corridor Improvements

AB2766
Contract No. MS16029

Prepared for the Mobile Source Air Pollution Review Committee (MSRC) under the
AB 2766 Discretionary Fund Work Program.

Acknowledgments

The completion of the Cerritos Avenue Bicycle Corridor Improvements required collaboration between OCTA, City of Cypress, Mobile Source Air Pollution Reduction Review Committee, Traffic Commission, various bicycle coalitions and advocacy groups, Nobest Inc. for construction, and Vali Cooper and Associates for construction inspection services. Key personnel include:

Name	Title	Organization
Louis Zhao	Section Manager, Discretionary Funding Programs	OCTA
Kamran Dadbeh	City Engineer	City of Cypress
Nick Mangkalakiri	Senior Civil Engineer	City of Cypress

This report was submitted in fulfillment of MS16029 and Cerritos Avenue Bicycle Corridor Improvements by the Orange County Transportation Authority (OCTA) under the partial sponsorship of the Mobile Source Air Pollution Reduction Review Committee (MSRC). Work was completed as of October 23, 2017 (open for use).

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Project Description

The project is located in the City of Cypress and upgraded the previously existing Class III bike facility to a one-mile Class I bike facility on the south side of Cerritos Avenue as well as a Class II facility on both sides of Cerritos Avenue from Denni Street to Walker Street. The previous Class III facility along the project limits only designated the preferred route for cyclists on the street, which is not appropriate for roadways with high motor traffic speeds and volumes. The project provided a dedicated bikeway to promote continuity to the bikeway network and provide exclusive right-of-way for cyclists separate from the roadway that minimize cross flows by motor traffic. The project also maintained the existing pedestrian path which was separated using a landscaped buffer and reduces pedestrian-cyclist conflicts.

Problems Encountered

There were some time delays related to tree removal because land-mark trees require a 30-day public notification. Additionally, the schedule for ordering and receiving materials and other resources was also revised due to peak-construction season in the Summer. No other significant issues were encountered.

Benefits

Connectivity

The project also connects to existing bicycle facilities along Cerritos Avenue in both directions and will provide access to the following locations within a ½ mile radius:

- City of Los Alamitos
- Six schools in the area
- Three community churches
- A U.S. Post Office location
- Costco
- Los Alamitos Racetrack
- residential single-family homes
- business parks
- other commercial uses

Health

- Encourages active transportation creating healthier communities
- Encourages mode shift that replace vehicle trips reducing greenhouse gas emissions and improving local air quality

Safety

- The project includes a Class I facility that completely separate cyclists from vehicles and other on-street hazards and a Class II facility on which a three-foot painted buffer separates the on-street bike lane from vehicles and encourages vehicles to pass at a safe distance

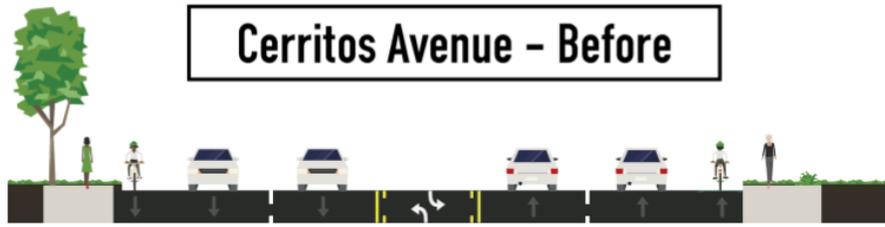
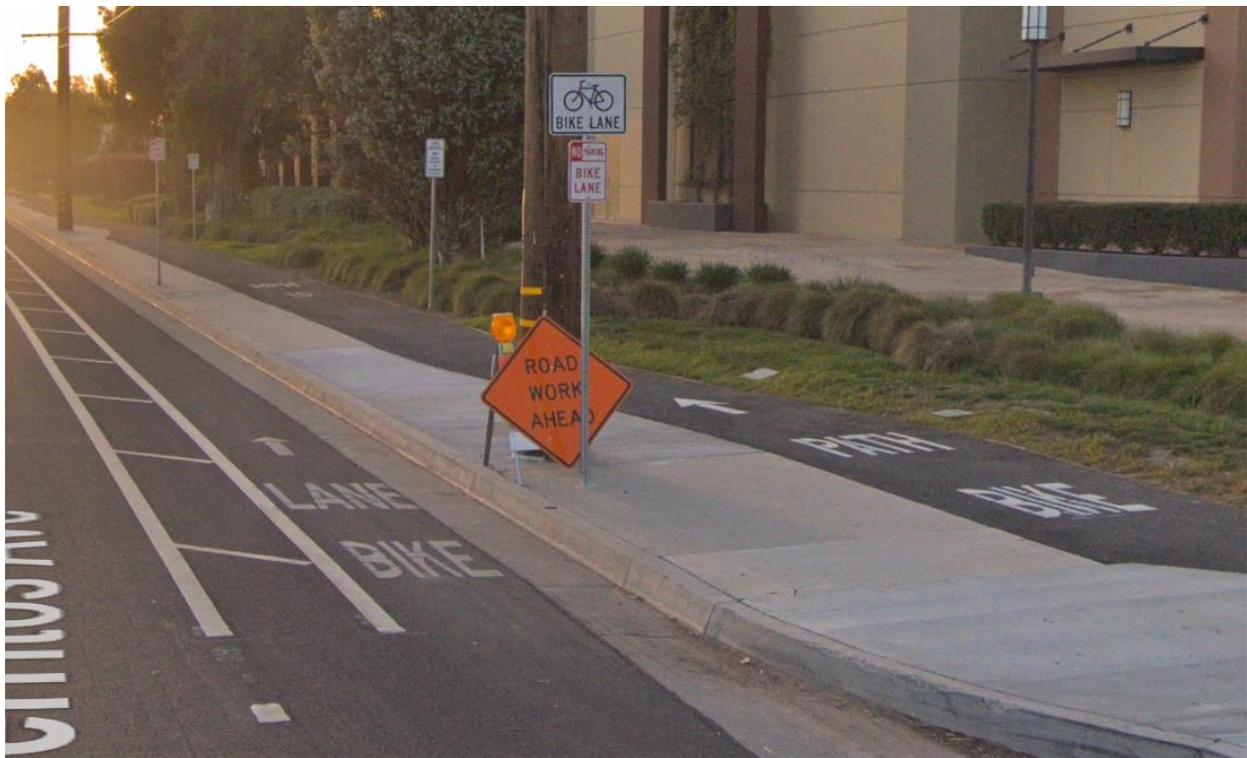
Photographs & Outreach

Before



After





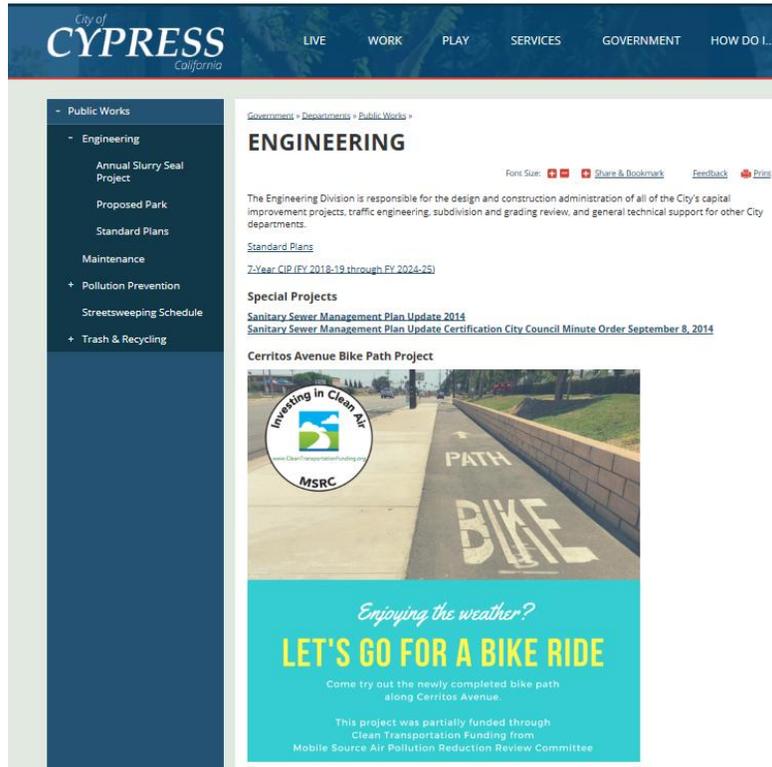
Bike route without a painted bike lane on both sides of Cerritos Avenue.



Painted bike lanes on both sides with a 3' wide buffer and a 6' wide off street bike path.

Cerritos Avenue Bicycle Corridor City of Cypress Final Report

The City of Cypress also promoted the newly completed bike path and MSRC's co-funding of the project on the City's [webpage](#).



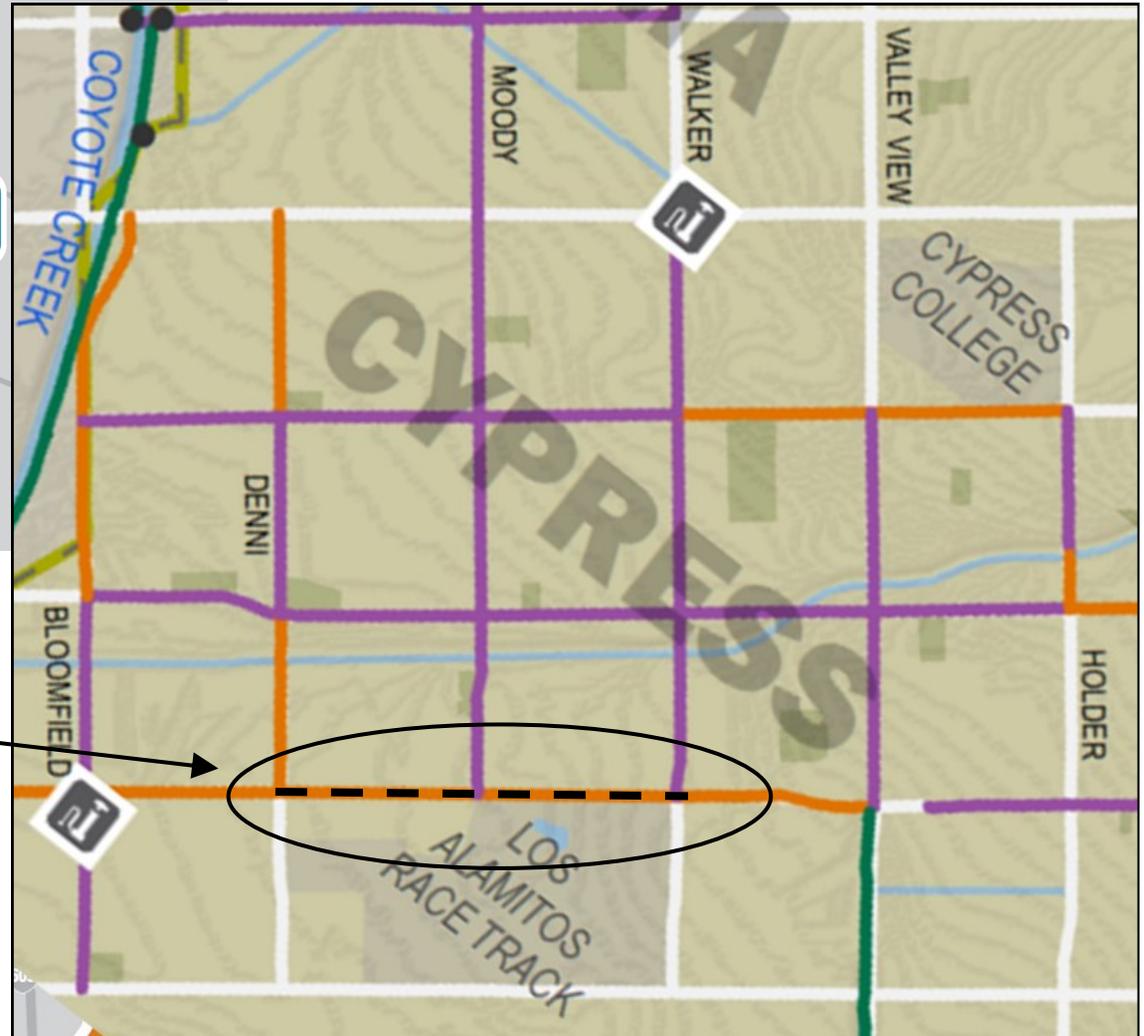
Conclusions

In conclusion, the project installed a Class II bike lane on both sides of Cerritos Avenue and a Class I bike path on the south side of Cerritos Avenue, between Denni Street and Walker Street. The completed project now provides improved safety for riders and connectivity to the adjacent bike routes. The project helps maximize mobility and accessibility, improves air quality, and encourages active transportation.

Attachments

Attachment A: Bike Connectivity Map

Bike Connectivity Map



Cerritos Avenue Bike Corridor Improvements

- NEW Class I Bike Path on south side
- NEW Class II Bike Lane on both sides

	Class I Bike Path (Off-Road, Paved)
	Class II Bike Lane (On-Road, Striped Lanes)
	Class III Bike Route (On-Road, Signed)