

August 14, 2020

TO: CADA Board of Directors

SUBJECT: August 21, 2020 Board Meeting

AGENDA ITEM 9

CASE STUDIES: CREATIVE CROSSWALKS

CONTACT: Renée Funston, Development Manager

Marc de la Vergne, Deputy Executive Director

RECOMMENDED ACTION:

This item is for review and comment only.

BACKGROUND

Creative crosswalks are among the set of improvements called for in the Envision O Street Concept Plan. The inclusion of creative crosswalks in the plan initially came out of meetings with the O Street Steering Committee. This concept was tested during an outdoor pop-up workshop for the O Street Plan in June 2018. Over 300 people attended the event at 9th and O Streets. The most popular idea from the workshop was a creative crosswalk, which staff tested during a 9-hour window from 7 AM to 4 PM. There were zero collisions or pedestrian/driver conflicts during the pop-up creative crosswalk test.

Following this workshop, the City of Sacramento invited staff to research performance of creative crosswalks in California communities that have installed them, particularly with respect to public safety and implementation. Staff prepared case studies highlighting the key findings.

ANALYSIS

The document highlights key features of successful creative crosswalks that promote public safety and help eliminate all traffic fatalities and serious injuries, while also cultivating a sense of place and economic development.

Staff prepared the case studies through research and informational interviews with leaders from across the state who have installed creative crosswalks in their cities. Communities include Long Beach, San Diego, San Francisco, Santa Monica, and West Hollywood.

Based on the report's findings and the current status in Sacramento where the creative crosswalk concept has been tried in a few locations, the report recommends installing creative crosswalks through a segmented approach focusing on one intersection at a time. Additionally, the research suggests creative crosswalks should maintain the "transverse" or "continental" crosswalk markings. Crosswalk art should be added as a supplementary aesthetic feature using contrasting colors and a durable, retroreflective¹ material. Where possible, the report also encourages the

¹ of or relating to a surface, material, or device that reflects light or other radiation back to its source

use of supplementary crossing facility enhancements such as pedestrian crossing signs, curb extensions, and lighting. Based on Federal guidelines, the safest and most effective crosswalks often use a combination of traffic control devices or design elements to inform both motorists and pedestrians.

A key take-away is that none of the jurisdictions studied have experienced any increases in accidents as a result of installing them. Further, none of the cities have been subject to a decline in Federal or State funding for transportation improvements as a result of installing creative crosswalks.

NEXT STEPS

Staff is working with the Public Works Department in an effort to gain approval to install creative crosswalks at an intersection on O Street. Staff is also working with members of the Caltrans Walk/Bike Technical Advisory Committee, which includes a member of the City of Sacramento's Public Works staff, to modernize and clarify State guidance on crosswalk art. Staff has also provided the document to contract design professionals working with the CA Department of General Services on the streetscape design for the Allenby building, which is under construction at the corner of 12th and O Streets and, until recently, included a proposed creative crosswalk in the design. Staff hope the document's findings will help the designers make the case that the crosswalks should be reintroduced into the design.

FINANCIAL IMPACT

Not applicable.

POLICY

Preparation of the Creative Crosswalks Case Studies is an extension of efforts to rejuvenate O Street. This work is consistent with CADA's prior planning work for 16th Street and for R Street, which led directly to significant improvements to those corridors. This O Street planning work will support the goals and objectives of the 1997 Capitol Area Plan by paving the way for physical improvements to O Street that will complement and support CADA's mission to implement the residential and commercial components of the CAP Plan.

STRATEGIC PLAN

Acceptance of the O Street Streetscape Concept Plan advances several 2016-21 Strategic Plan goals including: Nurturing Relationships with the State and City, Promoting Collaboration, and Improving Neighborhood Amenities.

ENVIRONMENTAL IMPACT

Not applicable.

CONTRACT AWARD CONSIDERATIONS

Not applicable.

Attachments:

1. Case Studies: Creative Crosswalks















Case Studies: Creative Crosswalks





Case Studies: Creative Crosswalks

Capitol Area Development Authority
Sacramento, CA
www.CADAnet.org

A special thank you to the project contacts who worked with CADA staff by providing invaluable information on their experience installing creative crosswalks.

ACKNOWLEDGMENTS

CADA BOARD OF DIRECTORS

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CONTENTS

III. CASE STUDY: SAN DIEGO I. INTRODUCTION 10 1 V. CASE STUDY: SANTA MONICA 14 Big Picture: Pedestrian Safety is a Priority Background Background CADA's Interest in Creative Crosswalks Status in Spring 2020 Status in Spring 2020 Creative Crosswalks Align with City of Sacramento Policy Priorities Conformance with State and Federal Guidelines Proposed Approach II. CASE STUDY: LONG BEACH 8 IV. CASE STUDY: SAN FRANCISCO VI. CASE STUDY: WEST HOLLYWOOD 16 12 Background Background Background Status in Spring 2020 Status in Spring 2020 Status in Spring 2020

The City of Sacramento suggested that the Capitol Area Development Authority (CADA) research creative crosswalks in California communities to inform potential implementation along the O Street Corridor. This document highlights key features for successful creative crosswalks that promote public safety and help eliminate all traffic fatalities and serious injuries, while also cultivating a sense of place and economic development. The proposed approach to installing creative crosswalks in Sacramento is based on promoting key findings from informational interviews with leaders from across the state who have installed creative crosswalks in their cities.

I. INTRODUCTION

ADDITIONAL CROSSING FACILITY ENHANCEMENT TREATMENT



ARTISTIC ENHANCEMENT CONTRASTS SIGNIFICANTLY WITH ADJOINING PAVED AREAS, IS APPLICABLE AT ALL TIMES, AND USES A DURABLE MATERIAL CONFINES THE CROSSWALK AREA TO THE STANDARD WIDTH USING WHITE, RETROREFLECTIVE TRANSVERSE LINES The Capitol Area Development Authority (CADA) has researched communities throughout California with creative crosswalks to identify specific design features that are suitable on O Street. In addition to the existing creative crosswalk in Sacramento's Lavender Heights neighborhood, communities that have successfully integrated creative crosswalks include Long Beach, San Diego, San Francisco, Santa Monica, and West Hollywood.

This introductory chapter provides background information about CADA's interest in creative crosswalks; highlights the policy framework at the local, State, and Federal levels; and defines CADA's proposed approach to installing creative crosswalks on O Street. The following section presents case studies featuring key facts and lessons learned in these communities. The findings in this document are based on CADA-led research and informational interviews with project contacts from these jurisdictions.

BIG PICTURE: PEDESTRIAN SAFETY IS A PRIORITY

Ensuring pedestrian safety is a public health priority because people walking in Sacramento are disproportionately impacted by unsafe conditions. While only 13 percent of all trips were made on foot between 2009 and 2015 in Sacramento, 40 percent of all fatal crashes involved a pedestrian (Vision Zero Sacramento Action Plan, 2018).

It's worth noting that approximately 30 percent of workers in the area surrounding the O Street corridor walk as their primary means of transportation to work (based on the 2008-2012 U.S. Census American Community Survey, which is the most recently available data as of February 2020). As described in Grid 3.0 (2016), the Sacramento Area Council of Governments estimates there will be an increase of nearly 80 percent in the number of pedestrian trips in the Central City by 2036. As walking increasingly becomes a primary means of transportation, it is essential that the City enriches and expands pedestrian facilities.







CADA'S INTEREST IN CREATIVE CROSSWALKS

CADA is a Joint Powers Authority created by a partnership between the State of California and the City of Sacramento in 1978. CADA initiated work on O Street improvements in 2010 to improve the physical appearance of the streetscape and to promote its role as a corridor linking destinations throughout the Capitol Area. CADA recommends installing creative crosswalks at one intersection on O Street based on four key themes for successful implementation, which are on pages 6 to 7.

Previous Planning Efforts

As part of these efforts to enhance O Street, CADA prepared the Envision O Street Concept Plan. This Plan establishes the urban design concept that CADA, the City of Sacramento, the California Department of General Services, and other partners will use to inform design and investment decisions affecting the O Street corridor. The Plan calls for increasing safety and comfort of all travel modes, and creating a network of inclusive open spaces. It also focuses on opportunities for innovative streetscape design practices that encourage O Street to thrive as a premier pedestrian corridor in Sacramento.

The Plan identifies a set of improvements, including creative crosswalks. This specific strategy initially came out of meetings with the O Street Steering Committee, which CADA created to represent a wide range of community interests and advise the project team during the development of the Plan. This idea was tested and backed by community support during several workshops and an online survey.

On June 28, 2018, CADA hosted an outdoor pop-up workshop to inform preparation of the Envision O Street Concept Plan and to invite public comment on the pros and cons of the street and ways to improve it. Over 300 people attended the event at 9th and O Streets, which featured several potential streetscape and mobility improvements. The event allowed people to test the different concepts in the real world and provide immediate feedback. A key theme from community input was to improve pedestrian comfort, mobility, and overall safety. Further, the most popular idea to implement these improvements was a creative crosswalk, which CADA tested during a 9-hour window from 7 AM to 4 PM. There were zero collisions or pedestrian/driver conflicts during the test.

On October 3, 2018, CADA hosted two community workshops (one in the afternoon and another in the evening) to gather feedback on the emerging design framework for the O Street corridor. Following the workshops, CADA prepared an interactive online survey that presented the same content as the workshops. The online survey was available from December 2018 to June 2019. CADA received responses from more than 170 individuals who provided over 1,500 individual comments. Key themes from the outreach included ensuring the corridor is safe for all modes of travel and making the 14th and O Street intersection a four-way stop.

The Plan highlights installing creative crosswalks, bulb outs, and other pedestrian safety interventions to directly improve safety along the O Street corridor.

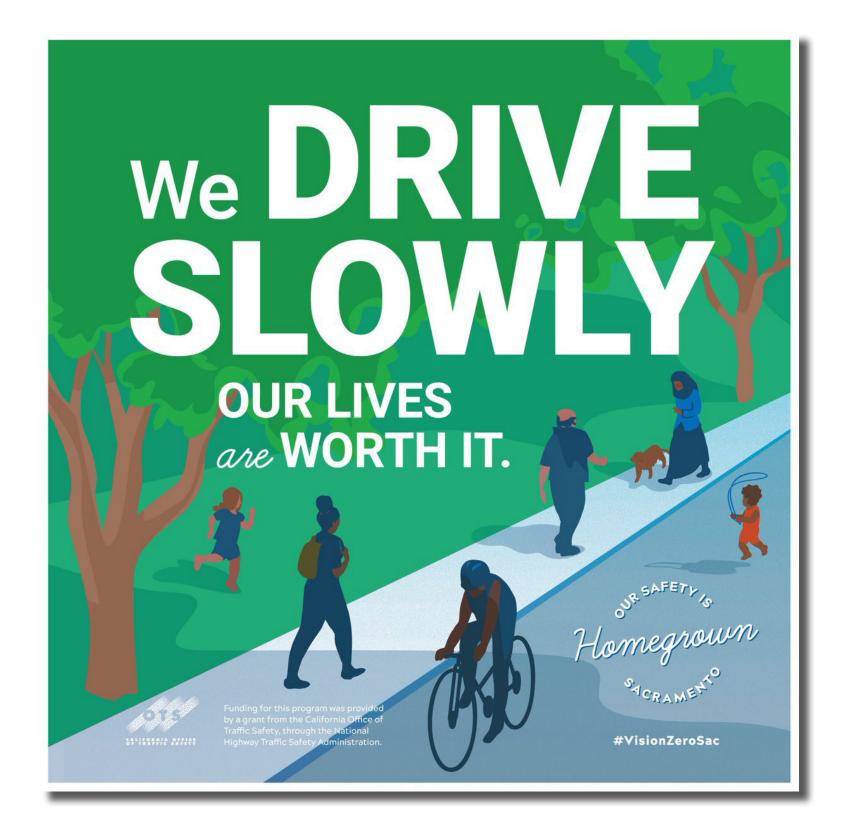
CREATIVE CROSSWALKS ALIGN WITH CITY OF SACRAMENTO POLICY PRIORITIES

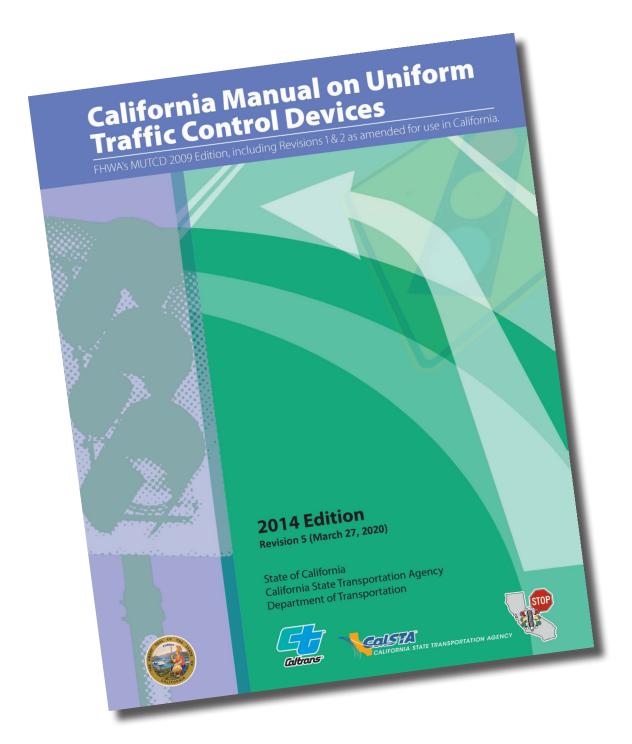
Installing creative crosswalks aligns with policy priorities defined by recent City planning documents, including Grid 3.0, the Vision Zero Action Plan, and the 2040 General Plan Update.

Grid 3.0 plans pedestrian enhancements to cultivate sense of place. Major objectives in Grid 3.0 include providing an enhanced pedestrian network, creating gateways and corridors worth visiting, and creating opportunities for economic development.

The City adopted the **Vision Zero**Resolution in January 2017, and subsequently adopted the Vision Zero
Action Plan. The goal of the Vision Zero
Resolution and Action Plan is to eliminate all traffic fatalities and serious injuries, while increasing safe, healthy, and equitable mobility for all. The City recognizes the opportunity to move beyond traditional transportation safety practices with bold interventions to solve one of the city's largest preventable public health crises.

The current 2035 **General Plan** envisions the City becoming the "Walking Capital" and has made improving pedestrian facilities a policy priority. This objective is evident in the 2040 General Plan Update Vision Statement and Guiding Principles, which emphasizes active transportation, livability, and sense of place by promoting "complete neighborhoods" with active street life, and the Vision Zero goal of zero pedestrian deaths.





CONFORMANCE WITH STATE AND FEDERAL GUIDELINES

Manual on Uniform Traffic Control Devices (MUTCD)

The California Department of Transportation (Caltrans) uses the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD), to provide uniform standards and specifications for all official traffic control devices in the state. The CA MUTCD 2014 substantially conforms with the Federal Highway Administration (FHWA) MUTCD 2009 Edition, which Caltrans amended for use in California. The MUTCD defines the standards used by road managers nationwide to install and maintain traffic control devices on all public streets, highways, bikeways, and private roads open to public travel.

Caltrans last comprehensively updated the CA MUTCD in 2014 and it should be used as guidance, not as a legal requirement. The U.S. Department of Transportation's website states: "...an Official Interpretation should be considered as FHWA policy guidance or FHWA's recommendation of appropriate or best practice. Thus, agencies are encouraged to follow guidance given in an interpretation for any new designs or projects, but there is no legal requirement to do so."

Chapter 3G: Colored Pavements in the CA MUTCD provides guidance on creative crosswalks and recommends the following features:

Crosswalk art is purely aesthetic and is not intended to communicate a regulatory, warning, or guidance message to road users.

Crosswalk art should contrast significantly with the adjoining paved area.

Crosswalk art between crosswalk lines should not use colors and patterns that degrade the contrast of white crosswalk lines

In short, a prudent approach to conforming with CA MUTCD guidance is maintaining the transverse or continental crosswalk marking standards to ensure that the public recognizes the traffic control device. Adding the crosswalk art is a supplementary aesthetic feature.

National Cooperative Highway Research Program (NCHRP)

Another leader in roadway public safety is the National Cooperative Highway Research Program (NCHRP), which focuses on providing systematic, well-designed, and implementable research. According to the NCHRP Report 562, the safest and most effective crosswalks often use a combination of traffic control devices or design elements to inform both motorists and pedestrians. The Report recommends the addition of enhanced treatments that are present or active at all times, such as warning signs, pavement markings, and beacons, that enhance the visibility of the crossing location and pedestrians.

Based on careful consideration of guidance from CA MUTCD and NCHRP, and findings from the case studies (see pages 8 to 17), CADA has identified four measures to successfully implement creative crosswalks in Sacramento.

PROPOSED APPROACH

CADA proposes integrating creative crosswalks through a segmented approach, initially at the 14th & O Streets intersection, before pursuing the addition to other cross streets. CADA will require the design to be limited to the standard area for a crosswalk, use contrasting colors, and use a durable, retroreflective material to ensure maximum visibility. CADA will also encourage the use of additional crossing facility enhancements, including pedestrian crossing signs, curb extensions on the corners, and street lighting, similar to the 20th and K Streets intersection. Initially, the curb extensions can be painted to save costs, and constructed later when funds are available.

TO ENSURE PUBLIC SAFETY AND SUITABILITY, CADA PROPOSES A CONSERVATIVE APPROACH THROUGH THE FOLLOWING MEASURES:

1. CLEARY DELINEATE THE CROSSWALK AREA

By confining the crosswalk area to the standard width defined by the CA MUTCD using either white or yellow, retroreflective transverse lines as the crosswalk border, or adding color between white or yellow, retroreflective continental lines, drivers and pedestrians will recognize the area on the road designated for pedestrian crossings.

3. INCLUDE MULTIPLE CROSSING FACILITY ENHANCEMENT TREATMENTS

The NCHRP advises that the safest and most effective pedestrian crossings often use several crossing treatments. In addition to crosswalk art, these upgrades can include motorist or pedestrian signs, pavement markings, flashing beacons, curb extensions, and/or street lighting. The appropriate combination would need to be determined on a case-by-case basis.

2. DESIGN FOR VISIBILITY AND DURABILITY

Based on standards outlined in the CA MUTCD, colored crosswalks can be used to create an aesthetic enhancement. The CA MUTCD recommends that the colors used on the crosswalk contrast significantly with adjoining paved areas and are applicable at all times. The markings should use colors that stand out with a durable material that is painted or embossed. The crosswalk art colors and design should *not* degrade the transverse or continental crosswalk lines, thus maintaining the crosswalk as a traffic control device.

4. FOCUS ON ONE INTERSECTION AT A TIME

A gradual approach of installing creative crosswalks at one intersection at a time will help people get used to the upgrade.

Ultimately, the City of Sacramento and CADA want the same things. These agencies want to elevate the vibrancy, safety, sustainability, desirability, and economic strength of Sacramento. These agencies want to continue distinguishing this city and safeguarding it as a place that people love being a part of. Implementation of a creative crosswalk on O Street will achieve these multiple goals by integrating the street as a feature that enhances the public realm, focuses on ensuring pedestrian safety, cultivates an active corridor, and encourages long-term investment.



LONG BEACH BLVD & BIXBY RD



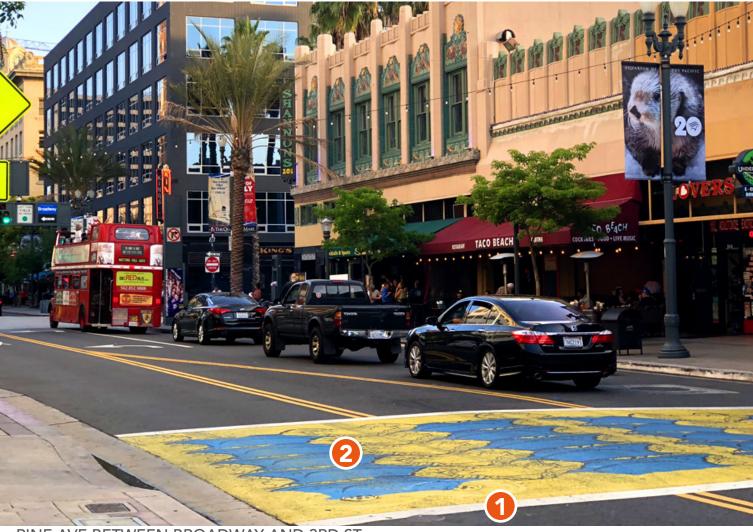
CONFINES THE
CROSSWALK
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ARTISTIC
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CURB EXTENSION

ADDITIONAL CROSSING FACILITY ENHANCEMENT TREATMENT





PINE AVE BETWEEN BROADWAY AND 3RD ST

Long Beach had approximately a dozen creative crosswalks as of February 2020. The City installed its first creative crosswalks in March 2015 with the rainbow-painted crosswalks along the Broadway Corridor at Junipero, Cherry, Falcon, and Orange Avenues. These rainbow crosswalks commemorate the strength of the LGBTQ community in Alamitos Beach, the city's well-known gay neighborhood. Installation of the rainbow crosswalks plus traffic control cost approximately \$31,000.

In 2016, the Long Beach's Public Works team designed and painted piano-keys crosswalks on Long Beach Boulevard and Bixby Road. This project also focused on drawing more attention to pedestrians and increasing walkability. The project was completed through a partnership between the Public Works Department, Councilmembers Uranga and Austin, and the Bixby Knolls Business Improvement Association.

In 2017, the Downtown Long Beach Alliance (DLBA) commissioned Artist Hataya Tubtim to install five unique creative crosswalks on Pine Avenue between First and Seventh Streets. The crosswalks use a technique called tessellation, which is the tiling of a surface using a repeated pattern of shapes without gaps or overlaps. The designs show a chronological history of innovation and technology in Long Beach. It starts with the railroad and goes to the Metro Blue Line. Then, looking at the art from the other direction, there are images of marine life that is commonly found off Long Beach's coast.

While the City of Long Beach considers the reflective, white transverse lines to be the traffic control device and anything between those lines to be a purely aesthetic addition, many view the crosswalk art differently. Since the crosswalks were upgraded, "you see vehicles slow down, [and] pedestrians feel that the street is not just for vehicles, it's for pedestrians as well," said Sean Warner, placemaking manager at DLBA. "I think overall it has lent an element of safety."

The project furthers DLBA's aim to support a vibrant pedestrian environment. The creative crosswalk project aims to enhance Pine Avenue by incorporating art within the standard crosswalk markings to make the crossings safer while adding visual interest to the streetscape. The art is considered to be temporary and will be in place for up to three years. These five crosswalks on Pine Avenue cost approximately \$40,000, which includes paying the artist for the stencil designs, paint, and an installation crew.

STATUS IN SPRING 2020

In 2020, many of the creative crosswalks, particularly the rainbow crosswalks, show extensive wear because of their age and use of a waterborne traffic paint. The City strives to refresh the color annually to ensure its visibility. Popular designs like the rainbows on Broadway have been upgraded to thermoplastic for a longer life.

QUICK FACTS		
Intersections	2015 – Broadway & Junipero, Cherry, Falcon, and Orange Ave (4 intersections) 2016 – Long Beach Blvd & Bixby Rd 2017 – Pine Ave between First and Seventh St (5 intersections)	
Decorative Theme	Rainbow, piano keys, Railroad and Northern Anchovies, Port and Pacific Rock Crabs, Spruce Geese and Brown Pelicans, indycars and Leopard Sharks, metro and Bat Rays	
Material	Fast-drying waterborne traffic paint	
Project Contact	Paul van Dyk Traffic Engineer City of Long Beach Department of Public Works Paul.VanDyk@longbeach.gov	

Traffic Safety

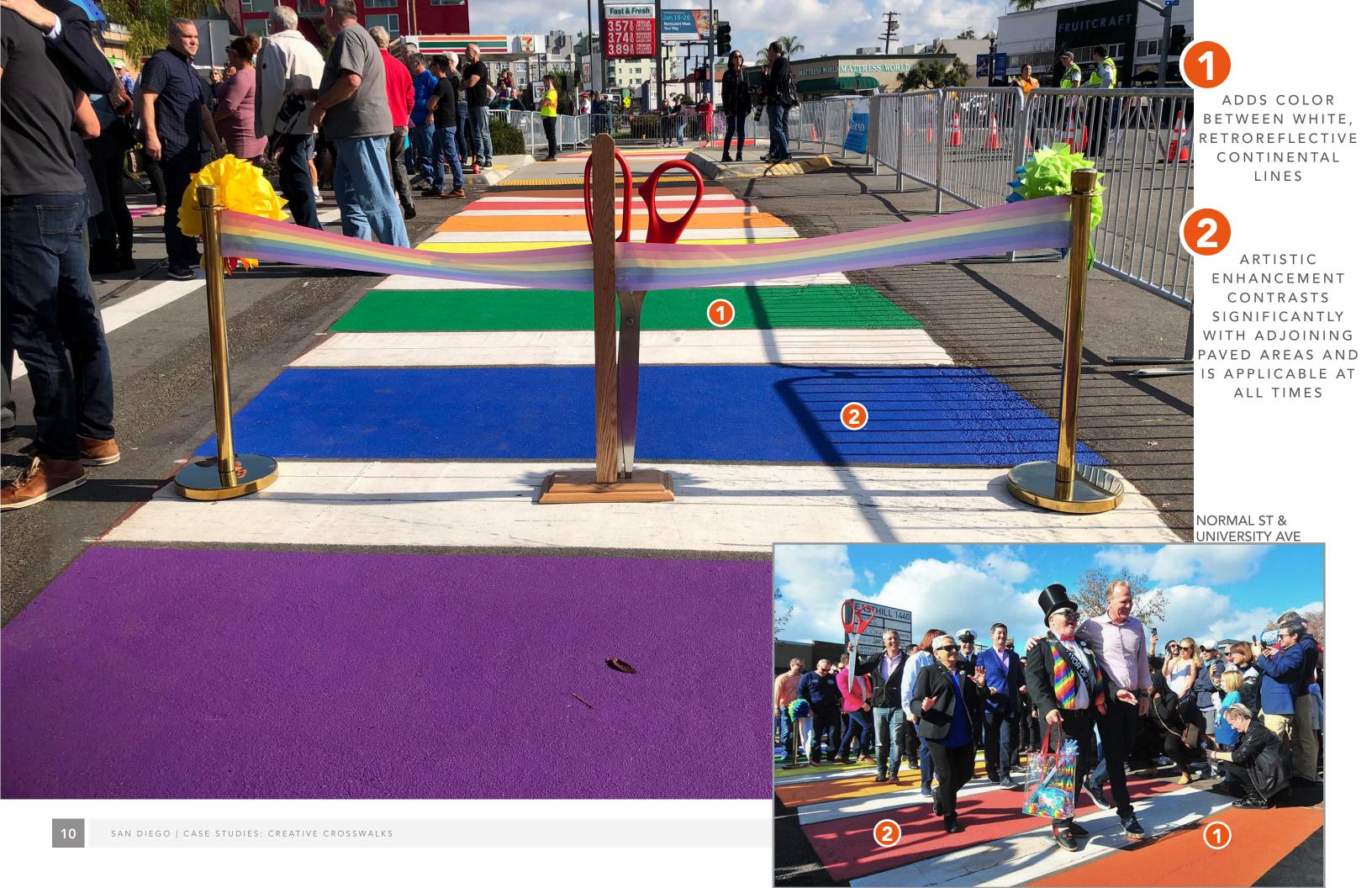
The City reports that there has not been an increase in collisions or traffic safety issues.

Further, there have not been any issues with FHWA. The City ensures conformance with FHWA regulations by maintaining the continental crosswalk pattern or requiring standard transverse lines as parallel boundary markers that enclose the crosswalk art. The City also does not allow permit designs that incorporate elements resembling warning signs, cones, arrows, or other traffic control devices. The City also requires the crosswalk art and colors to clearly stand out

compared to typical traffic control devices, e.g., restricting the use of Federal Standard Orange.

Interest in Additional Creative Crosswalks

The City continues to embrace the success of creative crosswalks. Among the various creative crosswalk types in Long Beach, the rainbow crosswalks received the most negative attention initially because some viewed them as a political statement. However, the community has welcomed later creative crosswalks. Plans for additional decorative crosswalks are currently in development and the Public Works Department approves treatment proposals on an as-needed basis.



The City of San Diego installed its first rainbow crosswalk on January 9, 2020 at the Normal Street and University Avenue intersection where the annual Pride Parade kicks off every year. This rainbow crosswalk includes black and brown stripes for persons of color, and pink and blue stripes for transgender persons. The crosswalk stands for LGBTQ+ visibility, pride, and safety—not just from cars, but the safety and security to be exactly who you are.

The City established the Creative Crosswalks
Pilot Program to give each neighborhood the
opportunity to celebrate its unique pride and
history, and this crosswalk was its first project.
Under this program, creative crosswalks are
allowed as an added decoration to continental
crosswalk markings ensuring the crosswalk
continues to function as a traffic control device.
The City requires that the crosswalk maintains the
standard continental lines, allowing additional
colors as a decoration between these lines.
Because this is a pilot program, the City is closely
monitoring the creative crosswalks for up to two
years after installation to ensure effectiveness and
safety.

The rainbow crosswalk was made possible by the ongoing work of Councilmember Chris Ward's Office and community members and organizations, including the Hillcrest Business Association and San Diego Pride. "[FHWA has] a particular guide called a Manual on Uniform Traffic Control Devices and a lot of states and cities and others model many of their standards. When I say

model, we still have some flexibility to draft our own standards under the guidance and approval of federal traffic engineers," said Councilman Ward. "Our city staff, which is responsibly making sure that the city is not in a liable place, had some reservations, even though they knew that other cities were [adding rainbow crosswalks]." Following a lot of back-and-forth, Councilmember Ward reached a compromise with City staff and the City engineer to allow the rainbow colors between the continental crosswalk lines.

Its installation cost approximately \$15,000, which was privately funded through donations. To commemorate the long awaited achievement, hundreds joined the official unveiling celebration, called "Catwalk on the Crosswalk." The event featured a ribbon cutting ceremony and performances from the San Diego Gay Men's Chorus and San Diego Women's Chorus.

City of San Diego Standards and Guidelines

Based on public interest in creative crosswalks, the City of San Diego established standards and guidelines to ensure public safety and to avoid transportation impacts. The process is outlined through specific requirements for "intersection murals" under Placemaking Permits. These permits are subject to location requirements and design standards for creative crosswalks. They are allowed in low speed and low volume intersections controlled by all-way stop signs. Regarding colors, the multi-colored bars can be added between the continental lines and must not resemble any traffic control devices or conflict with other traffic

QUICK FACTS		
Intersections	2020 – Normal St & University Ave	
Decorative Theme	Rainbow	
Material		
Project Contact	Brittany Bailey Policy Advisor Office of Councilmember Chris Ward City of San Diego BNBailey@sandiego.gov	

standards, markings, and symbols (e.g., Federal Standard Yellow, Federal Standard Green, or white). The crosswalks also cannot contain imagery, symbols, patterns, special designs, or art. Material must be durable, non-toxic, lead free, and skid and slip resistant, and must not in any way deteriorate and run off to storm drains. The permit holder is responsible for the installation and maintenance.

STATUS IN SPRING 2020

The rainbow crosswalk has been very well received by the community.

Traffic Safety

The City reports that there has not been an increase in collisions or traffic safety issues since

installation of the rainbow crosswalk. "There were no more impacts. There were no more pedestrian hits or other injuries. There was no impact because there was a rainbow crosswalk installed at that intersection," Councilman Ward said. Further, there have not been any issues with FHWA.

Interest in Additional Creative Crosswalks

There has been strong support of the new rainbow crosswalk and there are seven additional creative crosswalks in the pipeline, including the Italian flag in Little Italy and the bright pastels of the Children's Museum outside the popular museum. The City anticipates completion of 10 creative crosswalks in 2020.



CASTRO ST & 18TH ST



- USES YELLOW,
 RETROREFLECTIVE
 TRANSVERSE LINES
- ADDS COLOR BETWEEN WHITE, RETROREFLECTIVE CONTINENTAL LINES
- CONTRASTS
 SIGNIFICANTLY WITH
 ADJOINING PAVED AREAS
 AND IS APPLICABLE AT
 ALL TIMES
- USES DURABLE MATERIAL
- ADDITIONAL CROSSING FACILITY ENHANCEMENT TREATMENT

24TH ST & NOE ST

San Francisco unveiled its first creative crosswalks in 2014. Installation of the four rainbow crosswalks at Castro and 18th Streets cost approximately \$37,500, which was funded by the Castro/Upper Market Community Benefits District. Obtaining proper permitting and approvals was a difficult task. The project benefited from strong support from Senator Scott Wiener, who was on the Board of Supervisors at the time.

The crosswalks are installed using a process called DuraTherm® to ensure the longevity of the project. DuraTherm® consists of specially-designed preformed thermoplastic road markings that are inlaid into imprinted asphalt using StreetHeat® asphalt reheating technology. The process of inlaying DuraTherm® into asphalt protects it from wear and ensures that it retains its attractive look for years.

Following the success of the first rainbow crosswalks, the City has installed many more throughout the city, including along Broadway, 24th, Broad/Randolph, and 22nd Streets. The creative crosswalks served to emphasize various corridors as active commercial districts while enhancing pedestrian safety. Many of these efforts were driven by community input and part of

comprehensive streetscape improvement projects that included bulb outs, sidewalk furniture, climate-appropriate landscaping, building murals, and sculptures.

When the crosswalks were first installed, the City of San Francisco did not have a standard for creative crosswalks. Since then, the City has established crosswalk guidelines requiring the use of continental lines to ensure conformance with FHWA guidelines. Based on these guidelines, the particular design at Castro and 18th Streets would not fulfill the current requirements, but a similar design between continental striping might be acceptable. The creative crosswalks along 22nd Street adhere to the crosswalk guidelines by adding thin green stripes between bold continental crosswalk lines.

STATUS IN SPRING 2020

The creative crosswalks have been embraced by the community and add to community character. The rainbow crosswalks in the Castro have become an iconic symbol for the neighborhood and for the city of San Francisco.

QUICK FACTS		
Intersections	2014 – Castro St & 18th St 2015 – 24th St at Church St, Sanchez St, Noe St, & Castro St 2015 – Broad St & Plymouth Ave 2015 – Randolph St & Bright St 2016 – Irving St & 9th 2017 – Taraval St & 47th St 2018 – Broadway at Powell St, Stockton St, & Grant Ave 2019 – 22nd St at Indiana St, Minnesota St, & 3rd St	
Decorative Theme	Rainbow, ocean, brick lattice, paving bricks, blue stripes, Chinatown, green stripes	
Material	DuraTherm® preformed thermoplastic Paint	
Project Contact	John Dennis Landscape Architect, Design Studio Leader City and County of San Francisco Department of Public Works John.Dennis@sfdpw.org	

Traffic Safety

The City reports that there has not been an increase in collisions or traffic safety issues. Further, there have not been any issues with FHWA. The City is committed to ensuring conformance with FHWA by requiring the use of continental lines, as described in the City's crosswalk guidelines.

Interest in Additional Creative Crosswalks

The City currently reviews proposed crosswalk art designs on a case-by-case basis using the crosswalk guidelines.



OCEAN AVE & BROADWAY
Photo Credit: William Short Photography

ARTISTIC ENHANCEMENT
CONTRASTS SIGNIFICANTLY
WITH ADJOINING PAVED
AREAS AND IS APPLICABLE
AT ALL TIMES

ADDITIONAL CROSSING FACILITY ENHANCEMENT TREATMENT

Photo Credit: William Short Photography
2ND ST & ARIZONA AVE

The City of Santa Monica designed its creative crosswalk initiative as a pilot project to test the pedestrian and driver experience. In summer 2016, the City conducted a brief online survey to gather public input to inspire themes for the creative crosswalk design, specifically asking for "one word that encapsulates" downtown Santa Monica and for a "fun story" about walking in the neighborhood. The City also issued a Request for Proposals (RFP) for creative crosswalk designs. The City used this process to gather community input and bring partners together to collectively select a proposal and cultivate buy-in. "This opportunity for placemaking can capture the joy of walking in Santa Monica, with our exceptional climate, light, and environment," stated Francie Stefan, Santa Monica's chief mobility officer.

Based on the selected design, an artist team painted the colorful intersections in September 2016 using stencils and water-based street paint. The team installed the crosswalk design overnight, with one night for each intersection. It was relatively easy to install and cost effective. The City painted the crosswalk at Ocean Avenue and Broadway with long, vertical stripes of various widths to represent a sunset – with shades of blue and purple on one crosswalk, and shades of yellow and red on the other crosswalk. The creative crosswalk at 2nd and Arizona was a recently converted pedestrian "scramble" or all-

way crossing. The City painted this intersection showing overlapping hands with a filled-in background using shades of blue, purple, yellow, and orange. Painting the intersections cost approximately \$39,000 total, \$10,000 to \$15,000 of which was for the designer. Other costs included materials, painting team, and traffic control devices.

STATUS IN SPRING 2020

In 2020, the creative crosswalks show extensive wear and tear because they were installed using a water-based street paint, and the pavement was in poor condition with cracks which accelerates deterioration. The City did not touch up the paint, primarily because of the complexity of logistics needed to do so. The decorative paint on the Ocean Ave and Broadway intersection has mostly faded, and that at 2nd and Arizona has completely faded. The intersections had been scheduled to be repaved approximately 12 months after installation, at which time the creative crosswalks would have gone away. Because the repaving was delayed, the City allowed the faded crosswalks to remain.

Traffic Safety

The City reports that the creative crosswalks did not result in an increase in collisions or traffic safety issues. City staff collaborated with the

QUICK FACTS		
Intersections	2016 – Ocean Ave & Broadway 2016 – 2nd St & Arizona Ave	
Decorative Theme	Colorful stripes/sunset; overlapping hands	
Material	Water-based street paint	
Project Contact	Francie Stefan Chief Mobility Officer/Assistant Director City of Santa Monica Department of Planning & Community Development Francie.Stefan@smgov.net	

Fire Department, Cultural Services, and Traffic Engineering staff in the design process. This helped to identify any sensitivities regarding design features and colors. The City avoided using significant amounts of colors that are typically associated with traffic markings or emergency services. The City's Traffic Engineer approved the installation of the creative crosswalks.

There have not been any issues with FHWA. Overall, the installation was seen as beneficial and not as a threat to public or traffic safety.

Interest in Additional Creative Crosswalks

Since installation of the colorful creative crosswalks, the City has pursued a different approach that implements its newer road safety campaign "Take the Friendly Road." This campaign includes scribing "Look. Watch. Wave." messages in bold white text using thermoplastic to ensure greater longevity and cost savings. The City is generally interested in pursuing colorful creative crosswalks in the future if the process is refined to prioritize locations and address longer-term maintenance.



- CONFINES THE CROSSWALK AREA TO THE STANDARD WIDTH USING WHITE, TRANSVERSE LINES
- ARTISTIC ENHANCEMENT CONTRASTS
 SIGNIFICANTLY WITH ADJOINING PAVED
 AREAS AND IS APPLICABLE AT ALL TIMES
- ADDITIONAL CROSSING FACILITY ENHANCEMENT TREATMENT

SANTA MONICA & SAN VICENTE BLVD

In June 2012, two crosswalks at one intersection in the heart of the West Hollywood LGBTQIA+ neighborhood were painted with temporary rainbow colors in celebration of Pride Month. The original painting cost approximately \$13,000.

The crosswalks were so well received by the community that in August 2012, the City Council approved installation of new asphalt and thermoplastic pavement markings to make the rainbow crosswalks a permanent fixture. In selecting the material, the City prioritized a product that was slip and skid resistant, flush to the surrounding surface to avoid creating trip hazards or bumps, available in the desired colors, easy to clean with non-toxic cleaners and a powered spray washer, and durable. For maintenance and aesthetic reasons, the City did a surface grind and then replaced of the top 1.5 inches of roadway asphalt to ensure the crosswalk pavement was level. A week later, the City installed the colorful thermoplastic. The City estimated the installation cost around \$67,000. Despite some public objection to the cost, City Council members praised the rainbow crosswalks, saying they were important in branding the city as a gay destination.

STATUS IN SPRING 2020

The rainbow crosswalks are showing signs of wear because it has been eight years since installation. The City is planning on reinstalling the rainbow crosswalks this summer using the same skid- and slip-resistant thermoplastic pavement.

Traffic Safety

The City reports that there has not been an increase in collisions or traffic safety issues.

This is a major intersection with approximately 30,000 trips per day. While the rainbow crosswalks are a branding tool, their central purpose is to serve as a traffic management device for public safety. The City designed the rainbow crosswalk to ensure that people recognize the rainbow crosswalk as a traffic control mechanism.

Further, there have not been any issues with FHWA. The rainbow crosswalk meets FHWA requirements because the City has maintained the standard transverse white lines as parallel markers that enclose the rainbow art.

Interest in Additional Creative Crosswalks

The City has not pursued additional creative crosswalks to maintain the significance of the current rainbow crosswalk

QUICK FACTS		
Intersections	2012 – Santa Monica & San Vicente Blvd	
Decorative Theme	Rainbow	
Material	Thermoplastic pavement	
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