



City of Arts & Innovation

Transportation Board

TO: TRANSPORTATION BOARD **DATE: November 5, 2022**

FROM: PUBLIC WORKS DEPARTMENT **WARDS: ALL**

SUBJECT: RECEIVE AND REVIEW THE FINAL DRAFT OF THE CITY OF RIVERSIDE LOCAL ROADWAY SAFETY PLAN

ISSUE:

Consideration of adoption of the City of Riverside Local Roadway Safety Plan, a data-driven document that systematically identifies and analyzes city-wide traffic collision histories, roadway safety concerns and recommends proven safety countermeasure improvements to reduce traffic collisions.

RECOMMENDATION:

That the Transportation Board recommends that the City Council approve and adopt the final draft version of the City of Riverside Local Roadway Safety Plan (LRSP)

BACKGROUND:

On October 10, 2019, the Public Works Department submitted a grant application to Caltrans for funding to establish a Local Roadway Safety Plan (LRSP). On December 4, 2019, Caltrans awarded the grant application and allocated \$72,000 with the City providing a matching fund of \$28,000 toward this effort (total of \$100,000 available). On June 28, 2022, City Council awarded a Professional Services Agreement to Kimley Horn & Associates Inc to complete a LRSP in the amount of \$99,508.23.

As part of an ongoing effort to identify and implement roadway safety improvements, the intent of an LRSP document is to:

- Evaluate and develop recommendations for focused improvements to address local roadway and intersection safety needs
- Maintain eligibility for future safety grant funding opportunities such as Highway Safety Improvement Program (HSIP), Safe Streets and Roads for All (SS4A) Program, etc.
- Evaluate collision histories affecting all transportation modes (pedestrian, bicycle, vehicles)
- Identify collision types and locations; and
- Develop a stakeholder group representing multiple disciplines within the City

The LRSP will build on the recently adopted Riverside PACT (Pedestrian Target Safeguarding Plan, Active Transportation Master Plan, Complete Streets Ordinance, and Trails Master Plan Update) Plan which included a comprehensive analysis of pedestrian and bicycle involved collisions throughout the City.

DISCUSSION:

What is a LRSP?

Local Roadway Safety Plans have been proven to reduce fatalities on local roads in states that have implemented them, and implementation of this LRSP will improve transportation safety for the City's residents and visitors.

The Public Works Department has demonstrated a history of promoting safety and improving the transportation network aligned with the City's Strategic Plan. Existing efforts have included traffic safety studies at multiple locations citywide, grant funding pursuits, monthly safety education programs, and infrastructure improvements. Examples include the installation of High Intensity Activated Crosswalk (HAWK) signals, yellow reflective signal head backplates, buffered bike lanes, high visibility crosswalks, audible pedestrian signals, radar speed feedback signs, and traffic calming measures to reduce traffic speeds to name just a few.

Development of the LRSP

As part of this LRSP, a 5-year collision history database was developed using data from the City's Crossroads Traffic Collision Database Software and the Statewide Integrated Traffic Records System (SWITRS). The collision history was then analyzed to identify the primary causes and concerns for traffic collisions within the City's roadway network. The analysis found that there were 16,081 police-reported collisions citywide between July 1, 2017 and June 30, 2022. Of these, 89 resulted in fatalities and 327 resulted in severe injuries, which combined totals 416 and represents 2.6% of all collisions as shown in the Executive Summary of the LRSP. The three most common overall collision factors in Riverside during this timeframe were Improper Turning (28%), Unsafe Speed (19%), and other improper driving (11%) as shown in Table 4 of the LRSP.

Infrastructure improvements were identified for consideration at roadways and intersections with a documented history of collisions. Staff will determine appropriate placement of identified improvements for future grant funding pursuits, such as the Highway Safety Improvement Program (HSIP) and Safe Streets and Roads for All (SS4A) grants. The LRSP identified 12 case study locations within the City, including representative signalized intersections, uncontrolled intersections, and roadway segments. Each location was analyzed for specific collision history and potential safety countermeasures. This analysis allows staff to focus on the identified needs to apply for grants or implement safety improvements as part of capital improvement projects. Future updates to the LRSP can add additional intersections or street segments based on upon incident data trends.

Engagement Strategy:

The LRSP project created a team of stakeholders consisting of multi-disciplinary decision makers and partners throughout the City. Stakeholders were selected for their influence over the 4 "E"s (Engineering, Enforcement, Education, and Emergency Services) of transportation safety and ability to coordinate specialized services for the community within their respective agencies. The stakeholder group consisted of representatives from Riverside Police Department, University of

California at Riverside, Riverside Unified School District, Riverside Community Health Foundation, Riverside Downtown Partnership, and the Riverside Bicycle Club.

Two stakeholder meetings were conducted virtually on August 4, 2022, and September 1, 2022. Stakeholders provided feedback on the content and accuracy of the LRSP. Stakeholders will convene annually, at the request of the Public Works Department, to confirm the safety goals and direction of the LRSP, which is intended to be a living document.

Additionally, City staff and the project team conducted a field evaluation and visited all twelve case study sites to obtain field notes, capture photos and verify feasibility of proposed infrastructure improvements.

Grant Application Efforts:

The LRSP document is a prerequisite for applying for the HSIP Cycle XI and SS4A grant applications. On September 6, 2022, City Council authorized the submittal of a HSIP Cycle XI grant in the amount up to \$10 million. The Public Works Department submitted similar grant applications for both the HSIP Cycle XI Grant and SS4A Federal Grant, each with a total project cost of \$9,018,200 on September 12, 2022 and September 15, 2022, respectively.

Both grant applications were derived from the LRSP effort and propose implementation of the following proven safety countermeasure improvements:

1. Install retroreflective backplates at all signalized intersections
2. Implement a Leading Pedestrian Interval (LPI) signal timing at all signalized intersections
3. Construct median barrier improvements along Mission Inn Ave from Redwood Avenue to Scout Lane

The Federal Highway Administration has provided studies showing that retroreflective backplates can contribute to a 10% reduction in collisions when implemented, Leading Pedestrian Intervals provide a safety benefit of 13% reduction in pedestrian-vehicle collisions at intersections, and median barriers estimate a reduction in head-on and cross-median collisions in the range of 8% up to 97%. The city has previously implemented a pilot program to install retroreflective backplates at 10 signalized intersections in 2017.

STRATEGIC PLAN ALIGNMENT:

The Riverside LRSP aligns with Strategic Goal 6.2, maintain, protect and improve assets and infrastructure within the City's built environment to ensure and enhance reliability, resiliency, sustainability, and facilitate connectivity. Furthermore, the LRSP aligns with the five cross cutting threads of the Strategic Plans as follows:

1. **Community Trust** – Throughout the LRSP development process, the community was reached through the stakeholder groups representing the interests of residents, public safety, community health, education, and bicycle advocates. The project management team hosted two stakeholder meetings that encouraged community participation in developing the LRSP.
2. **Equity** – The development of the LRSP is a tool that helps promote the safe usage of City roads by motorists, bicyclists, and pedestrians that utilize the public streets and roadways.
3. **Fiscal Responsibility** – The LRSP is a document that satisfies the minimum eligibility

requirements for safety grant applications and provides the means to empower staff to easily pursue safety grant applications for improving roadway safety. The LRSP is a document that is necessary to pursue and receive grant funds that can be utilized to improve the traffic safety of the community.

4. **Innovation** – The LRSP is the first data driven safety analysis document of its kind for Riverside. It evaluates historical collision trends, identifies new strategies and safety countermeasures that can be implemented on a system-wide basis and provides a prioritized and detailed infrastructure improvement plan for future implementation.
5. **Sustainability & Resiliency** – As a living document, the LRSP will be valid for 5 years and can be built upon in the future. The LRSP supports the City’s goals for sustainability and its attention to community health, safety, and resident resilience.

FISCAL IMPACT:

There is no fiscal impact associated with this report.

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Attachments:

1. Local Roadway Safety Plan
2. Presentation