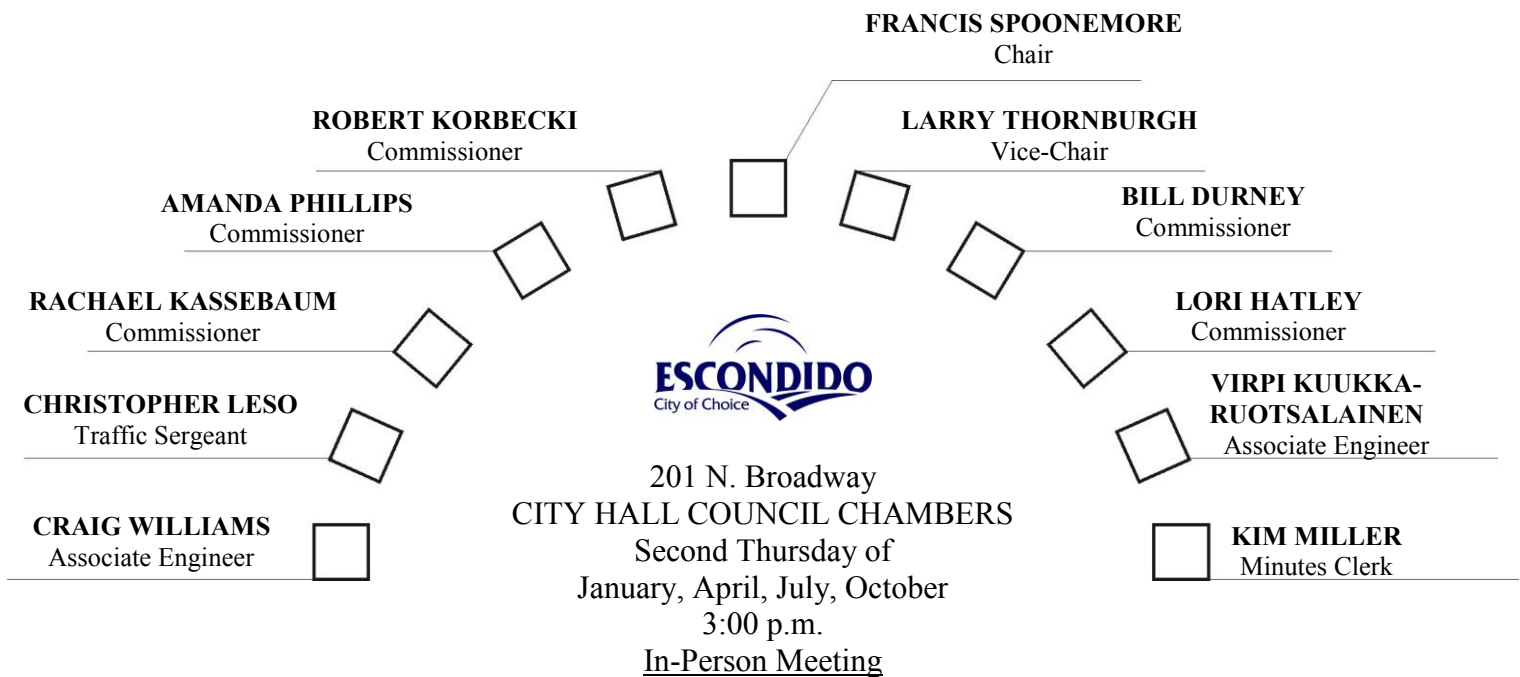


CITY OF ESCONDIDO

Transportation & Community Safety Commission



AGENDA

October 14, 2021

Page | 1

- A. FLAG SALUTE
- B. ROLL CALL AND DETERMINATION OF QUORUM
- C. ORAL COMMUNICATIONS* (At this time, members of the public are encouraged to speak to the Commission concerning items not already on this agenda. A time limit of three [3] minutes per speaker and a total time allotment of fifteen [15] minutes will be observed.)

The Brown Act provides an opportunity for the members of the public to directly address the Commission on any item of interest to the public, before or during the Commission's consideration of the item. If you wish to speak regarding an agenda item, please fill out a speaker's slip and give it to the minute's clerk who will forward it to the Chairman.

If you wish to speak concerning an item not on the agenda, you may do so under "Oral Communications" which is listed on the agenda.

The City of Escondido recognizes its obligation to provide equal access to public meetings to those qualified individuals with disabilities. Please contact the Human Resources Department (839-4643) with any requests for reasonable accommodation, to include sign language interpreter, at least twenty-four (24) hours prior to the meeting.

D. APPROVAL OF MINUTES OF July 8, 2021 MEETING

E. CONSENT ITEMS – None.

F. NEW BUSINESS

1. Speed Surveys – Various locations Citywide

Source: Staff

Recommendation: Approve Staff Recommendation

Previous action: Approved 15 Speed Surveys (July 2021)

2. Local Roadway Safety Plan Progress Update – Crash Analysis

Source: Staff

Recommendation: Information Only

Previous action: Staff report on project progress (July 2021)

G. OLD BUSINESS

1. An overview of various projects involving the City.

Source: Staff

a) TMPL Project Updates

- a. FY20/21: Pedestrian Countdown Indications at four locations were installed. All FY20/21 TMPL projects are now completed.
- b. FY21/22: 1) Mission Middle School Mid-block crosswalk improvements: staff preparing bid-documents 2) Oak Hill Elementary School Crosswalk Improvements: staff preparing bid documents 3) North Broadway Elementary School: project contract awarded, work anticipated to start 12/2021.

b) VMT Phase 2 Mitigation Program Development – Fehr & Peers continuing work on VMT Guidelines to develop Mitigation Program. Work started in June, 2021.

c) Traffic Signal Communications Grant Application. Application approved March 30, 2021; total project \$2.32m; local share \$1.16m. Final funding authorization for Engineering received September 30, indicating approval to issue Request for Proposals Scope of Work for Phase 1 Engineering.

d) Seven Creek Crossings – Design approved for seven crossings between Juniper St and Citrus Ave and project is out to bid. Construction anticipated early 2022.

e) Traffic Signals - New

a. In Design:

- i. Meyers Avenue at Barham Drive. Design nearing completion.
- ii. Citracado Pkwy at Mountain Shadows (Citracado Extension Project.) Design nearing completion.

b. Design approved:

- i. Quince St at Escondido Creek Trail

- ii. Tulip St at Escondido Creek Trail
 - iii. Midway Drive at Escondido Creek Trail. Project is out to bid.
 - c. Under construction
 - i. Country Club Ln at Gary Ln (The Villages). Early stages of construction.
 - ii. Country Club Ln at Nutmeg St (The Villages). Early stages of construction.
 - f) Traffic Signal Modifications:
 - a. In Design:
 - i. Felicita Ave at Escondido Blvd - protected left-turns; part of Active Transportation Fund project; Design completed. Construction allocation request 12/2021 California Transportation Commission (CTC) then project out to bid early 2022.
 - ii. Juniper St at Felicita-17th Ave. - protected left-turns; part of Active Transportation Fund project; Design completed. Construction allocation request 12/2021 California Transportation Commission (CTC) then project out to bid early 2022.
 - iii. Bear Valley Parkway at Mary Lane – protected left-turns. CIP-funded. Design at 30%, design completion anticipated 12/2021. Construction in 2022 includes relocating two signal poles.
 - b. Design approved:
 - i. N/A
 - c. Under Construction
 - i. El Norte Pkwy at West Country Club Lane/Madrid Manor (The Villages).
 - ii. Hale Ave at Tulip St (Carvana).
 - iii. El Norte Pkwy at Nordahl/Nutmeg St. (The Villages).
 - g) Roundabouts
 - a. Country Club Lane at Golden Circle (The Villages): construction completed).
 - b. Country Club Lane at La Brea (The Villages): in early stages of construction.
 - c. Felicita Rd at Park Drive (design approved/construction starting soon).

H. SCHOOL AREA SAFETY

- 1. No items to report

- I. COUNCIL ACTION* (A briefing on recent Council actions on Commission related items.)
 - 1. NONE
- J. ORAL COMMUNICATIONS* (At this time, members of the public are encouraged to speak to the Commission)
- K. TRANSPORTATION COMMISSIONERS* (Commissioners may bring up questions or items for future discussion)
- L. ADJOURNMENT

In order for the Transportation Commission to take action or conclude discussion, an item must appear on the agenda which is posted 72 hours in advance of the meeting. Therefore, all items brought up under the categories marked with an asterisk () can have no action. Such items can be referred to staff or scheduled for a future agenda.

AVAILABILITY OF SUPPLEMENTAL MATERIALS AFTER AGENDA POSTING:

Any supplemental writings or documents provided to the Commission regarding any item on this agenda will be made available for public inspection in the Engineering Office located at 201 N. Broadway during normal business hours, or in the Council Chambers while the meeting is in session.

(October 14, 2021) TCSC Agenda

CITY OF ESCONDIDO
MINUTES OF THE REGULAR MEETING
OF THE TRANSPORTATION AND
COMMUNITY SAFETY COMMISSION

July 8th, 2021

The regular meeting of the City of Escondido Transportation and Community Safety Commission was called to order at 3:00 p.m., Thursday, by Commissioner Durney, in the City Council Chambers, 201 North Broadway, Escondido, California.

Commissioners present: Commissioner Durney, Commissioner Hatley, Commissioner Korbecki, Commissioner Phillips, and Commissioner Kassebaum in person

Commissioners absent: Chair Spoonemore, Vice Chair Thornburgh

Staff present: (In person) Julie Procopio, Director of Engineering Services; Owen Tunnell, Assistant City Engineer; Virpi Kuukka-Ruotsalainen, Associate Engineer; Craig Williams, Associate Engineer; Amanda Bajhart, Engineer I; Christopher Leso, Police Sergeant; Kimberlianne Miller, Minutes Clerk.

DETERMINATION OF QUORUM

Moved by Commissioner Durney to approve. Motion carried unanimously.

ORAL COMMUNICATIONS:

Resident Richard Conwell expressed concerns on speeding along Eucalyptus Avenue. He acknowledged that past measures such as the stop sign had been helpful. He requested that Escondido PD conduct speed enforcement. Mr. Conwell also requested the data and analysis from the two radar feedback speed signs on Eucalyptus Avenue.

Staff will provide speed data to Mr. Conwell and Commissioners.

CONSENT ITEMS:

None

ACTION:

MINUTES:

Commissioner Durney requested approval of the minutes of the April 8, 2021 TCSC meeting. Moved by Commissioner Kassebaum, seconded by Commissioner Korbecki to approve. Motion carried unanimously.

NEW BUSINESS:

1. City of Escondido 2021/22 Traffic Management Project List, Final Review and Approval

The City of Escondido 2021/22 Traffic Management Project List (TMPL) and preliminary prioritization based on approved scoring criteria were presented to TCSC at the April 8th, 2021 meeting. In April, five (5) projects were selected for detailed design and possible funding in the 2021/22 funding cycle. Staff presented detailed designs for all five projects and recommended three (3) projects for implementation. These include Mission Middle School Mid-Block Crosswalk Improvements, Oak Hill Elementary School Crosswalk Improvements and North Broadway Elementary School Improvements.

Commissioner Hatley liked radar feedback signs and asked why these were not included at the other schools as part of the proposed projects.

Virpi Kuukka-Ruotsalainen stated that each location is evaluated independently and needs to meet the warrants from the City's crosswalk policy.

Commissioner Durney asked if a selection could be made between the RRFBs or radar speed feedback signs for Mission Avenue to reduce the overall cost of the project.

Virpi Kuukka-Ruotsalainen responded saying the both measures would need to be included in order to follow the City's crosswalk policy.

Commissioner Durney asked who is paying to do the work in Project #3's (North Broadway Elementary School Improvements) scope of work.

Virpi Kuukka-Ruotsalainen stated the funding would be incorporated from two separate projects.

Commissioner Durney requested why we do not know the amount of students who use the crosswalk for Project #4 (Hidden Valley Middle School).

Virpi Kuukka-Ruotsalainen stated we did not have the data for the crosswalk volume because on site student population was reduced due to the pandemic.

Action: Moved, by Commissioner Korbecki and seconded by Commissioner Hatley, to approve staff's recommendation. Motion carried unanimously.

2. Speed Surveys – Various locations Citywide

Engineer Amanda Bajhart referenced the staff report. Staff recommended approval of updated Engineering and Traffic Surveys (E&TS) for posted speeds on various (15) street segments Citywide.

Commissioner Durney asked when the last speed survey was performed on Eucalyptus Avenue.

Amanda Bajhart stated we would need to confirm when the last speed survey was done for the segment.

Commissioner Kassebaum questioned if the changes along Grand Avenue due to COVID had impacted the segment's 85th-percentile from the last speed survey.

Amanda Bajhart stated that the previous speed survey differed by 1 mph over the current 85th percentile.

Action: Moved, by Commissioner Kassebaum, seconded by Commissioner Hatley, to approve staff's recommendation. Motion carried unanimously.

3. Local Roadway Safety Plan Progress Update

The City applied to Caltrans for Local Roadway Safety Program (LRSP) funding in 2019. Funding was awarded in December 2019. Council authorized the City to accept the LRSP grant on September 23, 2020.

The Request for Proposals for consultant services was issued November 30, 2020; five responses were received. Michael Baker International was ultimately selected, and their contract was approved May 19, 2021. The kick-off meeting between the City team and consultant took place on May 20, 2021. The work will continue through the end of the year.

Commissioner Korbecki requested if all the commissioners would be able to add input before the LRSP is scheduled to be approved in January.

Craig Williams stated commissioners would be able to add input at the next meeting and virtually.

Commissioner Korbecki asked about the stop date of the data for the analysis.

Craig Williams stated that the initial analysis was taken from January 2014-2018 in accordance with Caltrans requirements. Data through the end of 2020 will also be taken into consideration.

Commissioner Korbecki asked if there is something comparable that we have done in the past to determine if there were any changes within the City.

Craig Williams responded, with the help of staff, that while crash data has been analyzed in the past, the data had not been compiled in this manner previously.

Action: No action requested; information only.

OLD BUSINESS:

1. An overview of various projects involving the City.

a) TMPL Project Updates

- a. FY20/21: Maple Street and 4th Avenue at Central Elementary School: Rectangular Rapid Flashing Beacons, striping and signage improvements are complete. Oak Hill Drive at Rose Street striping and signage improvements are complete. Pedestrian Countdown Indications at four locations: Contractor selected for work. Project completion summer 2021.
- b) VMT Phase 2 Mitigation Program Development – Fehr & Peers continuing work on VMT Guidelines to develop Mitigation Program. Work has been authorized and started in June, 2021.
- c) Traffic Signal Communications Grant Application. Application approved March 30, 2021; total project \$2.32m; local share \$1.16m. Funding Allocation request submitted; preparing Request for Proposals: Scope of Work for Phase 1 Engineering.
- d) Creek Crossings – Design approved for seven Creek Crossings. Construction is estimated to begin late 2021.
- e) Traffic Signals - New
 - a. In Design:
 - i. Meyers Avenue at Barham Drive
 - ii. Citracado Pkwy at Mountain Shadows (Citracado Extension Project)

Commissioner Durney requested an update of the Citracado Pkwy project.

Julie Procopio responded that the project is currently in process, although there have been delays in the project. She stated the main delay has been in SDG&E's approval for the relocation of their power transmission line. Construction for the relocation is proposed to be in August 2021, and proposal for bid would then follow shortly after the relocation. She also stated the project itself would span approximately eighteen months. She stated that information

regarding the timeline of the project can be found on the City's website, which incorporates weekly status updates of the project.

b. Design approved:

- i. Quince St at Escondido Creek Trail
- ii. Tulip St at Escondido Creek Trail
- iii. Midway Drive at Escondido Creek Trail

c. Under construction

- i. Country Club Ln at Gary Ln (The Villages)
- ii. Country Club Ln at Nutmeg St (The Villages).

f) Traffic Signal Modifications:

a. In Design:

- i. Felicita Ave at Escondido Blvd - protected left-turns; part of Active Transportation Fund project; consultant design at 90%.
- ii. Juniper St at Felicita-17th Ave. - protected left-turns; part of Active Transportation Fund project; consultant design at 90%.
- iii. Bear Valley Parkway at Mary Lane – protected left-turns. CIP-funded. Consultant selected for design work.

b. Design approved:

- i. El Norte Pkwy at Nordahl/Nutmeg St. (The Villages).
- ii. Hale Ave at Tulip St (Carvana)

c. Under Construction

- i. El Norte Pkwy at West Country Club Lane/Madrid Manor (The Villages)

g) Roundabouts

- a. Country Club Lane at Golden Circle (The Villages) (construction nearing completion).
- b. Country Club Lane at La Brea (The Villages) (design approved /construction starting soon).
- c. Felicita Rd at Park Drive (design approved/construction starting soon).

SCHOOL AREA SAFETY:

1. Del Dios Academy – School Bond Improvements. Signing/Striping design and crosswalk improvements including Rectangular Rapid Flashing Beacon for 9th Avenue reviewed.
2. Juniper Elementary. School Bond Improvements for parking lot and drop off/pick up areas. City Active Transportation Grant project to improve sidewalk,

- relocate student crosswalk and install RRFB. This work is complete.
3. ATP Grant Submittal for Citrus Ave sidewalk (not approved, but additional funding may be available for the program)

COUNCIL ACTION:

None

ORAL COMMUNICATIONS:

None

TRANSPORTATION COMMISSIONERS:

Commissioner Korbecki requested, with current improvements made along Grand Avenue, whether or not the alfresco dining will be pushed along faster.

Julie Procopio stated that as of July 21, 2021, City Council will be requested to approve and formally adopt the specific alignment plan and mitigated negative declaration for the Grand Avenue Vision Plan. She stated Phase I will then be moved forward as part of that plan which is currently fully-funded. She stated Phase II, which is not currently funded, will support further improvements as part of the Grand Avenue Vision Plan.

Commissioner Korbecki requested if changes to the parking to incorporate all slanted parking would be part of the plan.

Julie Procopio stated only one side of the street would incorporate diagonal parking as the other side would remain parallel parking with the increased sidewalk width of five feet.

Commissioner Korbecki requested what the plans were for future enforcement now that the impacts of COVID have subsided and because we have received additional grant funds. In addition, citizens are concerned about their specific streets.

Sergeant Leso responded that currently and for the future with the (traffic safety) grant funding, the Police Department will continue enforcement of the City including Eucalyptus Avenue. He stated that the OTS (Office of Traffic Safety) - funded grant has helped create DUI checkpoints in June & August 2021, and that the grant funding expires in October of 2021. He stated the Police Department has applied for the grant again for the following year in November 2021, and expect to get funding in November. Sargent Leso also stated that Eucalyptus will be re-prioritized for enforcement. In addition, Sergeant Leso stated that citizens can go to the Escondido Police Department's website to submit requests or in the City's Report-It app.

ADJOURNMENT:

Motion by Commissioner Durney, Seconded by none to adjourn the meeting, which was carried unanimously.

Owen Tunnell, Asst. City Engineer

Kimberlianne Miller, Minutes Clerk



CITY OF ESCONDIDO
TRANSPORTATION and
COMMUNITY SAFETY COMMISSION

Commission Report of: October 14, 2021

Item No.: F1

Location: Various locations Citywide

Initiated By: City Staff

Request: Recommend approval to the City Council of updated Engineering & Traffic Surveys (E&TS) for posted speeds on various street segments Citywide.

Background & Survey Methodology:

To satisfy the requirements of Section 40802(b) of the California Vehicle Code (CVC), Engineering and Traffic Surveys are required by the State of California to establish speed limits and to enforce those limits using radar or other speed measuring devices. These surveys must be updated periodically (every 5, 7 or 10 years, depending upon specific criteria) to ensure the speed limits reflect current conditions as dictated by the 2021 California Vehicle Code (CVC). The surveys must be conducted in accordance with applicable provisions of Section 627 "Engineering and Traffic Survey" of the California Vehicle Code (CVC), following procedures outlined in the 2014 California Manual on Uniform Traffic Control Devices (CA-MUTCD) Revision 6 dated March 30, 2021,

A brief description of the procedure is presented below:

1. Measurement of Actual Prevailing Speeds

The actual speed of 100 vehicles on each street segment was measured using a calibrated radar meter. Both directions of travel were surveyed. From this data, the prevailing or 85th percentile speed (speed at or below which 85 percent of the vehicles sampled were traveling), ten miles per hour pace speed (increment of ten miles per hour containing the greatest number of measurements) and percent of vehicles in the pace were determined.

2. Accident Records

From the accident reports, the number of accidents for each segment was used to calculate the accident rate, which is defined as the number of accidents per million vehicle miles (acc/mvm) of travel on that segment. The accident rate for each segment was then compared to the most recent statewide average for similar type roads. This information is shown on the survey summary sheets.

3. Traffic and Roadside Conditions

Each route was driven and notation made of its features, especially those not readily apparent to reasonable drivers, as well as those that might be combined with other factors to justify downward or upward speed zoning. These features are listed in the Engineering and Traffic Survey (E&TS) for each segment.

4. Residential Density

Information regarding the adjacent land use was noted and included in the Engineering and Traffic Survey.

5. Pedestrian and Bicyclist Safety

Segment accident records were used to evaluate the pedestrian and bicyclist safety of the roadway segments.

6. School Zones

Proximity to schools and school speed limit zones were noted and included in the Engineering and Traffic Survey.

The standard used followed procedures outlined in the California Manual on Uniform Traffic Control Devices (CA-MUTCD) Section 2B.13, Revision 6 dated March 30, 2021,

“Standard:

When a speed limit is to be posted, it shall be established at the nearest 5 mph increment of the 85th-percentile speed of free-flowing traffic, except as shown in the two Options below.

Option:

1. The posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th-percentile speed, in compliance with CVC Sections 627 and 22358.5. See Standard below for documentation requirements.

2. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85th percentile speed, if no further reduction is used. Refer to CVC Section 21400(b).

Discussion & Purpose:

Per California Vehicle Code Section 22354, in order for a posted speed limit to be legally enforceable by the Police Department radar detection, it must be all of the following:

- 1) Between 25 mph and 65 mph,
- 2) Supported by an Engineering and Traffic Survey, and
- 3) Ratified by City Council by resolution or ordinance.

The guidelines for preparing an engineering speed survey are found within the California Manual on Uniform Traffic Control Devices (CA-MUTCD) 2014 edition Revision 6 dated March 30, 2021, a document published by the Federal Highway Administration and modified by CALTRANS for use in California. The 85th percentile speed (the speed at which 85% of drivers drive at or below) is often referred to as the critical speed; it is the primary speed that determines what drivers believe to be safe and reasonable. When determining speed limits, the California MUTCD gives guidance that states, “*The speed limit should be established at the nearest 5 mph increment of the 85th-percentile speed of free-flowing traffic.*”

Additional guidance from the MUTCD California states, “*The establishment of a speed limit of more than 5 mph below the 85th percentile speed should be done with great care as studies have shown that establishing a speed limit at less than the 85th percentile generally results in an increase in collision rates; in addition, this may make violators of a disproportionate number of reasonable majority of drivers.*”

Although roadway conditions such as width, curvature, surface conditions and any other readily apparent features do not provide a basis for downward speed zoning, the CA-MUTCD states that local authorities may consider residential density, as well as pedestrian and bicycle safety.

Recommendation:

As part of the City of Escondido's speed survey program, staff has performed speed surveys at 13 segment locations, with data being collected for each segment. Staff recommends approval of the speed limit per Table 1 below.

Based on the above guidelines, all of the surveyed segments were evaluated. The overview of the Speed Surveys is presented in Table 1; the last column shows the recommended speed limits on all study segments.

- For speed surveys 1, 2, 11, and 12 the recommended speed limit is set based on the 85th-percentile speed of the new speed survey. The posted speed limit will remain unchanged for surveys 1, 2, 11, and 12.
- For speed surveys 4, 5, 7, 8, 10, and 13 the recommended speed limit reflects a reduction of 5mph from the 85th-percentile speed based on Option 1 in the MUTCD standard, as delineated above. In this case, the posted speed limit will remain unchanged for surveys 4, 5, 7, 8, 10, and 13.
- For speed surveys 3, 6, and 9 the recommended speed limit reflects a rounding down from the 85th-percentile speed based on Option 2 in the MUTCD standard, as delineated above. In this case, the posted speed limit will remain unchanged for surveys 3, 6, and 9.

Table 1 - Overview of Speed Surveys

Segment No.	Street Name	Segment		Previous Speed Survey	Posted Speed Limit (MPH)	Classification	85 th Percentile (MPH)	Rounded speed Limit (MPH)	Speed Limit to be posted, per Traffic Engineer
1	Auto Park Way 1	Mission Avenue	Citracado Parkway	06/09/14	40	MA	42	40	40 MPH
2	Auto Park Way 2	Citracado Parkway	Andreasen Drive	06/10/14	40	MA	41	40	40 MPH
3	Bear Valley Parkway 1	Beethoven Drive	Mary Lane	11/12/14	45 (25WCAP)	PA	48	45~	45 (25WCAP)
4	Bear Valley Parkway 2	Mary Lane	Las Palmas Drive	11/12/14	45 (25WCAP)	PA	50	50	45 (25WCAP)***
5	Bear Valley Parkway 3	City Limits 850' S of El Dorado	650' S of Sunset Drive	11/12/14	50	PA	55	55	50 MPH***
6	Citracado Parkway W1	Alexander Drive	Centre City Parkway	5/30/13	30	MC	33	30~	30 MPH
7	Falconer Road 1	Oak Hill Drive	Reed Road	11/05/14	30 (25WCAP)	LC	34	35	30 (25WCAP)***
8	Fifth Avenue 1	Tulip Street	Quince Street	06/10/14	30	MC	35	35	30 MPH***
9	Fifth Avenue 2	Quince Street	Escondido Blvd	06/10/14	30	MC	33	30~	30 MPH
10	Fifth Avenue 3	Escondido Blvd	Juniper Street	06/10/14	30 (25WCAP)	MC	36	35	30 (25WCAP)***
11	Harding Street 1	Lincoln Avenue	Mission Avenue	11/06/14	35	MC	36	35	35 MPH
12	Harding Street 2	Mission Avenue	Valley Parkway	11/06/14	35	MC	33	35	35 MPH
13	Hayden Drive 1	Bear Valley Parkway	Oak Hill Drive	06/20/14	30	LC	34	35	30 MPH***

~ Indicates round down the speed limit to the lower five miles per hour increment, per CVC 21400 (b)

***Indicates speed limit downgraded 5 mph due to conditions not readily apparent to the driver.

Respectfully submitted,

Prepared by:

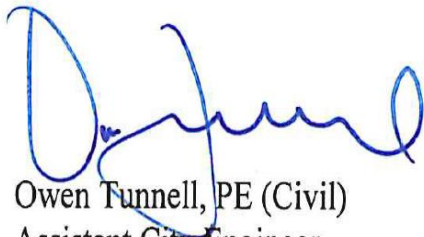


Amanda Bajhart, EIT
Engineer I/Traffic Division



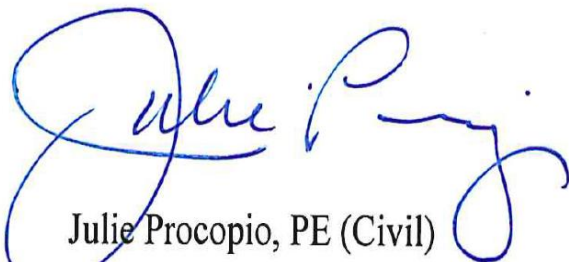
Virpi Kuukka-Ruotsalainen
Associate Engineer/Traffic Division

Reviewed by:



Owen Tunnell, PE (Civil)
Assistant City Engineer

Approved by:



Julie Procopio, PE (Civil)
Director of Engineering Services/City Engineer



**CITY OF ESCONDIDO
TRANSPORTATION and
COMMUNITY SAFETY COMMISSION**

Commission Report of: October 14, 2021

Item No.: F2

Location: Citywide

Initiated By: Staff

Request: Local Roadway Safety Plan (LRSP) Progress Report

Background and Chronology:

City Council authorized the acceptance of an LRSP grant on September 23, 2020. The Request for Proposals for consultant services was issued November 30, 2020; the selected consultant, Michael Baker International, started work on May 20, 2021. Their work will continue through early next year. A briefing on the consultant's workplan was presented to the Commission on July 8, 2021.

Discussion & Purpose:

Crash Report Overview

For this update, staff will present an overview of the Crash Analysis phase of the project. As a reminder, the goal of the LRSP is to apply *available, applicable, and quality countermeasure* solutions as outlined by the latest Caltrans Local Roadway Safety Manual to high crash and systemic crash locations in an effort to reduce the severity and frequency of crashes citywide. The Crash Analysis Report is one in a series of reports that comprise the development of the City's LRSP and it focuses on the analysis of the available crash data for the most recent five years.

The crash analysis identifies systemic safety trends based on the types of collisions that occur and the frequency of those collisions. Analysis was conducted for all reported crashes that have occurred on local roadways in the City during the time period from January 2016 through December 31, 2020. The purpose of the report is to document patterns in the crash data to help identify local emphasis areas that would benefit from safety treatments. Hot spots and critical locations are documented based on the frequency and severity of crashes. All mapping in the report was conducted using GIS crash coordinates provided in the Crossroads crash dataset.

The crash analysis is focused on crashes that occur on public roadways and intersections that occur within the City's right-of-way. Crashes that are not considered in the report are crashes that occur on private roads or private drives, within parking lots or parking garages, or within shopping centers. Crashes that are recorded as property damage may include, but are not limited to, damage to telephone poles, fences, street signs, signal poles or equipment, guard posts, trees, livestock, dogs, etc. Severe injuries, as defined by the Federal Highway Administration, include traumatic brain injuries, spinal cord injuries that result in partial or total paralysis, loss of an arm, leg, eyesight, or hearing and injuries that result in permanent damage to an organ or loss of function of an organ.

The findings of the crash analysis will be utilized in the next stage of the project, which will include the development of countermeasures with the overall goal of improving traffic safety. The goal of the countermeasures is to reduce the frequency and severity of collisions in the City and to qualify for potential

funding in future Highway Safety Improvement Program (HSIP) funding cycles. Upon completion of the LRSP, the City will have a comprehensive list of emphasis areas with clear actions and strategies and a detailed LRSP outlining the process and an implementation plan for moving projects forward.

Interstate 15 is a major north-south state highway that cuts through the City of Escondido. Crashes recorded on Interstate 15 were not included or evaluated in this report since the HSIP funding is designated to “local” roadways rather than major state highways. Highway 78 is a major east-west state highway that traverses through the City of Escondido east on Lincoln Parkway, turning south on Broadway, east on Washington Avenue, and south on Ash Street, which turns into San Pasqual Valley Road. Crashes on these local roadways within the City limits *were* evaluated in this report.

Data Analysis

The initial step in the analysis was to conduct crash data research and database development. Crash data was provided by the City for the five-year period from January 1, 2016 to December 31, 2020. Data from both the Statewide Integrated Traffic Records System (SWTRS), and the City’s local Crossroads database, was vetted, but the Crossroad data was determined to be more complete, with no date gaps or issues with geo-locations. Crash data was ultimately collected from the City’s Crossroads software database in coordination with City staff. During the five year period, a total of 4,332 crashes were reported in the City along local roadways, including along Highway 78. Roughly 6% (or 266) of Citywide crashes occurred along Highway 78 through the study boundary.

General Findings

Crashes by Year

For the five-year analysis period, the number of fatal crashes, injury crashes, property damage-only crashes, total fatalities, and total injuries are highlighted in the following table, including the averages over the analysis period. As shown, there was a clear reduction in reported crashes during the year 2020.¹

Reported Number of Crashes by Year and Injury Type

Category	Year					Total	Average Per Year
	2016	2017	2018	2019	2020		
Fatal Crashes	8	8	4	7	6	33	7
Severe Injury Crashes	21	13	18	21	22	95	19
Other Visible Injury Crashes	237	251	244	270	196	1,198	240
Complaint of Pain Crashes	376	419	423	344	316	1,878	376
Property Damage Only Crashes	192	212	217	257	250	1,128	226
<i>Total Crashes</i>	838	903	906	899	790	4,332	867
Total Fatalities	9	9	5	8	9	40	8
Total Injuries	968	1,012	964	948	792	4,684	937

¹ The 2020 decline in reported crashes is likely a direct result of the novel coronavirus state-mandated stay-at-home orders beginning March 2020 and continuing through June 2021 and the reduction of overall travel that subsequently occurred. The San Diego Association of Governments (SANDAG) reported a 44% reduction of vehicle miles traveled on freeways, a 41% reduction of daily traffic volumes on local roadways, and traffic speed increase of 30 MPH during peak periods, between mid-March and mid-April 2020, compared to 2019. As of May 2021, countywide traffic continues to be 10% below pre-pandemic levels. <https://www.nbcsandiego.com/news/local/how-the-pandemic-changed-san-diego-traffic/2641180/>

Findings Summary

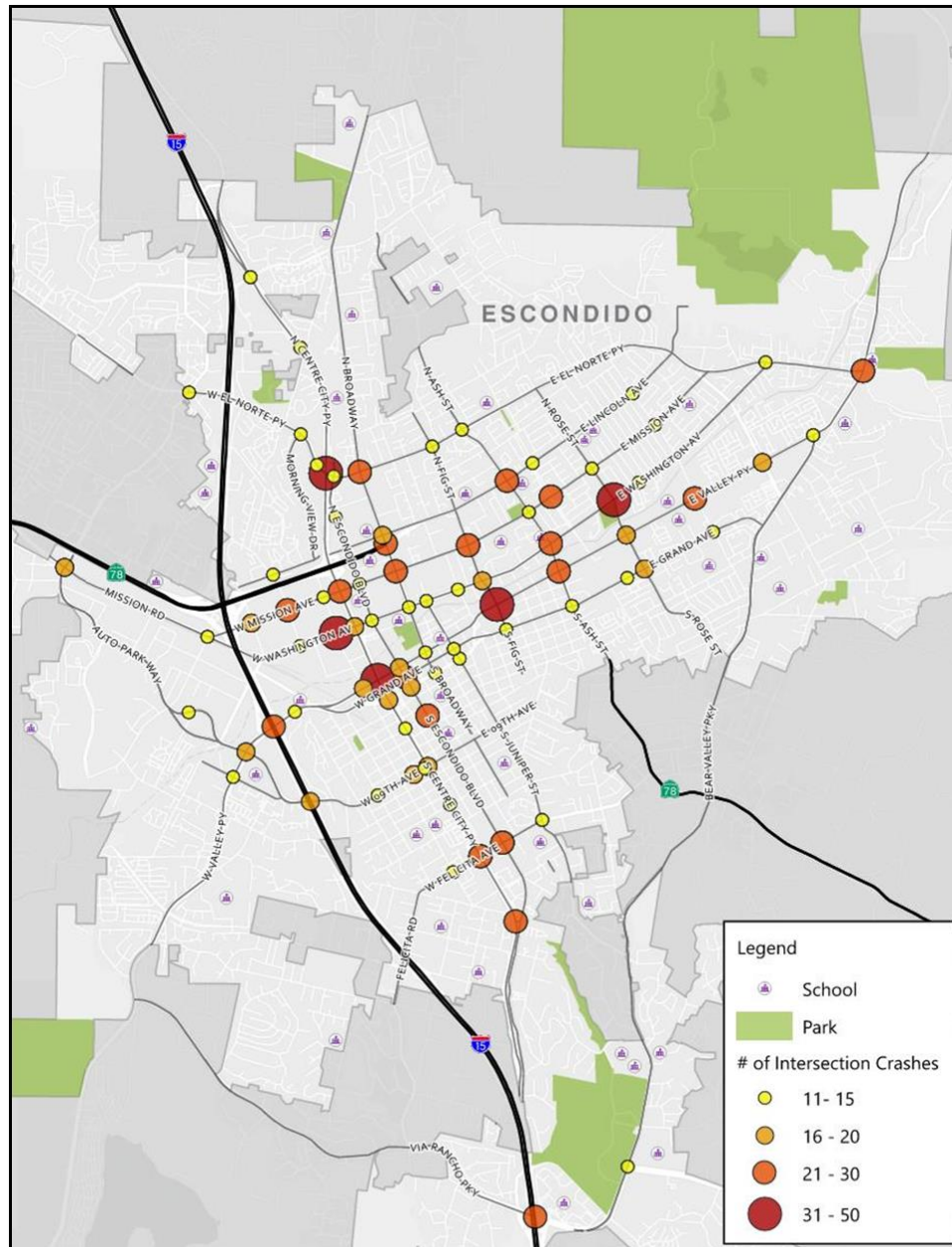
The following tables summarize the key findings of this analysis.

Summary of Key Findings

Analysis Type	Key Finding
Crash Type	- The top 3 crash types include: Broadside (34%), Rear-End (27%), and Sideswipe (11%), which combined comprise 72% of total crashes. - A total of 1,487 Broadside crashes occurred throughout the City with a high concentration of crashes at major signalized intersections. - A total of 1,146 Rear-End crashes occurred throughout the City with a high concentration of Rear-End crashes at major signalized intersections. - A total of 488 Sideswipe crashes occurred throughout the City and were concentrated along major arterials and along major arterials.
Crash Cause	- The most common cause of crash was Unsafe Speed (20%), followed closely by Auto Right-of-Way Violation (19%) and DUI (17%). - DUI crashes were reported throughout the City. - Pedestrian violations such as peds crossing mid-block, jaywalking or crossing outside a marked crosswalk were reported as the primary cause of pedestrian-involved crashes, - Bicycle-involved crashes were primarily a result of auto right-of-way violations.
Crash Severity	- Severe injuries were reported in 2% of crashes while fatalities were reported in 1% of crashes. - Fatalities involving motor vehicles generally occurred throughout the roadway network.
Time of Day Analysis	- The 3-hour period of 3 PM to 6 PM experienced the greatest number of crashes with 970. - The data shows that 113 of pedestrian and bicycle-involved crashes are likely to occur from 3 PM to 6PM. - During this 3-hour period of 3 PM to 6 PM, 41% of pedestrian-involved crashes are caused by pedestrian violations. 33% of bicycle-involved crashes during this 3-hour time period is caused by bicyclists riding on the wrong side of the road.
Time of Day Analysis Cont.	- During this 3-hour period of 3 PM to 6 PM, 41% of pedestrian-involved crashes are caused by pedestrian violations such as crossing mid-block, jaywalking or crossing outside a marked crosswalk. 33% of bicycle-involved crashes during this 3-hour time period is caused by bicyclists riding on the wrong side of the road.
Bicycle and Pedestrian Crashes	251 pedestrian-involved crashes were reported, 10 of which were fatal crashes and 25 of which resulted in severe injury 191 bicycle-involved crashes were reported that resulted in 2 fatalities and an additional 183 injury crashes - The majority of reported pedestrian- or bicyclist-involved crashes involved a pedestrian or bicyclist between the ages of 15 and 64 years old. - The majority of reported pedestrian- or bicyclist-involved crashes occurred on roadways with a speed limit of 35 MPH.

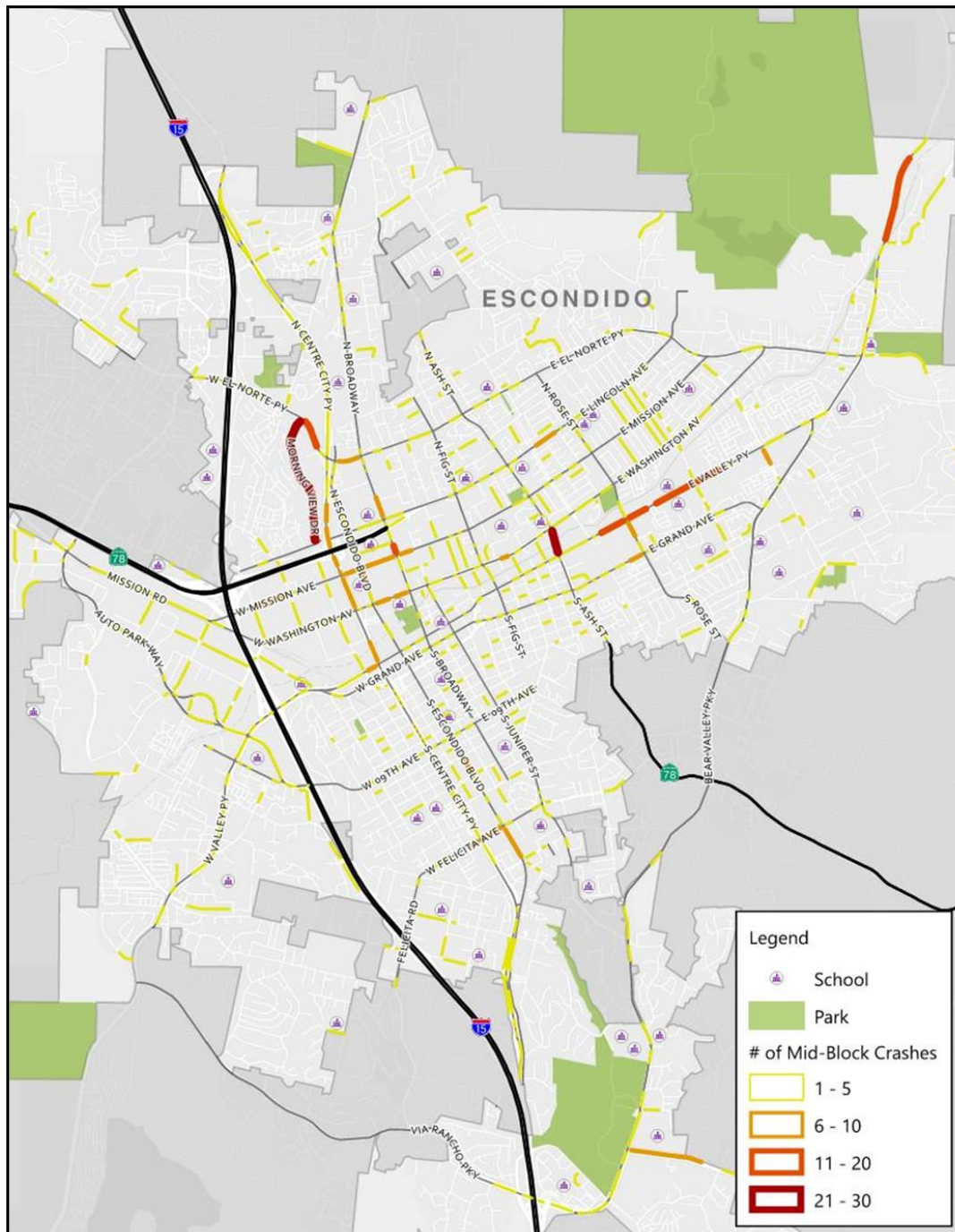
The following figure illustrates an overall view of the concentration of crashes during the five-year time period at intersections. All crashes were mapped using Geographic Information Systems (GIS), based on the Crossroads database. Intersection crashes identified in the report include crashes that occurred at the intersection and crashes that occurred within 125 feet of that intersection.

Citywide Intersection Crash Map



This figure illustrates an overall view of the mid-block crashes throughout the City during the five-year time period. Crashes that occurred mid-block (outside of the 125-foot radius of an intersection) were mapped within the limits of a roadway segment.

Citywide Mid-Block Crash Map



The top 10 intersections with the highest concentration of crashes are presented below and the top 10 roadway segments with the highest concentration of mid-block crashes are listed following.

Top 10 Intersection Crash Locations

Intersection		Total Number of Crashes
1	Centre City Parkway & El Norte Parkway	49
2	Washington Avenue & Quince Street	40
3	Washington Avenue & Rose Street	38
4	Valley Parkway & Fig Street	35
5	Centre City Parkway & Valley Parkway	31
6	Washington Avenue & Ash Street	30
7	Lincoln Avenue & Ash Street	29
8	Valley Parkway & Ash Street	29
9	Mission Avenue & Fig Street	28
10	Broadway & Mission Avenue	28

Top 10 Mid-Block Crash Locations

Mid-Block Segments			Total Number of Crashes
1	Morning View Drive	El Norte Parkway To Lincoln Avenue	29
2	Valley Parkway	Rose Street to Midway Drive	29
3	Ash Street	Washington Avenue To Valley Parkway	21
4	Valley Parkway	Midway Drive to Quarry Glen Lane	19
5	Valley Center Road	Lake Wohlford Road To Northern City Limits	13
6	Broadway	Crest Street To Mission Avenue	12
7	El Norte Parkway	Morning View Drive To Las Villas Way	12
8	Valley Parkway	Harding Street To Rose Street	11
9	Mission Avenue	Metcalf Street To Rock Springs Road	10
10	Washington Avenue	Escondido Boulevard To Broadway	10

Preliminary Intersection Hot Spots (Top 35)

Intersection		Number of Crashes						Intersection Control Type	Crash Rate
		Fatal	Severe	Other Visible Injury	Complaint of Pain	PDO	Total		
1	Centre City Parkway & El Norte Parkway	0	3	12	27	8	50	Signalized	0.54
2	Escondido Boulevard & Felicita Avenue	1	2	10	12	4	29	Signalized	0.42
3	Midway Drive & Valley Parkway	0	3	8	12	10	33	Signalized	0.61
4	Centre City Parkway & Escondido Boulevard	1	1	11	14	0	27	Unsignalized	0.50
5	Grand Avenue & Grape Street	0	2	3	2	1	8	Unsignalized	0.27
6	Ash Street & Lincoln Avenue	0	2	8	13	7	30	Signalized	0.50
7	Country Club Lane & Firestone Drive	0	2	0	1	0	3	Unsignalized	0.16
8	Quince Street & Washington Avenue	0	1	14	16	10	41	Signalized	0.90
9	Quince Street & 9th Avenue	0	2	7	7	4	20	Signalized	0.54
10	Valley Parkway & Fig Street	0	1	10	20	4	35	Signalized	0.87
11	Mission Avenue & Fig Street	0	1	10	16	5	32	Signalized	0.57
12	Ash Street & Valley Parkway	1	0	9	16	11	37	Signalized	0.56
13	El Norte Parkway & Ash Street	2	0	5	4	1	12	Signalized	0.17
14	El Norte Parkway & Fig Street	0	2	3	6	3	14	Signalized	0.20
15	Centre City Parkway & Valley Parkway	0	1	8	16	4	29	Signalized	0.38
16	Mission Avenue & Broadway	0	0	13	25	4	42	Signalized	0.47
17	Washington Avenue & Rose Street	0	0	13	25	3	41	Signalized	1.14
18	Centre City Parkway & Felicita Avenue	1	0	6	16	5	28	Signalized	0.34

Intersection		Number of Crashes						Intersection Control Type	Crash Rate
		Fatal	Severe	Other Visible Injury	Complaint of Pain	PDO	Total		
19	Oak Hill Drive & San Pasqual Valley Road	2	0	3	1	2	8	Signalized	0.14
20	Broadway & SR-78	1	1	1	4	1	8	Signalized	0.13
21	Centre City Parkway & 9 th Avenue	0	1	8	7	5	21	Signalized	0.28
22	Valley Parkway & Quince Street	1	0	8	7	4	20	Signalized	0.36
23	Broadway & Country Club Lane	1	1	0	2	0	4	Signalized	0.12
24	Juniper Street & Washington Avenue	0	1	2	5	8	16	Unsignalized	0.49
25	Mission Avenue & Ash Street	0	1	7	8	2	18	Signalized	0.35
26	Mission Avenue & Metcalf Street	0	1	3	15	1	20	Signalized	0.56
27	Cedar Street & Grand Avenue	1	0	3	2	1	7	Unsignalized	0.19
28	Washington Avenue & Date Street	1	0	3	2	1	8	Unsignalized	0.25
29	Morning View Drive & Lincoln Avenue	0	1	2	3	2	8	Unsignalized	0.90
30	Felicita Avenue & Hamilton Lane	1	0	2	2	0	5	Unsignalized	0.35
31	Centre City Parkway & Iris Lane	0	1	6	6	2	15	Signalized	0.28
32	Grand Avenue & Fig Street	0	1	4	9	5	19	Signalized	0.54
33	Washington Avenue & Beech Street	1	0	1	3	2	7	Unsignalized	0.24
34	Washington Avenue & Grape Street	1	0	2	1	2	6	Unsignalized	0.20
35	Felicita Avenue & Montview Drive	0	0	2	0	2	4	Unsignalized	0.20

Note: PDO = Property Damage Only

Hot Spot Locations - Corridors

The following hot spot corridors have been identified previously during the review of the top 10 mid-block crash location map:

Mid-Block Segment Hot Spots

	Roadway	From	To
1	Morning View Drive	El Norte Parkway	Lincoln Avenue
2	Valley Parkway	Rose Street	Midway Drive
3	Ash Street	Washington Avenue	Valley Parkway
4	Valley Parkway	Midway Drive	Quarry Glen Lane
5	Valley Center Road	Lake Wohlford Road	Northern City Limits
6	Broadway	Crest Street	Mission Avenue
7	El Norte Parkway	Morning View Drive	Las Villas Way
8	Valley Parkway	Harding Street	Rose Street
9	Mission Avenue	Metcalf Street	Rock Springs Road
10	Washington Avenue	Escondido Boulevard	Broadway

Stakeholder Input

Two workshops were held with

- City staff
 - Traffic Engineering
 - Planning
 - Police
 - Parks & Recreation
 - Fire Department
 - City Attorney
 - Information Services – Geographical Information Systems
- School Districts
 - EUHSD – High Schools
 - EUSD – Elementary Schools
- Caltrans
- COMPACT
- NCTD, and
- MTS.

Participants discussed the overall project and shared their input on problematic intersections and other traffic safety related concerns.

Next Steps

The Crash Analysis report serves as the primary basis for the development of LRSP solutions and countermeasures. The next key steps in the process include:

- 1) Priority Location Refinement – A review of the top hot spot locations documented in the report will be conducted to refine the locations based on currently planned projects in the area. Locations may be removed from the list if an existing HSIP project recently been completed or is planned for a location which will likely address the identified safety issue.
- 2) Continued Stakeholder Outreach –
 - a. Following preparation of the Implementation Plan and Validation of Feasibility of Recommendations
 - b. Following submittal of Draft Report
- 3) Countermeasure Toolbox and Application – Develop a set of proposed countermeasures.
- 4) Implementation Plan – Development of an implementation strategy include identification of the lead agency for each countermeasure.
- 5) Validation of Recommendations – A field review will be conducted to confirm the feasibility of countermeasures at the highest priority areas

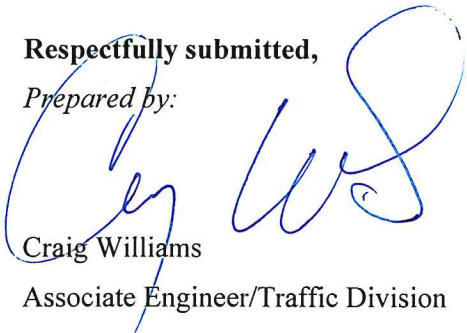
Staff will report on the LRSP final draft to the Transportation and Community Safety Commission at the January 20, 2022 meeting.

Recommendation: Receive report and updated schedule for upcoming work

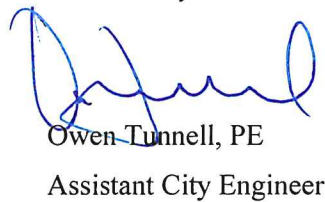
Necessary Commission Action: None

Respectfully submitted,

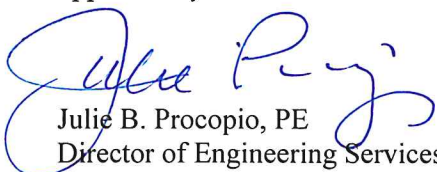
Prepared by:


Craig Williams
Associate Engineer/Traffic Division

Reviewed by:


Owen Tunnell, PE
Assistant City Engineer

Approved by:


Julie B. Procopio, PE
Director of Engineering Services/City Engineer

Attachment: Updated Schedule

ID	Task	Task Name	Duration	Start	Finish
1	1	Kick Off Meeting	0 days	Mon 5/17/21	Mon 5/17/21
2		Citywide Road Safety Analysis	90 days	Mon 5/17/21	Wed 9/22/21
3		Background Data Review	5 days	Mon 5/17/21	Fri 5/21/21
4		Crash Data Research & Mapping	35 days	Mon 5/24/21	Tue 7/13/21
5		Establish Goals & Analysis Criteria	20 days	Tue 6/8/21	Tue 7/6/21
6		Submit Crash Data & Draft Goals to City	0 days	Mon 6/14/21	Mon 6/14/21
7		City Review	10 days	Tue 6/15/21	Mon 6/28/21
8		Project Meeting #1	0 days	Mon 6/28/21	Mon 6/28/21
9		Identify Emphasis Areas	10 days	Tue 6/29/21	Tue 7/13/21
10		Submit Final Goals & Crash Analysis and DRAFT Emphasis Areas	0 days	Tue 7/6/21	Tue 7/6/21
11		Transportation & Community Safety Comm. (July Meeting)	0 days	Thu 7/8/21	Thu 7/8/21
12		Conduct Field Work	1 day	Wed 7/7/21	Wed 7/7/21
13		City Review	25 days	Wed 7/7/21	Tue 8/10/21
14		Stakeholder Meeting 1	0 days	Tue 8/31/21	Tue 8/31/21
15		Finalize Crash Analysis	15 days	Wed 9/1/21	Wed 9/22/21
16		Safety Measure Development & Implementation Plan	45 days	Mon 9/20/21	Fri 11/19/21
17		Countermeasure Toolbox & Application	20 days	Mon 9/20/21	Fri 10/15/21
18		Submit DRAFT for City Review	0 days	Tue 10/5/21	Tue 10/5/21
19		City Review	8 days	Tue 10/5/21	Thu 10/14/21
20		Transportation & Community Safety Comm. (October Meeting)	0 days	Thu 10/7/21	Thu 10/7/21
21		Project Meeting #2	0 days	Thu 10/14/21	Thu 10/14/21
22		Implementation Plan	10 days	Fri 10/15/21	Thu 10/28/21
23		Validation of Feasibility of Recommendation	5 days	Fri 10/22/21	Thu 10/28/21
24		Stakeholder Meeting 2	0 days	Tue 10/26/21	Tue 10/26/21
25		Submit Final Toolbox, Implementaiton Plan and Validation to City	0 days	Thu 11/4/21	Thu 11/4/21
26		City Review	10 days	Fri 11/5/21	Thu 11/18/21
27		Project Meeting #3	0 days	Thu 11/18/21	Thu 11/18/21
28		LRSP Report Preparation	43 days	Wed 10/20/21	Fri 12/17/21
29		Transportation & Community Safety Comm. (Special Meeting)	0 days	Wed 11/3/21	Wed 11/3/21
30		Draft Report	25 days	Fri 11/5/21	Thu 12/9/21
31		Prepare Draft	14 days	Fri 11/5/21	Wed 11/24/21
32		City Review	10 days	Thu 11/25/21	Wed 12/8/21
33		City Council	0 days	Wed 12/1/21	Wed 12/1/21
34		Stakeholder Meeting 3	0 days	Thu 12/9/21	Thu 12/9/21
35		Final Report	7 days	Thu 12/9/21	Fri 12/17/21
36		Revise Per City Comment	5 days	Thu 12/9/21	Wed 12/15/21
37		City Review	4 days	Thu 12/9/21	Tue 12/14/21
38		Final Revisions	4 days	Tue 12/14/21	Fri 12/17/21
39		Submit Final Report	0 days	Fri 12/17/21	Fri 12/17/21
Project: schedule-rev 5-20 Date: Wed 9/22/21					
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