



THE CITY OF SAN DIEGO

MEMORANDUM

DATE: October 14, 2022

TO: Steve Celniker, Senior Traffic Engineer, Traffic Signals Section, TED
Gary Pence, Senior Traffic Engineer, Operations Section, TED

FROM: Phil Rust, Associate Engineer - Traffic, Safety Section, TED

SUBJECT: High Crash Locations for Calendar Year 2021

The High Crash Location analysis uses injury and fatal crashes instead of all crashes, excluding property-damage-only crashes. This helps to focus staff time and City funds toward eliminating more severe crashes, which provides a much greater societal benefit.

Intersection Crash Rate and Crash Frequency

For calendar year 2021, 7 intersections were identified with high injury crash rates (1 standard deviation or more above average). 4 intersections were identified as having a pattern of injury crashes (5 or more). 2 of those 4 intersections also had high injury crash rates, for a total of 9 intersections. 2 of the 9 intersections are owned and/or operated by Caltrans.

Segment Crash Frequency

Segments were evaluated but did not produce significant results. This is consistent with the Systemic Safety Analysis Reporting Program (SSARP), which shows that most serious collisions are concentrated at intersections, but not on segments. In place of segment analysis, the primary focus will remain on intersections and systemic analysis, particularly for pedestrians.

Pedestrian Crash Locations

There are also many locations identified and improved using systemic analysis and countermeasures, especially pedestrian crash locations. Since the start of SSARP, we have applied for 2 systemic grants and were approved by Caltrans. The intersections in each of those grants were identified using systemic analysis and propose systemic countermeasures.

- GRANT 1 - 66 intersections Lead Pedestrian Interval Systemic Safety
 - o STATUS: IN CONSTRUCTION. Expected completion before end of May 2023.
 - o Total Project Cost of \$1,206,100
 - o Countermeasures:
 - Blank-out signs and controllers to support Leading Pedestrian Intervals
 - Pedestrian countdown signal heads
 - High visibility marked crosswalks
- GRANT 2 - 215 intersections Pedestrian Signal Improvements
 - o STATUS: COMPLETED November 2021.
 - o Total Project Cost of \$249,500
 - o Countermeasures:
 - Pedestrian countdown signal heads

This year we applied for 2 more Caltrans grants using systemic and spot analysis, proposing systemic countermeasures.

- GRANT 1 - 31 intersections Lead Pedestrian Interval Systemic Safety
 - o STATUS: waiting for grant approval
 - o Total Project Cost of \$997,700
 - o Countermeasures:
 - Blank-out signs and controllers to support Leading Pedestrian Intervals
 - Pedestrian countdown signal heads
 - High visibility marked crosswalks
- GRANT 2 - 1 Quick-build Roundabout
 - o STATUS: waiting for grant approval
 - o Total Project Cost of \$402,200
 - o Countermeasure:
 - A quick-build roundabout

Please review the attached lists to determine what traffic engineering measures, if any, are expected to improve safety. Location diagrams are being prepared to assist you. If you have any questions, please contact Phil Rust at (619) 533-3714.

Attachment: CY 2021 High Crash Rate List and Pattern List
CY 2021 High Crash Rate and Pattern Intersections Crash Diagrams

CC: Duncan Hughes, Deputy Director, TED
Everett Hauser, Program Manager, TED
Gary Chui, Senior Traffic Engineer, Systems Oversight Section, TED
Brian Genovese, Senior Traffic Engineer, Bike Program Section, TED
Joseph Jimenez, Senior Traffic Engineer, Operations Section, TED
Donald Pornan, Senior Traffic Engineer, SANDAG/MTS Liaison, TED

INTERSECTIONS WITH HIGH CRASH RATES¹
CALENDAR YEAR 2021

INTERSECTION	CRASH RATE²	INJURY CRASHES	ENTERING TRAFFIC³
1. 10 th Av & A St (S) (also a pattern)	1.04	15	39,674
2. El Cajon Bl & Fairmount Av (S)	0.98	12	33,534
3. Sunset Cliffs Bl & Nimitz Bl (S) (also a pattern) ⁵	0.94	11	32,066
4. 4 th Av & Broadway (S)	0.81	7	23,815
5. Quivira Access & W Mission Bay Bl (S)	0.79	10	34,699
6. Fortuna Av & Ingraham St (TWSC)	0.65	5	20,944
7. 28 th St & Boston Av (S)	0.65	5	21,075

¹ High crash rate intersections have a crash rate equal to or greater than one standard deviation (0.22) above the average crash rate (0.43). The crash rate was calculated for 50 intersections that show 5 or more reported crashes in 2021. Property damage only crashes are not included.

² The crash rate equals: (number of reported crashes x 1 million) divided by (daily entering traffic x 365 days).

³ Entering traffic is the number of vehicles entering the intersection on an average weekday.

INTERSECTIONS WITH HIGH CRASH PATTERNS⁴
CALENDAR YEAR 2021

INTERSECTION	CRASH PATTERN	INJURY CRASHES
1. 10 th Av & A St (S) (also a high rate)	(SB vs. EB) Broadside	15
2. Sunset Cliffs Bl & Nimitz Bl (S) (also a high rate) ⁵	(EB) Rear-end	11
3. 5 th Av & A St (S)	(NB vs. EB) Broadside	6
4. West Mission Bay Dr & I-8 WB Off Ramp ⁶ (S)	(SB) Rear-end	Unknown ⁶

⁴ The intersections on this list were identified by reviewing a list of 57 intersections that show 5 or more reported crashes for Calendar Year 2021. Property damage only crashes are not included. A pattern is 5 or more crashes that have the same crash type and that involve the same direction(s).

⁵This traffic signal is operated by Caltrans.

⁶This is a Caltrans intersection and is also under construction.

(S): Signalized intersection.

(TWSC): Two-way-stop-controlled intersection.