



Agenda Item

Orange City Council

Item #: 8.1.

1/27/2026

File #: 25-0683

TO: Honorable Mayor and Members of the City Council

THRU: Jarad Hildenbrand, City Manager

FROM: Christopher Cash, Public Works Director

1. SUBJECT

Discussion of potential traffic modifications and safety enhancements to the Orange Plaza.

2. SUMMARY

At the September 23, 2025, City Council meeting, staff presented an item to discuss potential traffic modifications to the Orange Plaza to further reduce vehicular intrusion into Plaza Park. City Council directed staff to conduct additional analysis of incursion trajectories and refine recommendations if appropriate. Staff was also directed to bring back follow-up reports to City Traffic Commission, which was received and filed on December 10, 2025, and to City Council.

3. RECOMMENDED ACTION

Consider refined recommendations discussed in the staff report and provide staff with direction.

4. FISCAL IMPACT

None at this time. Potential costs would vary based on the selected enhancements and are discussed in the report. Actual fiscal impacts will be determined and reported when engineering design and construction contracts are awarded, or when a related budget appropriation is requested.

5. STRATEGIC PLAN GOALS

Goal 5: Improve infrastructure mobility and technology

Goal 6: Ensure the preservation of historic resources

6. DISCUSSION AND BACKGROUND

Background

In response to historic concerns over Plaza incursions, several modifications had been implemented to the approaches to the circular roadway, including the installation of reflective raised pavement markers, supplemental traffic signs, roadway delineators, and nighttime traffic signal timing modifications.

In March 2022, City Council authorized the purchase of protective bollards to protect pedestrian walkways at select locations along the perimeter of Plaza Park. In November 2022, a construction contract was awarded to, among other things, install the protective bollards. The installation was completed in 2023.

After a vehicle incursion into Plaza Park in August 2025, City Council directed staff to evaluate

additional concepts, including roadway modifications, park enhancements, and operational changes that could potentially reduce frequency of future incidents. Staff presented the viability of said concepts, along with recommendations, to the City Council at the September 23, 2025, meeting. The corresponding staff report (without attachments) is provided as Attachment 1.

At that meeting, City Council directed staff to: 1) Install additional raised pavement markers, 2) further analyze the incursion trajectories and potentially refine recommendations, and 3) present follow-up reports to the City Traffic Commission (CTC) and City Council.

The raised pavement markers were installed immediately following the City Council meeting, and the results of the additional analysis and recommendation refinements are presented below.

Accident Trajectory Analysis

Working together with the Orange Police Traffic Bureau, staff plotted and analyzed all reported Plaza incursions between January 2018 and October 2025. The findings were discussed in a memorandum (Attachment 2) containing various tables, charts, and exhibits that summarize the accident data. Moreover, key findings include:

- Since 2018, there have been 43 reported Plaza incursions.
- The number of accidents trended upward during the COVID/Plaza Paseo years - but has been significantly declining ever since (some supplemental measures deployed in last 3 years may have contributed to that reduction).
- Went from a peak of 12 accidents in 2022, to 1 in each of the last two years (at the time the memo was prepared.)
- Of the 43 accidents, 30 accidents (70 percent) involved DUI. Another was the result of a police chase involving Santa Ana PD.
- Of the remaining 12 accidents, 9 involved unsafe speed (entering the circular roadway - not necessarily speeding on the “spoke” streets), 2 involved improper turning movements, and 1 had a cause unknown.
- 38 of the 43 accidents involved a vehicle traveling on Chapman Avenue (27 eastbound, 11 westbound.) And 5 involved Glassell (4 northbound and 1 southbound).
- All 5 accidents on Glassell involved either DUI or the aforementioned police chase. A significant majority of the Chapman incidents involved DUI.
- All but one of these accidents occurred during darkness. All but two (both DUI) occurred between 10 PM and 5AM.
- The “spray pattern” from the plotted trajectories suggest that incursions from any given approach tend to occur between the prolongation of the approaching roadways’ centerlines and right curb lines.
- Based on the accident trajectories, one option (that would achieve the intent while minimizing aesthetic impacts) is to enhance bollards on the Chapman sides of the Plaza, as originally presented (expanding coverage and filling in the central gaps by adding 11 bollards to each

approach,) and leave the Glassell sides as-is.

One more incursion occurred after October 2025, when the memorandum was prepared. The incursion involved an eastbound vehicle travelling after sunset and resulted in damage to a perimeter (non-crash rated) bollard and park bench. An Accident Trajectory Diagram, updated through November 2025, that includes this incident is shown in Attachment 3.

Peer Review

Staff also retained the traffic engineering firm of Fehr and Peers to conduct a peer review of previous recommendations and provide additional input, the results of which are provided in a letter report (Attachment 4.)

Fehr and Peers concurred with all the findings and recommendations that staff presented to City Council on September 23rd. In addition, several additional concepts were discussed, including implementing raised crosswalks at Plaza entry points and on the Chapman Avenue approaches. While this concept had been contemplated by staff, it was not presented to City Council for consideration due to potential impacts to street drainage and emergency response vehicles.

Refined Recommendations

Based on the September 23rd City Council report, Accident Trajectory Analysis, and Peer Review, viable recommendations to the City Council include:

1. Install enhanced bollards on Chapman Avenue approaches. Cost expected to be moderate, approximately \$300,000.
2. Install raised median “splitter” islands at all approaches. Cost is expected to be moderate, approximately \$300,000.
3. Turn off Plaza Park lighting during late night hours to reduce the appearance of a through street. There is additional non-street lighting in the park that would be left on. Cost is expected to be minimal and involves minor electrical work.
4. Evaluate the feasibility of raised crosswalks at Plaza entry points and on the Chapman Avenue corridor, including drainage and emergency services impacts. Cost cannot be determined until a feasibility study is completed.

Each of the above, especially when in combination, is expected to reduce the frequency of Plaza incursions. Conceptual exhibits showing the bollard and splitter island concepts (Attachments 5 and 6, respectively) are attached for reference.

Lastly, the raised crosswalks can be installed in conjunction with the raised median island and expected to calm traffic and enhance pedestrian comfort along the Chapman Avenue approaches to the Plaza.

December 10 Traffic Commission Meeting

The additional analysis and refined recommendations above were presented to CTC as a receive-and-file item with the goal of soliciting stakeholder input. The CTC staff report is shown as

Attachment 7.

During the meeting, four public speakers spoke in support of moving forward with one or more of the refined recommendations. Moreover, and during commission discussion, the CTC also expressed support for action, with varying levels of consensus for landscaped splitter islands, bollards, lighting modifications, and exploring raised crosswalks. In addition to receiving the report, CTC also approved a motion recommending that City Council direct staff to, independent of this Plaza discussion, evaluate traffic calming measures beyond the immediate Plaza area. Meeting minutes are summarized in Attachment 8.

In summary, each of the refined recommendations listed above can be considered independently or in combination. The raised crosswalk alternative would require an analysis of feasibility, including costs, which can also be made a part of said traffic calming evaluation. Depending on the Council's direction, staff would return to the City Council to award any related design or construction contracts, or request budget appropriation.

7. ATTACHMENTS

- Attachment 1 City Council Staff Report 9/23/25
- Attachment 2 Analysis of Plaza Park Incursions Memo
- Attachment 3 Accident Trajectory Diagram
- Attachment 4 Fehr and Peers Letter Report
- Attachment 5 Chapman Ave. Bollard Enhancement Concept
- Attachment 6 Splitter Island Concept
- Attachment 7 Traffic Commission Staff Report 12/10/25 (without attachments)
- Attachment 8 Traffic Commission Draft Meeting Minutes 12/10/25
- Attachment 9 Notification Letter