



Administrative Report

Date: September 23, 2024

To: Public Works and Sustainability Commission

From: Department of Public Works

Subject: DISCUSSION OF MARKED AND ENHANCED CROSSWALK AT BERYL STREET AND GUADALUPE AVENUE

SUMMARY:

Based on a resident request and discussion with the Councilmember for District 2, City staff is bringing forward an analysis and proposed design for marked and enhanced crosswalk improvements at the Beryl Street & Guadalupe Avenue intersection. The analysis, engineering and design proposal was performed by City engineering staff. Notice of this meeting was provided to residents within 300 feet of the Beryl/Guadalupe intersection. Staff is seeking input and direction on this matter from the public and the PWSC. If recommended by the PWSC, staff will proceed with the installation of the marked crosswalk, modular median, and possible modular curb extension.

BACKGROUND:

In 2022, a resident(s) requested an all-way stop at the intersection of Beryl Street and N Guadalupe Avenue. At the time, the City performed the engineering analyses and resident surveys per the City's All-Way Stop Policy, but neither the resident support threshold nor the engineering analyses thresholds were met. Therefore, the all-way stop request was closed at that time. In August 2024, a resident of the area contacted the City requesting pedestrian crossing safety improvements at the same intersection, either via an all-way stop or a marked crosswalk. Staff believes it is highly unlikely that the conclusions that did not warrant an all-way stop at this location have changed since then. A major technical reason an all-way stop could be considered infeasible at this intersection is the difference between the two intersecting streets in regards to traffic volumes, width, and functional classification. An all-way stop would likely result in poor compliance at the Beryl approaches. Therefore, City staff with support from the Councilmember for District 2 decided to analyze the location for a marked and enhanced crosswalk. Legal uncontrolled crosswalks already exist at this intersection and drivers are required to yield to pedestrians with an intent to cross. Directional curb ramps already exist at this intersection to cross in all directions, which may encourage pedestrians to cross Beryl, despite the absence of marked crosswalks and/or intersection controls for the Beryl approaches. Marked crosswalks already exist to cross Guadalupe. Streetlights are present at all four corners.

ANALYSIS:

Staff engineers from the City visited the intersection, performed sight distance analyses, and laid out potential marked crosswalk options. Staff found adequate stopping sight distance

and visibility at this intersection, and that marked crosswalks could encourage more driver yielding compliance when pedestrians are crossing the street. The nearest marked crosswalks across Beryl are at PCH (350 feet west) and at Irena (450 feet east). Although other marked crosswalks are in relatively close proximity to Guadalupe, people traveling along Guadalupe are highly unlikely to divert to PCH or Irena and add 700-900 feet of walking distance to cross Beryl.

Staff proposes to install a marked crosswalk with enhancements on the northeast leg (furthest from PCH) of the Beryl/Guadalupe intersection. Because Beryl contains one travel lane in each direction and has a speed limit of 30 mph, stop sign or signalized controls are not necessarily required. Per the FHWA's *Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations*, high visibility crosswalk markings and signage should always be considered. Additional treatments can be considered such as yield markings, curb extensions, in-street signage, and median refuge islands. Therefore, staff is proposing two possible quick-build treatments to improve crosswalk safety and driver compliance.

The first treatment is a modular raised median that occupies the existing two-way center turn lane, with an opening for the marked crosswalk. Repurposing this section of the center turn lane would allow for an eight-foot-wide pedestrian refuge island. Pedestrian refuge islands are common crosswalk safety treatments intended to reduce the amount of space pedestrians occupy that are exposed to motor vehicle traffic in the intersection. They allow pedestrians to focus on and cross one travel direction at a time, with dedicated space in the middle to wait if necessary. The pedestrian refuge island would contain crosswalk signage for enhanced visibility and reflective treatments to warn drivers of its presence. Less experienced or able crosswalk users such as younger children and older adults would benefit particularly from the presence of a median refuge island. Motorists heading southeasterly or southwesterly and intending to make a left-turn at the intersection would decrease, which also improves safety. If a pedestrian refuge island is installed, left-turning drivers from southwest bound Beryl Street would be required to start their turns from the through lane, and left-turn drivers from southeast bound Guadalupe onto Beryl would have to directly enter the through lane rather than perform a shallower turn into the two-way turn lane. Based on staff's visits to this area, this would not result in substantial vehicular traffic congestion. Turning volumes are relatively low, traffic volumes on residential streets that intersect Beryl in this area are low, and there are plenty of gaps in traffic to perform desired turning movements without impeding other traffic. Drivers turning from Beryl may also perform part of their turn within the center turn lane area beyond the raised median, and any through-moving drivers behind them can maneuver around. Streets with medians that require turns from through lanes are common throughout the area, and also offer traffic calming benefits. Slower speeds at this intersection will decrease the frequency and severity of traffic collisions. The benefits of providing safer crosswalks and improved walkability outweigh unlikely traffic queuing issues in staff's opinion.

The second treatment, which can be included or not independently, would be a modular curb extension at the northeast corner of the intersection, along the Beryl approach towards

PCH. Curb extensions (bulb-outs) also reduce the space pedestrians are exposed within the intersection and shorten the overall crossing distance. In this case, they would allow pedestrians to enter the roadway while being protected by a curb and be more visible to drivers that are required to yield. The addition of a curb extension here would also allow the City to install crosswalk signage further into the street and reduce the amount of red curb required at this crosswalk in accordance with AB 413, from 20 feet to 15 feet. AB 413 was discussed at the PWSC in March 2024. This would allow for the preservation of two parking spaces along the north side of Beryl Street if the driveway red curb for 607 Beryl was reduced by three (3) feet. The driveway slope would remain red. The proposed curb extension is expected to be approximately 5-6 feet wide, which allows for a gap along the gutter for drainage flow. The installation of a modular curb extension here may affect street sweeping along this corner which has been a concern of residents with other installations of curb extensions. In those cases, it is being mitigated by use of a trial porter service. Results from the trial will inform how the City moves forward with this permanently. Other solutions to the street sweeping conflict are available.

It should be noted that the installation of a curb extension here is not absolutely critical to providing a safer crosswalk compared to the median refuge island if street sweeping is the major concern. However, not installing a curb extension would mean only one parking space would be preserved and visibility between drivers and pedestrians would remain as is at that particular corner. Additionally, there would be no need for removal of red curb southwest of the driveway for 607 Beryl if the curb extension was not installed.

In the future, if funds and engineering analyses allow, the City may choose to install permanent curb extensions and a median refuge island. **Attachment 1** shows examples of modular median refuge islands. **Attachment 2** show the proposed striping and signage plan for the crosswalk.

If the PWSC recommends installation of the marked crosswalk, modular median and modular curb extension, construction can start when the modular equipment arrives, the striping contractor is scheduled, and crew availability is confirmed. The estimated cost of materials and to perform this work is approximately \$15,000 and can be accommodated by the City's Traffic Calming budget. This cost is similar to installing a set of speed cushions.

COORDINATION:

Coordination of this evaluation and report took place within the Public Works Department and with the Councilmember for District 2.

Prepared by:

Ryan Liu, Transportation Engineer

Submitted by:

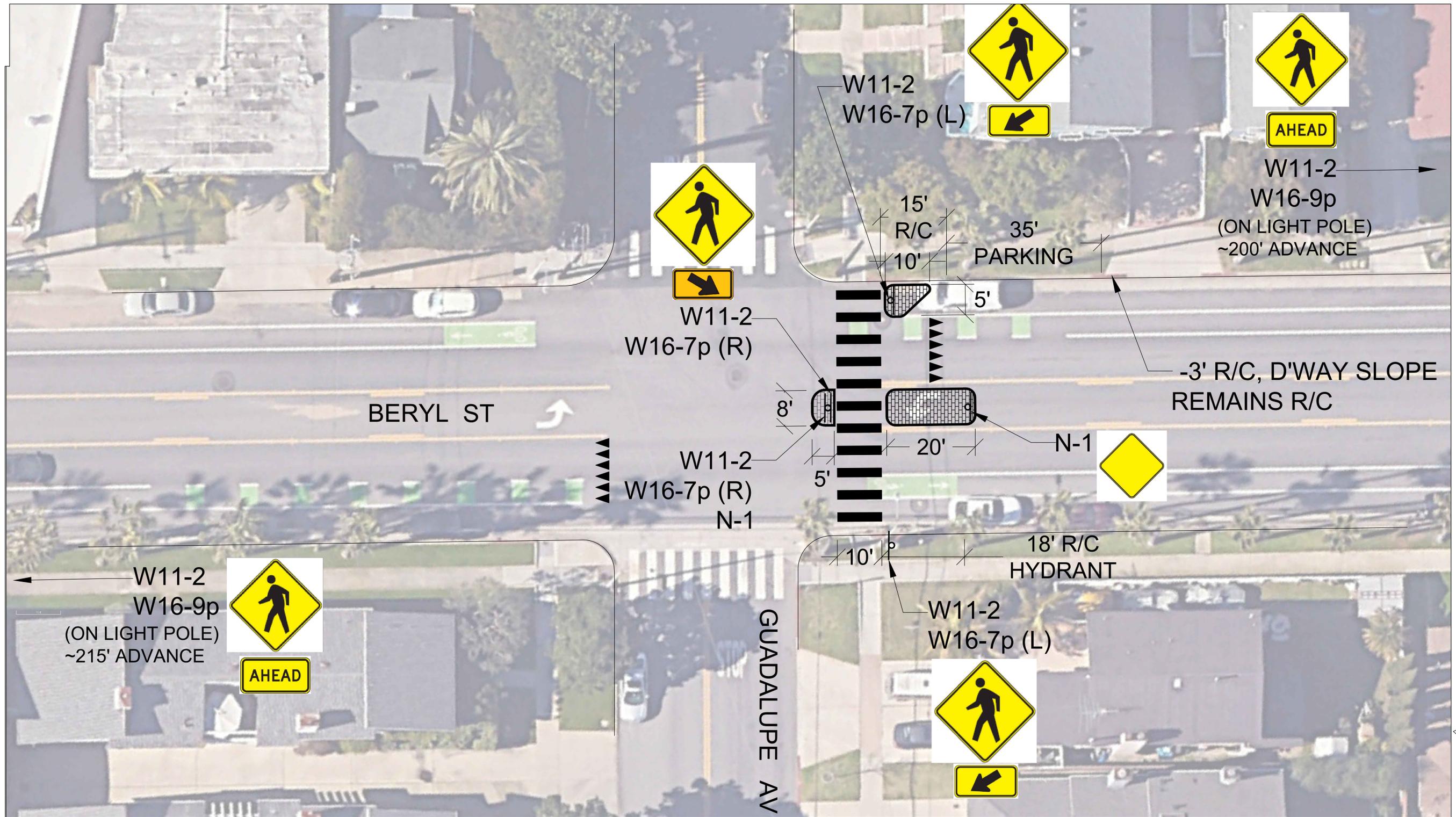
Andrew Winje, Public Works Director

ATTACHMENTS:

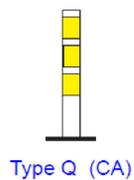
- 1 – Modular Median Refuge Islands and Curb Extensions
- 2 – Proposed Marked/Enhanced Crosswalk at Beryl/Guadalupe

Attachment 1 - Modular Median Refuge Islands





TYPE Q MARKERS TO BE PLACED AT CORNERS OF PEDESTRIAN ISLAND



Type Q (CA)

1. EASTBOUND BERYL GREEN BIKE MARKING TO BE WET SANDBLASTED AND SHIFTED EAST SLIGHTLY.
2. WESTBOUND BERYL LEFT-TURN ARROW SHALL BE REMOVED.
3. ADDITIONAL DOUBLE SOLID YELLOW SHALL BE STRIPED IN VICINITY OF ISLAND.
4. CONFLICTING BIKE LANE GREEN MARKING SHALL BE REMOVED, ONE ADDITIONAL GREEN MARKING SHALL BE ADDED IN ADVANCE OF EXISTING MARKINGS.
5. 2' CROSSWALK BARS; 3' GAP

REVISIONS		CITY OF REDONDO BEACH					
DATE	DESCRIPTION	CALIFORNIA PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES DIVISION					
		BERYL & GUADALUPE ENHANCED CROSSWALK SIGNING AND STRIPING PLAN					
		DRAWN	RL	CHECKED	LS	SCALE	N.T.S.
		APPROVED BY				DATE	
		CITY ENGINEER - RCE #					
		PROJECT NO.	SHEET NO. 1	DRAWING NO.			
		XXXXX	OF 1 SHEETS				