



# Administrative Report

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N.5., File # 21-2895

Meeting Date: 8/17/2021

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**To:** MAYOR AND CITY COUNCIL  
**From:** TED SEMAAN, PUBLIC WORKS DIRECTOR

## **TITLE**

DISCUSSION AND POSSIBLE ACTION REGARDING EXPEDITING THE CONSIDERATION TO INSTALL ALL-WAY STOP-CONTROLS, THROUGH PUBLIC ENGAGEMENT, AT UNCONTROLLED APPROACHES OF INTERSECTIONS IN THE AREA BOUNDED BY GRANT AVENUE, INGLEWOOD AVENUE, AVIATION BOULEVARD AND ARTESIA BOULEVARD, ALL WITHIN COUNCIL DISTRICT 4

## **EXECUTIVE SUMMARY**

In response to a City Council referral to staff during the July 20, 2021 meeting, staff presents the following information for the Council's consideration. The referral requested options to expedite the installation of all way stops through community outreach at local intersections that lacked all-way stops within the boundaries created by Grant Avenue, Inglewood Avenue, Aviation Boulevard and Artesia Boulevard, an area entirely within Council District 4.

The City's current policy for placement of stop controls complies with the California Vehicle Code (CVC) and engineering guidance from the California Manual on Uniform Traffic Control Devices (CA MUTCD). More specifically, the CVC permits local jurisdictions the authority to install stop signs to control traffic within an intersection, while the CA MUTCD provides guidance and warrant criteria for use in a traffic engineering analysis used to evaluate the appropriate installation of stop signs.

## **BACKGROUND**

The City's administrative policy for stop sign installation (see Attachment 1) discusses the procedures and steps routinely taken by staff, in coordination with residents, to investigate, conduct an engineering warrant analysis and recommend consideration of requested stop-controls. The policy is specific to local residential streets and is initiated once a resident reaches out to staff and requests the installation of the additional stop-controls. The policy requires the support of nearby residents. The policy also requires a traffic engineering study be performed as a best practice. Methods and thresholds to determine whether a stop sign is warranted are given in the CA MUTCD (see Attachment 2). Finally, the policy requires review and consideration by the Public Works Commission and approval by City Council.

The CA MUTCD is the go-to reference for standard signs, markings, signals within California and provides guidelines and warrants for the installation of traffic control devices, including stop signs. The CA MUTCD provides guidelines to help determine if the installation of additional stop-controls

could potentially reduce conflicts between vehicles, cyclists and pedestrians. However, the CVC recognizes the discretion of the local municipal government to authorize their installation independent of CA MUTCD guidelines.

The policy currently being used supports consistent and technically sound recommendations based on industry standard engineering criteria and appropriateness as provided within the CA MUTCD. The policy also allows staff to consider additional potential concerns outside of the CA MUTCD warrants as determined by the traffic study. This is especially important at locations where stop signs are not warranted but are still desired by nearby residents.

As it applies to the intersections bounded within the roadways of Grant Avenue, Inglewood Avenue, Aviation Boulevard and Artesia Boulevard, that are not already all-way stop controlled, the CVC provides the local jurisdiction the authority to install stop signs at the City's discretion. There are no standards within either the CVC or CA MUTCD that would preclude the installation of additional stop-controls. As such, the Council can directly authorize Staff to install all-way stop controls at the intersections within this area. This approach would shorten the all-way stop sign installation process significantly as it would reduce the time needed to gather resident support and the time needed to perform a traffic study. Staff would encourage the inclusion of public outreach and notification to keep residents informed of potential changes to neighboring intersections.

In summary, the following options are provided for the Council's consideration in pursuing the installation of all-way stop-controls within the aforementioned area in Council District 4:

- Option 1 - Utilize the City's current process to assess the feasibility of installing additional stop-controls through an engineering analysis based on field data collection and observations, review of correctable accident history and conducting a warrant analysis for each intersection as outlined in the CA MUTCD. Leading to a presentation of findings to the community and the Public Works Commission followed by City Council review and consideration, as outlined within this report and attachments.
- Option 2 - Initiation of analysis per City Council referral, seek residents input through outreach and community engagement, and present the all-way stop installations findings based on community input to the Public Works Commission and subsequently to the City Council for final approval and installation.
- Option 3 - Direct staff to present the all-way stop control consideration directly to the City Council for potential approval and installation.
- Option 4 - Other actions as determined by the City Council in consideration for the installation of the all-way controls.

At the discretion of the City Council, each of these options can incorporate a traffic study to inform whether a stop sign meets the warrants outlined in the CA MUTCD. Staff is seeking Council direction in the preferred option of bringing this forward.

## **COORDINATION**

This report was coordinated by the Public Works Engineering Division.

**FISCAL IMPACT**

There is no fiscal impact associated with this action. Costs will be incurred when any all-way controls are installed.

**APPROVED BY:**

*Joe Hoefgen, City Manager*

**ATTACHMENTS**

- City's Residential All-way Stop Request Policy
- California Manual on Uniform Traffic Control Devices Stop Sign Installation Warrant Criteria





## **CITY OF REDONDO BEACH TRAFFIC ENGINEERING DIVISION POLICY**

### **REQUEST FOR STOP SIGN(S) STUDY AT A RESIDENTIAL STREET INTERSECTION:**

1. The petition spokesperson must collect signatures from residents of the impacted block in each direction of the location proposed for a STOP sign. The City of Redondo Beach will provide a map showing the required addresses and minimum number of signatures from each address and a Petition for STOP Signs Study form. The petition must state the reasons for the request of additional STOP sign(s) at the intersection.
2. Submit the petition to the Department of Public Works to the attention of the City Engineer or Transportation Engineer.
3. Engineering Services shall conduct a traffic study to determine the need for additional STOP signs at the intersection including traffic counts, speed counts, collision history analysis, and field observations. The study and recommendation to approve or not approve additional stop signs shall follow the standards established within the State of California Manual on Uniform Traffic Control Devices. Engineering Services may recommend other improvements at the intersection in an effort to not add additional STOP signs. This portion of the procedure may take from 12 to 18 weeks.
4. The Transportation Engineer will submit his findings from the traffic study and recommendations to the Public Works Commission at a public meeting. Residents will be invited from one block in all directions from the requested location. This portion of the procedure may take an additional 8 to 12 weeks, depending on the Public Works Commission's meeting schedule.
5. The Public Works Commission shall recommend or deny the request. The recommendation to install additional STOP signs will be presented before the City Council for approval. If the Public Works Commission recommends against the request, the recommendation may be appealed within 30 days to the City Council. This portion of the process may take an additional 4 to 6 weeks depending on the City Council schedule.
6. If the STOP sign request is approved by the City Council, the Transportation Engineer will issue a work order to the Streets Division for installation. This portion of the process may take an additional 4 to 6 weeks.



# PETITION FOR STOP SIGN STUDY

**INSTRUCTIONS:** This petition is required to initiate a study to determine the need for STOP signs at an intersection and does not guarantee that STOP signs will be warranted nor commit the City of Redondo Beach to the installation of STOP signs at the study intersection. This petition is to be submitted to the City Engineer within six months from the date of the first signature after being signed by those occupants shown on the City-supplied map of required signatures. For multi-unit properties, the homeowners/condo association president or property owner may sign as representative for the entire property. Signatures must be dated; undated signatures will not be tallied.

We, the undersigned, desire, agree with, and request the installation of STOP signs at the intersection of:

\_\_\_\_\_ and \_\_\_\_\_  
Street Name Street Name

for the following reason(s):

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By signing this petition, I acknowledge that I have read the attached "Requests for STOP Signs at Intersections of Residential Streets."

NAME (PRINTED)	SIGNATURE	ADDRESS	PHONE	EMAIL	DATE

Petition Spokesperson: \_\_\_\_\_ Phone No.: \_\_\_\_\_

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Support:

- <sup>17</sup> Caltrans will grant such permission only when an investigation indicates that the STOP (R1-1) sign will benefit traffic.

**Section 2B.06 STOP Sign Applications**

Guidance:

- <sup>01</sup> At intersections where a full stop is not necessary at all times, consideration should first be given to using less restrictive measures such as YIELD signs (see Sections 2B.08 and 2B.09).
- <sup>02</sup> The use of STOP signs on the minor-street approaches should be considered if engineering judgment indicates that a stop is always required because of one or more of the following conditions:
- A. The vehicular traffic volumes on the through street or highway exceed 6,000 vehicles per day;
  - B. A restricted view exists that requires road users to stop in order to adequately observe conflicting traffic on the through street or highway; and/or
  - C. Crash records indicate that three or more crashes that are susceptible to correction by the installation of a STOP sign have been reported within a 12-month period, or that five or more such crashes have been reported within a 2-year period. Such crashes include right-angle collisions involving road users on the minor-street approach failing to yield the right-of-way to traffic on the through street or highway.

Support:

- <sup>03</sup> The use of STOP signs at grade crossings is described in Sections 8B.04 and 8B.05.

**Section 2B.07 Multi-Way Stop Applications**

Support:

- <sup>01</sup> Multi-way stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multi-way stop control is used where the volume of traffic on the intersecting roads is approximately equal.

- <sup>02</sup> The restrictions on the use of STOP signs described in Section 2B.04 also apply to multi-way stop applications.

Guidance:

- <sup>03</sup> The decision to install multi-way stop control should be based on an engineering study.
- <sup>04</sup> The following criteria should be considered in the engineering study for a multi-way STOP sign installation:
- A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.
  - B. Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.
  - C. Minimum volumes:
    - 1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and
    - 2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but
    - 3. If the 85<sup>th</sup>-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.
  - D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

Option:

- <sup>05</sup> Other criteria that may be considered in an engineering study include:
- A. The need to control left-turn conflicts;
  - B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;
  - C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and

- D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.

### **Section 2B.08 YIELD Sign (R1-2)**

**Standard:**

- 01 The YIELD (R1-2) sign (see Figure 2B-1) shall be a downward-pointing equilateral triangle with a wide red border and the legend YIELD in red on a white background.**

**Support:**

- 02 The YIELD sign assigns right-of-way to traffic on certain approaches to an intersection. Vehicles controlled by a YIELD sign need to slow down to a speed that is reasonable for the existing conditions or stop when necessary to avoid interfering with conflicting traffic.**

### **Section 2B.09 YIELD Sign Applications**

**Option:**

- 01 YIELD signs may be installed:**
- A. On the approaches to a through street or highway where conditions are such that a full stop is not always required.**
  - B. At the second crossroad of a divided highway, where the median width at the intersection is 30 feet or greater. In this case, a STOP or YIELD sign may be installed at the entrance to the first roadway of a divided highway, and a YIELD sign may be installed at the entrance to the second roadway.**
  - C. For a channelized turn lane that is separated from the adjacent travel lanes by an island, even if the adjacent lanes at the intersection are controlled by a highway traffic control signal or by a STOP sign.**
  - D. At an intersection where a special problem exists and where engineering judgment indicates the problem to be susceptible to correction by the use of the YIELD sign.**
  - E. Facing the entering roadway for a merge-type movement if engineering judgment indicates that control is needed because acceleration geometry and/or sight distance is not adequate for merging traffic operation.**

**Standard:**

- 02 A YIELD (R1-2) sign shall be used to assign right-of-way at the entrance to a roundabout. YIELD signs at roundabouts shall be used to control the approach roadways and shall not be used to control the circulatory roadway.**
- 03 Other than for all of the approaches to a roundabout, YIELD signs shall not be placed on all of the approaches to an intersection.**

### **Section 2B.10 STOP Sign or YIELD Sign Placement**

**Standard:**

- 01 The STOP or YIELD sign shall be installed on the near side of the intersection on the right-hand side of the approach to which it applies. When the STOP or YIELD sign is installed at this required location and the sign visibility is restricted, a Stop Ahead sign (see Section 2C.36) shall be installed in advance of the STOP sign or a Yield Ahead sign (see Section 2C.36) shall be installed in advance of the YIELD sign.**
- 02 The STOP or YIELD sign shall be located as close as practical to the intersection it regulates, while optimizing its visibility to the road user it is intended to regulate.**
- 02a YIELD signs shall not be erected upon the approaches to more than one of the intersecting streets. Refer to CVC 21356.**
- 03 STOP signs and YIELD signs shall not be mounted on the same post.**
- 04 No items other than inventory stickers, sign installation dates, and bar codes shall be affixed to the fronts of STOP or YIELD signs, and the placement of these items shall be in the border of the sign.**
- 05 No items other than official traffic control signs, inventory stickers, sign installation dates, anti-vandalism stickers, and bar codes shall be mounted on the backs of STOP or YIELD signs.**
- 06 No items other than retroreflective strips (see Section 2A.21) or official traffic control signs shall be mounted on the fronts or backs of STOP or YIELD signs supports.**



## **BLUE FOLDER ITEM**

*Blue folder items are additional back up material to administrative reports and/or public comments received after the printing and distribution of the agenda packet for receive and file.*

### **CITY COUNCIL MEETING AUGUST 17, 2021**

- N.5 DISCUSSION AND POSSIBLE ACTION REGARDING EXPEDITING THE CONSIDERATION TO INSTALL ALL-WAY STOP CONTROLS, THROUGH PUBLIC ENGAGEMENT, AT UNCONTROLLED APPROACHED OF INTERSECTIONS IN THE AREA BOUNDED BY GRANT AVENUE, INGLEWOOD AVENUE, AVIATION BOULEVARD AND ARTESIA BOULEVARD, ALL WITHIN COUNCIL DISTRICT 4.**

**CONTACT:**

TED SEMAAN, PUBLIC WORKS DIRECTOR

ATTACHED IS A PRESENTATION REGARDING ITEM N.5.



# Item N.5

## All-way Stop Controls at Uncontrolled Approaches in Areas within Council District 4



## Outline

- Staff referral – July 20, 2021
- Stop Control Implementation Compliance - California Vehicle Code (CVC) and California Manual on Uniform Traffic Control Devices(CA MUTCD)
- City's Current Administrative Process/Procedure
- Proposed Alternatives for Council District 4 Area



## Stop Control Implementation Compliance

- CVC Section 21355

*The Department of Transportation and local authorities in their respective jurisdictions may erect stop signs at any location so as to control traffic within an intersection.*

- CA MUTCD Section 2B.07 – Multi-Way Stop Applications
  - Volumes
  - Collisions
  - Other Criteria – ie. turn conflicts, sight visibility and operational benefits.







## City's Current Administrative Process/Procedures

1. Petition Spokesperson initiation and petition.
2. Engineering department conducts traffic study.
3. Engineering staff presents findings to PWC.
4. PWC recommends or denies request and directs staff to present to CC.
5. CC makes determination for final approval.
6. Installation of CC recommendation.





## Proposed Alternatives

- Option 1 – Utilize City's current process
- Option 2 – Initiation of analysis per CC referral, seek resident input through outreach and community engagement, present installation findings to PWC and CC.
- Option 3 – Direct staff to present the all-way stop consideration directly to the CC.
- Option 4 – Other actions/directions as determined by the CC.

## Recommendation

Discussion and possible action regarding expediting the consideration to install all-way stop controls, through public engagement, at uncontrolled approaches of intersections in the area bounded by Grant Ave, Inglewood Ave, Aviation Blvd and Artesia Blvd, all within Council District 4.