



Administrative Report

N.1., File # 20-1251

Meeting Date: 8/18/2020

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

TITLE

DISCUSSION AND POSSIBLE ACTION REGARDING THE TEMPORARY TRAFFIC CIRCLES INSTALLED AT THE INTERSECTIONS OF FIRMONA AVENUE AT FISK LANE, SPRECKELS LANE, AND ARMOUR LANE

EXECUTIVE SUMMARY

On December 3, 2018, the Public Works Commission approved the installation of temporary traffic circles at the intersections of Firmona Avenue and Fisk Lane, Spreckels Lane, and Armour Lane as part of the greater Inglewood Avenue Residential Neighborhood Traffic Calming Study. Following design plans and parts procurement, the temporary traffic circles were installed in September 2019.

As part of the City Council adopted traffic circle program, the temporary traffic circles were installed following Commission approval and evaluated for six months. As part of the evaluation, Staff conducted several field observations, collected vehicle speed and volume data, and solicited resident feedback in an effort to assess the traffic circle's effectiveness in reducing speeds along the roadway and enhancing traffic safety at the intersections.

Staff is hereby presenting the results of the six-month temporary traffic circles evaluation (Assessment) to City Council for discussion and possible action. While this report was ready several months ago, staff delayed placing this report on the agenda given more important issues confronting the City involving COVID-19 and the need to finalize and adopt the FY 2020-21 Budget.

The meeting minutes from the Public Works Commission meeting on December 3, 2018 are included in Attachment 1.

BACKGROUND

On December 3, 2018, Staff presented a report to the Public Works Commission evaluating traffic calming measures, including the installation of traffic circles, along the Firmona Avenue corridor. Based on resident feedback, and in conjunction with District 3 Council Member, the Commission approved Staff recommendations to install temporary traffic circles at the intersections of Firmona Avenue at Fisk Lane, Spreckels Lane, and Armour Lane, respectively. Following the development of design plans and procurement of parts, the temporary traffic circles were installed in September 2019.

Following installation, staff initiated the Assessment beginning with field observations and data collection, which included 24-hour vehicle speed and vehicle volume data counts. Following the six-month Assessment period, staff also solicited resident feedback with a questionnaire.

ANALYSIS

As part of the Assessment, staff conducted field observations and collected speed data and average daily traffic (ADT) volume data to thoroughly assess any changes in vehicle speeds and volume patterns as a result of the installation of the temporary traffic circles. The data collections occurred at various times during the Assessment. The speed data and ADT volume data were collected in 24-hour increments for three consecutive days from February 11-13 of this year. Vehicle speed surveys were performed by Staff on October 23, 2019 (approximately one month after installation of the temporary traffic circles) and on August 4-6, 2020 (approximately 10 months after the installation and during current COVID-19 related restrictions). Field observations were conducted throughout various times of the day following installation of the temporary traffic circles.

As part of the Assessment, Staff also conducted a public survey by mailing questionnaires to residents that were considered to be within the general proximity of the temporary traffic circles. These included all residents on Firmona Avenue from Ralston Lane to 190th Street, and all residents one block east and west of the subject intersection on Fisk Lane, Spreckels Lane, and Armour Lane respectively. The questionnaires were mailed out in March 2020 and were due on May 6, 2020, providing the residents a sufficient response time.

Speed Data

Staff collected speed data along Firmona Avenue which included 85th percentile, average and max speeds. The 85th percentile speed data for Firmona Avenue is summarized in the following table:

Firmona Avenue Average 85% Speed Data

	Prior to Temporary Traffic Circle Installation	~1 Month After Temporary Traffic Circle Installation ¹	~5 Months After Temporary Traffic Circle Installation ¹	~10 Months After Temporary Traffic Circle Installation ²
COUNT DATE:	<i>April 23-25, 2019</i>	<i>October 23, 2019</i>	<i>February 11-13, 2020</i>	<i>August 4-6, 2020</i>
Average 85th% Speed between Alvord Lane and Fisk Lane	25 mph	N/A	25 mph	N/A
Average 85th% Speed between Fisk Lane and Spreckels Lane	25 mph	22 mph	23 mph	19 mph
Average 85th% Speed between Spreckels Lane and Armour Lane	29 mph	21 mph	23 mph	20 mph

Average 85th% Speed between Armour Lane and 190 th Street	29 mph	N/A	20 mph	N/A
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¹Temporary traffic circles installed September 2019

²Speed data taken under COVID-19 restrictions

As the table shows, following the installation of the temporary traffic circles, the 85th percentile speed data along Firmona Avenue saw a significant reduction throughout the duration of the assessment, particularly between the mid-corridor segments between Fisk Lane and Armour Lane.

Volume Data

Staff also collected average ADT volumes as part of the six-month assessment to help identify any significant changes/impacts to vehicle volumes as a result of the temporary traffic circle construction. The average daily traffic volume comparison is summarized as:

Firmona Avenue Average Daily Traffic Data ¹

	Prior to Temporary Traffic Circle Installation	~5 Months After Temporary Traffic Circle Installation ²
COUNT DATE:	<i>April 23-25, 2019</i>	<i>February 11-13, 2020</i>
Average Daily Traffic (ADT) between Alvord Lane and Fisk Lane	1,149 Vehicles	685 Vehicles
Average Daily Traffic (ADT) between Fisk Lane and Spreckels Lane	1,220 Vehicles	721 Vehicles
Average Daily Traffic (ADT) between Spreckels Lane and Armour Lane	1,531 Vehicles	895 Vehicles
Average Daily Traffic (ADT) between Armour Lane and 190 th Street	1,700 Vehicles	1,017 Vehicles

¹Total average of vehicles traveling on roadway (northbound and southbound).

²Temporary traffic circles installed September 2019

The ADT data shows significant reduction in volumes along Firmona Avenue following the construction of the temporary traffic circles.

Field Observations

Staff conducted numerous field observations following the installation of the temporary traffic circles. Field observations showed that vehicles generally obeyed the turning movements that were created

as a result of the temporary traffic circle installation. However, the following observations of inappropriate driver behavior were noted:

- Vehicles illegally turning left in front of the traffic circles
- Vehicles entering the traffic circles not yielding for vehicles already within the traffic circles
- Vehicles not yielding for pedestrians within the traffic circles

Occurrences of these inappropriate movements were found to be minimal and additional traffic enforcement and driver education may be used to help reduce the number of occurrences.

Questionnaire

The Temporary Traffic Circle Questionnaire was administered from March 2020 to May 6, 2020. A total of 190 questionnaires were mailed out to residents living one block in each direction of the subject intersections. Of the 190 questionnaires mailed out, 79 residents responded to the questionnaire to provide their input on the temporary traffic circles (42% response rate).

Of the 79 total resident responses: 15 residents (19%) preferred maintaining the existing configuration and desired construction of permanent traffic circles, 25 residents (32%) preferred reverting the intersections back to the original conditions through removal of the temporary traffic circles and re-installation of an all-way stop at Firmona Avenue and Fisk Lane, 29 residents (37%) preferred removing the temporary traffic circles and installing all-way stop controls at every intersection, and 10 residents (12%) preferred other traffic control configurations such as speed cushions. All submitted questionnaire responses along with a map showing residence location and responses is included in Attachment 2. Additional correspondence received from residents following the installation of the temporary traffic circles can be found in Attachment 3. Some specific resident responses are highlighted below:

- “Traffic circles doing their job. Next step should be beautification of circles”
- “I am very pleased with experiencing reduced traffic volume, reduced noise and reduced speed at my intersection of Armour Lane & Firmona”
- “Speed bumps should be added to slow down traffic; especially cars cutting through the neighborhood to avoid 190th and/or Inglewood”
- “Most drivers, to be fair, approach the roundabouts and drive carefully through them. Some come to a complete stop, likely either out of an abundance of caution or not understanding how to negotiate the roundabout; this is especially true when we arrive at the roundabout simultaneously”
- “Cars don’t slow down, they speed up when approaching the circle. I feel it was safer when there were stop signs. Please remove the circles”

Ultimately, the Assessment showed that the temporary traffic circles were effective in reducing the

85th percentile speed through the Firmona Avenue corridor. In addition, no collisions were reported throughout the assessment period. However, as is shown in the questionnaire responses, the majority of the residents (69%) preferred the removal of the temporary traffic circles and either reverting the intersections back to original conditions or installing all-way stop controls.

Staff recommends the City Council provide direction regarding the removal of the traffic circles altogether, replacement of the temporary traffic circles with more permanent installations, or installation of all-way stops at the subject intersection.

COORDINATION

All residents who originally received a questionnaire were notified of the City Council meeting. These included all residents on Firmona Avenue from Ralston Lane to 190th Street, and all residents one block east and west of the subject intersection on Fisk Lane, Spreckels Lane, and Armour Lane respectively. In addition, the same notification letter was provided to District 3 Council Member in a request for assistance in helping to inform constituents of the discussion item.

FISCAL IMPACT

Costs to install the various alternatives are as follows:

1. Traffic Circle Construction Alternative - Construction of (3) permanent traffic circles - \$150,000 (lower, "non-permanent" cost alternatives available)
2. Revert to Original Conditions Alternative - Removal of (3) temporary traffic circles and reinstallation of (1) all-way stop controls at Firmona Avenue and Fisk Lane - \$7,000
3. All-way Stop Controls Alternative - Removal of temporary traffic circles and installation of all-way stop controls along Firmona Avenue at Fisk Lane, Spreckels Lane, and Armour Lane - \$10,500

Funding for alternatives is available as part of the current Traffic Calming budget.

APPROVED BY:

Joe Hoefgen, City Manager

ATTACHMENTS

1. Public Works Commission Meeting 12-3-18 Minutes
2. Temporary Traffic Circle Questionnaire Response Map & Responses
3. Correspondence