## REQUEST FOR SAFETY IMPROVEMENTS AT INTERSECTIONS OF $4^{\text {TH }}$ STREET WITH mANHATTAN AVENUE AND MONTEREY AVENUE

## Recommendation:

It is recommended that the Public Works Commission deny the petition to install STOP sign at the intersection of $4^{\text {th }}$ Street with Manhattan and Monterey to create all-way stop.

## Background:

Two residents in the area of $4^{\text {th }}$ and Manhattan had written separate letters and have expressed concern for the traffic safety at the intersections of $4^{\text {th }}$ Street with Manhattan and Monterey in their neighborhood and had requested that The City examines alternatives to improve the traffic safety.

Public Works staff investigated the concern of the residents. A report was given to the Public Works Commission in the meeting on November 16, 2002. Staff offered alternatives to the Commission and requested direction on the alternative that met the approval of the Commission. The alternatives included:

1. Conduct Warrant analysis for 4 -way stop controlled intersection and bring back to commission for consideration.
2. Direct staff to prepare roadway geometric improvement concepts for the commission's consideration.
3. Take no action.

After review and discussion of the alternatives, Commission directed the staff to investigate the potential warrant for all-way stop at the said intersections.

## Analysis:

As a part of the warrant study for all-way stop, 24 -hour vehicle and 4 -hour pedestrian counts were conducted for a weekday and weekend day at the intersection of $4^{\text {th }}$ Street with Manhattan and Monterey Avenues. The warrant for all-way stop is met when any of the following conditions exists:

1. Where traffic signals are warranted and urgently needed, the multi-way stop may be an interim measure that can be installed quickly to control traffic while arrangements are being made for the signal installation.
2. An accident problem, as indicated by five or more reported accidents within a 12 month period of a type susceptible of correction by a multi-way stop installation. Such accidents include right and left-turn collisions as well as right angle collisions.
3. Minimum traffic volumes:
a) The total vehicular volume entering the intersection from all approaches must average 500 vehicles per hour for any 8 hours of an average day, and
b) The combined vehicular and pedestrian volume from the minor street or highway must average at least 200 units per hour for the same 8 hours, with an average delay to
minor vehicular traffic of at least 30 seconds per vehicle during the maximum hour, but
c) When $85^{\text {th }}$ percentile approach speed exceeds $64 \mathrm{~km} / \mathrm{h}$ ( 40 mph ), the minimum vehicular volume warrant is $70 \%$ of the above requirements.

Staff analyzed the collected data to check against the warrant requirements. The analysis revealed that none of the warrant requirements is met. Therefore a multi-way stop controlled intersection is not justified. Following is the warrant analysis for each intersection:

| Intersection | 4th Street and Manhattan Avenue |  | 4 th Street and Monterey Avenue |  |
| :---: | :---: | :---: | :---: | :---: |
| Condition No . | Met | Not Met | Met | Not Met |
| 1 | N/A | N/A | N/A | N/A |
| 2 |  | X |  | x |
| 3 |  | X |  | X |

## Alternatives:

1. Approve the staff's recommendation...
2. In lieu of the all-way stops, direct staff to prepare roadway geometric improvement concepts to improve sight distance for the commission's consideration.
3. Prepare plans to install all-way stops at both intersections
4. Take no action.

Attachments:

1. Location Map
2. Residents Petitions

Respectfully submitted,

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City Traffic Engineer

Concur:

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