


## COUNCIL COMMUNICATION

	Number:	<b>21-449</b>	Meeting:	<b>October 18, 2021</b>
	Agenda Item:	<b>60</b>	Roll Call:	<b>21-1616</b>
	Submitted by:	<b>Steven L. Naber, P.E., City Engineer</b>		

### AGENDA HEADING:

Amending Chapter 114 of the Municipal Code to include a 4-way stop control and parking restriction at the intersection of E 5th Street and E Grand Avenue.

### SYNOPSIS:

The proposed traffic regulation change provides all-way stop control at the intersection of E 5th Street and E Grand Avenue at the request of the ward councilmember and an at-large councilmember. The change also includes a corner clearance parking restriction to provide necessary sight distance for the westbound stop sign. Staff does not recommend the installation of all-way stop control at this intersection as the crash data and traffic volumes do not meet the warrant criteria outline in the Manual on Uniform Traffic Control Devices (MUTCD). The installation of stop signs at locations that do not meet warrant criteria can increase the risk for non-compliance.

### FISCAL IMPACT:

#### Amount:

- Initial cost (fall 2021) = \$7,500. This initial cost includes cost of pavement marking modifications, signs, overhead beacon installation and removal of existing traffic control devices no longer necessary.
- Future cost (spring/summer 2022) = \$15,000. This cost includes replacement of existing poles used for the rectangular rapid flashing beacon with MidAmerican Energy streetlighting and installation of durable pavement markings for the stop bars and crosswalks to match the rest of the corridor.

Funding Source: 2021-2022 CIP, Active Transportation, ST269, Page 122

### ADDITIONAL INFORMATION:

- On June 22, 2021, staff received a request from the Historic East Village Board to install all-way stop control or a traffic signal at the intersection of E 5th Street and E Grand Avenue. The intersection is currently 2-way stop controlled with north/south E 5th Street traffic stopping. A pushbutton-activated, overhead, rectangular rapid flashing beacon (RRFB) is located for pedestrians crossing the east approach of the intersection.

- Staff reviewed the traffic volumes of all modes, crash data, and intersection visibility. The traffic volumes and crash history at the intersection of E 5th Street and E Grand Avenue were reviewed using the warrant criteria outlined in the MUTCD for all-way stop control and a traffic signal. The MUTCD is a document published by the Federal Highway Association and adopted by the State of Iowa that provides consistency on how traffic control is determined and implemented throughout the United States.
- A traffic signal is not warranted based on the MUTCD criteria. None of the nine (9) warrants in the MUTCD were satisfied. The criteria for these warrants consider vehicular volumes, pedestrian and bike volumes, and crash experience, as well as other factors.
- This intersection was previously studied using data collected pre-pandemic. MUTCD criteria for all-way stop and traffic signal were not met at that time.
- An all-way stop controlled intersection is not warranted based on the MUTCD criteria. Only four (4) vehicular crashes were reported in the past 12-months that would be susceptible to correction by installing an all-way stop. Also, the percentage of traffic on E Grand Avenue entering the intersection ranges from 72% to 88% of the total amount of traffic entering the intersection. Significantly unbalanced volumes between intersecting streets with all-way stop control can result in poor compliance with stop control which can result in an increased potential for crashes.
- On September 22, 2021, the ward councilmember and an at-large councilmember directed staff to bring traffic regulation changes to City Council to install all-way stop control at the intersection of E 5th Street and E Grand Avenue.
- The installation of an all-way stop at the intersection of E 5th Street and E Grand Avenue was presented to the Transportation Safety Committee on October 12, 2021. Five (5) of the 10 members of the committee are required to be present to form a quorum and to vote on the recommendation. Only three (3) members were present at the meeting. The members present were polled regarding their support for the staff recommendation not to install an all-way stop at the intersection of E 5th Street & E Grand Avenue. One (1) member did not support the recommendation, one (1) member was in support of the recommendation, and one (1) member was undecided.
- Staff does not recommend the installation of an all-way stop at the intersection of E 5th Street and E Grand Avenue. The traffic volumes and crash history do not meet the criteria outlined in the MUTCD for the installation of all-way stop control. All-way stop control is not effective in reducing speeds and the addition of unwarranted traffic control can increase the risk for non-compliance.
- Staff is concerned that installation of unwarranted traffic control at an intersection with limited sight distance due to on-street parking and landscaping, combined with the reduced driver expectancy, could increase the potential for crashes at this location. As a result, a flashing, overhead beacon would be installed if an all-way stop is approved.

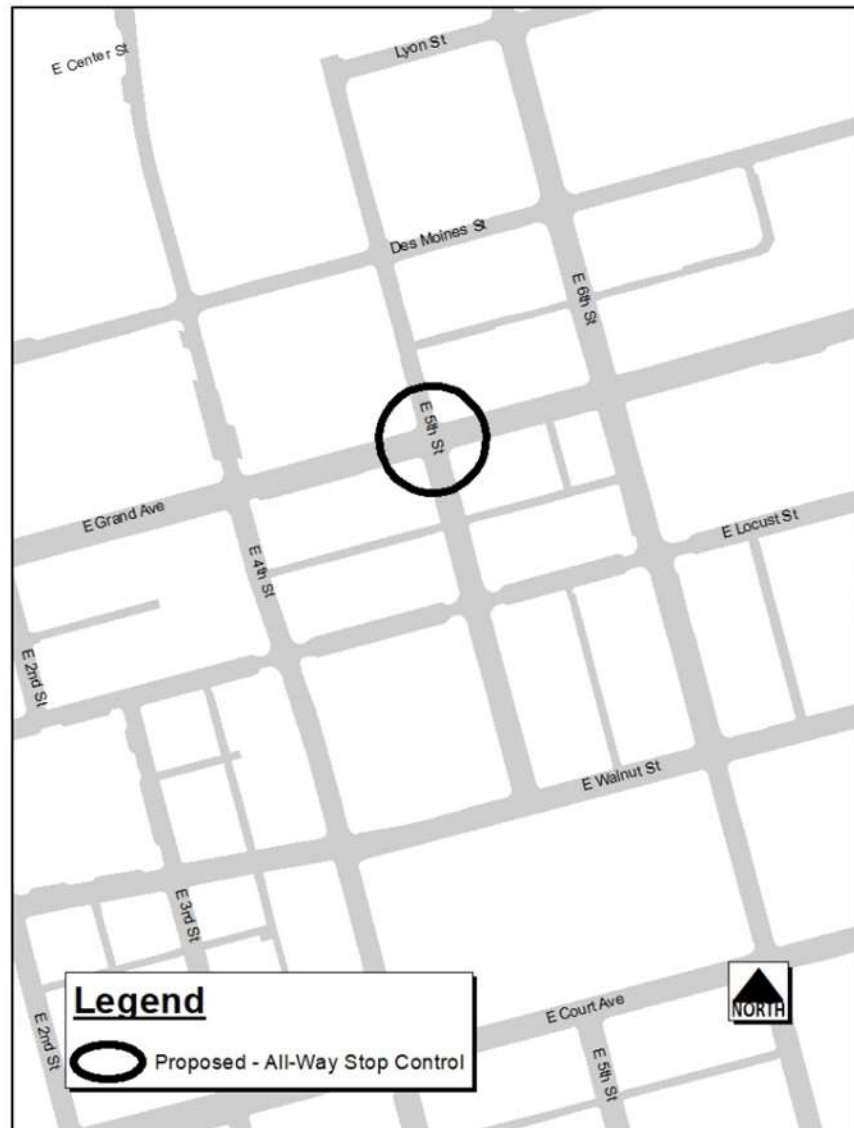
- If an all-way stop is approved, the no parking area on the north side of E Grand Avenue just east of the intersection would be extended to the existing loading zone in order to provide the required sight distance for the signage. The RRFB and pedestrian crossing signs will be removed.
- If an all-way stop is approved, standard crosswalks and stop bars will be painted to maintain consistency throughout the corridor and in accordance with the City's Crosswalk Policy and the City's Signing and Striping Standards. Continental crosswalks are used at midblock locations or locations where a HAWK signal or RRFB assembly is used. Standard crosswalks are used at intersections where traffic is required to stop even when a pedestrian is not present. Consistent application of traffic control devices encourages compliance and expectancy by all modes of transportation.
- Replacement of existing poles used for the RRFB with MidAmerican Energy streetlighting and installation of durable pavement markings for the stop bars and crosswalks to match the rest of the corridor would occur in spring/summer 2022.
- By request of the ward councilmember and at-large councilmember, these traffic regulation changes are being brought forth for City Council consideration. The following code changes will place all-way stop control at the intersection of E 5th Street and E Grand Avenue.

Sec. 114-319.03. Location of four-way stop intersections.

(39b) East Grand Avenue and East Fifth Street

Sec. 114-3270. East Grand Avenue--East Fifth Street to East Sixth Street.

East Grand Avenue, on the north side, from East Fifth Street to a point 70 feet east thereof, no parking any time.



**PREVIOUS COUNCIL ACTION(S): NONE**

**BOARD/COMMISSION ACTION(S):**

Board: Transportation Safety Committee

Date: October 12, 2021

Resolution Number: N/A

Action: Three (3) out of 10 members were present. No official vote was taken since a quorum was not present. Of the three (3) present, one (1) member supported the staff recommendation to retain the present intersection traffic control of a two-way stop and not to change the intersection traffic control at this location to either an all-way stop or traffic signal, one (1) did not support the staff recommendation, and one (1) was undecided.

**ANTICIPATED ACTIONS AND FUTURE COMMITMENTS: NONE**

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