

Staff Report

**PERMANENT TRAFFIC SIGNAL REQUEST
AT 13TH STREET AND KELLOGG AVENUE INTERSECTION**

October 11, 2016

BACKGROUND:

As part of Phase II of the Hospital expansion project, a temporary traffic signal was installed at the 13th Street and Kellogg Avenue intersection to assist in the management of traffic while vehicles from the Hospital were rerouted towards Kellogg Avenue. During that time, egress traffic to Duff Avenue was cut off at the main entrance located at 11th Street. The temporary signal has been in operation since September 12, 2014 (25 months). Recently, the Hospital project has progressed such that full access was restored to Duff Avenue and the removal of the temporary signal was scheduled along with other traffic control measures throughout the neighborhood along Kellogg Avenue (as of 9/9/2016).

However, after being informed that the temporary signal was going to be removed, neighborhood representatives contacted the City requesting that the signal remains on a permanent basis to primarily facilitate the crossing of school-aged pedestrians north-south across 13th Street. Staff was asked to study the intersection to see if the traffic signal was warranted. It is the professional opinion of staff that it is unlikely the traffic signal is warranted now that traffic patterns have been restored back to existing signal at 11th Street and Duff Avenue. It should be noted that **approximately 220 ft. East of temporary Kellogg Avenue, there is a signalized pedestrian crossing in place in front of Fire Station #1 for pedestrians crossing 13th Street (see attached map).**

Issues for consideration include, the permanent investment to signalize an intersection (approximately \$350k to \$375k for 4-leg intersection, c. 2016) is typically identified in the City's transportation planning processes and not in response to temporary construction situations. The planning process coordinates and prioritizes the implementation of transportation improvements across the network. **This intersection has not been identified for signalization in any planning process.**

Another consideration for a signal is whether there are significant safety issues at the intersection that can be mitigated by the installation of a traffic signal. Staff conducted a preliminary review of the accidents using the current Statewide database (2006 - Sept. 2016) and found that there 13 accidents in the 8 year period (av. 1.5/year) operating as a 2-way Stop, and seven crashes in the 2 year period (av. 3.5/year) in which the temporary signal was in place. **That represents more than double the yearly accident rate while the signal has been in place.**

Option 1:

Direct staff to conduct a traffic signal warrant study after the temporary signal has been disabled. This option would have staff conduct a warrant study following Federal guidance under Chapter 4 of the Manual on Uniform Traffic Control Devices. The existing temporary traffic signal will be disabled while a period passes such that traffic patterns return to normal conditions. This is because the temporary signal will attract traffic that would not normally go towards Kellogg Avenue. This approach would be the appropriate method for the objective evaluate the intersection using quantitative methods.

If option one is selected, staff will create a probable timeline showing when the temporary signal would be disabled (likely summer of 2017) and the study completed, which would follow with a report back to City Council on the results of the study. In the case that a signal meets the appropriate Federal warrants and City Council directs the installation, staff would include the project in the following Capital Improvements Plan.

Option 2:

Direct staff to conduct a traffic signal warrant study with the temporary signal in place. This option would have staff to conduct a warrant study while leaving the temporary traffic signal operational understanding that the data, and therefore the results of the study, could be skewed. This approach would try to justify the current condition.

If option two is selected, staff will follow the study with a report back to City Council on the results of the study. In the case that a signal meets the appropriate Federal warrants such that the signal would remain and City Council directs the installation, staff would include the project in the following the Capital Improvements Plan. If it was not warranted staff is likely to recommend removal.

Option 3:

Direct staff to keep the temporary signal without a warrant study and program the permanent installation in the CIP. This option would direct staff to program in the Capital Improvements Plan the signalization of the 13th Street and Kellogg Avenue intersection based on citizen feedback only.

If option three is selected, it is likely that the City would incur liability for installing a traffic control device without engineering justification. Therefore, staff would caution City Council against moving forward with this option.

Option 4:

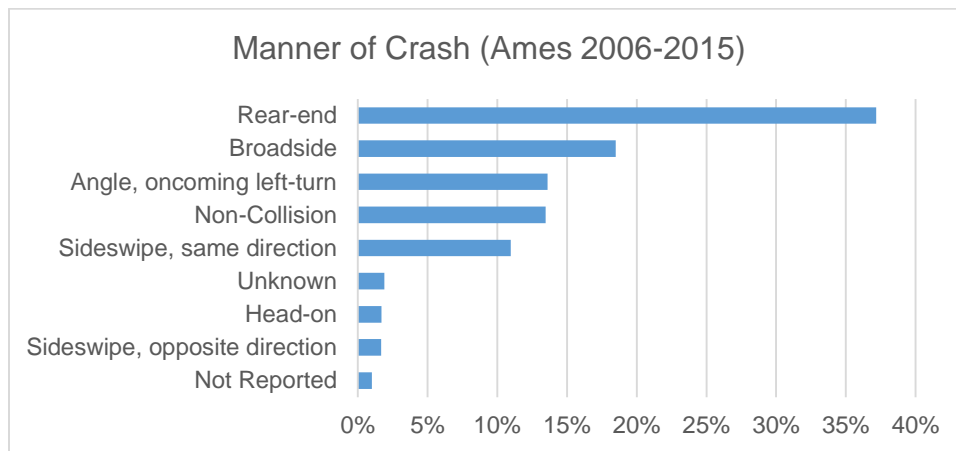
Direct staff to remove the temporary traffic signal without any further action. This option would direct staff to proceed as previously planned with the Hospital project to restore the neighborhood back to its original operation after the main entrance and internal site circulation of the hospital could support two-way traffic.

If option four is selected, staff will contact the contractor who owns the temporary signal and schedule a time to remove the equipment and generate a final billing to the City.

STAFF COMMENTS:

When selecting the location and type of traffic control, it is important to weigh the pros and cons of each type of control given the context of the site. In the case of evaluating the use of a traffic signal, it should only be considered when data shows that a location has met the minimum criteria for volume or safety requirements and that a traffic signal is the most appropriate method to mitigate the issue.

A traffic signal can be an effective solution at higher volume intersections because it helps to clarify right-of-way for conflicting traffic movements and, therefore, greatly reduces the potential for crashes that usually result in severe injury such as broadside (t-bone) or angled accidents (from left-turns). However, this comes with a tradeoff, as traffic signals will increase the potential for rear-end accidents that, given urban speeds, rarely result in more than property damage to the vehicles involved (see 10-year summary below).



Data for Ames shows that angle and broadside accidental result in minor injury or worse 9.3% of the time, whereas rear-end result in injury 6.1%. You are approximately 1.5 times more likely to be injured in an angled crash than a rear-end. However, in the case of 13th Street and Kellogg Avenue, the data does not show that there is a safety issue with angle or broadside accidents. Therefore, without mitigating a quantifiable safety problem, the City could be accepting a higher crash rate at this intersection, as was previously discussed in this report.

13th and Kellogg Signal Study





Fwd: MGMC Neighbor Update
Damion Pregitzer
to:
Diane R Voss
10/07/2016 04:54 PM
Hide Details
From: Damion Pregitzer <dpregitzer@city.ames.ia.us>
To: Diane R Voss <DVoss@city.ames.ia.us>

1 Attachment



Update. Closure of 11th St. Exit. 9.2.16.docx

----- Forwarded message -----

From: Molly Helmers <molly.helmers@gmail.com>
Date: Sun, Sep 4, 2016, 11:11
Subject: Fwd: MGMC Neighbor Update
To: Damion Pregitzer <dpregitzer@city.ames.ia.us>, Steve Schainker <sschainker@city.ames.ia.us>
Cc: Harrison Hallock <pshallock@yahoo.com>, Lee Burras <lburras@iastate.edu>, Eric Snyder <esnyder@city.ames.ia.us>, <nschieffer@city.ames.ia.us>

Damion or Steve:

Am I reading Lynn Whisler's e-mail correctly that the temporary stoplight at 13th & Kellogg will no longer be in use starting Friday? There are a number of kids and families who cross there on their way to/from Meeker Elementary, and we all agree it's safer to cross at an intersection rather than at the fire station light in the middle of the block. Is it possible to keep the temp light functional until a formal decision is made by the council on its long-term status? I assume it's a question of both financing and larger traffic patterns.

Will someone be alerting folks at the school if there's to be a change? I've copied Officer Schieffer, the school resource officer, so he's in the loop.

Thanks!

Molly Helmers

----- Forwarded message -----

From: **Wirth, Tara** <wirth@mgmc.com>
Date: Fri, Sep 2, 2016 at 10:42 AM
Subject: MGMC Neighbor Update

Attached is an update from Lynn Whisler on the traffic pattern for the area near the corner of Kellogg & 11th Street.

September 2, 2016

Mary Greeley Medical Center Master Plan Update

Dear MGMC Neighbors,

I am writing to let you know that on Friday, September 9, 2016, we will restore two way traffic at Duff and 11th Street. This means cars will no longer exit from the Mary Greeley campus via 11th Street onto Kellogg. We will be removing the jersey barriers and signs from 11th and 12th Streets early the morning of September 9. Traffic and parking along Kellogg will be returned to "normal". Also, the temporary stoplight at 13th and Kellogg will be discontinued. This stoplight was generally well-received, so I have asked Steve Schainker to update us as to whether the City of Ames will install a permanent stoplight at that location.

Again, thank you for your patience and support. Although we still have to complete our new ambulance garage and site work on the east side of our campus, we hope to wrap up by mid-October.

Please contact me if you have any questions.

Sincerely,

Lynn Whisler



Fwd: traffic signal at 13th & Kellogg

Damion Pregitzer

to:

Diane R Voss

10/07/2016 04:53 PM

Hide Details

From: Damion Pregitzer <dpregitzer@city.ames.ia.us>

To: Diane R Voss <DVoss@city.ames.ia.us>

----- Forwarded message -----

From: Molly Helmers <molly.helmers@gmail.com>

Date: Thu, Sep 15, 2016, 10:31

Subject: traffic signal at 13th & Kellogg

To: Damion Pregitzer <dpregitzer@city.ames.ia.us>

Cc: Thomas J Shelton <TShelton@city.ames.ia.us>

Damion:

I forwarded an update on the traffic signal at 13th & Kellogg to our neighborhood list. A few folks responded with questions and input about traffic patterns in the area. Of most immediate concern is school crossing guard Elizabeth Thorson's feedback and questions. She would agree that keeping the school crossing at the intersection is safer than moving it back to the fire station but wonders if the following upgrades could be considered with a permanent light:

- A signal that changes quickly after a pedestrian pushes the button to cross - currently there is a delay of up to a minute.
- An option to delay the green light for north/south traffic so pedestrians cross first, before vehicles turn east or west into their path. Turning traffic is a primary concern.
- An option for no right turns on red during school crossing hours (7:45-8:30am and 3:30-4:15pm).
- A light timed for pedestrian crossings.

The primary concern neighbors have is the volume and speed of traffic exiting the hospital/medical lot and continuing west on 12th Street to Grand Ave. A number of the properties on 12th Street do not have sidewalks, so we see a fair amount of pedestrian traffic in the street, making it a very real safety concern. We also all regularly see drivers blow through the yield sign one block west at 12th and Burnett, and I've personally witnessed a near miss with a bicycle. A full 4-way stop or another more effective traffic calming tool at that intersection would be appreciated - and would hopefully encourage more people to use 13th rather than drive through the neighborhood.

Neighbors understand the traffic calming issue is not something that will be taken up immediately but will be assessed in the coming months, as traffic patterns return to "normal" and if a fuller traffic study is done related to the signal at 13th and Kellogg.

Thanks!

Molly Helmers
1127 Burnett Ave