

Memorandum

City of Lawrence

Public Works

TO: Mark Thiel

FROM: Shoeb Uddin

CC:

Date: 9/6/2011

RE: **PW-0926, KU/Oread/Downtown Lighted Pedestrian Pathway Project – Pedestrian activated HAWK signal Design Summary**

Both Kentucky and Tennessee are minor arterial streets with One Way traffic operations – both streets have two lanes. Pedestrians and bicyclists in this corridor are comprised of mostly college students. The 24 hour traffic volume on Kentucky and Tennessee are 10,000 and 12,000 respectively. The 24 hour traffic volumes on 12th Street are 1,000 and 1,600 at Kentucky and Tennessee respectively. Staff has performed an in-depth analysis to determine the feasibility of pedestrian activated Hawk signals at both of these intersections. The results of this analysis are presented in a detailed report.

The Manual on Uniform Traffic Control Devices (MUTCD) contains federal regulations regarding traffic signs, signals, beacons etc. installed on any street, highway, bikeway, or private road open to public travel - the MUTCD is the national standard for all traffic control devices. The MUTCD warrants involving pedestrian and traffic volume for HAWK signals are not satisfied at either of these two intersections (12th & Kentucky, 12th & Tennessee). While it is imperative to comply with MUTCD guidelines and warrants, deviations from MUTCD criteria is not uncommon. However, such deviations must be based on thorough analysis and engineering judgment.

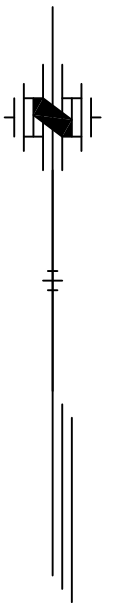
According to the current MUTCD guidelines, the HAWK signal should be installed at least 100 feet away from an intersection – the intent is to eliminate driver confusion on the side street. However, other municipalities (most notable is Tucson, AZ) have experimented with Hawk signals at intersections since the late 1990s. Utilizing the data and experience in Tucson, the Federal Highway Administration (FHWA) published a report in July, 2010 titled “Safety Effectiveness of the HAWK Pedestrian Crossing Treatment”. The report concluded that HAWK signals at intersections have been found effective in reducing accidents.

Recently, the MUTCD national committee has recommended to FHWA that the requirement to place HAWK signal at least 100 feet away from side streets be removed from the MUTCD and HAWK signal be allowed to be placed at intersections. This is currently under review by FHWA.

In Lawrence, beginning in 2007 we have installed 6 HAWK signals at various locations throughout the city. All of them have been installed at mid-block locations except at West 9th and Sunset. The HAWK signal at West 9th and Sunset, installed in 2009, is approximately 50 feet away from the side streets. This signal has been very effective in improving pedestrian safety along this busy corridor. Although very close to the intersection, motorists seem to respond to the signal indications without any confusion.

Considering the safety benefits of HAWK signals at intersections as outlined in the FHWA report, experience with HAWK signal at 9th and Sunset in Lawrence, the MUTCD national committee recommendation to remove the 100 feet distance requirement, the proposed HAWK signals at the intersections of Kentucky and 12th, and Tennessee and 12th would potentially improve the sense of safety of pedestrians and thereby, may promote the use of the KU Lighted Pathway in the future.



Staff recommends the installation of the pedestrian activated HAWK signals at 12th and Kentucky and 12th and Tennessee. Attached is a schematic drawing of the proposed HAWK signals.



Scale 1"=20'

SIDWALK AND ACCESS RAMP WORK
TO BE DONE AS PART OF THE CDBG
SIDWALK PROJECT--2009
(PREVIOUSLY APPROVED BY THE CITY
COMMISSION)

HAWK PEDESTRIAN SIGNALS
12TH AND KENTUCKY
12TH AND TENNESSEE

DATE	BY	REVISION
<div><div>CITY OF LAWRENCE, KANSAS ENGINEERING DIVISION OF PUBLIC WORKS</div></div>		
HAWK PEDESTRIAN SIGNALS 12TH AND KENTUCKY 12TH AND TENNESSEE PROJECT NO. PW0926		
SHOEB M. UDDIN CITY ENGINEER		DAVID L. CORLISS CITY MANAGER