AGENDA – TSC 5/3/10

ITEM NO. 3: Consider establishing a MULTIWAY STOP at the intersection of 11th Street & Louisiana Street.

Facts:

1. 11th Street is classified as a "collector" street and Louisiana Street is classified as a "local" street.
2. The criteria for consideration of a MULTIWAY STOP are found in the *Manual on Uniform Traffic Control Devices* (attached).
3. Traffic counts taken on 14-15 April 2010 show that the minimum required volume of traffic needed to consider a MULTIWAY STOP is not met, even when including the traffic exiting the private driveway on the north leg of the intersection.
4. Police Department crash records show that there has not been a reported crash at this intersection since 2004.
5. Therefore, it does not appear that a MULTIWAY STOP can be justified at this intersection.

MINUTES – TSC 5/3/10

ITEM NO. 3:

Consider establishing a MULTIWAY STOP at the intersection of 11th Street & Louisiana Street.

David Woosley presented the information provided in the staff report.

Commissioner Rothrock asked if there have been any pedestrian crashes at the intersection; Woosley advised that there is no record of any during the past six years that staff has been collecting pedestrian crash data.

Commissioner Smith asked if that isn't one of the intersections that salt trucks have difficulty stopping and starting on; Woosley advised that it is, as well as others in the area that are even worse and the street division of public works has expressed concern with all the STOP signs along 11th Street.

Public comment:

> Doug Riat, University of Kansas, Director of Facilities Operation and Planning: We are asking you to give over-riding consideration to pedestrian safety, rather than the threshold and meeting the criteria in terms of the traffic counts. I know that the STOP signs were put-in as a temporary measure during construction of

the Oread Hotel, but that has been a real help for pedestrian safety and hopefully prevent accidents. It would be unfortunate to have to wait for those kinds of numbers to be reported and then take action rather than to take the opportunity to leave the STOP signs in place when they are already there. There are currently over 575 students in the GSP-Corbin complex which are the students that are walking to-and-from campus each day; and there is the potential to have over 700 students there. We would ask that you give consideration to pedestrian safety as an over-riding factor rather than just the vehicle counts and to leave the STOP signs that are currently in place.

Jennifer Wamelink, University of Kansas Student Housing: There are many students that are passionate about wanting the STOP signs to remain; they feel that it has enhanced the safety as they are frequent pedestrians crossing that intersection. It is very difficult for pedestrians standing at the intersection to see traffic coming-up the hill from the west. I would encourage you to keep those STOP signs in place; it seems like the right thing to do.

Commissioner Woods: It doesn't meet the criteria and I would err on the side of the guys driving the salt trucks in the wintertime and everyone else with a standard transmission. That has been an open intersection east-west as long as I can remember and I'm not in favor of changing it.

Commissioner Harden: It doesn't meet the criteria and I guess the problem we get into is that every intersection is potentially dangerous and you can always run the safety issue up the flagpole; then everything gets approved because everything is potentially dangerous. That's why we have the criteria, to evaluate the depth of that potential. In this case, what it's telling us is, yes, there is a potential there, but it's not very severe.

Commissioner Novotny: I'm kind of in favor of this one just because of GSP being located there; because of the students that do reside there that go back-and-forth to campus.

Commissioner Heckler: I'm kind of leaning towards the safety of the residents on this one.

Commissioner Rothrock: I used to live down the block and that is a very scary place to cross.

MOTION BY COMMISSIONER HECKLER, SECONDED BY COMMISSIONER SMITH, TO RECOMMEND ESTABLISHING A MULTIWAY STOP AT THE INTERSECTION OF 11TH STREET & LOUISIANA STREET; THE MOTION WAS APPROVED 5-2 (Woods: I don't see any reason to change it without an accident pattern and no pedestrians have been hit and it doesn't meet the criteria; Harden: It doesn't meet the criteria.)

City of Lawrence, Kansas
Traffic Engineering Division

ALL WAY **Stop Warrant Worksheet**

Date: 14-15 April 2010 Location: 11th Street & Louisiana Street

Time Period	11th Street							Louisiana Street							Grand Total
	EBLL	EB	EBRL	WBLL	WB	WBRL	Total	NBLL	NB	NBRL	SBLL	SB*	SBRL	Total	
12-01		23			19		42		24			11		35	77
01-02		12			22		34		19			8		27	61
02-03		10			8		18		19			8		27	45
03-04		3			3		6		5			0		5	11
04-05		6			4		10		3			4		7	17
05-06		8			3		11		5			5		10	21
06-07		9			11		20		18			17		35	55
07-08		42			62		104		40			56		96	200
08-09		51			88		139		88			63		151	290
09-10		81			91		172		67			39		106	278
10-11		75			72		147		76			51		127	274
11-12		114			65		179		66			58		124	303
12-01		133			90		223		91			62		153	376
01-02		97			83		180		80			47		127	307
02-03		128			91		219		84			49		133	352
03-04		144			104		248		97			49		146	394
04-05		175			87		262		96			57		153	415
05-06		156			103		259		95			62		157	416
06-07		125			90		215		81			55		136	351
07-08		110			80		190		73			47		120	310
08-09		68			73		141		76			32		108	249
09-10		97			67		164		75			38		113	277
10-11		53			43		96		60			39		99	195
11-12		47			27		74		33			33		66	140
Totals	0	1767	0	0	1386	0	3153	0	1371	0	0	890	0	2261	5414

The Manual on Uniform Traffic Control Devices (MUTCD) requies an average of **300** vehicles per hour entering the intersection from the main street for each of 8 hours of a day, and an average of **200** entering from the minor street during the same 8 hours.

* Private driveway; not a public street

Average entering volume on main street for 8 highest hours = **225**

Average minor street volume for same 8 hours = **141**

4/21/2010

Section 2B.07 Multiway Stop Applications

Support:

Multiway stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multiway stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multiway stop control is used where the volume of traffic on the intersecting roads is approximately equal.

The restrictions on the use of STOP signs described in Section 2B.05 also apply to multiway stop applications.

Guidance:

The decision to install multiway stop control should be based on an engineering study.

The following criteria should be considered in the engineering study for a multiway STOP sign installation:

A. Where traffic control signals are justified, the multiway stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.
B. A crash problem, as indicated by 5 or more reported crashes in a 12-month period that are susceptible to correction by a multiway stop installation. Such crashes include right- and left-turn collisions as well as right-angle collisions.
C. Minimum volumes:
    1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day, and
    2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour, but
    3. If the 85th-percentile approach speed of the major-street traffic exceeds 65 km/h or exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the above values.
D. Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

Option:

Other criteria that may be considered in an engineering study include:

A. The need to control left-turn conflicts;
B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;
C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to reasonably safely negotiate the intersection unless conflicting cross traffic is also required to stop; and
D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multiway stop control would improve traffic operational characteristics of the intersection.

N
W
E
S
W 11th St
26
Mississippi St
30
31
College Dr
Indiana St
21
W 11th St
31
Mississippi St
30
31
Louisiana St
27

KU THE UNIVERSITY OF KANSAS
Office of the Provost

City of Lawrence
Traffic Safety Commission

April 30, 2010

Dear Commission Members:

Agenda Items No. 3, 4 and 5 to establish Multi-way Stop Signs at three separate City intersection locations are of particular interest to the University of Kansas and the safety of students. Documentation of traffic counts have been shared with University staff, as well as the recommendations for each agenda item. The University understands traffic volume may not meet the required threshold necessary to recommend permanent multi-way stop signs. The University further understands that pedestrian counts are not available for consideration. However, the University strongly recommends that pedestrian safety considerations be given consideration and believes that they outweigh the basis traffic count criteria.

For instance, approximately 575 students currently live in the GSP/Corbin Residence Hall Complex and many walk to and from campus. The safety of these students has been greatly enhanced by the temporary installation of the Stop Signs at 11th and Louisiana Street (Agenda Item No. 3) as well as the Stop Signs at 11th and Indiana (Agenda Item No. 4). In addition, establishing Stop Signs at 11th and Indiana that would permit through east-west through traffic on 11th Street and stop north-south traffic on Indiana Street would significantly benefit bus traffic, particularly in inclement weather. Finally, the multi-way stop at 11th and Mississippi Street (Agenda Item No. 5) has improved traffic flow as well as pedestrian safety. Further, by slowing traffic on Mississippi Street between 9th Street and the traffic booth entrance to the Main Campus, crosswalk safety has been improved, particularly for the sidewalk and stair from the new Oread and 12th Street to Mississippi Street.

While the University understands traffic volume criteria may not warrant multi-way stop signs at the locations references, we recommend that the improved student and pedestrian safety be given overriding consideration to approve the permanent Multi-way Stop Signs at each of these three intersections.

Thank you for your consideration.

Sincerely,

Don Steeples
Senior Vice Provost

cc
Chancellor's Office
Facilities Operations

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