BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, KANSAS

TUESDAY, JUNE 24, 2003

9:00 A.M.
-Convene
-Pledge of Allegiance

CONSENT AGENDA

(1) (a) Consider approval of Commission Orders

REGULAR AGENDA

(2) Budget Hearings
- Discussion of items continued from Monday
- Discussion of additional items requested by Commissioners
- Directions to County Administrator on revisions to budget

(3) Other Business
(a) Consider approval of Accounts Payable (if necessary)
(b) Appointments
(c) Miscellaneous
(d) Public Comment

(4) Adjourn

WEDNESDAY, JUNE 25, 2003

6:35 P.M.
-Convene
-Pledge of Allegiance

CONSENT AGENDA

(1) (a) Consider approval of Commission Orders

REGULAR AGENDA

(2) Acceptance of low bid for microsurfacing on Route 1029, Project No. 2003-11 (Keith Browning)

(3) Discussion of Vicious Dog Issues (Charles Jones)

(4) Discussion of temporary traffic signals for the intersections of 31st Street w/Louisiana and Haskell (Craig Weinaug)

(5) Other Business
(a) Consider approval of Accounts Payable (if necessary)
(b) Appointments
(c) Miscellaneous
(d) Public Comment

(6) Adjourn

FRIDAY, JUNE 27, 2003
9:00 A.M.
-Tour of the Robert J. Dole Institute of Politics

MONDAY, JUNE 30, 2003
8:30 A.M.
-Convene
-Budget Hearings

TUESDAY, JULY 1, 2003
8:30 A.M.
-Convene
-Budget Hearings

WEDNESDAY, JULY 2, 2003
6:35 P.M.
-Convene

MONDAY, JULY 7, 2003
8:30 A.M.
-Convene
-Budget Hearings (if necessary)

TUESDAY, JULY 8, 2003
8:30 A.M.
-Convene
-Budget Hearings (if necessary)

WEDNESDAY, JULY 9, 2003
8:30 A.M.
-Convene
-Budget Hearings (if necessary)

6:35 P.M.
-Recognition of volunteers who contributed to May 8th tornado response and recovery (Paula Phillips)
-Public hearing regarding Petition for Attachment of Land to Rural Water District #4
-Presentation of new marketing brochures, update on Economic Development Strategic Plan, and update on Economic Development activities (Lynn Parman)

MONDAY, JULY 14, 2003
-Light agenda
-Consider approval of Douglas County Community Corrections FY04 Budget (Ron Stegall)

WEDNESDAY, JULY 16, 2003
-Light agenda or no meeting

MONDAY, JULY 21, 2003
-No Commission Meeting

WEDNESDAY, JULY 23, 2003

-No Commission Meeting

MONDAY, JULY 28, 2003

-Light agenda

-Consider approval of publication of 2004 budget

WEDNESDAY, JULY 30, 2003

-Light agenda or no meeting

MONDAY, AUGUST 4, 2003

-Light agenda or no meeting

WEDNESDAY, AUGUST 13, 2003

6:35 P.M.

-Public hearing on 2004 budget

Douglas County

Department of Public Works

Keith A. Browning, P.E.
Director of Public Works/County Engineer

MEMORANDUM

To: Board of County Commissioners

From: Keith A. Browning, P.E. Director of Public Works/County Engineer KAB

Date: 06/20/03

Re: Acceptance of Low Bid for Microsurfacing on Route 1029

Bids were opened on June 17th for contract microsurfacing work for Route 1029 from US-56 highway south approximately 2.4 miles. You will recall that this section of road is exhibiting rutting in the wheel paths. The microsurfacing will restore the cross section of the pavement to allow for improved drainage and reduce the tendency for vehicles to hydroplane during wet weather.

Three bids were received as follows:

Bidder	Total Bid
Beachner Const. Co.	$87,533.00
Vance Brothers	$73,154.20
Ballou Construction	$76,579.00
Engineer's Estimate	$74,953.00

Kansas Statutes ordinarily require filing an Engineer's Estimate with the County Clerk's office prior to bid opening. An Engineer's Estimate was prepared prior to bid opening, but it was not filed as required due to an oversight on my part. I have discussed this with Evan Ice, county counselor, who indicated that, in his opinion, the BOCC has the authority to award the contract to the low bidder. Re-bidding would necessarily narrow the window of opportunity for completing this work, which may result in higher bids.

Given that the Engineer's Estimate was prepared in good faith prior to the bid opening, and that the low bid is below the Engineer's Estimate, it is recommended to accept the low bid from Vance Brothers.

Action Required: Accept the low bid from Vance Brothers in the amount of $73,154.20 for Project No. 2003-11, microsurfacing Route 1029 from US-56 highway south approximately 2.4 miles.

1242 Massachusetts Street, Lawrence, Kansas 66044-3350 / Fax No. (785) 841-0943
Telephone No. (785) 832-5293 / E-Mail dgcopubw@douglas-county.com

Project No. 2003-11
Douglas County, Kansas
Bid #03011
BID TABULATION

				Engineer's Estimate		Beachner Const. Co.		Vance Brothers		Ballou Const.	
SPEC. NO.	BID ITEMS	APPROX. QTYS.	UNIT	UNIT PRICE DOLLAR CENTS	AMOUNT DOLLARS CENTS	UNIT PRICE DOLLAR	AMOUNT DOLLARS CENTS	UNIT PRICE DOLLAR	AMOUNT DOLLARS CENTS	PRICE DOLLAR CENTS	AMOUNT DOLLARS CENTS
Sp. Prov.	Aggregate for Modified Slurry Seal	365	Tons	$ 80.00	$ 29,200.00	$ 130.00	$ 47,450.00	$ 98.28	$ 35,872.20	$ 90.00	$ 32,850.00
Sp. Prov.	Emulsified Asphalt(CSS-1H)(Modified)	44	Tons	$ 450.00	$ 19,800.00	$ 375.00	$ 16,500.00	$ 350.00	$ 15,400.00	$ 385.00	$ 16,940.00
Sp. Prov.	Mineral Filter	7.3	Tons	$ 150.00	$ 1,095.00	$ 150.00	$ 1,095.00	$ 50.00	$ 365.00	$ 130.00	$ 949.00
Sp. Prov.	Aggregate for Modified Slurry Seal-Rut Fill	42	Tons	$ 81.90	$ 3,439.80	$ 130.00	$ 5,460.00	$ 112.00	$ 4,704.00	$ 90.00	$ 3,780.00
Sp. Prov.	Emulsified Asphalt(CSS-1H)(Modified)-Rut Fill	5	Tons	$ 450.00	$ 2,250.00	$ 375.00	$ 1,875.00	$ 350.00	$ 1,750.00	$ 385.00	$ 1,925.00
Sp. Prov.	Mineral Filter-Rut-Fill	0.9	Ton	$ 166.89	$ 150.20	$ 150.00	$ 135.00	$ 50.00	$ 45.00	$ 130.00	$ 117.00
820	Mobilization	1	Ea.	$12,000.00	$ 12,000.00	$10,000.00	$ 10,000.00	$ 7,500.00	$ 7,500.00	$15,000.00	$ 15,000.00
821	Traffic Control	1	Ea.	$ 7,000.00	$ 7,000.00	$ 5,000.00	$ 5,000.00	$ 7,500.00	$ 7,500.00	$ 5,000.00	$ 5,000.00
Sp. Prov.	Flagger (Set)	1	Ea.	$ 18.00	$ 18.00	$ 18.00	$ 18.00	$ 18.00	$ 18.00	$ 18.00	$ 18.00
	TOTAL BID				$ 74,953.00		$ 87,533.00		$ 73,154.20		$ 76,579.00

Director of Public Works/County Engineer

Memorandum

To: Mayor and City Commission

From: Mike Wildgen, City Manager

Date: June 17, 2003

Re: 31st Traffic Signals – Louisiana and Haskell

BACKGROUND:

This past spring, a study session was conducted regarding the "31st Street Corridor Study Iowa Street to County Route 1057." One of the short term improvements (pg. 16-18, attached) was to consider temporary traffic signals at Louisiana and Haskell. Chuck Soules has provided an evaluation of the recommendation for consideration of the City and County governing bodies. I have provided Craig copies of the memo and have asked him to provide a County response. One I receive the response from the County, I will advise.

Public Works Dept.

Memo

To: Mike Wildgen
cc: David Corliss, Debbie Van Saun, Terese Gorman, David Woosley, Ed Ogle
From: Chuck Soules
Date: June 13, 2003
Re: 31st Street Study

On March 12, 2003, Michael Wahlstedt, P.E., TranSystems, presented to the City and County Commissions the 31st Street Corridor Study. The scope of the study included 31st Street from Iowa Street, east to County Road 1057.

Recommendations for short term and long term improvements were made to accommodate for growth. Intersections and capacities were evaluated for level of service (LOS). Access management and the alignment and influence of the South Lawrence Trafficway on this road were considered. TranSystems reported that "regardless of the outcome of the South Lawrence Trafficway, 31st Street would serve as the primary east-west route on the south side of the City of Lawrence, providing for cross town trips and access to the commercial and industrial areas at each end of the corridor and residential areas in between, as well as relieving traffic on 23rd Street."

However, if the South Lawrence Trafficway takes the 32nd Street alignment, both the Louisiana and Haskell Street intersections will be relocated (Figure 6-6b and Figure 6-6d of study).

The study results indicated that current conditions at the intersections of 31st Street at Louisiana and Haskell are operating at a LOS F during the peak p.m. hour and recommends intermediate short term improvements.

SHORT TERM SOLUTIONS:

These improvements include installation of temporary traffic signals, lane widenings and turn lane extensions phased in over the next several years. Initially, installation of temporary traffic signals would improve the LOS at both intersections. Temporary traffic signalization would include a "span wire" and pole installation (figure 1). The benefits of a temporary installation would include that the components (signals, controller) could be reused (if in good condition) when the intersection is constructed to its final design and the initial installation costs are lower than permanent installation costs. TranSystems estimated the cost of temporary signalization at $50,000/intersection. However, "span wire" installations require considerably more maintenance due to wind and other weather elements. A fixed time installation would operate similar to the traffic signals downtown where the cycle length is constant and each approach is serviced whether there is traffic present or not. The controller can be programmed for different cycle lengths during different times of the day. There will likely be times, however, when drivers will experience delays (stop) when there is no visible traffic on the other approach. In order to minimize this condition (and complaints) the signals could be placed on "flash" during overnight hours. To solve the problem during other times of the day City staff would recommend the installation of video detection. The addition of video detection would cost $20,000-$25,000/intersection. This equipment could be relocated to another intersection when the temporary signals were removed.

Based on linear growth from current traffic volumes to projected 2025 volumes, the installation of the temporary signal alone would only be able to maintain acceptable operation for two to three years. (If growth in the area is slower, this schedule could be expanded.) At that time, additional geometric improvements would be needed to maintain acceptable service of the intersection. Costs of the recommended geometric improvements are estimated at $225,000 for Louisiana and $150,000 for Haskell.

COST BENEFIT:

Attachment 1 provides a quick cost/benefit analysis. The costs of the short term improvements, with or without video detection, are justified based on the cost of delays that the traveling public experiences within a one to two year period. The cost of the delay at 31st and Haskell is nearly twice the cost of the delay at Louisiana. However, with the current budget constraints of both the City and County, an additional option would be to do nothing in the short term. Improvements at this intersection are not needed due to safety issues; it is a delay/inconvenience problem over the peak hours. The stop signs have been there for years and the individuals using this route accept this delay and continue to use 31st Street. The unknown is whether making the temporary improvements on 31st Street would alleviate some of the congestion on 23rd Street. As more traffic uses 31st Street, however, the temporary improvements made for quicker traffic flow would fail in terms of LOS.

TEMPORARY ROUNDABOUT OPTION:

Another alternative that should be considered is the construction of a temporary roundabout at each intersection. It is anticipated that construction could be done using asphalt curbing and backfill to hold it in place. The cost should be equal to or less than the cost of the temporary signal with video detection ($75,000 + -) and would operate much better with less delay and without the added maintenance costs of a signal. TranSystems took a cursory look at a roundabout for future traffic volumes and determined that the ultimate configuration would not work with less than two lanes (Attachment 3). This option was not pursued because of driver and public perception of placing a temporary roundabout at the intersections and then, when the final configuration was built, "going back" to the installation of a signal. However, during the interim (or as a temporary solution) a roundabout could provide better traffic flow at least as long (and possibly longer) as a temporary signal. (Attachments 2A and 2B)

COST SPLIT:

At 31st and Louisiana only the northeast quarter of this intersection is located within the city limits (Attachment 4A). At 31st and Haskell only the southwest quarter is NOT located within the city limits (Attachment 4B). The City and County need an innerlocal agreement to provide for the improvements as a cooperative effort. Essentially the costs could be split equally as each unit of government has the equivalent of one full intersection within their jurisdiction. Following with this assumption then, if a temporary signal were installed the City would maintain one intersection and the county would take care of the other. As the county does not have a traffic division it would be appropriate for the county to contract with the city for maintenance similar to the agreement with KDOT for signal maintenance on K-10. This cost for maintenance is recommended at $4,872 annually (based on the City's agreement with KDOT). This amount reflects the City's actual cost to maintain the equipment and respond to problems at a typical intersection.

SUMMARY:

There are several options provided for your review. As a final note, 31st Street from Ousdahl to Louisiana is on the City/KDOT 5-Year Plan to be completed in 2007. The unknowns with the SLT also need to be considered for any scenario.

Respectfully submitted,

Charles F. Soules, P.E.
Director of Public Works

Attachments

ATTACHMENT 1

A simple cost benefit analysis would include:

31st & Louisiana

Current delay, peak hour	60.1 sec.
Install temporary signal (w/o detection) delay	36.4 sec.
Difference	23.7 sec.

23.7 sec. X 1460 peak hour volume (10% of total) = 34,602 sec.

34,602 sec. = 9.6 hrs. @ $20/hr. = $192/day

365 day/year – 52 week/year (2 weekend days) = 261 working days/year

261 working days/year x $192/days = $50,112.00/year cost of delays

31st & Haskell

Current delay, peak hour	81.0 sec.
Install temporary signal (w/o detection) delay	23.3 sec.
Difference	57.7 sec.

57.7 sec. X 1170 peak hour volume = 67,509 sec. = 18.75 hrs.

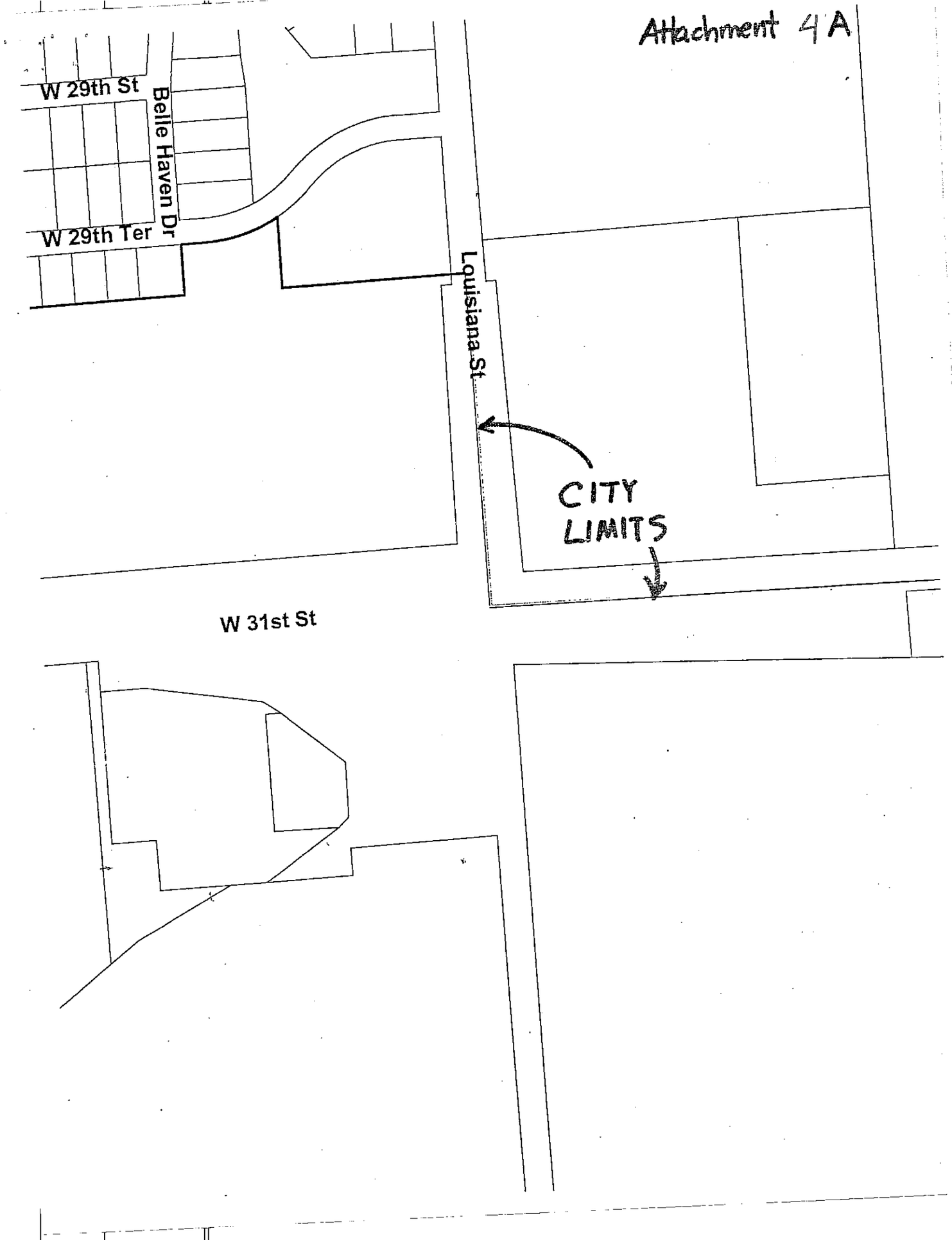
18.75 hrs. X $20/hr. @ $20/hr. = $375/day

365 day/year – 52 week/year (2 weekend days) = 261 working days/year

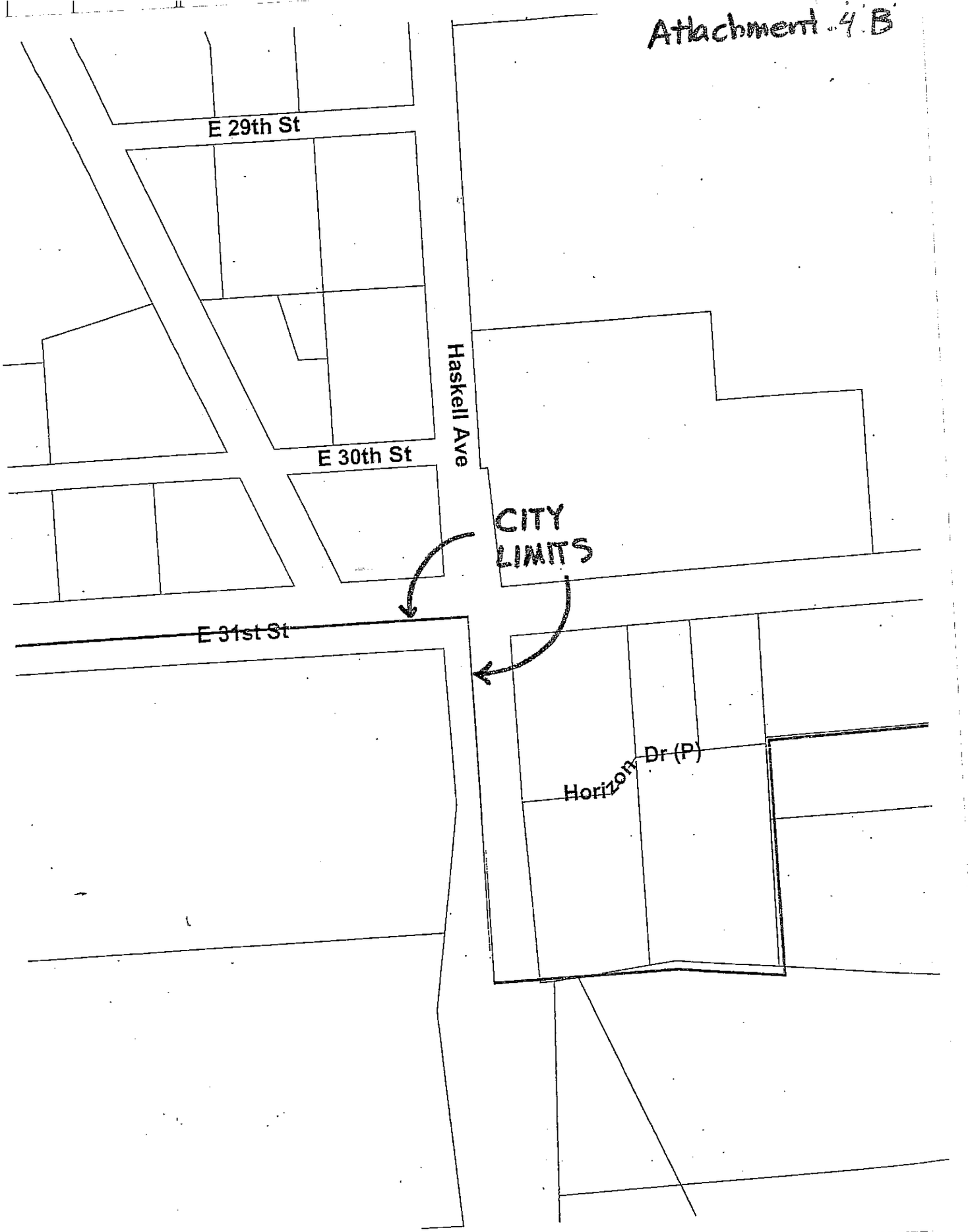
261 working days/year x $375/days = $97,875.00/year cost of delays

OPTIONS	COST	PROS	CONS
Temporary signal with "span wire"	$50,000 per intersection	Possible reuse of some components. Estimate salvage/intersection $3,000. Low installation cost.	Fixed time; extended intersection delays expected. Maintenance ($4,872 annually) 2-3 year acceptable LOS. Accident could totally lose system.
Temporary signal with "span wire" & video detection	$75,000 per intersection	Possible reuse of components. Estimate salvage/intersection $23,000. Fully activated intersection responds to traffic needs; delays minimized.	Maintenance ($4,872 annually); no additional maintenance is expected with the addition of video detection. 2-3 year acceptable LOS. Accident could totally lose system.
Roundabout	Greater than $75,000 per intersection	Maximize traffic circulation/no delays. Possibly longer acceptable LOS versus signal.	Public perception of "going back" to signal with ultimate configuration. No reuse of material/components.
Do Nothing	$ -0-	No cost. (There is not a safety issue)	Current LOS F during peak hours. Cost of Delay

Attachment 4A



Attachment 4 B



Attachment 3

David Woosley

From: mrwahlstedt@transystems.com
Sent: Monday, April 28, 2003 2:57 PM
To: DWoosley@ci.lawrence.ks.us
Subject: RE: 31st Street Corridor Study

We did not formally look at this option...we did look at roundabouts for future traffic volumes and it did not look like they would work with 2 lanes or less. Our concern was issues that would be raised by "going back" to a signal after installing a roundabout, both from a driver perception and construction perspective.

I took a quick look at 31st & Louisiana for the PM peak hour with a single lane roundabout. With current volumes, the v/c would be about 0.45, with 0.85 being the desirable max. By 2007 (assuming no SLT and linear growth) the v/c inreases to 1.20, so it looks like you would get a similar life as the temp signal although it might buy you some time in lieu of adding the turn lanes.

If you were to build a 2 lane roundabout at Louisiana, it would accommodate growth to about 2012 without the SLT before reaching 0.85.

Of course all of this depends on how much faith you put in the projections, particularly the assumption that they are linear - if most of the growth to the south really doesn't happen until near the end of the 20 year period, that will buy some time.

Mike

-----Original Message-----
From: David Woosley [mailto:DWoosley@ci.lawrence.ks.us]
Sent: Monday, April 28, 2003 2:14 PM
To: KC-Mike Wahlstedt
Cc: Terese Gorman
Subject: 31st Street Corridor Study

Hi Mike,

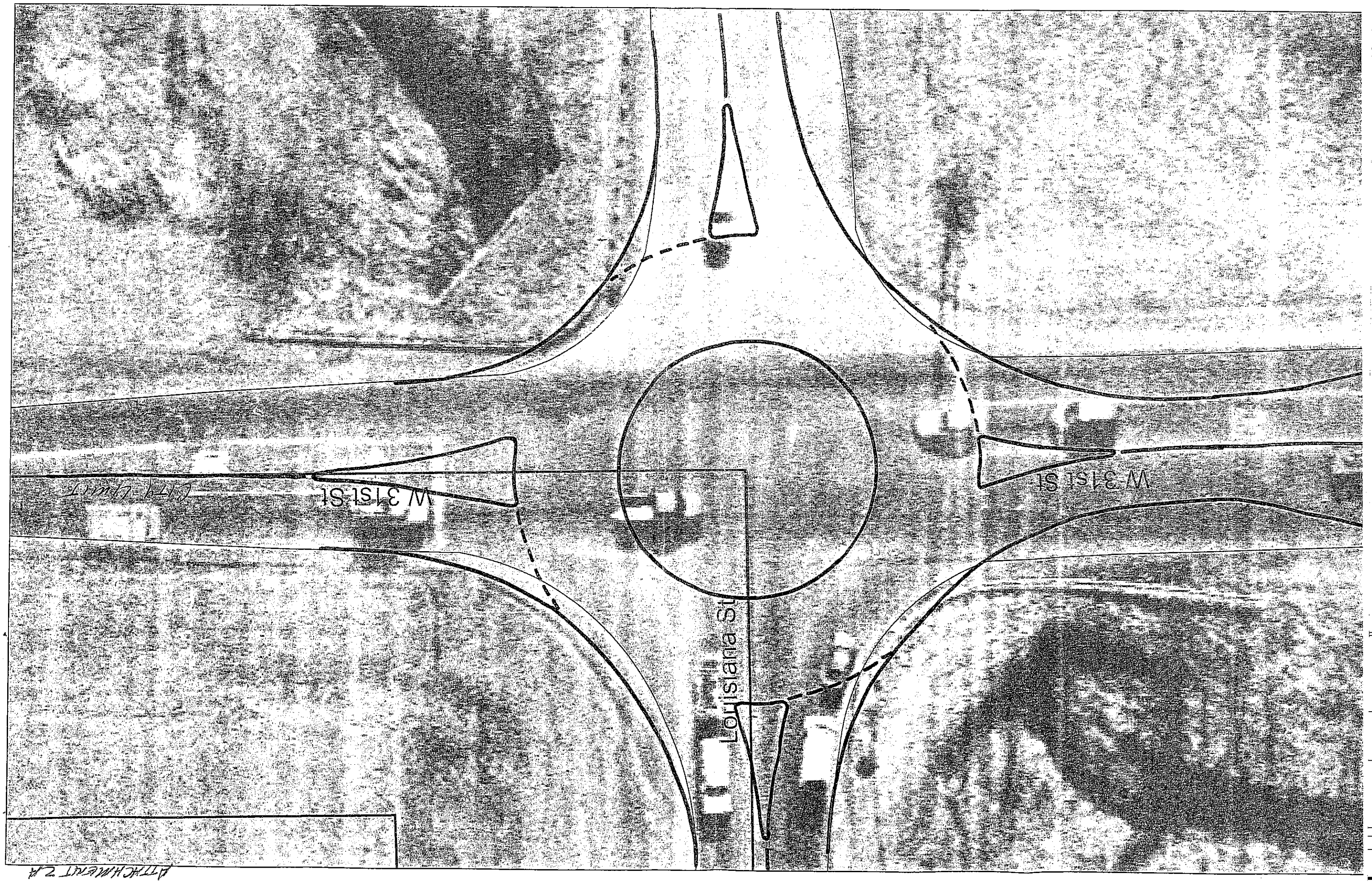
We have been discussing the recommended short-term improvements for 31st & Louisiana and 31st & Haskell, and the question arose as to whether you considered construction of temporary single-lane roundabouts at each of these intersections. Minimal widening would be done on each corner and asphalt and/or bolt-down curbing would be installed. The center island could also be asphalt curbing with a mound of dirt and fast-growing grass of some sort. It wouldn't be pretty but then neither is a temporary signal.

Did you consider something of this nature, and if so, how long would it be before it failed?

Thanks for your help,

David
David E Woosley, PE
Transportation/Traffic Engineer
City of Lawrence Kansas
785.832.3034

V



ATTACHMENT 2B

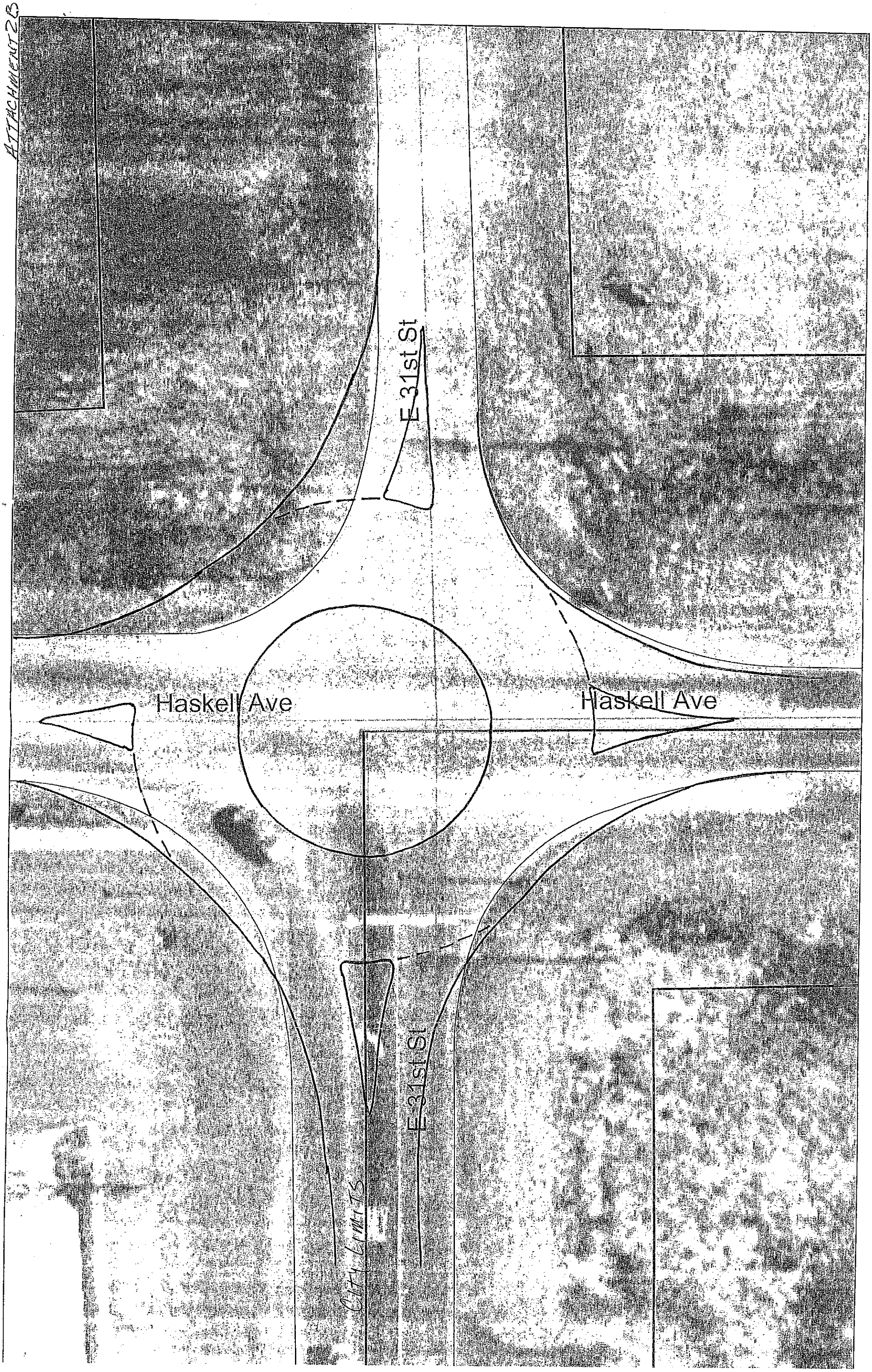


FIGURE 1