

BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, KANSAS

WEDNESDAY, FEBRUARY 4, 2009

6:35 p.m. (Meeting held at Eudora City Hall)

-Convene

CONSENT AGENDA

(1) (a) Consider approval of Commission Orders;

REGULAR AGENDA

(2) Joint study with the City of Eudora to receive and discuss the traffic impacts of the new turnpike terminal being constructed north of Eudora. (Keith Browning)

(3) Other Business

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

(3) Adjourn

MONDAY, FEBRUARY 9, 2009

-Consider approval for CPA-2008-3 to amend Chapter 6 Commercial Land Use – inner-neighborhood commercial centers (Dan Warner)

WEDNESDAY, FEBRUARY 11, 2009

Consent:

-Consider approval resolution for cereal malt beverage license for The Clinton Store (Clerk's office);

-Consider approval of TA-10-17-08, resolution regarding the requirements for Build Out Plans (Mary Miller)

-Consider recommended amendments to ECO2 plan (Larry McElwain)

MONDAY, FEBRUARY 16, 2009

WEDNESDAY, FEBRUARY 18, 2009

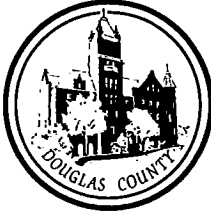
-No Commission Meeting

MONDAY, FEBRUARY 23, 2009

WEDNESDAY, FEBRUARY 25, 2009

- Discuss Lawrence Freenet Rural Broadband initiative (Josh Montgomery)

Note: The Douglas County Commission meets regularly on Mondays at 8:30 A.M. and Wednesdays at 6:35 P.M. at the Douglas County Courthouse. Specific regular meeting dates that are not listed above have not been cancelled unless specifically noted on this schedule.



DOUGLAS COUNTY PUBLIC WORKS

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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 : January 27, 2009

Re : Joint discussion with City of Eudora of study on traffic impacts of new I-70 interchange north of Eudora

In August 2008, the BOCC agreed to cost share with the City of Eudora a study of the effects on Route 1061 of the new interchange on I-70 (Kansas Turnpike) at Leavenworth County Route 1 south of Tonganoxie. BG Consultants is conducting the study. The study is also to investigate potential routing alignments for existing and new road corridors in and near Eudora. The not-to-exceed cost of the study is \$8,790 for each Douglas County and the City of Eudora.

BG Consultants will make a presentation and lead a discussion of the issues and the preliminary results of the study. They will discuss anticipated traffic impacts of the new interchange. They will discuss options and potential alignments for moving the anticipated increased traffic around downtown Eudora. They will also discuss needed improvements if all traffic to and from the new interchange is to continue down Church Street and Main Street (Route 1061) through Eudora.

A goal of the joint meeting is for the Eudora City Council and the BOCC to agree on the question "where do we go from here?" What should be our transportation planning focus to address the anticipated increased traffic due to the new I-70 interchange north of Eudora? What should we plan for today in order to accommodate necessary future improvements? BG Consultants will complete a report of the study following the February 4th joint meeting.

A printed copy of a PowerPoint presentation prepared by BG Consultants is attached.

Action Required: Discuss the traffic effects on roads in and near Eudora of the new I-70 interchange at Leavenworth County Route 1, and provide direction as appropriate.

CR 1061/MAIN STREET STUDY

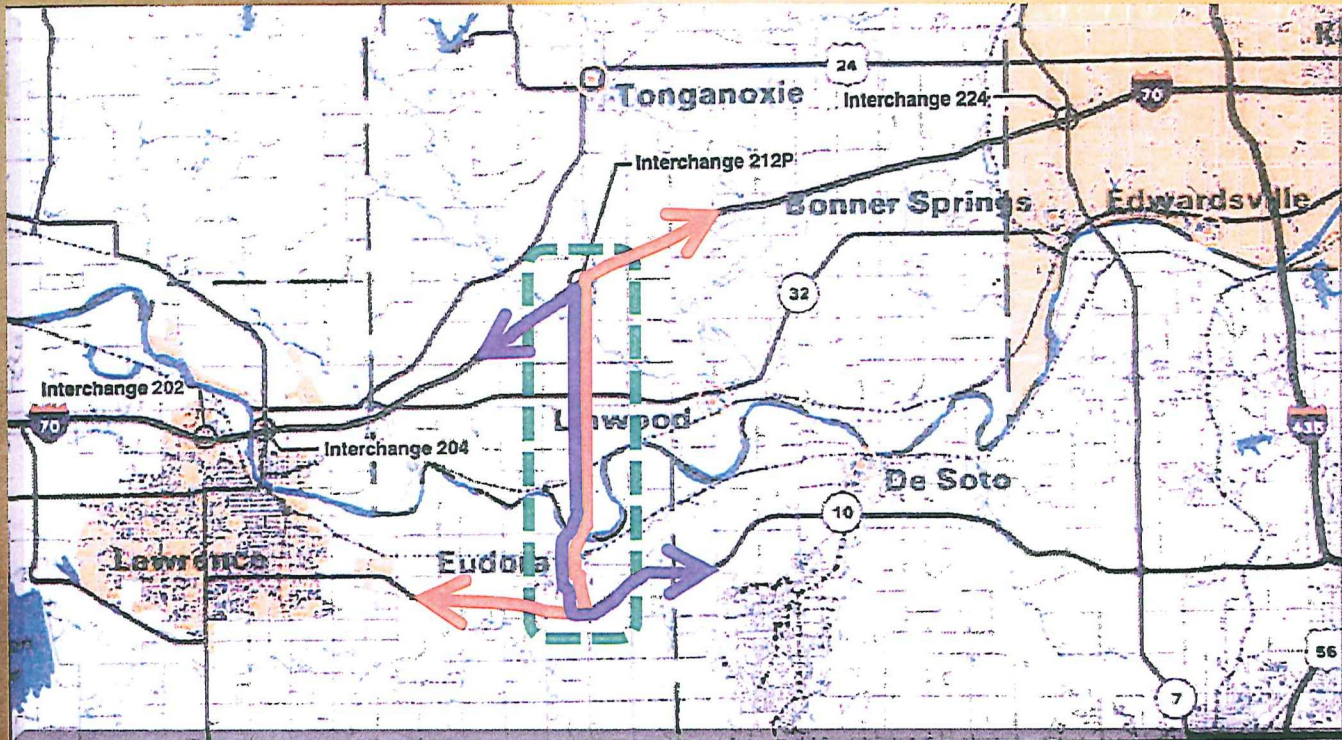
Prepared for the
City of Eudora & Douglas County

By BG Consultants, Inc.

Project Number: 08-206L

February 4, 2009

NORTHEAST KANSAS



Source of Map: *Traffic and Revenue Feasibility Study*, Vollmer Associates LLP, August 2005

I-70 & CR#1 Interchange

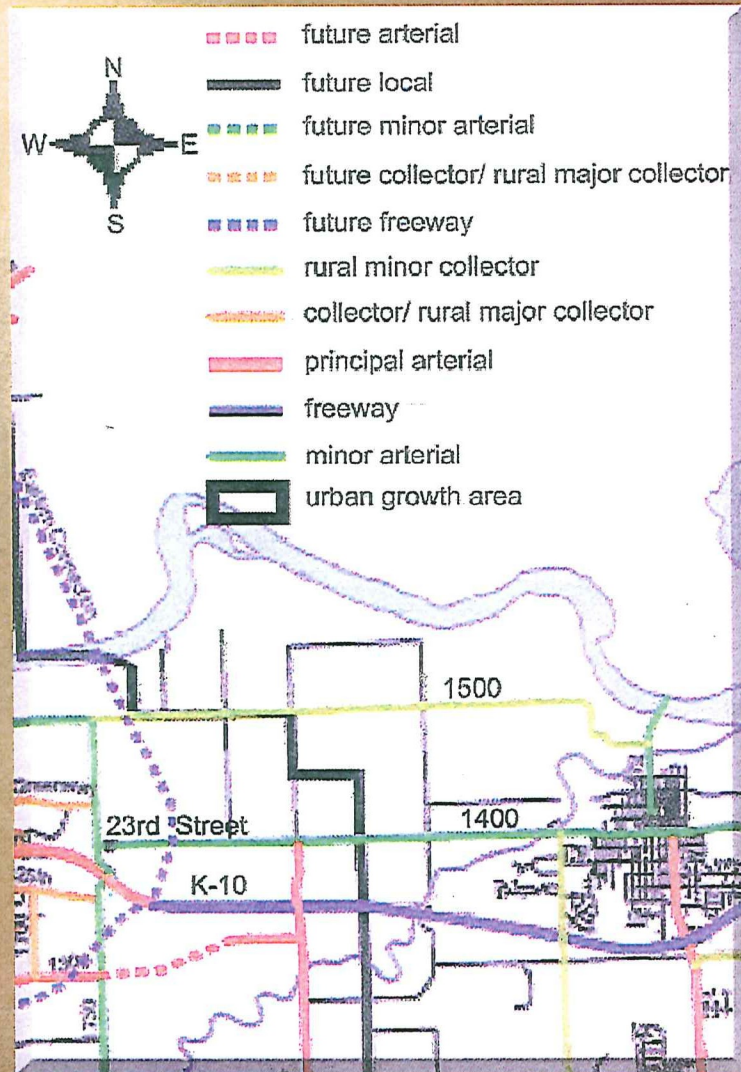
- New interchange 6 miles north of Eudora on Main St.
- Estimated project completion: November 2009
- KTA's "Traffic and Revenue Feasibility Study"
- 2005 Traffic Data at CR#1 interchange = 2,475 vpd
 - 900 vpd diverted from US-24/40
 - 575 vpd diverted from K-32
 - 1,000 vpd diverted from K-10
- 2030 Estimated Traffic at CR#1 interchange = 4,475 vpd
 - 1,625 vpd diverted from US-24/40
 - 1,040 vpd diverted from K-32
 - 1,810 vpd diverted from K-10

TRANSPORTATION PLANNING



- City of Eudora “2003 COMPREHENSIVE PLAN”
- CR 1061/Main Street is an ARTERIAL
 - Highest importance functional classification
 - Primary function is mobility rather than access
- CR 1061/Main Street is a “Gateway” in/out of City

TRANSPORTATION PLANNING

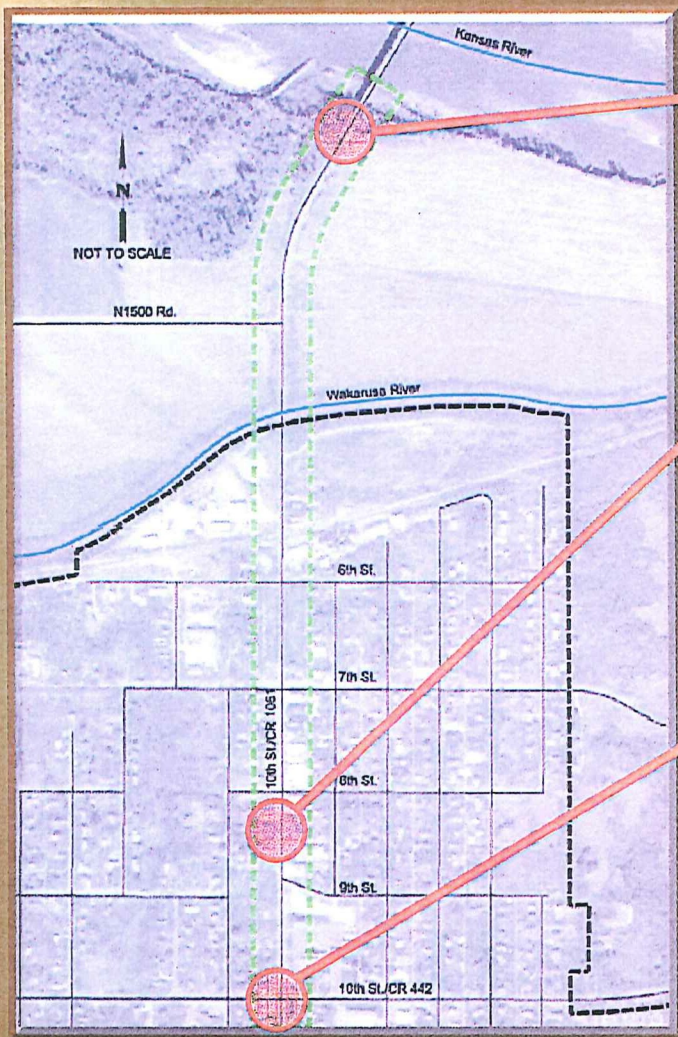


- Lawrence/Douglas County MPO “T2030”
- CR 1061/Main Street is a MINOR ARTERIAL
 - Primary function is mobility
 - Some consideration is given to access

SERVICE ANALYSIS

- Is CR 1061/Main Street really a true “arterial”?
 - CR 1061/Main Street serves mobility (CR 1061)
 - CR 1061/Main Street serves access/parking (Main Street)
- 2-lane arterials service flow at LOS C = $\pm 13,000$ vpd if access & on-street parking are minimal, left-turn bays provided at intersections
 - Research has shown the lack of left-turn lanes can reduce traffic flow $\pm 25\%$
 - Research has shown on-street parking can reduce traffic flow $\pm 30\%$
 - Estimating a 45% total reduction for parking and no turn-lanes
 - Desirable maximum traffic volume = $\pm 7,150$ vpd (LOS C)
 - 1 vehicle every 5 seconds (on average during the peak hour)
- Would it be better to serve the “through traffic” on an alternate alignment?

TRAFFIC VOLUME



KANSAS RIVER BRIDGE

- Existing ADT = 2,640
- Existing ADT with CR#1 Int. = 3,640 (+38%)
- 2030 ADT = 5,970

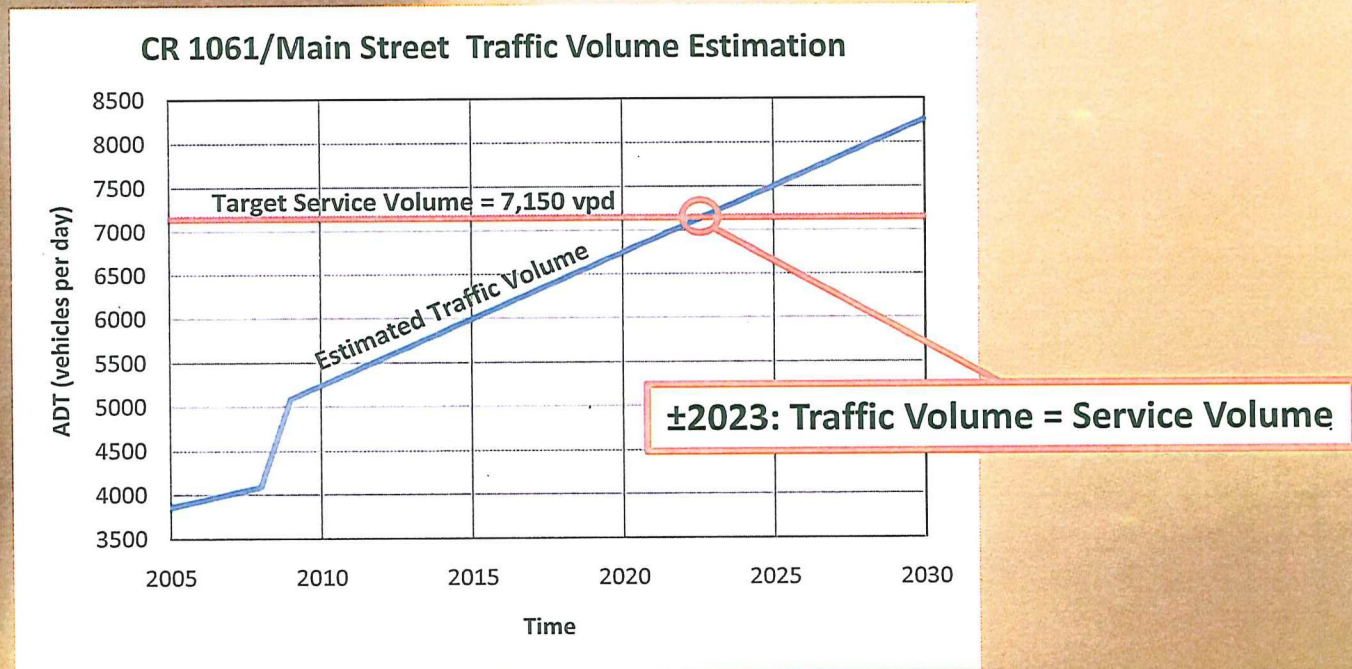
CENTRAL BUSINESS DISTRICT

- Existing ADT = 4,091
- Existing ADT with CR#1 Int. = 5,091 (+24%)
- 2030 ADT = 8,260

10th & MAIN PEAK HOUR LEVEL-OF-SERVICE (LOS)

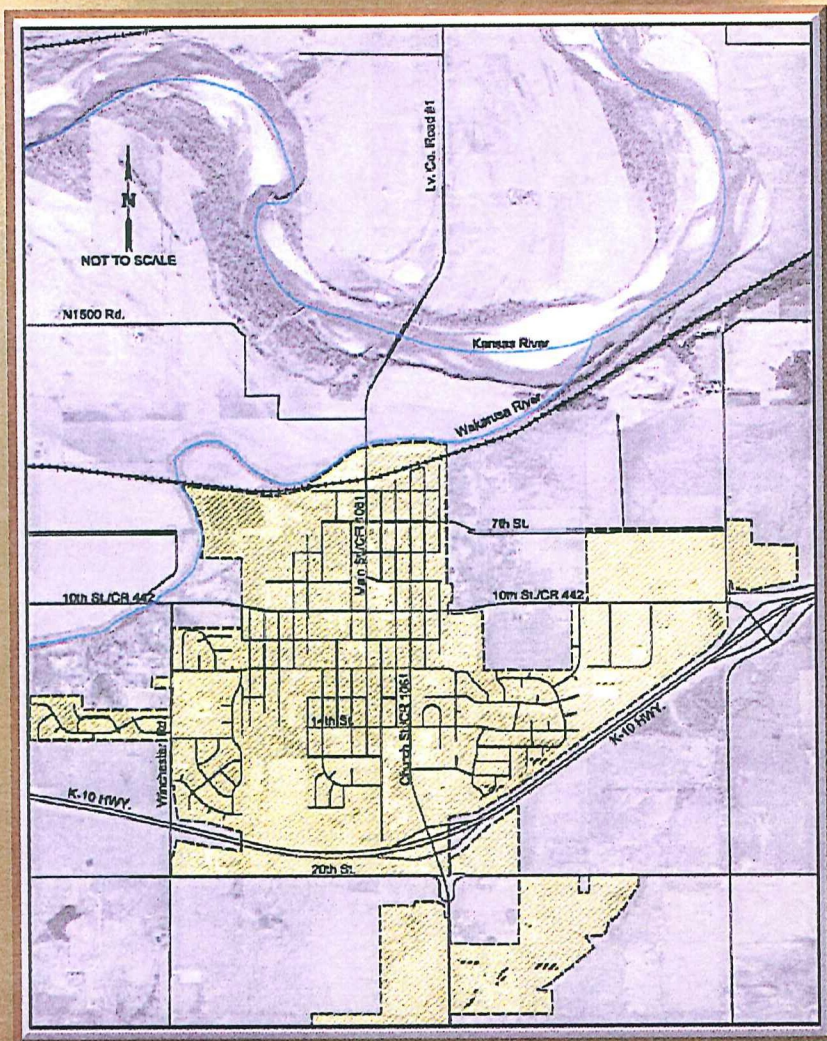
- Existing LOS = B
- Existing with CR#1 Int. LOS = C
- 2030 LOS = F

TRAFFIC VOLUME vs. SERVICE VOLUME



- 2030 Traffic in Downtown Eudora = 8,260 vpd
 - An estimated 4,900 vpd (60%) are “through trips”
- 8,260 vpd is comparable to current day Church Street (K-10 to 14th Street)
- Downtown Lawrence ADT = 7,500 to 10,000

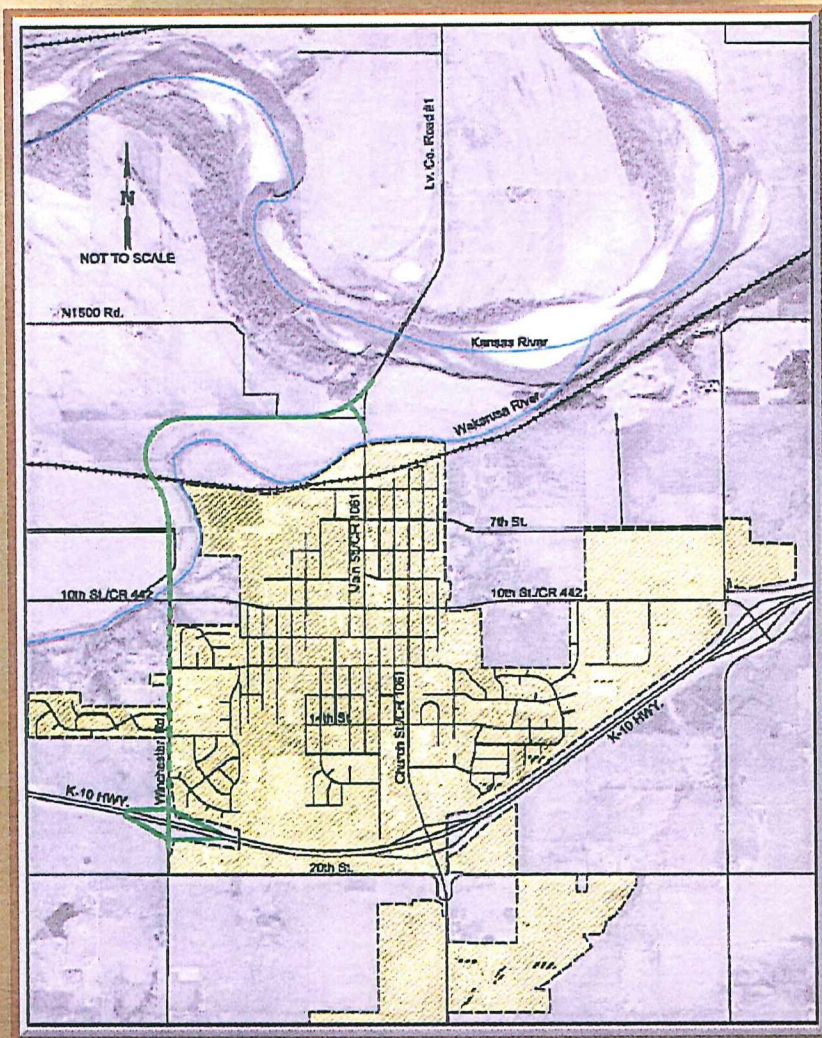
ALTERNATE ALIGNMENTS



ISSUES TO CONSIDER

- Bridges over rivers
- Floodplain/Environmental Issues
- Residential neighborhoods
- Railroad crossings
- Leavenworth County Improvements

CITY/COUNTY WESTERN ARTERIAL ALIGNMENTS



PROS

- Utilize an existing road alignment (Winchester Road)
- Potential for alignment through land with low development potential (easier right-of-way acquisition)
- Provides a path similar consistent with the path of commuters using this road from K-10 to I-70

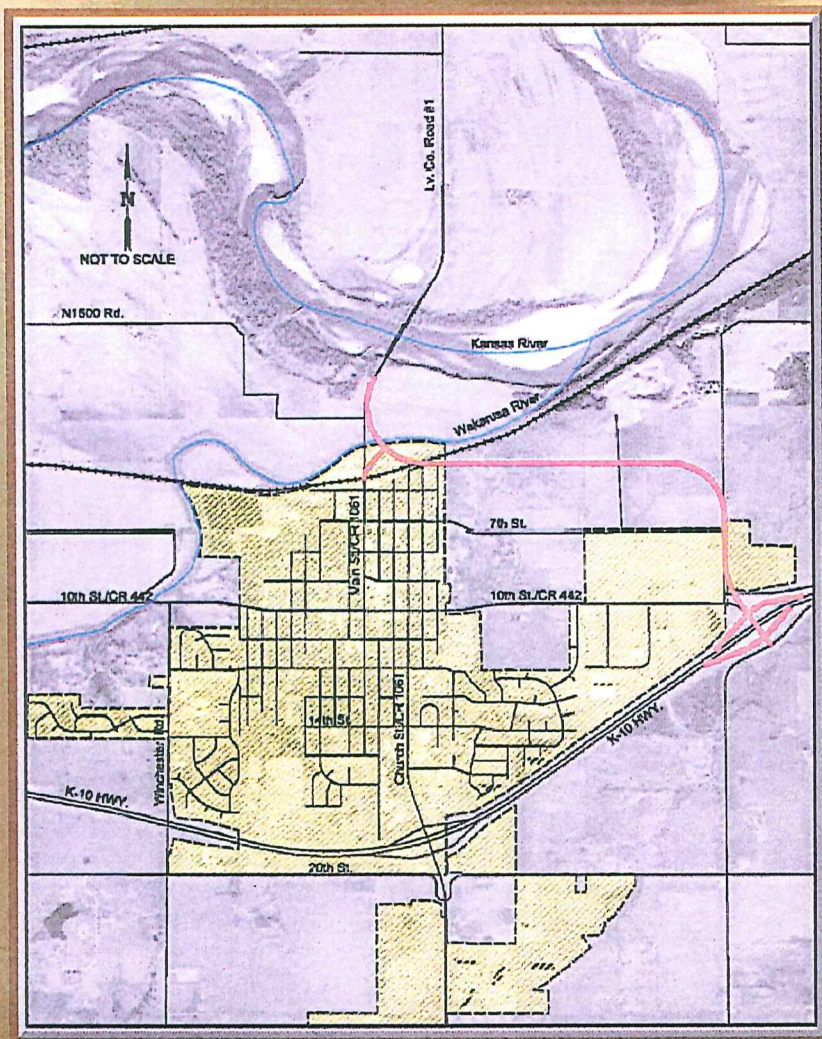
CONS

- Existing residential neighborhoods and schools
- Low potential for economic development along corridor
- Requires another bridge over Wakarusa River
- Requires Winchester Interchange to access K-10
- Requires a Railroad Crossing
- Floodplain Analysis & Potential Environmental Issues

APPROXIMATE PROJECT COSTS

- 1.5 miles x \$2.0 million/mile = \$3.0 million
- Wakarusa Bridge = \$2.3 million
- Railroad Bridge = \$2.0 million
- K-10 Interchange = \$7.9 million
- **TOTAL = \$15.2 million**

CITY/COUNTY EASTERN ARTERIAL ALIGNMENTS



PROS

- Provides access to K-10 via the existing CR442 Interchange
- Provides an alignment through future Eudora growth areas, providing potential for an expanded street network
- Minimal work within floodplain
- Potentially fewer environmental issues
- High potential for economic development along corridor
- Very few existing residential areas

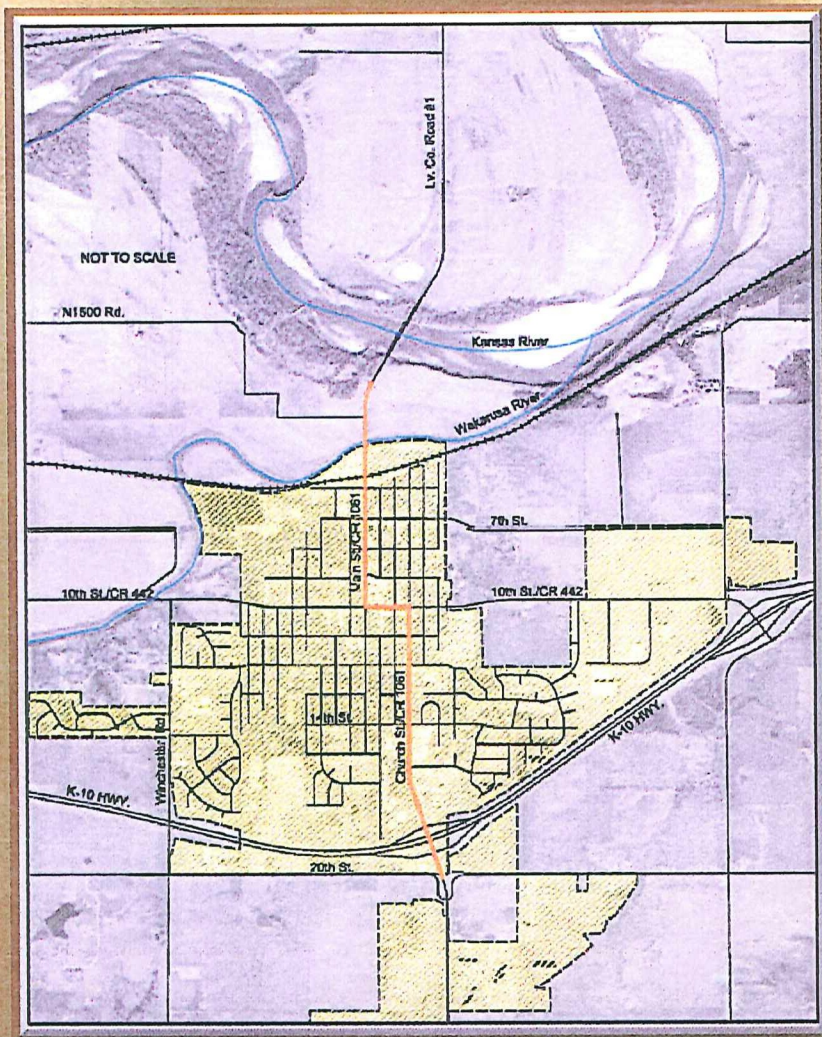
CONS

- Requires another bridge over Wakarusa River
- Requires a Railroad Crossing

APPROXIMATE PROJECT COSTS

- 2 miles x \$2.0 million/mile = \$4.0 million
- Wakarusa & RR Bridge = \$5.0 million
- Interchange Improvements = \$2.0 million
- **TOTAL = \$11.0 million**

CITY/COUNTY EXISTING ALIGNMENT



PROS

- Utilizes existing roadway alignment
- Few (if any) environmental issues
- Likely the lowest construction cost compared to alternate alignments
- Beneficial for Downtown/businesses for short term

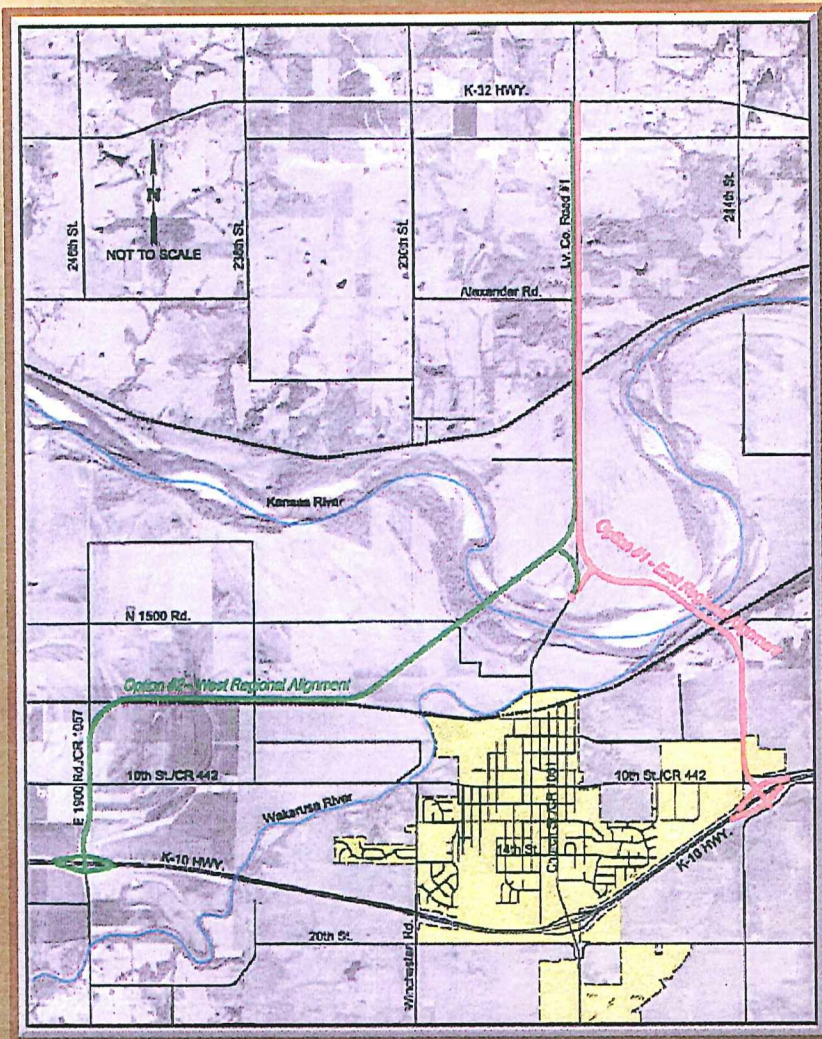
CONS

- This option has the least benefit for maintaining efficient through traffic/commuter traffic movements
- Existing Wakarusa River bridge is functionally obsolete (too narrow) and will need to be improved
- Existing intersections at 10th Street are not desirable for signalization
- Property acquisition of developed tracts of land
- Too busy for Downtown/business in the long term

APPROXIMATE PROJECT COSTS

- Corridor Improvements = \$3.4 million
- Wakarusa Bridge = \$1.5 million
- Interchange Improvements = \$2.5 million
- **TOTAL = \$7.4 million**

REGIONAL ALIGNMENTS



PROS

- Construction to freeway standards, higher level of mobility
- Improved highway network for the region
- Potentially more appealing for financial assistance at the Federal/State level

CONS

- Construction costs will be significant
- Floodplain/environmental issues depending on alignment

APPROXIMATE PROJECT COSTS

- Interchanges (K-10, K-32) = \$15 million
- Bridges = \$95 million
- 6.1 mile Freeway = \$55 million
- **TOTAL = \$165 million (East Alignment)**

WHAT ARE THE NEXT STEPS?

- Discussion of alternate alignments
- Develop a consensus for a “desirable alignment”
- Long range plan for improvements
 - Preliminary analysis/concept design
 - Corridor preservation/detailed design
 - Right-of-Way acquisition
 - Construction
- \$\$\$ Funding Sources \$\$\$
 - Capital Improvement (City/County)
 - New Transportation Program (State level)
 - Federal Earmark

DISCUSSION

- Discuss traffic growth/serviceability (5 min.)
- City/County Western alignment discussion - *\$15.2 million* (15 min.)
- City/County Eastern alignment discussion - *\$11.0 million* (15 min.)
- City/County Existing alignment discussion - *\$7.4 million* (15 min.)
- Regional Freeway alignment discussion - *\$165 million* (15 min.)
- Wrap-up/close meeting