Environmental Assessment
I-70 Polk-Quincy Viaduct
KDOT Project No. 70-89 KA-1266-02, 04/05
May 2021
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INTRODUCTION

The National Environmental Policy Act (NEPA) of 1969 requires that the social, economic, cultural, and natural environmental impacts of any proposed action by the federal government be analyzed for decision-making and public information purposes. This document is an Environmental Assessment (EA) for the proposed reconstruction of the Polk-Quincy Viaduct in the City of Topeka in northeast Kansas. It describes the Practical Alternatives, identifies a Preferred Alternative, and analyzes potential impacts and the measures taken to minimize negative effects to the project area. It will be made available to the public and to various federal, state, and local agencies for review and comment. If review and comments by the public and interested agencies support the determination of “no significant impact,” this EA will be forwarded to the Federal Highway Administration (FHWA) with a recommendation that a Finding of No Significant Impact (FONSI) be issued. If it is determined that the Preferred Alternative will have significant impacts that cannot be mitigated, the preparation of an EIS will be required.

BACKGROUND

PROJECT NUMBER

Kansas Department of Transportation (KDOT) Project Number: 70-89 KA-1266-02 and 70-89 KA-1266-04/05

ROUTE

Interstate Highway 70 (I-70)

COUNTY

Shawnee County, Kansas

PREVIOUS STUDY

The original Polk-Quincy Viaduct Study (August 2011) did look at Socioeconomic and Environmental Considerations at the time. The Parks summary was used for this document but the rest of the information in this document has been created as a part of the design process. The Polk-Quincy Viaduct Study is shown in Appendix J.
PURPOSE & NEED

PROJECT PURPOSE

The purpose of the proposed action along I-70 is to replace the aging Polk-Quincy Viaduct, widen shoulders, increase spacing between ramps, lengthen acceleration/deceleration lanes, increase the design speed of the 3rd Street curve, improve safety, increase roadway traffic capacity, and balance the access points between the north and east sides of downtown Topeka. These modifications will support economic development in North Topeka and the Riverfront area by providing connections to Topeka Boulevard and Kansas Avenue.

PROJECT NEED

The needs for the project can be summarized as follows:

1. The aging I-70 Polk-Quincy Viaduct is nearing the end of its intended service life and is considered “functionally obsolete” due to its narrow shoulders and the design speed of its curves.

2. Increases in traffic volumes and the unusually high peaking characteristics of traffic on I-70 are beginning to result in congestion during morning and evening rush hours.

3. The original design, through an existing urban area, resulted in ramp spacing that is significantly less than current design criteria and adversely impacts highway features such as the lengths of acceleration and deceleration lanes. The curve on I-70 near 3rd Street has a design speed of 40 mph, less than the 50-mph minimum design speed currently recommended for interstate highways.

4. Over time, a concern for safety has been expressed by the public because of crashes near the 3rd Street and 10th Avenue curves as well as crashes related to on/off-ramp locations.

5. Existing connections between I-70 and the city street system cannot fully support ongoing and planned development in North Topeka and the Riverfront Development area. This area is currently served indirectly by a partial interchange with 1st Street. Connections are needed to Topeka Boulevard and Kansas Avenue.

The following pages provide more detailed information regarding project needs.
Polk-Quincy Viaduct Needs: The I-70 Polk-Quincy Viaduct has reached the end of its 50 year design life, is considered “functionally obsolete”, and needs to be replaced. The existing structure is approximately 3,400 feet long and construction was completed in 1963. The overall Sufficiency Rating of the structure is 80.9 and the Average Daily Traffic (ADT) is 35,300 vpd with 12% trucks. The overall bridge deck condition is fair and rated at 6 based on the SI&A sheet.

The deck geometry has been rated at 4 or “functionally obsolete” due to the sharp curvature at each end of the viaduct and its narrow shoulders. Fatigue cracks at diaphragms are developing and the columns have started to show some deterioration.

The bridge inspection report states that the deck has been patched and cleaned many times every year since 1996. Deck sealer and expansion joint repairs were also regularly performed as shown in the maintenance history of the inspection report. The existing drains and joints have been problematic for KDOT maintenance staff due the undersized pipes and slopes.

The existing viaduct provides little separation from adjacent homes and buildings as seen in the photo. Proximity of the viaduct has caused property owners concerns for noise, vibration, and objects thrown from vehicles traveling on I-70.
Roadway Capacity Needs:

I-70 Future No-Build Conditions

Traffic operations are show below for the year 2040 (future no-build condition). KDOT practice specifies a LOS D as an acceptable minimum LOS for design year (future) traffic conditions for urban freeway reconstruction projects. This provides for reasonable traffic flow in the design year while keeping construction costs at a practical level. To meet this practice, capacity improvements are needed on I-70 in the areas shown.

DESIGN YEAR 2040 CONGESTION (NO BUILD)
### Future No-Build - LEVEL OF SERVICE FOR WESTBOUND I-70

<table>
<thead>
<tr>
<th>Segment</th>
<th>2040 AM</th>
<th>2040 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOS</td>
<td>Density</td>
</tr>
<tr>
<td>WB</td>
<td>California On-Ramp</td>
<td>--</td>
</tr>
<tr>
<td>WB</td>
<td>Adams Off-Ramp</td>
<td>--</td>
</tr>
<tr>
<td>WB</td>
<td>Adams Off-Ramp</td>
<td>Adams On-Ramp (Merge)</td>
</tr>
<tr>
<td>WB</td>
<td>Adams St. On-Ramp (Weave)</td>
<td>10th Avenue Off-Ramp</td>
</tr>
<tr>
<td>WB</td>
<td>8th Avenue Off-Ramp</td>
<td>--</td>
</tr>
<tr>
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<td>8th Avenue Off-Ramp</td>
<td>8th Avenue On-Ramp</td>
</tr>
<tr>
<td>WB</td>
<td>8th Avenue On-Ramp</td>
<td>4th Street Off-Ramp</td>
</tr>
<tr>
<td>WB</td>
<td>4th Street Off-Ramp</td>
<td>3rd Street On-Ramp</td>
</tr>
<tr>
<td>WB</td>
<td>3rd Street On-Ramp</td>
<td>--</td>
</tr>
<tr>
<td>WB</td>
<td>3rd Street On-Ramp</td>
<td>1st Street On-Ramp</td>
</tr>
<tr>
<td>WB</td>
<td>1st Street On-Ramp</td>
<td>--</td>
</tr>
<tr>
<td>WB</td>
<td>1st Street On-Ramp</td>
<td>MacVicar Avenue Off-Ramp</td>
</tr>
<tr>
<td>WB</td>
<td>MacVicar Avenue Off-Ramp</td>
<td>--</td>
</tr>
</tbody>
</table>

Note: Density is measured in passenger cars per mile per lane

### Future No-Build - LEVEL OF SERVICE FOR EASTBOUND I-70

<table>
<thead>
<tr>
<th>Segment</th>
<th>2040 AM</th>
<th>2040 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOS</td>
<td>Density</td>
</tr>
<tr>
<td>EB</td>
<td>MacVicar On-Ramp (Merge)</td>
<td>--</td>
</tr>
<tr>
<td>EB</td>
<td>MacVicar Avenue(Merge)</td>
<td>1st Street (Diverge)</td>
</tr>
<tr>
<td>EB</td>
<td>1st Street Off-Ramp (Diverge)</td>
<td>--</td>
</tr>
<tr>
<td>EB</td>
<td>1st Street (Diverge)</td>
<td>3rd Street (Diverge)</td>
</tr>
<tr>
<td>EB</td>
<td>3rd Street Off-Ramp (Diverge)</td>
<td>--</td>
</tr>
<tr>
<td>EB</td>
<td>3rd Street (Diverge)</td>
<td>4th Street (Merge)</td>
</tr>
<tr>
<td>EB</td>
<td>4th Street (Merge) Weave</td>
<td>8th Avenue (Diverge)</td>
</tr>
<tr>
<td>EB</td>
<td>8th Avenue (Diverge)</td>
<td>8th Avenue (Merge)</td>
</tr>
<tr>
<td>EB</td>
<td>8th Avenue On-Ramp (Merge)</td>
<td>--</td>
</tr>
<tr>
<td>EB</td>
<td>10th Avenue (Merge) Weave</td>
<td>Adams Street (Diverge)</td>
</tr>
<tr>
<td>EB</td>
<td>Adams Street (Diverge)</td>
<td>Adams Street (Merge)</td>
</tr>
<tr>
<td>EB</td>
<td>Adams Street (Merge) Weave</td>
<td>California Avenue (Diverge)</td>
</tr>
</tbody>
</table>

Note: Density is measured in passenger cars per mile per lane
UPATED TRAFFIC OPERATIONS ANALYSIS

To evaluate the operational analysis of the updated I-70 two split-diamond concept, traffic volume projections were developed from the MTPO’s TDM. Land-use development was updated based on information provided in Topeka’s “draft” Downtown Master Plan near the I-70 Polk-Quincy project limits as well as utilizing updated traffic counts (2019) based on proprietary Streetlight Data to develop year 2020 No-Build as well as Build conditions for forecasted years 2025 and 2055. The primary purpose of the updated operational analysis was to determine the levels of service (LOS) of the freeway mainline, ramps and expected queuing for the intersections included in the project during 2055 Full Build-out condition.

FREeway & RAMP EVALUATIONS

Within urban growth areas, LOS D or better is considered acceptable when evaluating for a future condition per KDOT practice. Table 1 and Table 2 summarize by travel direction the projected year 2055 weekday AM and PM peak hour density and LOS for each of the study segments as calculated by the Highway Capacity Software 7 (HCS7). The I-70 Polk-Quincy Corridor model consisted of a 4-lane typical roadway section along the viaduct. During the weekday AM and PM peak hours, all study segments operate at an acceptable level of service C or better.

<table>
<thead>
<tr>
<th>Segment Description</th>
<th>Type</th>
<th># of Lanes (Mainline / Ramp)</th>
<th>AM Peak Density (pc/mi/ln)</th>
<th>AM Peak LOS</th>
<th>PM Peak Density (pc/mi/ln)</th>
<th>PM Peak LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upstream of Topeka Blvd</td>
<td>Basic</td>
<td>3 Mainline</td>
<td>15.9</td>
<td>B</td>
<td>15.5</td>
<td>B</td>
</tr>
<tr>
<td>Topeka Blvd Off-ramp</td>
<td>Diverge</td>
<td>2 Mainline 2 Off-ramp</td>
<td>17.4</td>
<td>B</td>
<td>16.7</td>
<td>B</td>
</tr>
<tr>
<td>Topeka Blvd to Kansas Ave</td>
<td>Basic</td>
<td>2 Mainline</td>
<td>13.6</td>
<td>B</td>
<td>19.5</td>
<td>B</td>
</tr>
<tr>
<td>Kansas Ave to 8th Ave</td>
<td>Weaving</td>
<td>1 On-ramp 3 Mainline + Weave 1 Off-ramp</td>
<td>10.9</td>
<td>B</td>
<td>16.6</td>
<td>B</td>
</tr>
<tr>
<td>8th Ave to 10th Ave</td>
<td>Basic</td>
<td>2 Mainline</td>
<td>10.1</td>
<td>A</td>
<td>21.9</td>
<td>C</td>
</tr>
<tr>
<td>10th Ave to Adams St</td>
<td>Weaving</td>
<td>2 On-ramp 4 Mainline + Weave 1 Off-ramp</td>
<td>6.1</td>
<td>A</td>
<td>19.0</td>
<td>B</td>
</tr>
<tr>
<td>Adams Off-ramp to Adams On-ramp</td>
<td>Basic</td>
<td>3 Mainline</td>
<td>6.6</td>
<td>A</td>
<td>21.8</td>
<td>C</td>
</tr>
<tr>
<td>Adams St On-ramp</td>
<td>Merge</td>
<td>1 On-ramp</td>
<td>6.5</td>
<td>A</td>
<td>21.5</td>
<td>C</td>
</tr>
<tr>
<td>Downstream of Adams St</td>
<td>Basic</td>
<td>3 Mainline</td>
<td>7.4</td>
<td>A</td>
<td>24.3</td>
<td>C</td>
</tr>
</tbody>
</table>
Table 2 - 2055 I-70 Westbound Peak Hour Level of Service

<table>
<thead>
<tr>
<th>Segment Description</th>
<th>Type</th>
<th># of Lanes (Mainline / Ramp)</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Density (pc/mi/ln)</td>
<td>LOS</td>
<td>Density (pc/mi/ln)</td>
</tr>
<tr>
<td>Upstream of Adams St</td>
<td>Basic</td>
<td>3 Mainline</td>
<td>22.7</td>
<td>C</td>
</tr>
<tr>
<td>Adams St Off-ramp</td>
<td>Diverge</td>
<td>1 Off-ramp</td>
<td>16.2</td>
<td>B</td>
</tr>
<tr>
<td>Adams Off-ramp to Adams On-ramp</td>
<td>Basic</td>
<td>3 Mainline</td>
<td>21.7</td>
<td>C</td>
</tr>
<tr>
<td>Adams St to 10th Ave</td>
<td>Weaving</td>
<td>1 On-ramp</td>
<td>25.5</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Mainline + Weave</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 Off-ramp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10th Ave to 8th Ave</td>
<td>Basic</td>
<td>2 Mainline</td>
<td>17.6</td>
<td>B</td>
</tr>
<tr>
<td>8th Ave to Kansas Ave</td>
<td>Weaving</td>
<td>1 On-ramp</td>
<td>12.9</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Mainline + Weave</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Off-ramp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kansas Ave to Topeka Blvd</td>
<td>Basic</td>
<td>2 Mainline</td>
<td>16.3</td>
<td>B</td>
</tr>
<tr>
<td>Topeka Blvd On-ramp</td>
<td>Merge</td>
<td>2 On-ramp</td>
<td>14.8</td>
<td>B</td>
</tr>
<tr>
<td>Downstream of Topeka Blvd</td>
<td>Basic</td>
<td>3 Mainline</td>
<td>15.8</td>
<td>B</td>
</tr>
</tbody>
</table>

Intersection Evaluation

Table 3 shows the Levels of Service at intersections within the project limits under 2055 Build conditions.

Table 3 - LOS for the 2055 Build Condition for the Intersections within the I-70 Polk-Quincy project limits

<table>
<thead>
<tr>
<th>INTERSECTION</th>
<th>AM LOS</th>
<th>AM DELAY (SEC/VEHICLE)</th>
<th>PM LOS</th>
<th>PM DELAY (SEC/VEHICLE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EB Connector-Distributor Rd at Topeka Blvd</td>
<td>B</td>
<td>16.5</td>
<td>B</td>
<td>17</td>
</tr>
<tr>
<td>EB Connector-Distributor Rd at Van Buren Blvd</td>
<td>A</td>
<td>8.6</td>
<td>C</td>
<td>20</td>
</tr>
<tr>
<td>EB Connector-Distributor Rd at Jackson St</td>
<td>A</td>
<td>4.1</td>
<td>A</td>
<td>8</td>
</tr>
<tr>
<td>EB Connector-Distributor Rd at Kansas Rd</td>
<td>B</td>
<td>10.3</td>
<td>B</td>
<td>15.4</td>
</tr>
<tr>
<td>EB Connector-Distributor Rd at 4th St</td>
<td>A</td>
<td>7.5</td>
<td>B</td>
<td>13.4</td>
</tr>
<tr>
<td>EB Connector-Distributor Rd at 6th St</td>
<td>A</td>
<td>7.3</td>
<td>B</td>
<td>11.6</td>
</tr>
<tr>
<td>EB Connector-Distributor Rd at 8th St</td>
<td>B</td>
<td>12.8</td>
<td>B</td>
<td>15</td>
</tr>
<tr>
<td>EB Connector-Distributor Rd at 10th St</td>
<td>A</td>
<td>9.9</td>
<td>C</td>
<td>21.8</td>
</tr>
<tr>
<td>WB Connector-Distributor Rd at Topeka Blvd</td>
<td>B</td>
<td>15.4</td>
<td>D</td>
<td>36.2</td>
</tr>
<tr>
<td>WB Connector-Distributor Rd at Van Buren Blvd</td>
<td>B</td>
<td>10.2</td>
<td>B</td>
<td>11.6</td>
</tr>
<tr>
<td>WB Connector-Distributor Rd at Jackson St</td>
<td>B</td>
<td>14.6</td>
<td>A</td>
<td>9.3</td>
</tr>
<tr>
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<td>15</td>
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<td>14</td>
<td>B</td>
<td>10.8</td>
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<tr>
<td>WB Connector-Distributor Rd at 6th St</td>
<td>B</td>
<td>13.4</td>
<td>B</td>
<td>10.7</td>
</tr>
<tr>
<td>WB Connector-Distributor Rd at 8th St</td>
<td>A</td>
<td>9.8</td>
<td>B</td>
<td>16.5</td>
</tr>
<tr>
<td>WB Connector-Distributor Rd at 10th St</td>
<td>B</td>
<td>18.5</td>
<td>A</td>
<td>9.6</td>
</tr>
<tr>
<td>Kansas Ave. &amp; 1st St.</td>
<td>B</td>
<td>12.8</td>
<td>A</td>
<td>8.2</td>
</tr>
</tbody>
</table>
Highway Design Needs: While appropriate for the time of its construction, I-70 does not meet current design criteria. Constraints that existed at the time of construction such as the railroad line that paralleled I-70 on the north through downtown, no longer exist. The following paragraphs discuss the existing geometric characteristics and needed changes.

The 1st Street ramps provide partial access to I-70, serving traffic only to and from the west. 1st Street is a two-lane collector street. The majority of the motorists using these ramps are going to or coming from Topeka Boulevard, a principal arterial street that formerly carried US-75. Highway design should provide logical connections for all movements connecting to I-70.

Narrow shoulders on the Polk-Quincy Viaduct need to be widened to at least 10 feet. Currently, when an incident occurs on the viaduct, the lack of adequate shoulders requires at least one of the two lanes to be closed and, in many cases, both lanes of travel on I-70 must be closed. Narrow shoulders make the highway less forgiving to motorists as there is little room for an errant vehicle to correct their travel path without striking a barrier.

As one of the sharpest curves on I-70 in Kansas, the curve near 3rd Street needs to be improved from its current 40 mph design speed to at least the suggested minimum design speed for interstate highways of 50 mph. A variety of pavement markings and warning sign treatments have been added over the years to improve traffic flow and address safety concerns through this curve.

Ramp spacing along I-70 needs to be increased to improve both traffic operations and safety. The AASHTO Green Book suggests a minimum spacing of one mile for interchanges in an urban area (distance between intersecting streets with ramps). This assumes the situation where an on-ramp is
followed by an off-ramp. Successive entrance ramps or exit ramps should have a minimum spacing of 1000 feet.

Along I-70 from 1st Street to Adams Street/Branner Trafficway, ramps connect to six different streets over approximately 1.9 miles. The distance between 4th Avenue and 8th Avenue is approximately 0.4 mile as is the distance between 10th Avenue and Adams Street/Branner Trafficway. Successive eastbound on-ramps from 8th Avenue and 10th Avenue are separated by approximately 870 feet and successive westbound off-ramps at 10th Avenue and 8th Avenue are spaced at approximately 840 feet.

The lengths of acceleration and deceleration lanes for I-70 ramps need to be increased. The close spacing of ramps along I-70 and the location of the viaduct restricts the distance provided for vehicles entering or leaving the highway. This is especially true for the 3rd Street and 8th Avenue on-ramps to westbound I-70 and the 8th Avenue on-ramp to eastbound I-70.

The weaving area between the 4th Avenue and 8th Avenue ramps needs to be lengthened or eliminated. Ramps locations provide a very limited area for weaving traffic, especially on westbound I-70 where entering traffic from 8th Avenue must make two lane changes.

Ramp spacing results in “hidden” exits for 8th Avenue for both eastbound and westbound I-70 due to bridges and curves. Exits need to be more visible for motorists.
**Safety Needs:** Analysis of crash data has identified the need for safety improvements at a number of locations. Figure 1 shows the crash rates and critical crash rates for each highway section along I-70.

**FIGURE 1 – CRASH RATES AND CRITICAL CRASH RATES ON EASTBOUND AND WESTBOUND I-70**
**Critical Crash Section Details:** The crash analysis identified six critical crash locations where the occurrence of crashes were significantly higher than average.

**Section 114.9 (Eastbound I-70 Adjacent to 1st Street Off-Ramp)**

Crashes at this location may be due to the stop-controlled intersection at the ramp terminal causing unexpected queuing along the ramp or to the narrow inside shoulder on mainline eastbound I-70. During the study phase, it was determined that daily traffic queuing occurs during the AM Peak which backs up traffic along mainline eastbound I-70.

**Section 115.9 (Eastbound I-70 Adjacent to 4th Street On-Ramp)**

Vehicles enter from 4th Street into an added lane on eastbound I-70. There is a short distance between the on-ramp from 4th Street and the off-ramp to 8th Avenue. Crashes at this location may be due to vehicles on eastbound I-70 changing lanes and decelerating to exit at 8th Avenue in the same lane where traffic from 4th Street is accelerating to travel east on I-70.

**Section 116.9 Crash Analysis Area: Eastbound I-70 near Adams Street Off-Ramp**

Crashes at this location are located along eastbound I-70 as well as along the on/off-ramps at the interchange. The sideswipe crashes (same direction) most likely involve eastbound I-70 drivers that change lanes to exit at Adams Street. Five of the 17 crashes involved drivers who were “following too closely”.

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**Section 214.9 (Westbound I-70 prior to 1st Street On-Ramp)**

Approximately half of the crashes at this location are vehicles that have struck the median barrier, while the other half are rear-end or side-swipe crashes most likely involving on-ramp traffic preparing to merge with westbound I-70 through traffic. The inside shoulder after crossing the viaduct continues to be narrow through this area which may have contributed to the fixed object crashes with the median barrier.

**Section 215.6 (Westbound I-70 adjacent to 3rd Street On-Ramp)**

The on-ramp has a very short acceleration lane and there is some difficulty seeing on-coming traffic around the curve to merge. There are also cases where drivers may assume the vehicle ahead of them will accelerate onto mainline, only to have the leading vehicle stop because of the short acceleration lane, leading to a rear-end collision.

**Section 215.9 (Westbound I-70 adjacent to 4th Street Off-Ramp)**

This section is just downstream of the 8th Avenue on-ramp which requires a double-lane change within 500 feet to enter westbound I-70. This may contribute to the sideswipe same-direction crashes (30% of the crashes in this area). Traffic begins to slow approaching the 3rd Street curve which may have been a factor in the rear-end crashes (25% of the crashes). Four of the crashes are fixed object which usually involve single vehicles that leave the roadway and strike an object.
**The crash analysis from the Concept Study:** The crash analysis for the Concept Study covered an earlier time frame and showed additional critical crash segments on I-70 (highlighted in red). These segments are included in the IAJR report due to a long history of crashes at these locations and as these areas were one of the top concerns of the community.

**Sections 1156 and 1157 (Eastbound I-70 within the 3rd Street curve)**

**Sections 2155 and 2156 (Westbound I-70 within the 3rd Street curve)**

Most of the crashes involving eastbound I-70 traffic occurred when vehicles collided with the median barrier. This occurred more often when there was inclement weather, and the roads were not dry. The primary circumstances of these crashes were drivers being inattentive or driving too fast for conditions.

Most of the crashes involving I-70 westbound vehicles were side swipe or rear end collisions although some were fixed object with vehicles striking a barrier. The radius of the curve, the length of the 3rd Street on-ramp acceleration lane, and the shoulder widths may be contributing factors.

**Section 2165 (Westbound I-70 within the 10th Avenue curve)**

This critical section is located on westbound I-70 at a curve just before the 10th Avenue bridge. Crashes at this location were primarily fixed object collisions involving vehicles striking the median barrier or signposts.
In order to meet the Polk Quincy Viaduct needs, the roadway capacity needs, the highway design needs and the safety needs, the Build Alternative – Preferred Alternative described below needs to be constructed.

PROJECT LOCATION

The proposed project is the improvement of I-70 Highway from the MacVicar Avenue interchange to the Adams St/Branner Trafficway interchange in Topeka, Kansas. The project is located within the following Townships, Ranges, and Sections in Shawnee County, Kansas.

- 11S-15E-25
- 11S-15E-26
- 11S-16E-29
- 11S-16E-30
- 11S-16E-31
- 11S-16E-32
- 12S-16E-5
- 12S-16E-6

DESCRIPTION OF PROPOSED ALTERNATIVES

NO-BUILD ALTERNATIVE

The No-Build Alternative represents the case which the improvements to this section of I-70 would not be constructed. The existing viaduct bridge built in the 1960’s is becoming structurally deficient and will require replacement in the near future. The existing bridges at 4th Street, the BNSF railway, and the Shunganunga creek are also becoming structurally deficient. A bridge repair project is being designed for construction in 2022 that will provide only a limited additional service life to the existing viaduct and longer additional service life extensions to the other 3 bridges. The crash rate for the existing horizontal curve for westbound I-70 between 4th Street and Kansas Avenue is above the Critical Crash Rate. Reconstructing with a new alignment with a flatter curve improves the safety of the corridor. The No-Build Alternative does not achieve the desired results defined in the Purpose and Need.

Development of Alternatives

The Polk Quincy Viaduct Study in Appendix J has a detailed description of the concepts, goals and impacts of the 17 horizontal layout alternatives and 3 vertical options evaluated. The process used is described below.
Introduction

An iterative process was used to identify and narrow the potential improvement alternatives for I-70 and the Polk-Quincy Viaduct. Project goals were developed by the Core Team of study sponsors and the Project Advisory Committee, which represented community organizations. Initial definitions for a range of alternatives were developed. Seventeen preliminary alternatives were identified based upon the initial definitions. The Core Team and Project Advisory Committee developed a set of evaluation criteria that were used to narrow the potential alternatives to three that were carried forward for more detailed analysis. The three alternatives were presented to the public and stakeholders for comment. Based upon the comments received, each of the alternatives was revised to include access to and from 6th Avenue. The three revised alternatives were further analyzed and a preferred alternative was recommended. In addition, vertical profiles for a new viaduct, a partially below-grade alignment, and a fully below-grade alignment were investigated.

Initial Definitions of Concept Alternatives

- **No-Build Alternative** – develop a continued maintenance program for the I-70 Polk-Quincy Viaduct and adjacent segments of I-70. This alternative should include ITS applications to enhance safety at the 3rd Street Curve.

- **Replace “In Kind”** – reconstruct the viaduct on its current alignment with no widening for shoulders and minimal changes to other geometric features. Relocating the 3rd Street ramps to 4th Street would be considered. This alternative should include ITS applications to enhance safety at the 3rd Street Curve.

- **Reconstruct I-70** on its existing alignment including capacity and other roadway geometric improvements. This alternative should include ITS applications to enhance safety at the 3rd Street Curve.

- **Re-align I-70** and include increased capacity for traffic flow, roadway geometric improvements including the 3rd Street curve, and access improvements. Both a new viaduct and below-grade options will be explored for the section between Topeka Boulevard and Kansas Avenue.

Project Goals

Ten initial goals were identified to address the corridor’s needs for improving the highway design and the community’s connections between I-70 and the adjacent land use.

The initial project goals for the I-70 Polk-Quincy Viaduct are:

1. Maintain safe, efficient operation, and capacity for interstate trips.
2. Maintain safe, efficient operation, and capacity for local trips.
3. Meet current roadway geometric design criteria for design speed, shoulder width, ramp lengths, and interchange spacing.
4. Meet current bridge design criteria.
5. Consider facility maintenance issues/costs in the design of new highways, streets, and
bridges.
6. Provide logical/reasonable connections to Downtown Topeka, North Topeka, and the Riverfront area.
7. Consider the needs for modes of transportation other than automobiles and commercial trucks to cross or access I-70.
8. Consider urban design elements as part of future I-70 corridor design, including: aesthetics, potential land use, public areas, and the overall connections between land use, city streets, and I-70.
9. Enhance economic development opportunities in areas near I-70.
10. Stage/phase construction to minimize disruption of traffic flow and to maximize financial feasibility.

Evaluation Criteria

A series of nine criteria was established by the Core Team and the Project Advisory Committee to evaluate alternatives for improving I-70. These criteria address the project goals for the I-70 corridor.

1. **Roadway Design**: addresses the design speed of the 3rd Street curve; concerns about acceleration/deceleration lane lengths; narrow shoulders on viaduct; inadequate spacing between ramps; flexibility for future expansion of I-70 and local streets; and adequate drainage.

2. **Safety**: addresses reducing the number of crashes along I-70, including the high crash areas along I-70 and crossing I-70 on the local street system.

3. **Traffic Mobility and Circulation**: provides for the movement of through traffic on I-70 and for the logical circulation of traffic on the city street system.

4. **Access and Connectivity**: provides access from I-70 to Topeka Boulevard and/or Kansas Avenue as well as logical and reasonable access to I-70 from the local streets; interchanges provide full traffic movements to and from I-70.

5. **Economic Goals**: ensures that future development/redevelopment goals are considered and promotes community connectivity.

6. **Construction and Maintenance**: considers project and maintenance costs; traffic issues during construction; phased construction; and highway maintenance.

7. **Environmental Issues**: minimize impacts on historic properties, the environment and adjacent properties. Also considers environmental justice.

8. **Aesthetics**: enhances view shed between Downtown and the river; recognizes the importance of the roadway and bridge and considers the view from I-70.

9. **Multimodal Considerations**: addresses transit, bicycle, and pedestrian needs.

From that analysis, **Re-align I-70, and a Preferred Alternative** were selected.
Vertical Alignment Options

The strengths and weaknesses of three different vertical alignment options were studied for the section of I-70 from west of Topeka Boulevard to east of Kansas Avenue. They are:

- **Fully Below-Grade Option** – I-70 would be lowered approximately 25 feet below ground level to allow city streets to remain at current elevations. New bridges over I-70 would be provided at Topeka Boulevard, Van Buren Street, and Kansas Avenue.

- **Partially Below-Grade Option** – I-70 would be lowered approximately 10 feet and city streets would be raised approximately 15 feet to pass over I-70. New bridges over I-70 would be provided at Topeka Boulevard, Van Buren Street, and Kansas Avenue.

- **Above-Grade Option** – a new viaduct would be constructed to carry I-70 traffic over existing city streets. Harrison Street would likely be closed between 1st and 2nd Streets.

Eleven factors were explored to determine the likely impacts of the three vertical alignment options. That analysis led to the selection of the **Above-Grade Option**.

**BUILD ALTERNATIVE – RE-ALIGNMENT & MODERNIZATION - PREFERRED ALTERNATIVE**

In December of 2020, the design team started with the Preferred Alternative from the Concept Study that was taken to the Field Check level of design and stopped in 2015. An updated capacity analysis was done. A value engineering process was utilized to try and minimize overall cost and eliminate the two locations where ramps crossed and required a tunnel (cost and long-term maintenance were concerns). Through that process the preferred alternative was modified and finalized.

The re-align option was selected to be able to meet all the safety needs necessary by flattening out the overall alignment of I-70. It also allows the new viaducts to be constructed off-line while existing I-70 remains open to traffic for an extra year during construction. Of the re-align alternatives, our preferred alternative minimized the impact to adjacent properties, others considered impacted more properties. The east split-diamond interchange is in the same place as existing ramps. The west split-diamond interchange minimized impacts by focusing on the existing principal arterials at Topeka Boulevard and Kansas Avenue with bridges over the Kansas River.

The preferred alternative shown in **Figure 3** creates an access system with two “split diamond” interchanges, one serving the north side of the Downtown area and one serving the east side. The split diamond concept improves the safety of the corridor by eliminating some weave movements that currently exist in today’s ramp configuration. Six freeway lanes are provided from MacVicar Avenue to Topeka Boulevard based on capacity needs on I-70. Each of the proposed viaducts will have two 12’ lanes with 12’ shoulders on the inside and outside. If an additional through lane was needed for capacity in the future, the design will allow for the addition of that extra lane. The widening concept shown in **Figure 2** will be to the inside area of the viaducts and will not impact the overall footprint of the design.
On the north side, the existing 1st Street ramps are reconfigured so that they connect directly with Topeka Boulevard. These ramps serve traffic traveling to and from the west on I-70. A complementary set of ramps connect to Kansas Avenue and serve traffic traveling to and from the east on I-70. These ramps are joined by a pair of one-way connector roads to form a system that will provide access to Downtown, the proposed River South District, and North Topeka.

A similar system of ramps and connector roads will serve the east side of the Downtown area. The existing 3rd Street ramps will be removed. The existing 10th Avenue ramps will remain and be widened, and new 8th Avenue ramps will be constructed, serving traffic traveling to and from the west on I-70. The 8th Street and 10th Avenue ramps will be connected by the one-way, connector road pair of Madison and Monroe Streets. Westbound off ramps at 8th and 4th and eastbound on ramps at 4th and 8th will be removed.
SUMMARY

This project involves the reconstruction of approximately four miles of I-70 from MacVicar Avenue to 0.25 miles west of California Avenue in Shawnee County, KS.

The project incorporates the following improvements:

- I-70 reconstruction to 3-lanes eastbound and 3-lanes westbound from MacVicar Avenue to Topeka Boulevard.
- Split-diamond interchange between Topeka Boulevard and Kansas Avenue.
- Two new viaduct bridges from Topeka Boulevard to Kansas Avenue that are expandable to add an additional through lane if needed in the future.
- New I-70 bridges at 4th Street, 6th Street, 8th Street, 10th Street, and Shunganunga Creek.
- New parallel frontage roads eastbound and westbound between Topeka Boulevard and 10th Street.
- I-70 reconstruction from Topeka Boulevard to 0.25 miles west of California Avenue.
Figure 3: Preferred Alternative
ENVIRONMENTAL ASSESSMENT

RIGHT-OF-WAY

There are 97 parcels involving the purchase of right-of-way to implement the project. In addition, 25 parcels will involve temporary easements. It is estimated that 21.3 acres of land will need to be acquired as right-of-way to implement the project.

DISPLACEMENT – RESIDENTIAL

There are 59 residential parcels within the proposed right-of-way for the project. These parcels are located throughout the corridor. Of the residential parcels impacted, it is anticipated that 8 residences will be displaced.

DISPLACEMENT – NON-RESIDENTIAL

There are 38 non-residential parcels located within the proposed right-of-way for the project. These parcels are located throughout the corridor. There are 18 non-residential parcels impacted requiring the displacement of personal property and an outbuilding.

SOCIAL/ECONOMIC ENVIRONMENTAL JUSTICE

The purpose of the environmental screening includes: 1) identifying potential significant adverse social, economic, or environmental impacts for each alternative, 2) determining whether mitigation measures are possible to reduce or to avoid any identified impacts, and 3) determining whether all environmental regulations and requirements can be satisfied during subsequent environmental studies.

Development of alternatives out of a previous 2011 study consisted of conceptual design layouts or “footprints”. Actual right-of-way requirements were not established. At that time with a preliminary environmental screening, none of the three alternatives would result in significant adverse social, economic, or environmental impact. No “fatal flaws” in terms of environmental impact were identified for any of the alternatives.

When developing the preferred concept, social economic issues were considered with the relocation of residential and commercial properties. For the residential properties, KDOT identified ownership status through the County Property records and evaluated the opportunity to relocate close to the same area. KDOT was able to discuss potential impacts for commercial properties early in the process. No significant adverse social or economic issues were identified.

Communities of Concern

Federal Environmental Justice guidance is to ensure that communities of concern, defined by minority populations and low-income populations, are included in the transportation planning process, and to ensure that they may benefit equally from the transportation system without shouldering a disproportionate share of its burdens.
There are three fundamental environmental justice principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Census Tract data for Shawnee County as a whole and the Tracts that contain the project limits (22, 6, and 40) are shown in Appendix B. Reports from the EPA website using the EJSCREEN tool for the project area are shown in Appendix B.

**Demographics**

According to the Census data, minority groups including non-white and Hispanic population groups comprise 27 percent of the population of Shawnee County, KS. Minority groups including non-white and Hispanic for the project area are 14% in Census Tract 22, 50% in Census Tract 6, and 45% in Census Tract 40. Using the EJSCREEN tool data with the limits drawn to the project specific area, Minority groups including non-white and Hispanic for the project area are 36 percent.

**Economics**

According to the Census data, the median income for Shawnee County is $59,941. Persons below the poverty line were 8.6%. For Census Tract 22, the median income was $49,458 with 15.3% below the poverty line. For Census Tract 6, the median income was $29,482 with 29% below the poverty line. For Census Tract 40, the median income was $19,058 with 30.1% below the poverty line.

Of the 59 residential parcels within the proposed right-of-way, 8 will be displacements. The displacement homes are a combination of homeowners and renters. Those renters are likely to be low income. Congress passed the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amended it in 1987 (Uniform Act). The acquisition and relocation of those 8 residential displacements will follow the Uniform Act.

To provide the safety and traffic operation benefits that are goals of the project, these impacts are unavoidable.

**FARMLAND IMPACTS**

The area is designated for urban use and is exempt from the Farmland Protection Policy Act.
WETLAND/TRIBUTARY IMPACTS

The National Wetlands Inventory (NWI) Maps in Appendix C show the location of NWI mapped wetlands within the study corridor. The NWI map indicates the presence of an unconsolidated bottom riverine system (Ward Creek) at the far west end of the study area (0.25 mile east of MacVicar Rd) and at Shunganunga Creek at the east end of the project (0.04 mile west of Adams St). A linear emergent wetland associated with an unnamed tributary is located at the far east end of the study area (0.35 mile west of California Ave). National Wetlands Inventory maps were developed by the US Fish & Wildlife Service (USFWS) using high altitude aerial photographs. National Wetland Inventory mapped wetlands may or may not qualify as U.S. Army Corps of Engineers (COE) jurisdictional wetlands when wetland determinations are performed following the methods of the 1987 Corps of Engineers Wetlands Delineation Manual and supplements. Wetlands may have developed in other low-lying or wet areas not shown on the NWI maps. Section 404 of the Clean Water Act (CWA) prohibits the discharge of dredged or fill material (i.e. rock, sand, soil, construction materials) into waters of the United States without a permit from the U.S. Army Corps of Engineers and mitigation may be required.

WATER QUALITY IMPACTS

The county will use standards developed by KDOT to make sure that there is no degradation in water quality associated with construction activities. The stormwater pollution prevention plan (SWPPP) that meets the requirement of the National Pollutant Discharge Elimination System (NPDES) will be generated and the NPDES permit will be obtained prior to initiating any construction activities.

FLOODPLAIN IMPACTS

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) showing mapped 100-yr floodplains are available for Shawnee County and FIRMettes of the study corridor are attached and can be found in Appendix D.

In Shawnee County, the DWR has jurisdiction over fill that is placed in a floodplain to an average height greater than one foot above the existing ground for streams with a drainage area over 640 acres. Fills that meet this definition would require a Floodplain Fills permit from the DWR. DWR regulations require that a floodplain fill should not have an unreasonable effect on adjacent landowners, be adverse to the public interest and environmental concerns or lack of required environmental mitigation.
AIR QUALITY IMPACTS

The project is located within a Kansas Metropolitan Urbanized Area (KMUA). However, it is located outside a non-attainment area. This type of project is included in paragraph (c) or (d) of 23 CFR 771.117 concerning categorical exclusions, therefore, the project is cleared of air quality concern.

NOISE IMPACTS

The Federal Highway Administration (FHWA) defines a Type I project as a proposed federal or federal-aid highway project for construction of a highway at a new location, the physical alteration of an existing highway that significantly changes either or both horizontal or vertical alignments, or an increase in the number of through traffic lanes. Transportation improvements that meet this criteria, are required to be evaluated for impacts from highway traffic noise, in accordance with procedures contained within 23 CFR 772.

The transportation improvements relative to this project, meet criteria as a Type 1 project and therefore, were analyzed for highway traffic noise impacts. The project was segmented as four contiguous geographical areas, each assigned as a Noise Sensitive Area (NSA). Within each NSA, land use and receptors adjacent to the project were identified and assigned applicable Noise Abatement Criteria (NAC). The FHWA Traffic Noise Model (TNM) was utilized for predicting sound levels for years 2025 (let year) and 2055 (design year), based on traffic forecasts, for the worse hour of the day.

The resultant sound levels were evaluated for impacts. Impacts may occur when the NAC threshold is approached and/or there is a doubling of traffic noise from the present environment. Predicted impacts were drawn from the analysis. Because impacts were predicted, the evaluation proceeded to measures for abating highway traffic noise. Preliminary noise barrier designs were evaluated in accordance with KDOT Highway Traffic Noise Policy. The cost per benefited receptor, safety hazards posed to the traveling public, and intersections of streets that prevent acoustic effective walls were reasons why noise barriers could not be incorporated in this transportation improvement. This project is cleared of noise concerns. See Appendix E for the completed Highway Traffic Noise Study for the Polk-Quincy Viaduct.

HISTORICAL IMPACTS

An Activity I review of the Materials and Research plans was requested for the project limits on I-70 from MacVicar Avenue to 0.25 miles west of California Avenue in Shawnee County, KS on August 5th, 2014. A determination of no historic properties affected was requested based on the findings of the surveys completed in 2008, and 2004/2005. All properties identified as being potentially historic in the earlier surveys fell outside of the current study area. No other properties within the current study area were believed to be potentially historic.
However, in 2012 the city of Topeka completed a downtown reconnaissance survey for the purpose of establishing an historic district in downtown Topeka. Three properties on Kansas Avenue within the study area were found to meet the criteria as contributing resources in a historic district. All three properties were outside of the recommended district however the SHPO requested individual National Register eligibility determinations on August 13th, 2014. In addition, two other properties on Harrison Street that had previously been reviewed and cleared were reconsidered as potentially historic and were also requested to have National Register eligibility determinations completed.

The Activity II/III eligibility determination reports found the three properties on Kansas Avenue (108 S Kansas, 127 S Kansas and 201 S Kansas) were not individually eligible for the National Register of Historic Places (NRHP) but were eligible as contributing resources of an historic district if one were to be established. Both properties on Harrison Street (124 SW Harrison and 200 SW Harrison) were found to be individually eligible for the NRHP. The SHPO concurred with this determination on October 17th, 2014.

KDOT staff re-visited the project study area to determine if any additional properties within the previous or the current study area would need to be re-evaluated for NRHP eligibility. Three additional properties were discovered. Two houses on SE Jefferson near I-70 (1015 and 1021 SE Jefferson) were being encroached upon by the project as well as a Ryder Truck building at 631 SW 1st Avenue is to be taken by the project. An Activity II/III was initiated for the Ryder building on January 16th, 2015.

At the January 21st, 2015 meeting, impacts to all potentially historic structures were discussed. It was determined that although the city of Topeka was proposing to establish downtown historic districts, the three properties on Kansas Avenue are not included in the proposed districts and the SHPO has no concerns with their removal. It was also determined that the project would not have an adverse effect on the Ward-Meade house, the proposed South Kansas Avenue Historic District and Mill Block Historic District or any property contained within them, the houses on SE Jefferson and I-70 or the house south of 1-70 at 200 SW Harrison Street. Although there may be encroachment concerns from individuals associated with the Ritchie Houses, the SHPO has determined there was no adverse effect on the houses.

It was confirmed that the building north of 1-70 at 124 SW Harrison Street would be adversely affected if taken by the project. It was determined that the building could be saved if the proposed sidewalk is placed directly adjacent to the structure. The SHPO indicated that this would not be an adverse effect.

Following this meeting the SHPO drove the project study area and identified a potentially historic two-story stone house at 115 SW Harrison. Although the property was within the KA-1266-01 study area it had not been surveyed in 2008 as it was assumed to have been previously cleared by the U-1943-01 project. Sometime in the last few years the property owner had removed the stucco to expose the stone. The SHPO requested an Activity II/III eligibility determination be completed for this property and an adjacent home at 119 SW Harrison. These properties will be taken by the project.

KDOT's historic preservation consultant completed the Activity II/III eligibility determination report with a finding that the Ryder Truck building, the stone house at 115 SW Harrison and the home at 119 SW Harrison did not meet the criteria for inclusion in the NRHP. The SHPO concurred on July 1, 2015.
Detailed project plans for the property at 124 SW Harrison Street and a concurrence that the project would not adversely affect this or any other property on or eligible for the NRHP was submitted to the SHPO on July 23rd, 2015. The SHPO concurred that there will be no adverse effect to the property at 124 SW Harrison. The locations of these structures can be seen on the Historic Properties map.

**ARCHAEOLOGICAL IMPACTS**

Materials and Research plans were submitted to the Kansas State Historical Society (KSHS) for Phase I archeological office review on October 2, 2014. On October 7th, 2014, the KSHS identified several concerns about the project. They noted portions of the project will impact areas of the old Wyandotte Reservation as well as parts of the original historic downtown Topeka. The KSHS believes the potential for encountering archeological resources is high. Because the KSHS will not be able to conduct Phase II archeological field surveys prior to construction, they recommend that, in consultation with the State Historic Preservation Officer (SHPO), an emergency data recovery plan be completed to formalize a procedure to address significant cultural resources encountered during construction.

Other known archeological sites within the study area include the John Ritchie House (I4SH370) and Hale Ritchie House (I4SH375) near I-70 and Monroe. Site I4SH369 is a foundation of a possible hotel or boarding house located at 4th and Adams on the very edge of the study area and a historic cemetery site (I4SH338) located on Kansas Avenue between 10th and 11th Streets is located outside the study area. These features can be seen on the Archeological Sites map located in Appendix L.

In a meeting with KDOT, the SHPO and SHPO archeologists on January 21st, 2015 it was confirmed that KDOT would allow time for KSHS archeologist to survey the historic downtown Topeka area after removal of buildings and parking lots but prior to any further subsurface disturbance. The entire area would be surveyed with greater attention given to areas of the support piers for the viaduct where excavation would occur. With proper notification it is believed the archeological survey will not result in any construction delays.

Potential impacts to the Ritchie houses and the other archeological sites were also reviewed at the January 2015 meeting. Based on the proposed construction limits reviewed at the time of the meeting the SHPO concurred that no further archeological work is needed for these sites.

As the current alignment was selected in 2021 for the preferred alternative, more coordination with the Kansas State Historic Preservation Office began to discuss construction activities and subsurface investigation.

A Programmatic Agreement has been developed between KDOT, FHWA and the Kansas State Historic Preservation Office to allow for site evaluations after KDOT has purchased properties for the project. A separate demolition project will be used to allow time for subsurface investigations before construction. The demolition project will target the area between 1st Street and 2nd Street from Topeka Boulevard to Kansas Avenue. The Haywood residence will be acquired early in the project’s right-of-way acquisition process to allow more time for subsurface investigation of the area.

Please see Appendix F for the complete Programmatic Agreement.
PARKLAND & PUBLIC LANDS SECTION 4(f) & 6 (f) INVOLVEMENT

There are three parks located within the project corridor. Improvements to I-70 would have no impacts upon these parks listed below.

- Auburndale Park, located south of I-70 at 2400 SW Perry, is primarily “green space”. East of the waterway that feeds into the Kansas River is an area that provides drainage retention during periods when the elevation of the river is significantly above normal. I-70 will be widened to three through lanes each direction, but no right-of-way will be required.

- Ward-Meade Park is located at 124 NW Fillmore Street on the south side of I-70. This park is the site of Old Prairie Town, a six-acre park with an 1800’s town square of vintage buildings and a small botanical garden. No right-of-way will be required.

- W. Giles Park is located on the south side of I-70 at the intersection of 1st Street and SW Taylor Street. The park provides playground and picnic facilities. The proposed eastbound I-70 off-ramp to Topeka Boulevard would pass along the northeast side of the park in the same manner as the current 1st Street ramp. No right-of-way will be required.
THREATENED AND ENDANGERED SPECIES

There are no State-listed species that have Designated Critical Habitat (DCH) defined within the project area. The U.S. Fish and Wildlife Service threatened, and endangered list includes the Interior Least Tern, the Topeka Shiner, and the Northern Long-eared Bat (NLEB) in Shawnee County. The Least Tern and the Topeka Shiner do not have suitable habitats present within the limits of the study area and any tree removal associated with this project will fall under the 4(d) rule for the NLEB so formal section 7 consultation will not be required.

HAZARDOUS WASTE

The EPA Superfund (CERCLIS) and National Priorities List (NPL) database did not identify any sites within the corridor study area.

The Kansas Department of Health & Environment (KDHE) Solid Waste database did not identify any landfills in the corridor study area. The only listed facility is the composting and recycling facility operated by the Shawnee County Parks Department and the Topeka Forestry Department. The site is located at 2200 NW Waterworks Way on the northern edge of the project area. The site is not located within the limits of the project and would be unlikely to contain contaminated soil or groundwater.

Appendix G contains the KDHE Hazardous Waste Maps for reference.

KDHE Identified Sites List within the study area only:

Outside the Construction Limits (very unlikely any impact to the project)

- Degginger’s Foundry — 436 NW Crane - Lead contamination in the soil
- Topeka Park Project Site — Crane & Topeka Blvd. -- Lead contamination in the soil
- Adams Business Forms — 200 Jackson — Chlorinated solvents in soil and groundwater

Within the Construction Limits (possible impacts to the project)

- Scotch Cleaners — 134 SE Quincy — Chlorinated solvents, Tetrachloroethylene (PCE) and Trichloroethylene (TCE), and diesel underground storage tank was removed. Remediation is underway and KDHE is overseeing the project.
- EISA Building Parking Lot B — SE comer of 7th & Jefferson — Heavy metals and volatile organic compounds (VOC’s) in soil and possibly groundwater.

None of the sites listed above would have a major impact on the 1-70 Polk/Quincy Viaduct corridor project. Potential actions would require a notification to KDHE before initiation of construction at the sites and possible remediation of any soils excavated from the site.

A field inspection and review of KDHE’s Bureau of Remediation — Storage Tank Section information by Environmental Services staff on 09/25/2014 noted several underground storage tank (UST) with possible contamination concerns. These sites are as follows:

UST Sites List Outside the Construction Limits
• BP Station – 6th & Quincy - UST’s (some leaking) previously removed. Some soil removed; possibility of contaminated soils remaining.
• Topeka Tire & Auto — 10th & Quincy - UST’s removed, some soil contamination. Extent unknown.

UST sites within the Construction Limits (possible impacts to the project)

• Ryder Truck Rental — 631 W 1st — Several UST’s removed, possible soil contamination.
• Southern Pacific Transportation — 621 W 1st – UST’s removed. Known petroleum hydrocarbon contamination at site which has not been remediated. Extent unknown.
• Police Garage (old Montgomery Ward’s auto shop) — 4th & Monroe — Low levels of hydrocarbons remain in soil. Possible removal required. Extent unknown.
• Famous Brands Distribution — 215 Quincy — UST’s removed. Unknown if any were leaking, may have to test the soil and groundwater.

Other possible hazard waste potential sites not listed by KDHE.

Outside the Construction Limits (very unlikely any impact to the project)

• City of Topeka Shops — Topeka & Crane St. – Possible Storage Tanks & Contaminants
• Hutton Antiques & Restoration — 2nd & Topeka – Possible Storage Tanks & Contaminants
• USPS Vehicle Maintenance Shop — 1st & Harrison – Possible Storage Tanks & Contaminants
• Ameripride Linen & Apparel Service — 2nd & Madison — Possible Contaminants

Within the Construction Limits (possible impacts to the project)

• Madison Avenue Cars — 400 Madison – No information known about the status of any UST’s or possible contamination. KDHE has no record of in database.
• Safelite – 10th & Madison – No information known about the status of any UST’s or possible contamination. KDHE has no record of in database.
• Topeka Foundry — 2nd & Quincy (NW corner) – Possible Contaminants
• Tessendorf Welding — 2nd & Van Buren – Possible Contaminants

None of the above site concerns should affect the initiation of the project. The Environmental Services Section has determined there are underground storage tanks present and they will be the responsibility of the contractor. If contamination is present the soils will be removed by the contractor as well. A special provision will be added to the construction specifications of the project to address locations where previous known locations of contaminated soil might be found. Those sites are as follows:

Underground Storage Tank Sites:

• Ryder Trans. SVCS – 631 West 1st Street
• Rensenhouse Electric – 124 SW Van Buren Street

Leaking Underground Storage Tank Sites:

• U4-089-00772 Montgomery Ward (Law Enforcement Center – east end) 320 Kansas Avenue
KDHE Identified Sites:

- C408973456 Topeka Foundry & Iron Works Co. – 129 SE Quincy

PUBLIC INVOLVEMENT

SCHEDULE

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Begin EA</td>
<td>January 4, 2021</td>
</tr>
<tr>
<td>Review and Agency Concurrence of Purpose and Need (originally developed in 2011 study)</td>
<td>February 9, 2021</td>
</tr>
<tr>
<td>Review of Coordination Plan</td>
<td>February 12, 2021</td>
</tr>
<tr>
<td>Public Review of Preferred Alternative</td>
<td>March 3, 2021</td>
</tr>
<tr>
<td>Agency Concurrence of Coordination Plan</td>
<td>March 12, 2021</td>
</tr>
<tr>
<td>Project Team Concurrence of Preferred Alternative</td>
<td>March 15, 2021</td>
</tr>
<tr>
<td>Leading Agency Review of EA</td>
<td>April 2021</td>
</tr>
<tr>
<td>Public Comment Period</td>
<td>30-day duration</td>
</tr>
<tr>
<td>Request FONSI from FHWA</td>
<td>June 2021</td>
</tr>
<tr>
<td>FHWA Approval</td>
<td>June 2021</td>
</tr>
<tr>
<td>*Earliest Possible Letting with selection</td>
<td>Fall 2025</td>
</tr>
<tr>
<td>Project Completion</td>
<td>2-year duration</td>
</tr>
</tbody>
</table>

*This project is part of the Ike Transportation Program and will need to be selected for funding for project construction. The purchase of right of way in Spring 2021 is part of the development process what would allow this to be selected and part of the Program in 2025.

PUBLIC/STAKEHOLDER OUTREACH SUMMARY

A significant public and stakeholder outreach effort is and will be a key part of the I-70 Polk-Quincy Design. The following is a summary of the current and future efforts.

With the possibility of a new Transportation Program in Kansas renewed coordination began in 2019 with the City of Topeka. Updated information was exchanged on the updated Master Plans for the Downtown Area and changes in access points were considered. Internal State and Local partners met numerous times to exchange information and ideas. Plans were updated in 2020 to reflect the west project as the first construction project to go to final design and the two split diamond interchange layout between Topeka Boulevard and Kansas Avenue,
and 8th Street and 10th Street.

Individual City of Topeka Councilperson meetings were held in November, 2020 to bring them up to speed on the project. KDOT, FHWA and the design team were present at those meetings.

A presentation to the City Council was made at their meeting on December 15, 2020.

A presentation to the Greater Topeka Partnership was made at their meeting on December 17, 2020.

A Virtual Public Meeting was held on March 3, 2021. Website relaunch on February 12, 2021: www.polquincy.org with information about the project and Virtual Public Meeting. The website will have a fact sheet and an ongoing FAQ section will be updated throughout final design.

Virtual Public Meeting Invitations:
- 4,500 by post card to the entire corridor and downtown area.
- Special invitation to directly affected landowners with opportunity to meet with design team individually before the Virtual Public Meeting.
- Invitations through the Greater Topeka Partnership to their Downtown Topeka, Inc., Visit Topeka and Chamber groups.
- Invitations through the City of Topeka to their City Council, Planning Commission, Landmark Commission, MTPO Policy Board and Technical Advisory Committee and Public Works staff.

There were 261 registered for the Virtual Public Meeting, 168 of those attended the meeting, the list is included in the Attendee Report in Appendix H.

There were 15 questions from the Virtual Public Meeting that both questions and answers are summarized in the Q&A summary document in Appendix H. Recording of meeting has been placed on the website. Comments from all emails and phone calls documented for the EA. A Public Meeting will be held upon plan completion with updates on project details, maintenance of traffic and construction.

Appendix H contains Public Involvement documentation and the Public Involvement Plan.

www.polquincy.org will remain as the project website through completion of construction. info@polquincy.org will remain as the email for use in requesting information and/or to comment on issues. Individual questions will be responded to as they come in.

The design team will be available to answer design questions from stakeholders and the public throughout the design process.
Those properties in the affected area will have hand delivered door hangers informing them of the upcoming comment period and asking for comments.

Presentations to community groups interested will continue throughout the design and construction of the project.

ENVIRONMENTAL ASSESSMENT PUBLIC COMMENT

In accordance with NEPA, a 30-day review period of the draft EA has been provided: A Notice of Availability has been posted in the Kansas Register, posted on the KDOT website and direct local contact. Additional outreach materials and responses are included in the Appendix H.

LIST OF PARTNERING AGENCIES

All federal, state, regional, and local government agencies that may have an interest in the project were invited to serve as participating agencies. Non-governmental organizations and private entities cannot serve as participating agencies. Copies of the Participating Agency Letters are in Appendix K.

The roles and responsibilities of participating agencies include, but are not limited to, identifying, as early as practicable, any issues of concern regarding the project’s potential environmental or socioeconomic impacts.

Participating Agency List

1. U.S. Environmental Protection Agency                     Amber Tilley
2. U.S. Army Corps of Engineers, Kansas City District       Brian Donahue
3. Kansas Department of Wildlife, Parks & Tourism J.        Daren Riedle
4. Kansas State Historical Society                          Jennie Chinn
5. Kansas Department of Health and Environment               Leo Henning
6. Shawnee County Public Works                               Curt Niehaus
7. Kansas Turnpike Authority                                 David Jacobson
8. City of Topeka – Public Works                            Brian Faust
9. Absentee Shawnee Tribe of Oklahoma                         Devon Frazier
10. Citizen Potawatomi Nation                                 Kelli Mosteller
11. Delaware Tribe of Indians                                 Brice Obermeyer
12. Eastern Shawnee Tribe of Oklahoma                         Brett Barnes
13. Kaw Nation of Oklahoma                                    Lynn Williams
14. Osage Nation of Oklahoma                                  Deseray Helton
15. Prairie Band Potawatomi Nation                            Joseph Rupnick
16. Wichita and Affiliated Tribes                             Teri Parton
CONCLUSIONS

In accordance with 23 CFR 771, as long as all provisions within this document are followed, this project does not have any substantive environmental impacts.

Therefore, a Finding of No Significant Impact (FONSI) is appropriate, and the project be classified as a Class III.
Appendix A

KDOT –
Environmental Clearance Memorandum
DATE: April 12, 2021
T/O: Scott W. King, P.E., Chief, Bureau of Road Design
FROM: Cliff A. Ehrlich, Chief, Environmental Services Section
RE: Status of Projects Environmental Concerns (FINAL)
70-89 KA-1266-02
NHPP-0705(214)
I-70 Polk/Quincy Viaduct & Approach Roadway,
Reconstruct I-70 to 6 lanes on a partial offset alignment.
from 0.2 mile east of I-70/MacVicar Avenue, east and
south to 0.25 miles west of I-70/California St.

Shawnee County

Task 1 -- Traffic Noise -- PROJECT CLEARED
This improvement is classified as a Type 1 Project (23 CFR 772). In accordance with KDOT Highway
Traffic Noise Policy, the project was analyzed. Traffic noise impacts were identified, and a traffic noise study
was completed. A copy of the report has been directed to the Bureau of Road Design.

Task 2 -- Air Quality -- PROJECT CLEARED
The project is located within a Kansas Metropolitan Urbanized Area; however, it is located outside a non-
attainment area.

Task 3 -- Archeological Salvage -- CONDITIONAL CLEARANCE
The Kansas State Historic Preservation Office acknowledges receipt of the fully executed Programmatic
Agreement (PA) for the above-referenced project. The PA (between the Federal Highway Administration, the
Kansas Department of Transportation, and the Kansas State Historic Preservation Officer) specifies a detailed
series of steps to be followed in order to address any cultural resources encountered during construction.
Providing that the terms of the PA are followed, the project will have no adverse effect on historic properties
as defined in 36 CFR 800.

Task 4 -- Cultural and Historic Resources -- PROJECT CLEARED
Cleared by the Kansas State Historical Society.
Task 5 -- Wildlife -- PROJECT CLEARED
The project has been reviewed for potential threatened or endangered species involvement. We determined that the project has little potential for such involvement. In addition, due to the nature and scope of the project, we conclude that normal environmental controls outlined in Standard Specifications and contractual provisions will sufficiently minimize impacts on wildlife habitat. No further transactions are anticipated and the project is considered CLEARED in relation to our wildlife review process. Project cleared by letter from Kansas Department of Wildlife, Parks & Tourism and with informal consultation with US Fish and Wildlife Service.

Task 6 -- Farmland Protection -- PROJECT CLEARED
Provisions of the Farmland Protection Policy Act (FPPA) do not apply because the project is located in an area already in or committed to urban development or water storage as defined by the FPPA.

Task 7 -- Hazardous Waste -- ISA and ISA FI -- PROJECT CLEARED (USTS)
An Initial Site Assessment Field Inspection (ISA-FI) has been conducted. Project plans indicate the acquisition and removal of one or more underground fuel storage tanks (USTs) must occur. The project can be cleared with the provision that all USTs involved shall be removed by a contractor licensed by the Kansas Department of Health and Environment to do such removals and shall be coordinated through KDOT-Environmental Services Section. In addition, due to the location, nature, and scope of the project, there is a possibility that contaminated soils and groundwater may be encountered during the project that normal environmental controls outlined in the Standard Specifications and contractual provisions will not sufficiently cover KDOT’s responsibility to protect the environment. A Special Provision will be developed by the Environmental Services Section in coordination with both Road Design and the Consultant so that requirements and/or recommendations made by the Kansas Department of Health & Environment can be followed using avoidance, on-site containment, and/or remediation.

Task 8 -- Permits and Approvals
The need for a U.S. Army Corps of Engineer's 404 permit and a Kansas Department of Agriculture permit will be investigated. The need for a NPDES (Storm Water Run-off) permit will be investigated.

If you have any questions or wish to discuss any aspect of the environmental concerns, please advise.

CAE: skb
By e-mail: Javier Ahumada, FHWA
Appendix B

Census Tract Data
EPA EJSCREEN Reports
Shawnee County, KS
County in Kansas, United States

176,875
Population
325.1 people per square mile
Census data: ACS 2019 5-year estimate

Demographics

40.2
Median age
about 10 percent higher than the figure in Kansas: 37.2
a little higher than the figure in United States: 39.5

Sex
Female 52%

Race & Ethnicity
White 72%
Black 9%
Native American 1%
Asian 1%
Hispanic 12%

Economics

$33,046
Per capita income
about the same as the amount in Kansas: $32,865
about 90 percent of the amount in United States: $36,672

$59,441
Median household income
a little less than the amount in Kansas: $62,067
about 90 percent of the amount in United States: $63,712

Poverty
8.6%
Persons below poverty line
about three-quarters of the rate in Kansas: 11.4%
Transportation to work
18.5 minutes
Mean travel time to work
about 90 percent of the figure in Kansas: 20
about two-thirds of the figure in United States: 27.6

Means of transportation to work
- 94% Drive alone
- 4% Car pooled
- 2% Public transit
- 1% Bicycle
- 1% Walked
- 1% Other
- 1% Worked at home

Families
73,172
Number of households
- Kansas: 1,138,329
- United States: 122,802,652

Persons per household
2.3
a little less than the figure in Kansas: 2.5
about 90 percent of the figure in United States: 3.6

Marital status
- 52% Married
- 48% Single

Fertility
7.4%
Women 15-50 who gave birth during past year
about 20 percent higher than the rate in Kansas: 6.3%
about 1.5 times the rate in United States: 5%

Housing
80,223
Number of housing units
- Kansas: 1,288,430
- United States: 139,686,269

Occupied vs. Vacant
- Occupied: 91%
- Vacant: 9%

Ownership of occupied units
- Owner occupied: 67%
- Renter occupied: 33%
Value

$134,400
Median value of owner-occupied housing units
About 80 percent of the amount in Kansas: $143,200
About three-fifths of the amount in United States: $240,500

Geographical mobility

11.8%
Moved since previous year
About three-quarters of the rate in Kansas: 15.7%
About 90 percent of the rate in United States: 13.7%

Educational attainment

93.7%
High school grad or higher
About the same as the rate in Kansas: 93.8%
A little higher than the rate in United States: 88.6%

31.3%
Bachelor's degree or higher
About 90 percent of the rate in Kansas: 34%
A little less than the rate in United States: 33.1%

Language

N/A
Persons with language other than English spoken at home
* ACS 2019 5-year data

Place of birth

3.5%
Foreign-born population
About half the rate in Kansas: 7.2%
About one-quarter of the rate in United States: 13.7%

Veteran status
7.8%
Population with veteran status

a little higher than the rate in Kansas: 7.5%
about 10 percent higher than the rate in United States: 6.9%

Veterans by wartime service

4,729

Vietnam

2,301

Gulf (1990s)

500

Gulf (2000s)

1,220

Korea

* Civilian veterans who served during wartime only

10,612 Total veterans
10,079 Male
533 Female

Hover for margins of error and contextual data.

This profile displays data from more than one ACS release. Charts not derived from ACS 2019 1-year data are noted with an *.

Citation: U.S. Census Bureau (2019), American Community Survey 1-year estimates. Retrieved from Census Reporter Profile page for Shawnee County, KS
<http://censusreporter.org/Profiles/05000US20177-shawnee-county-ks/>

Citation: U.S. Census Bureau (2019), American Community Survey 5-year estimates. Retrieved from Census Reporter Profile page for Shawnee County, KS
<http://censusreporter.org/Profiles/05000US20177-shawnee-county-ks/>

Learn about the Census
Census terms & definitions
Help & feedback
About Census Reporter
@CensusReporter
Census Reporter on GitHub

Census Reporter is a free, open-source project. Your donations help us add new data to the site and keep it running.
Census Tract 22, Shawnee, KS

Census Tract in Topeka, KS, Shawnee County, KS, Kansas, United States

2,409
1 square miles
Population
2,403.2 people per square mile

Census data: ACS 2019 5-year unless noted

Demographics

1 Margin of error is at least 10 percent of the total value. Take care with this statistic.

Age
41.5
Median age
about 10 percent higher than the figure in Topeka: 37.7
a little higher than the figure in Shawnee County: 39.1

Sex
52% female

Race & Ethnicity

56% White
30% Black
2% Native
1% Asian
0% Islander
0% Other
3% Two+
7% Hispanic

Economics

1 Margin of error is at least 10 percent of the total value. Take care with this statistic.

Income
$30,440
Per capita income
about 10 percent higher than the amount in Topeka: $27,968
about the same as the amount in Shawnee County: $30,974

$49,458
Median household income
a little higher than the amount in Topeka: $47,999
about 90 percent of the amount in Shawnee County: $56,762

Poverty
15.3%
Persons below poverty line
a little higher than the rate in Topeka: 14.4%

Children (Under 18)

Seniors (65 and over)
Transportation to work

15.9 minutes
Mean travel time to work
about 90 percent of the figure in Topeka: 17.2
about 90 percent of the figure in Shawnee County: 18

Means of transportation to work

<table>
<thead>
<tr>
<th>Mode</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive alone</td>
<td>54%</td>
</tr>
<tr>
<td>Carpool</td>
<td>33%</td>
</tr>
<tr>
<td>Public transit</td>
<td>1%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>6%</td>
</tr>
<tr>
<td>Walked</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
</tr>
<tr>
<td>Worked at home</td>
<td>5%</td>
</tr>
</tbody>
</table>

* Universe: Workers 16 years and over

Families

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

Households

1,184
Number of households
Topeka: 53,757
Shawnee County: 72,257

2
Persons per household
about 90 percent of the figure in Topeka: 2.3
about 90 percent of the figure in Shawnee County: 2.4

Marital status

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

Marital status, by sex

<table>
<thead>
<tr>
<th>Status</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never married</td>
<td>31%</td>
<td>30%</td>
</tr>
<tr>
<td>Now married</td>
<td>47%</td>
<td>51%</td>
</tr>
<tr>
<td>Divorced</td>
<td>19%</td>
<td>13%</td>
</tr>
<tr>
<td>Widowed</td>
<td>2%</td>
<td>7%</td>
</tr>
</tbody>
</table>

* Universe: Population 15 years and over

Fertility

4.8%
Women 15-50 who gave birth during past year
about 80 percent of the rate in Topeka: 6.1
about 80 percent of the rate in Shawnee County: 6.1

Women who gave birth during past year, by age group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>5%</td>
</tr>
<tr>
<td>20-24</td>
<td>15%</td>
</tr>
<tr>
<td>25-29</td>
<td>30%</td>
</tr>
<tr>
<td>30-34</td>
<td>10%</td>
</tr>
<tr>
<td>35-39</td>
<td>5%</td>
</tr>
<tr>
<td>40-44</td>
<td>0%</td>
</tr>
<tr>
<td>45-50</td>
<td>0%</td>
</tr>
</tbody>
</table>

* Universe: Women 15 to 50 years

Housing

1,301
Number of housing units
Topeka: 60,454
Shawnee County: 80,012

Occupied vs. Vacant

<table>
<thead>
<tr>
<th>Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupied</td>
<td>91%</td>
</tr>
<tr>
<td>Vacant</td>
<td>9%</td>
</tr>
</tbody>
</table>

Ownership of occupied units

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner occupied</td>
<td>65%</td>
</tr>
<tr>
<td>Tenant occupied</td>
<td>35%</td>
</tr>
</tbody>
</table>

* Universe: Occupied units
**Types of structure**

- Single unit: 89%
- Multi-unit: 11%

**Value**

$87,600

Median value of owner-occupied housing units

- about 80% of the amount in Topeka: $103,600
- about two-thirds of the amount in Shawnee County: $122,500

**Geographical mobility**

16.7%

Moved since previous year

- about the same as the rate in Topeka: 16.5%
- about 20 percent higher than the rate in Shawnee County: 13.1%

**Social**

95.9%

High school grad or higher

- a little higher than the rate in Topeka: 93.3%
- a little higher than the rate in Shawnee County: 92.2%

**Educational attainment**

33.7%

Bachelor's degree or higher

- about 20 percent higher than the rate in Topeka: 28.6%
- about 10 percent higher than the rate in Shawnee County: 30.1%

**Language**

N/A

Persons with language other than English spoken at home

- English only: 100%

**Place of birth**

0.3%

Foreign-born population

- less than 10 percent of the rate in Topeka: 5.1%
- about 10 percent of the rate in Shawnee County: 4.2%

**Place of birth for foreign-born population**

- Europe: 100%
9.2% Population with veteran status

- 66% Veterans by wartime service
- 61% WWII
- 31% Vietnam
- 12% Gulf (1990s)
- 1% Gulf (2001-)

Hover for margins of error and contextual data.

Transportation to work

15.6 minutes
Mean travel time to work
about 90 percent of the figure in Topeka: 17.2
about 90 percent of the figure in Shawnee County: 18

Means of transportation to work:
- Drive alone: 62%
- Carpool: 24%
- Public transit: 4%
- Bicycle: 2%
- Walked: 4%
- Other: 1%
- Worked at home: 2%

Families

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

847
Number of households
Topeka: 53,757
Shawnee County: 72,237

2.5
Persons per household
about 10 percent higher than the figure in Topeka: 2.3
about 10 percent higher than the figure in Shawnee County: 2.4

Marital status

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

Married: 31%

Fertility

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

10.8%
Women 15-50 who gave birth during past year
more than double the rate in Topeka: 6%
more than double the rate in Shawnee County: 6%

Women who gave birth during past year, by age group:

- 15-19: 32%
- 20-24: 25%
- 25-29: 17%
- 30-34: 6%
- 35-39: 5%
- 40-44: 1%
- 45-50: 1%

Housing

† Margin of error is at least 10 percent of the total value. Take care with this statistic.

1,084
Number of housing units
Topeka: 60,454
Shawnee County: 90,012

Occupied vs. Vacant:
- Occupied: 78%
- Vacant: 22%

Ownership of occupied units:
- Owner-occupied: 61%
- Renter-occupied: 39%
Value
$59,000
Median value of owner-occupied housing units
about three-twelfths of the amount in Topeka: $105,300
about half the amount in Shawnee County: $128,500

Geographical mobility
16.5%
Moved since previous year
about the same as the rate in Topeka: 16.5%
about 20 percent higher than the rate in Shawnee County: 14.1%

Social
Educational attainment
78.5%
High school grad or higher
about 90 percent of the rate in Topeka: 90.3%
about 60 percent of the rate in Shawnee County: 72.2%
13.9%
Bachelor’s degree or higher
about half the rate in Topeka: 28.6%
about half the rate in Shawnee County: 30.9%

Language
N/A
Persons with language other than English spoken at home

Place of birth
7.3%
Foreign-born population
about 3.4 times the rate in Topeka: 5.1%
more than twice the rate in Shawnee County: 4.1%

Place of birth for foreign-born population

Veteran status
8.8% Population with veteran status
about the same as the rate in Topeka:
8.9%
a little less than the rate in Shawnee County: 9.4%

Veterans by wartime service

<table>
<thead>
<tr>
<th></th>
<th>WWII</th>
<th>Korea</th>
<th>Vietnam</th>
<th>Gulf (1990s)</th>
<th>Gulf (2001+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>13†</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

† Civilian veterans who served during wartime only
Show data / Embed

Hover for margins of error and contextual data.

Citation: U.S. Census Bureau (2019). American Community Survey 5-year estimates. Retrieved from Census Reporter Profile page for Census Tract 6, Shawnee, KS <http://censustrapporter.org/profiles/14000038201710060600-census-tract-6-shawnee-ks/>
Census Tract 40, Shawnee, KS

Demographics

Age

Median age

42.1

about 10 percent higher than the figure in Topeka: 37.7
about 10 percent higher than the figure in Shawnee County: 39.1

Sex

Male: 64%

Race & Ethnicity

55% White
13% Black
2% Native American
0% Asian
0% Other
6% Hispanic

Income

$19,926

Per capita income

about two-thirds of the amount in Topeka: $27,968
about two-thirds of the amount in Shawnee County: $30,974

$19,058

Median household income

about two-fifths of the amount in Topeka: $47,999
about one-third of the amount in Shawnee County: $56,762

Poverty

30.1%

Persons below poverty line

more than double the rate in Topeka: 14.4%

Economics

$19,926
Per capita income

about two-thirds of the amount in Topeka: $27,968
about two-thirds of the amount in Shawnee County: $30,974

$19,058
Median household income

about two-fifths of the amount in Topeka: $47,999
about one-third of the amount in Shawnee County: $56,762

$19,926

Children (Under 18)

$19,058

Seniors (65 and over)
Transportation to work

**18.4 minutes**
Mean travel time to work

about 10% higher than the figure in Topeka: 17.2
about the same as the figure in Shawnee County: 18

Means of transportation to work

- **59%** Drive alone
- **11%** Carpool
- **14%** Public transit
- **5%** Bike
- **3%** Walk (or go part way)
- **1%** Other
- **0%** Worked at home

* Universe: Workers 16 years and over

Families

**1,308**
Number of households

Topeka: 53,787
Shawnee County: 72,267

**1.6** Persons per household

about two-thirds of the figure in Topeka: 2.3
about two-thirds of the figure in Shawnee County: 2.4

Marital status

**25%** Married

Married and Single

* Universe: Population 15 years and over

Fertility

**1%**
Women 15-50 who gave birth during past year

about one-fifth of the rate in Topeka: 6%†
about one-fifth of the rate in Shawnee County: 6%†

Women who gave birth during past year, by age group

- **0%** 15-19
- **0%** 20-24
- **0%** 25-29
- **0%** 30-34
- **0%** 35-39
- **0%** 40-44
- **0%** 45-50

* Universe: Women 15 to 50 years

Housing

**1,532**
Number of housing units

Topeka: 60,454
Shawnee County: 80,012

Occupied vs. Vacant

- **85%** Occupied
- **15%** Vacant

Ownership of occupied units

- **79%** Owner occupied
- **21%** Renter occupied

† Margin of error is at least 10% of the total value. Take care with this statistic.
**Types of structure**

- **Single-unit:** 33%
- **Multi-unit:** 23%
- **Mobile home, Rv, Camper, or Rec:** 6%
- **Other:** 77%†

**Margin of error is at least 10 percent of the total value. Take care with this statistic.**

---

**Value**

**$42,000**

Median value of owner-occupied housing units

about two-fifths of the amount in Topeka: $103,200

about one-third of the amount in Shawnee County: $132,900

**Geographical mobility**

**26%**

Moved since previous year

about 1.5 times the rate in Topeka: 16.5%

nearly double the rate in Shawnee County: 14.1%†

**Marginal error is at least 10 percent of the total value. Take care with this statistic.**

---

**Social**

**87.1%**

High school grad or higher

a little less than the rate in Topeka: 90.0%

a little less than the rate in Shawnee County: 99.9%†

**14.7%**

Bachelor's degree or higher

about half the rate in Topeka: 29.6%

about half the rate in Shawnee County: 30.9%†

*Universe: Population 25 years and older*

**Language**

**N/A**

Persons with language other than English spoken at home

**Place of birth**

**6%**

Foreign-born population

about 20 percent higher than the rate in Topeka: 5.1%

about 1.5 times the rate in Shawnee County: 4.1%†

**Veteran status**

---

**Value of owner-occupied housing units**

- **Under $50K:** 19%
- **$50K-$100K:** 15%
- **$100K-$200K:** 36%
- **$200K-$300K:** 9%
- **$300K-$400K:** 4%
- **$400K-$500K:** 3%
- **$500K-$1M:** 0%
- **Over $1M:** 0%

**Population migration since previous year**

- **Same house year ago:** 74%
- **Moved from same county:** 15%
- **Moved from different county:** 20%
- **Moved from different state:** 7%
- **Moved from abroad:** 3%

**Place of birth for foreign-born population**

- **Europe:** 1%
- **Asia:** 1%
- **Africa:** 9%
- **Oceania:** 0%
- **Latin America:** 99%
- **North America:** 0%†
11.9% Population with veteran status

about 1.3 times the rate in Topeka: 8.9%
about 25 percent higher than the rate in
Shawnee County: 9.4%

* Civilian veterans who served during wartime only

Hover for margins of error and contextual data.

Citation: U.S. Census Bureau (2019), American Community Survey 5-year estimates. Retrieved from Census Reporter Profile page for Census Tract 40, Shawnee, KS <http://censustra reporter.org/profiles/1400x0000000177900000-census-tract-40-shawnee-ks/>
## EJSCREEN Report (Version 2020)

The User Specified Area, KANSAS, EPA Region 7

Approximate Population: 1,785
Input Area (sq. miles): 1.60

### PQ

<table>
<thead>
<tr>
<th>Selected Variables</th>
<th>State Percentile</th>
<th>EPA Region Percentile</th>
<th>USA Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>EJ Index for PM 2.5</td>
<td>87</td>
<td>88</td>
<td>70</td>
</tr>
<tr>
<td>EJ Index for Ozone</td>
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<td>70</td>
</tr>
<tr>
<td>EJ Index for NATA Diesel PM</td>
<td>87</td>
<td>88</td>
<td>70</td>
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<tr>
<td>EJ Index for NATA Air Toxics Cancer Risk</td>
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<td>88</td>
<td>68</td>
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<tr>
<td>EJ Index for NATA Respiratory Hazard Index</td>
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<td>68</td>
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<tr>
<td>EJ Index for Traffic Proximity and Volume</td>
<td>95</td>
<td>95</td>
<td>83</td>
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<tr>
<td>EJ Index for Lead Paint Indicator</td>
<td>83</td>
<td>86</td>
<td>76</td>
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<tr>
<td>EJ Index for Superfund Proximity</td>
<td>79</td>
<td>83</td>
<td>63</td>
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<tr>
<td>EJ Index for RMP Proximity</td>
<td>94</td>
<td>95</td>
<td>90</td>
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<tr>
<td>EJ Index for Hazardous Waste Proximity</td>
<td>84</td>
<td>86</td>
<td>70</td>
</tr>
<tr>
<td>EJ Index for Wastewater Discharge Indicator</td>
<td>85</td>
<td>91</td>
<td>86</td>
</tr>
</tbody>
</table>

### EJ Index for the Selected Area Compared to All People's Blockgroups in the State/Region/US

![EJ Index Comparison Chart]

This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

April 23, 2021
Sites reporting to EPA

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Superfund NPL</td>
<td>0</td>
</tr>
<tr>
<td>Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)</td>
<td>0</td>
</tr>
</tbody>
</table>
The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: https://www.epa.gov/national-air-toxics-assessment.

For additional information, see: www.epa.gov/environmentaljustice
### Summary of ACS Estimates

<table>
<thead>
<tr>
<th>Category</th>
<th>2014 - 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>1,785</td>
</tr>
<tr>
<td>Population Density (per sq. mile)</td>
<td>1,437</td>
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<tr>
<td>People of Color Population</td>
<td>934</td>
</tr>
<tr>
<td>% People of Color Population</td>
<td>52%</td>
</tr>
<tr>
<td>Households</td>
<td>613</td>
</tr>
<tr>
<td>Housing Units</td>
<td>712</td>
</tr>
<tr>
<td>Housing Units Built Before 1950</td>
<td>393</td>
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<tr>
<td>Per Capita Income</td>
<td>23,807</td>
</tr>
<tr>
<td>Land Area (sq. miles) (Source: SF1)</td>
<td>1.24</td>
</tr>
<tr>
<td>% Land Area</td>
<td>95%</td>
</tr>
<tr>
<td>Water Area (sq. miles) (Source: SF1)</td>
<td>0.06</td>
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<tr>
<td>% Water Area</td>
<td>5%</td>
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</table>

### Population by Race

<table>
<thead>
<tr>
<th>Category</th>
<th>ACS Estimates</th>
<th>Percent</th>
<th>MOE (±)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1,785</td>
<td>100%</td>
<td>705</td>
</tr>
<tr>
<td>Population Reporting One Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1,520</td>
<td>91%</td>
<td>1,408</td>
</tr>
<tr>
<td>Black</td>
<td>1,278</td>
<td>72%</td>
<td>551</td>
</tr>
<tr>
<td>American Indian</td>
<td>195</td>
<td>11%</td>
<td>297</td>
</tr>
<tr>
<td>Asian</td>
<td>34</td>
<td>2%</td>
<td>145</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>1</td>
<td>0%</td>
<td>10</td>
</tr>
<tr>
<td>Some Other Race</td>
<td>112</td>
<td>6%</td>
<td>384</td>
</tr>
<tr>
<td>Population Reporting Two or More Races</td>
<td>165</td>
<td>9%</td>
<td>226</td>
</tr>
<tr>
<td>Total Hispanic Population</td>
<td>573</td>
<td>32%</td>
<td>528</td>
</tr>
<tr>
<td>Total Non-Hispanic Population</td>
<td>1,212</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White Alone</td>
<td>851</td>
<td>48%</td>
<td>387</td>
</tr>
<tr>
<td>Black Alone</td>
<td>195</td>
<td>11%</td>
<td>297</td>
</tr>
<tr>
<td>American Indian Alone</td>
<td>34</td>
<td>2%</td>
<td>145</td>
</tr>
<tr>
<td>Non-Hispanic Asian Alone</td>
<td>0</td>
<td>0%</td>
<td>10</td>
</tr>
<tr>
<td>Pacific Islander Alone</td>
<td>0</td>
<td>0%</td>
<td>10</td>
</tr>
<tr>
<td>Other Race Alone</td>
<td>0</td>
<td>0%</td>
<td>31</td>
</tr>
<tr>
<td>Two or More Races Alone</td>
<td>133</td>
<td>7%</td>
<td>226</td>
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</table>

### Population by Sex

<table>
<thead>
<tr>
<th>Category</th>
<th>ACS Estimates</th>
<th>Percent</th>
<th>MOE (±)</th>
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<tbody>
<tr>
<td>Male</td>
<td>1,034</td>
<td>58%</td>
<td>308</td>
</tr>
<tr>
<td>Female</td>
<td>751</td>
<td>42%</td>
<td>458</td>
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</tbody>
</table>

### Population by Age

<table>
<thead>
<tr>
<th>Category</th>
<th>ACS Estimates</th>
<th>Percent</th>
<th>MOE (±)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 0-4</td>
<td>131</td>
<td>7%</td>
<td>179</td>
</tr>
<tr>
<td>Age 0-17</td>
<td>416</td>
<td>23%</td>
<td>284</td>
</tr>
<tr>
<td>Age 18+</td>
<td>1,369</td>
<td>77%</td>
<td>319</td>
</tr>
<tr>
<td>Age 65+</td>
<td>218</td>
<td>12%</td>
<td>183</td>
</tr>
</tbody>
</table>

**Data Note:** Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available. Source: U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.
## Population 25+ by Educational Attainment

<table>
<thead>
<tr>
<th>Education Level</th>
<th>2014-2018 ACS Estimates</th>
<th>Percent</th>
<th>MOE (±)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1,188</td>
<td>100%</td>
<td>359</td>
</tr>
<tr>
<td>Less than 9th Grade</td>
<td>70</td>
<td>6%</td>
<td>128</td>
</tr>
<tr>
<td>9th - 12th Grade, No Diploma</td>
<td>150</td>
<td>13%</td>
<td>89</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>504</td>
<td>42%</td>
<td>158</td>
</tr>
<tr>
<td>Some College, No Degree</td>
<td>288</td>
<td>24%</td>
<td>173</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>49</td>
<td>4%</td>
<td>64</td>
</tr>
<tr>
<td>Bachelor's Degree or more</td>
<td>176</td>
<td>15%</td>
<td>129</td>
</tr>
</tbody>
</table>

## Population Age 5+ Years by Ability to Speak English

<table>
<thead>
<tr>
<th>Ability Level</th>
<th>2014-2018 ACS Estimates</th>
<th>Percent</th>
<th>MOE (±)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1,654</td>
<td>100%</td>
<td>657</td>
</tr>
<tr>
<td>Speak only English</td>
<td>1,271</td>
<td>77%</td>
<td>441</td>
</tr>
<tr>
<td>Non-English at Home</td>
<td>384</td>
<td>23%</td>
<td>273</td>
</tr>
<tr>
<td>1 Speak English &quot;very well&quot;</td>
<td>218</td>
<td>13%</td>
<td>159</td>
</tr>
<tr>
<td>2 Speak English &quot;well&quot;</td>
<td>92</td>
<td>6%</td>
<td>186</td>
</tr>
<tr>
<td>3 Speak English &quot;not well&quot;</td>
<td>71</td>
<td>4%</td>
<td>215</td>
</tr>
<tr>
<td>4 Speak English &quot;not at all&quot;</td>
<td>2</td>
<td>0%</td>
<td>189</td>
</tr>
<tr>
<td>5 Speak English &quot;less than well&quot;</td>
<td>73</td>
<td>4%</td>
<td>215</td>
</tr>
<tr>
<td>6 Speak English &quot;less than very well&quot;</td>
<td>165</td>
<td>10%</td>
<td>234</td>
</tr>
</tbody>
</table>

## Linguistically Isolated Households

<table>
<thead>
<tr>
<th>Language</th>
<th>2014-2018 ACS Estimates</th>
<th>Percent</th>
<th>MOE (±)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>11</td>
<td>100%</td>
<td>121</td>
</tr>
<tr>
<td>Speak Spanish</td>
<td>11</td>
<td>100%</td>
<td>121</td>
</tr>
<tr>
<td>Speak Other Indo-European Languages</td>
<td>0</td>
<td>0%</td>
<td>10</td>
</tr>
<tr>
<td>Speak Asian-Pacific Island Languages</td>
<td>0</td>
<td>0%</td>
<td>10</td>
</tr>
<tr>
<td>Speak Other Languages</td>
<td>0</td>
<td>0%</td>
<td>10</td>
</tr>
</tbody>
</table>

## Households by Household Income

<table>
<thead>
<tr>
<th>Income Level</th>
<th>2014-2018 ACS Estimates</th>
<th>Percent</th>
<th>MOE (±)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household Income Base</td>
<td>613</td>
<td>100%</td>
<td>192</td>
</tr>
<tr>
<td>&lt;$15,000</td>
<td>126</td>
<td>20%</td>
<td>117</td>
</tr>
<tr>
<td>$15,000 - $25,000</td>
<td>114</td>
<td>19%</td>
<td>98</td>
</tr>
<tr>
<td>$25,000 - $50,000</td>
<td>179</td>
<td>29%</td>
<td>151</td>
</tr>
<tr>
<td>$50,000 - $75,000</td>
<td>98</td>
<td>16%</td>
<td>77</td>
</tr>
<tr>
<td>$75,000 +</td>
<td>96</td>
<td>16%</td>
<td>131</td>
</tr>
</tbody>
</table>

## Occupied Housing Units by Tenure

<table>
<thead>
<tr>
<th>Tenure Type</th>
<th>2014-2018 ACS Estimates</th>
<th>Percent</th>
<th>MOE (±)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>613</td>
<td>100%</td>
<td>192</td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>256</td>
<td>42%</td>
<td>138</td>
</tr>
<tr>
<td>Renter Occupied</td>
<td>355</td>
<td>58%</td>
<td>146</td>
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</table>

## Employed Population Age 16+ Years

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>2014-2018 ACS Estimates</th>
<th>Percent</th>
<th>MOE (±)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1,424</td>
<td>100%</td>
<td>391</td>
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<tr>
<td>In Labor Force</td>
<td>700</td>
<td>49%</td>
<td>336</td>
</tr>
<tr>
<td>Civilian Unemployed in Labor Force</td>
<td>20</td>
<td>1%</td>
<td>54</td>
</tr>
<tr>
<td>Not in Labor Force</td>
<td>724</td>
<td>51%</td>
<td>307</td>
</tr>
</tbody>
</table>

**Data Note:** Details may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

*Households in which no one 14 and over speaks English "very well" or speaks English only.
### Population by Language Spoken at Home

<table>
<thead>
<tr>
<th>Language Spoken</th>
<th>2014 - 2018 ACS Estimates</th>
<th>Percent</th>
<th>MOE (±)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (persons age 5 and above)</td>
<td>2,266</td>
<td>100%</td>
<td>291</td>
</tr>
<tr>
<td>English</td>
<td>1,876</td>
<td>83%</td>
<td>242</td>
</tr>
<tr>
<td>Spanish</td>
<td>561</td>
<td>16%</td>
<td>233</td>
</tr>
<tr>
<td>French</td>
<td>0</td>
<td>0%</td>
<td>10</td>
</tr>
<tr>
<td>French Creole</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Italian</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Portuguese</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>German</td>
<td>4</td>
<td>0%</td>
<td>16</td>
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<tr>
<td>Yiddish</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Other West Germanic</td>
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<td>N/A</td>
<td>N/A</td>
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<td>Scandinavian</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>Greek</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Russian</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Polish</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Serbo-Croatian</td>
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<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Other Slavic</td>
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<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Armenian</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Persian</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Gujarati</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Hindi</td>
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<tr>
<td>Urdu</td>
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<td>N/A</td>
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<td>Other Indic</td>
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<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Other Indo-European</td>
<td>0</td>
<td>0%</td>
<td>10</td>
</tr>
<tr>
<td>Chinese</td>
<td>0</td>
<td>0%</td>
<td>10</td>
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<tr>
<td>Japanese</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Korean</td>
<td>17</td>
<td>1%</td>
<td>49</td>
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<tr>
<td>Mon-Khmer, Cambodian</td>
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<td>N/A</td>
<td>N/A</td>
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<td>Hmong</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Thai</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Laotian</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>0</td>
<td>0%</td>
<td>10</td>
</tr>
<tr>
<td>Other Asian</td>
<td>0</td>
<td>0%</td>
<td>10</td>
</tr>
<tr>
<td>Tagalog</td>
<td>7</td>
<td>0%</td>
<td>23</td>
</tr>
<tr>
<td>Other Pacific Island</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Navajo</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Other Native American</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
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<td>Hungarian</td>
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<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Arabic</td>
<td>0</td>
<td>0%</td>
<td>10</td>
</tr>
<tr>
<td>Hebrew</td>
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<td>N/A</td>
<td>N/A</td>
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<tr>
<td>African</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Other and non-specified</td>
<td>0</td>
<td>0%</td>
<td>10</td>
</tr>
<tr>
<td>Total Non-English</td>
<td>390</td>
<td>17%</td>
<td>378</td>
</tr>
</tbody>
</table>

**Data Note:** Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2014 - 2018.

*Population by Language Spoken at Home is available at the census tract summary level and up.*
**EJSCREEN Census 2010 Summary Report**

Location: User-specified polygonal location  
Ring (buffer): 0-miles radius  
Description: PQ

<table>
<thead>
<tr>
<th>Summary</th>
<th>Census 2010</th>
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<tbody>
<tr>
<td>Population</td>
<td>1,931</td>
</tr>
<tr>
<td>Population Density (per sq. mile)</td>
<td>1,556</td>
</tr>
<tr>
<td>People of Color Population</td>
<td>906</td>
</tr>
<tr>
<td>% People of Color Population</td>
<td>47%</td>
</tr>
<tr>
<td>Households</td>
<td>602</td>
</tr>
<tr>
<td>Housing Units</td>
<td>715</td>
</tr>
<tr>
<td>Land Area (sq. miles)</td>
<td>1.24</td>
</tr>
<tr>
<td>% Land Area</td>
<td>95%</td>
</tr>
<tr>
<td>Water Area (sq. miles)</td>
<td>0.06</td>
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<tr>
<td>% Water Area</td>
<td>5%</td>
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<table>
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<tr>
<th>Population by Race</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1,931</td>
<td></td>
</tr>
<tr>
<td>Population Reporting One Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1,229</td>
<td>64%</td>
</tr>
<tr>
<td>Black</td>
<td>390</td>
<td>20%</td>
</tr>
<tr>
<td>American Indian</td>
<td>35</td>
<td>2%</td>
</tr>
<tr>
<td>Asian</td>
<td>6</td>
<td>0%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Some Other Race</td>
<td>156</td>
<td>8%</td>
</tr>
<tr>
<td>Population Reporting Two or More Races</td>
<td>114</td>
<td>6%</td>
</tr>
</tbody>
</table>

| Total Hispanic Population    | 418    | 22%     |
| Total Non-Hispanic Population| 1,513  | 78%     |
| White Alone                  | 1,025  | 53%     |
| Black Alone                  | 375    | 19%     |
| American Indian Alone        | 30     | 2%      |
| Non-Hispanic Asian Alone     | 6      | 0%      |
| Pacific Islander Alone       | 0      | 0%      |
| Other Race Alone             | 0      | 0%      |
| Two or More Races Alone      | 76     | 4%      |

<table>
<thead>
<tr>
<th>Population by Sex</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1,101</td>
<td>57%</td>
</tr>
<tr>
<td>Female</td>
<td>830</td>
<td>43%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population by Age</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 0-4</td>
<td>138</td>
<td>7%</td>
</tr>
<tr>
<td>Age 0-17</td>
<td>480</td>
<td>25%</td>
</tr>
<tr>
<td>Age 18+</td>
<td>1,451</td>
<td>75%</td>
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<tr>
<td>Age 65+</td>
<td>171</td>
<td>9%</td>
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<table>
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<tr>
<th>Households by Tenure</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>602</td>
<td></td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>274</td>
<td>46%</td>
</tr>
<tr>
<td>Renter Occupied</td>
<td>328</td>
<td>54%</td>
</tr>
</tbody>
</table>

**Data Note:** Detail may not sum to totals due to rounding. Hispanic population can be of any race.  
**Source:** U.S. Census Bureau, Census 2010 Summary File 1.
Appendix C

National Wetlands Inventory Maps
Shawnee County
Shunga Creek and tributary
I-70 Polk/Quincy Viaduct in Topeka
Appendix D

Floodplain Mapping
**FIRM FLOOD INSURANCE RATE MAP**

**SHAWNEE COUNTY, KANSAS AND INCORPORATED AREAS**

**PANEL 208 OF 450**

*(SEE MAP INDEX FOR FIRM PANEL LAYOUT)*

<table>
<thead>
<tr>
<th>COMMUNITY</th>
<th>NUMBER</th>
<th>PANEL</th>
<th>SUFFIX</th>
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</thead>
<tbody>
<tr>
<td>SHAWNEE COUNTY</td>
<td>76231</td>
<td>029C</td>
<td>E</td>
</tr>
<tr>
<td>TOPEKA CITY-OF</td>
<td>220167</td>
<td>029G</td>
<td>E</td>
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</table>

**MAP NUMBER**

20177C0208E

**EFFECTIVE DATE**

SEPTEMBER 29, 2011

Federal Emergency Management Agency

---

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msp.fema.gov.
February 9, 2021

Devon Frazier
Tribal Historic Preservation Officer
Absentee Shawnee Tribe of Oklahoma
2025 South Gordon Cooper Drive
Shawnee, Oklahoma 74801

Dear Ms. Frazier:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

The EA is the cumulation of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

An agency coordination process will continue to involve appropriate federal, state, and local agencies as well as stakeholders and the public. As part of the coordination process, we are inviting you to our next virtual public meeting. It is being held via Zoom from 5:00 p.m. to 6:30 p.m. on Wednesday, March 3, 2021. You may register at www.polkquincy.org to receive the log-in information by e-mail.

The enclosed project study area map and project description should help you understand the nature of the project and help you determine the location of the proposed improvements. A copy of the Purpose and Need Summary is also included for your information. To remain on
schedule, we are requesting your reply to our invitation to be included on future correspondence beyond the public meeting within 30 days of date of this letter.

If you have any questions about this project, please contact Greg Gonzales, Road Design Leader at (785) 368-8293 or greg.gonzales@ks.gov.

Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

The purpose of the proposed actions to I-70 is to meet current roadway/bridge design criteria, improve safety, increase roadway traffic capacity, balance accessibility, and to support economic development in and near the Downtown area.

Specifically, the project addresses the following needs:

- **Design**: While appropriate for its time, the geometric features of I-70 do not meet current highway design criteria.

- **Safety**: The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

- **Roadway Capacity**: Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

- **Accessibility**: There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area and Downtown Topeka.

- **Economic Development**: Improvements to I-70 and its connections to city streets will support the current development/redevelopment efforts in Downtown Topeka and North Topeka as well as support proposed developments in the Entertainment District and the Riverfront Area.
February 9, 2021

Kelli Mosteller  
Tribal Historic Preservation Officer  
Citizen Potawatomi Nation  
1601 South Gordon Cooper Drive  
Shawnee, Oklahoma 74801

Dear Ms. Mosteller:

Subject: Environmental Assessment Agency Coordination  
for the I-70 Polk-Quincy Reconstruction Project  
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05  
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)  
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

The EA is the culmination of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

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Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

[Signature]

Debbie Tanking, P.E.
Assistant Chief

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70-89 KA-1266-01
Shawnee County

August 2011

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Specifically, the project addresses the following needs:

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- **Safety**: The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

- **Roadway Capacity**: Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

- **Accessibility**: There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area and Downtown Topeka.

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February 9, 2021

Brian Faust
Topeka City Engineer
620 Southeast Madison Street
Topeka, Kansas 66607

Dear Mr. Faust:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

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The EA is the culmination of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

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Sincerely

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Bureau of Road Design

[Signature]

Debbie Tanking, P.E.
Assistant Chief

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70-89 KA-1266-01
Shawnee County

August 2011

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February 9, 2021

Dr. Brice Obermeyer  
NAGPRA Director  
Delaware Tribe of Indians  
1200 Commercial Street  
Roosevelt Hall, Room 212  
Emporia State University  
Emporia, Kansas 66801

Dear Dr. Obermeyer:

Subject: Environmental Assessment Agency Coordination  
for the I-70 Polk-Quincy Reconstruction Project  
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05  
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)  
Shawnee County

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Sincerely

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Bureau of Road Design

[Signature]

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

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Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

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February 9, 2021

Brett Barnes
Cultural Preservation Director
Eastern Shawnee Tribe of Oklahoma
P. O. Box 350
Seneca, Missouri 64865

Dear Mr. Barnes:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
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Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
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70-89 KA-1266-01
Shawnee County
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February 9, 2021

Lynn Williams, Chair
Kaw Nation of Oklahoma
P. O. Box 50
Kaw City, Oklahoma 74641

Dear Ms. Williams:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
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If you have any questions about this project, please contact Greg Gonzales, Road Design Leader at (785) 368-8293 or greg.gonzales@ks.gov.

Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

[Signature]

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County
August 2011

The purpose of the proposed actions to I-70 is to meet current roadway/bridge design criteria, improve safety, increase roadway traffic capacity, balance accessibility, and to support economic development in and near the Downtown area.

Specifically, the project addresses the following needs:

- **Design**: While appropriate for its time, the geometric features of I-70 do not meet current highway design criteria.

- **Safety**: The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

- **Roadway Capacity**: Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

- **Accessibility**: There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area and Downtown Topeka.

- **Economic Development**: Improvements to I-70 and its connections to city streets will support the current development/redevelopment efforts in Downtown Topeka and North Topeka as well as support proposed developments in the Entertainment District and the Riverfront Area.
February 9, 2021

J. Daren Riedle  
Kansas Department of Wildlife, Parks & Tourism  
512 Southeast 25th Avenue  
Pratt, Kansas 67124

Dear Mr. Riedle:

Subject: Environmental Assessment Agency Coordination  
for the I-70 Polk-Quincy Reconstruction Project  
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05  
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)  
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the I-70 Transportation Program.

The EA is the culmination of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the I-70 Transportation Program.

An agency coordination process will continue to involve appropriate federal, state, and local agencies as well as stakeholders and the public. As part of the coordination process, we are inviting you to our next virtual public meeting. It is being held via Zoom from 5:00 p.m. to 6:30 p.m. on Wednesday, March 3, 2021. You may register at www.polkquincy.org to receive the log-in information by e-mail.

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If you have any questions about this project, please contact Greg Gonzales, Road Design Leader at (785) 368-8293 or greg.gonzales@ks.gov.

Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

[Signature]
Debbie Tanning, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

The purpose of the proposed actions to I-70 is to meet current roadway/bridge design criteria, improve safety, increase roadway traffic capacity, balance accessibility, and to support economic development in and near the Downtown area.

Specifically, the project addresses the following needs:

• **Design:** While appropriate for its time, the geometric features of I-70 do not meet current highway design criteria.

• **Safety:** The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

• **Roadway Capacity:** Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

• **Accessibility:** There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area and Downtown Topeka.

• **Economic Development:** Improvements to I-70 and its connections to city streets will support the current development/redevelopment efforts in Downtown Topeka and North Topeka as well as support proposed developments in the Entertainment District and the Riverfront Area.
Please see the attached letter. Mr. Riedle asked me to send this to you.

Judy Sprout  
(785) 296-3901  
KDOT Bureau of Road Design

Hi Judy,  
Please send all environmental review related documents to Krystal Adelhardt at the environmental services address in the CC line above. I typically do not handle them.  
Thanks,  
Daren

J. Daren Riedle  
Wildlife Diversity Coordinator  
Kansas Dept of Wildlife, Parks, and Tourism  
512 SE 25th Ave  
Pratt, KS 67124  
Office: (620) 672-0746  
Cell: (620) 770-6628
From: Judy Sprout [KDOT] <Judy.Sprout@ks.gov>
Sent: Tuesday, February 9, 2021 12:05 PM
To: Riedle,Daren [KDWPT] <Daren.Riedle@KS.GOV>
Cc: Debbie Tanking [KDOT] <Debbie.Tanking@ks.gov>; Greg Gonzales [KDOT] <Greg.Gonzales@ks.gov>
Subject: 70-89 KA-1266-04 & 05 Coordination

Please see the attached letter regarding environmental assessment agency coordination for this project.

If you have any questions, please contact Greg Gonzales at (785) 368-8293 or greg.gonzales@ks.gov.
February 9, 2021

Leo Henning
Kansas Department of Health and Environment
1000 Southwest Jackson, Suite 400
Topeka, Kansas 66612

Dear Mr. Henning:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

The EA is the culmination of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

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Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County
August 2011

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- **Roadway Capacity**: Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

- **Accessibility**: There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area and Downtown Topeka.

- **Economic Development**: Improvements to I-70 and its connections to city streets will support the current development/redevelopment efforts in Downtown Topeka and North Topeka as well as support proposed developments in the Entertainment District and the Riverfront Area.
I will assist with this.

Get [Outlook for iOS](https://go.microsoft.com/fwlink/?LinkID=851278)

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From: Judy Sprout [KDOT] <Judy.Sprout@ks.gov>
Sent: Tuesday, February 9, 2021 12:03:24 PM
To: Leo Henning [KDHE] <Leo.Henning@ks.gov>
Cc: Debbie Tanking [KDOT] <Debbie.Tanking@ks.gov>; Greg Gonzales [KDOT] <Greg.Gonzales@ks.gov>
Subject: 70-89 KA-1266-04 & 05 Coordination

Please see the attached letter regarding environmental assessment agency coordination for this project.

If you have any questions, please contact Greg Gonzales at (785) 368-8293 or greg.gonzales@ks.gov.
February 9, 2021

Jennie Chinn
Kansas State Historical Society
6425 Southwest 6th Street
Topeka, Kansas 66615

Dear Ms. Chinn:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

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Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County
August 2011

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February 9, 2021

David Jacobson, P.E.
Director of Engineering
Kansas Turnpike Authority
9401 East Kellogg Drive
Wichita, Kansas 67207

Dear Mr. Jacobson:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

The EA is the cumulation of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

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Scott W. King, P.E., Chief
Bureau of Road Design

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

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February 9, 2021

Deseray Helton
Archeologist, MA, RPA
Osage Nation of Oklahoma
627 Grandview Avenue
Pawhuska, Oklahoma  74056

Dear Ms. Helton:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

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The EA is the culmination of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

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Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

[Signature]

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

The purpose of the proposed actions to I-70 is to meet current roadway/bridge design criteria, improve safety, increase roadway traffic capacity, balance accessibility, and to support economic development in and near the Downtown area.

Specifically, the project addresses the following needs:

- **Design**: While appropriate for its time, the geometric features of I-70 do not meet current highway design criteria.

- **Safety**: The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

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February 9, 2021

Joseph Rupnick
Tribal Chair
Prairie Band Potawatomi Nation
16281 Q Road
Mayetta, Kansas  66509

Dear Mr. Rupnick:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

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Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

[Signature]

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

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February 9, 2021

Curt Niehaus  
Shawnee County Public Works  
1515 Northwest Saline  
Topeka, Kansas  66618

Dear Mr. Niehaus:

Subject: Environmental Assessment Agency Coordination for the I-70 Polk-Quincy Reconstruction Project  
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05  
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)  
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Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

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February 9, 2021

Brian Donahue  
U.S. Army Corps of Engineers  
Kansas City District  
635 Federal Building  
601 East 12th Street  
Kansas City, Missouri 64106

Dear Mr. Donahue:

Subject: Environmental Assessment Agency Coordination  
for the I-70 Polk-Quincy Reconstruction Project  
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05  
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)  
Shawnee County

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The EA is the cumulation of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

An agency coordination process will continue to involve appropriate federal, state, and local agencies as well as stakeholders and the public. As part of the coordination process, we are inviting you to our next virtual public meeting. It is being held via Zoom from 5:00 p.m. to 6:30 p.m. on Wednesday, March 3, 2021. You may register at www.polkquincy.org to receive the log-in information by e-mail.
The enclosed project study area map and project description should help you understand the nature of the project and help you determine the location of the proposed improvements. A copy of the Purpose and Need Summary is also included for your information. To remain on schedule, we are requesting your reply to our invitation to be included on future correspondence beyond the public meeting within 30 days of date of this letter.

If you have any questions about this project, please contact Greg Gonzales, Road Design Leader at (785) 368-8293 or greg.gonzales@ks.gov.

Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

[Signature]

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

The purpose of the proposed actions to I-70 is to meet current roadway/bridge design criteria, improve safety, increase roadway traffic capacity, balance accessibility, and to support economic development in and near the Downtown area.

Specifically, the project addresses the following needs:

• **Design:** While appropriate for its time, the geometric features of I-70 do not meet current highway design criteria.

• **Safety:** The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

• **Roadway Capacity:** Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

• **Accessibility:** There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area and Downtown Topeka.

• **Economic Development:** Improvements to I-70 and its connections to city streets will support the current development/redevelopment efforts in Downtown Topeka and North Topeka as well as support proposed developments in the Entertainment District and the Riverfront Area.
February 9, 2021

Amber Tilley
U.S. Environmental Protection Agency
11201 Renner Boulevard
Lenexa, Kansas 66219

Dear Ms. Tilley:

Subject: Environmental Assessment Agency Coordination for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

The EA is the culmination of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

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Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

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February 9, 2021

Terri Parton, President  
Wichita and Affiliated Tribes  
P. O. Box 729  
Anadarko, Oklahoma 73005

Dear Ms. Parton:

Subject: Environmental Assessment Agency Coordination  
for the I-70 Polk-Quincy Reconstruction Project  
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05  
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)  
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

The EA is the culmination of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

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Appendix E

Noise Study
Highway Traffic Noise Study
Project Number 70 - 89 KA-1266-02
February 26, 2020

Bureau of Right Of Way
Environmental Services Section

Prepared by:
J.E. Myer, Environmental & Regulatory Specialist
T.D. Blackwell, Environmental Associate
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Appendix – Traffic Forecast
1.0 Introduction

1.1 Project
The transportation improvement is located within the City of Topeka, Shawnee County, Kansas. These improvements span between approximately SW MacVicar Avenue and SE California Avenue by adding additional lanes in each direction of I-70, and a bridge is being moved approximately 200 feet north from its present location.
1.2 Purpose
The addition of lanes and re-location of the bridge are improvements that meet Type 1 criteria. These criteria are contained within Title 23 Code of Federal Regulations (CFR) Part 772, U.S. Department of Transportation, Federal Highway Administration (FHWA), requiring evaluation for highway traffic noise impacts. In accordance with the regulation, this highway traffic noise study evaluates potential impacts that may result from the proposed project.

1.3 Methodology
The key elements for analyzing potential highway traffic noise impacts are identifying receptors adjacent to the project and determining their existing and forecasted sound levels. If highway traffic noise impacts are predicted, the analysis is required to proceed to evaluation for highway traffic noise abatement measures. If highway traffic noise impacts are not predicted, the analysis is complete and highway traffic noise abatement measures are not evaluated. This information is provided within a Highway Traffic Noise Study report which will include any reasons pertaining to engineering or cost-effectiveness that prevent highway traffic noise abatement measures. When there is undeveloped land adjacent to the project, the report is provided to the local government so that noise-compatible land use adjacent to the project can be planned accordingly.

1.4 Regulations, Guidance, Tools
Analyzing highway traffic noise adjacent to KDOT projects, utilizes the following:

This FHWA regulation must be followed for analyzing and abating highway traffic noise. It requires states to adopt specific guidelines with specific parameters relative to their state.

KDOT Highway Traffic Noise Policy, July 13, 2011
This policy fulfills FHWA 23 CFR 772, for providing state-specific guidelines. It contains policies and procedures for analyzing noise and abatement of highway traffic noise within the State of Kansas.

Provides FHWA guidance for applying 23 CFR Part 772 in the analysis and abatement of highway traffic noise

FHWA Traffic Noise Model (TNM) Version 2.5, February 2004
This computer acoustic model is required by FHWA. It is utilized for determining sound levels relative to a project. It provides sound levels for existing conditions of the current year, and no-build and build conditions by the design year.

This manual is a tool for best-practice methodologies relative to sound level measurements.

SoundTrack LxT Sound Level Meter (SLM)
This meter complies with acoustic instrumentation as required by FHWA. The meter is calibrated yearly. Its documentation is stored in Environmental Services Section of the Kansas Department
Highway Traffic Noise Study

1.5 Sound / Noise
Sound is created when an object moves, causing vibration or waves in air molecules. When vibrations reach our ears, we hear sound. Noise generally is defined simply as unwanted sound. Sound pressure levels are used to measure the intensity of sound and noise, and are described in terms of decibels (dB). They cannot be added with simple arithmetic because the decibel is a representation of a large value on the logarithmic scale. The A-weighted sound levels (dBA) measure sound pressure levels with a frequency weighting network which best approximates sound as heard by the normal human ear and filters out frequencies the human ear cannot detect. Therefore, A-weighted sound levels are preferred for determining human annoyance levels.

Highway traffic noise is analyzed by using both dBA and the average level over time, which is an hourly equivalent sound level, or Leq(h). This represents the constant, average sound level that contains the same amount of sound energy over the time period as does the varying levels of actual traffic noise. The primary sources of highway traffic noise are tires, engine and exhaust, and these primary sources are further influenced by the overall number of vehicles, type of vehicles, distance between traffic and receptor(s), speed, and topography. More complicated factors may include elevated or depressed highway/terrain, dense vegetation, and shielding from buildings and walls. For example, sound will be greater from any vehicle laboring up a steep incline; however, this may not be problematic if there is low-volume traffic with virtually no heavy trucks.

Generally, distance doubled over pavement and grass provides approximate decreases of 3 dBA and 4.5 dBA, respectively, and there is an approximate decrease of 1 dBA when the speed limit is lowered by 5 miles per hour. When sound levels change, 3 dBA is barely perceived, and 5 dBA is readily perceived by the human ear.

2.0 Analysis

2.1 Highway Traffic Noise Impacts
When analyzing potential highway traffic noise impacts, primary consideration is for exterior sites where people choose to frequent if given the opportunity. These area(s) of frequent human use, are each identified as a receptor. For single-family dwellings, typically, the area of frequent human use is the back yard. Highway traffic noise impacts are determined when:

- Sound levels in the existing environment (let year 2025) are predicted to substantially exceed by the design year (year 2055)
- Sound levels are predicted to approach or exceed FHWA Noise Abatement Criteria (NAC). The NAC provides sound level thresholds for different activity categories. These activity categories are determined by land use. See Table 1.

Respectively, they are known as relative and absolute impacts. KDOT Highway Traffic Noise Policy defines substantially exceed as more than 10 dB for relative impact; and approach as subtraction of 1 dB from the threshold of the NAC. For example, a residence forecast with 66 dB is identified as impacted because they approach 67 dB for Activity Category B from the NAC.
It is possible for an analysis to forecast both types of impact. For instance, a home predicted at 56 dB for existing conditions and then predicted for 67 dB when a project is built would be identified, as experiencing both relative and absolute impacts (increase of more than 10 dB and reaching threshold). If an analysis indicates receptor(s) with sound levels already approaching or exceeding the NAC for existing conditions, they are still evaluated for potential highway traffic impacts. In the evaluation, the noise environment may be improved due to alignment being moved away from receptors and/or traffic patterns have been altered. This was the result for one segment of this project.

### Table 1 – FHWA Noise Abatement Criteria

<table>
<thead>
<tr>
<th>Activity Category</th>
<th>Activity Criteria*</th>
<th>Evaluation Location</th>
<th>Activity Description including undeveloped lands permitted for this activity category</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Leq(h) 57</td>
<td>Exterior</td>
<td>Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.</td>
</tr>
<tr>
<td>B</td>
<td>67</td>
<td>Exterior</td>
<td>Residential</td>
</tr>
<tr>
<td>C</td>
<td>67</td>
<td>Exterior</td>
<td>Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings</td>
</tr>
<tr>
<td>D</td>
<td>52</td>
<td>Interior</td>
<td>Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios</td>
</tr>
<tr>
<td>E</td>
<td>72</td>
<td>Exterior</td>
<td>Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.</td>
</tr>
<tr>
<td>F</td>
<td>-</td>
<td>-</td>
<td>Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing</td>
</tr>
<tr>
<td>G</td>
<td>-</td>
<td>-</td>
<td>Undeveloped lands that are not permitted</td>
</tr>
</tbody>
</table>

* The Leq(h) Activity Criteria values are for impact determination only and are not design standards for noise abatement measures.
2.2 Noise Sensitive Areas

The project was segmented into four geographical areas, each identified as a Noise Sensitive Area (NSA). Within each NSA, receivers were identified. The applicable Activity Category from the Noise Abatement Criteria (NAC) was assigned to receptors. The NSA’s are:

NSA 1 - between SW MacVicar Avenue and SW Polk Street

north of I-70 – Agricultural and industrial comprise the land use. There are railroad tracks which are utilized. They parallel I-70. Receptors are not identified.

south of I-70 - The land use is comprised of businesses, two parks and residences. The businesses do not have an exterior area distinctly recognized for human activity adjacent to the highway. Both parks are adjacent to the highway: Avondale Park and Ward Meade Park. Both were evaluated for highway traffic noise impacts. The residences abutting, I-70, are primarily single-family homes with back yards and side yards exposed to I-70. Further away from these residences, separated by N Grove Street, is a second row of residences, also primarily single-family homes. Some of their side and back yards are exposed to highway traffic noise from I-70. Each residence is identified as a receptor. There is another source of noise: trains, north of I-70.

NSA 2 - between SW Polk Street and SE 6th Street

both sides of I-70 – Land use is comprised of industrial, businesses, hotel and residences. Industrial land use is not required for analyzing human impacts from highway traffic noise. The businesses and the hotel (Ramada Inn) do not have exterior areas distinctly recognized for human activity adjacent to the highway. The residences are primarily single-family homes. Because the bridge is being re-aligned to the north, some residences north of the bridge will then be south of the bridge. The elevation for the residences is lower than the bridge. Each residence is identified as a receptor.

NSA 3 – between SE 6th Avenue and SE Adams Street

both sides of I-70 – This segment is comprised of varying types of land use. There are businesses, multi-family building (former Memorial Hospital) and a building that was once utilized as a hotel. Those land uses do not have exterior areas distinctly recognized for human activity adjacent to the highway, so receptors are not identified. There is an outdoor recreation area (Shawnee County Adult Detention), and a trail (Shunga). Both did not calculate with equivalent receptors to a residence, so receptors were not identified. Receptors were identified for three fourplexes on E 9th Street and single-family residences including a dwelling designated on the Register of Historic Kansas Places (Historic Ritchie House) with an education dwelling (Heritage Education Center) next door.

NSA 4 – between SE Adams Street and California Avenue

north of I-70 – The land use is comprised of residences and a park. Some residences are within small neighborhoods bisected by streets, and others are isolated from each other. There is exposure of side yards and back yards to the highway. The park, Freedom Valley Park abuts the highway and was evaluated for highway traffic noise impacts. Each residence is identified as a receptor.

south of I-70 - The land use is comprised of businesses and residences. The businesses do not have an exterior area distinctly recognized for human activity adjacent to the highway. The residences are primarily single-family homes, isolated from each other. Their back yards and side yards are exposed to the highway with varying elevations to the highway. Each residence is identified as a receptor.
2.3 TNM and Forecast

Within each NSA, sound levels were forecast utilizing the required FHWA computer program, Traffic Noise Model 2.5 (TNM).

Input for the acoustic model is comprised of the roadway, elevation, topographic features and traffic counts. Its accuracy is contingent upon validating computed sound levels that are within 3 dB of those measured out in the field. There were eight sites adjacent to the project, in 2013, where measurements were conducted with traffic counts. Those actual field measurements do not represent the present-day acoustic environment for the purpose of noise analysis, because the traffic counts differ during the worse hour of the day. They are instead for validating calculated sound levels from the model.

The measuring equipment consisted of a Larson Davis LXT Sound Level Meter operated in A-weighted mode, set to fast response and calibrated with Larson Davis Model Cal 200 sound level calibrator. Data was recorded with a microphone that complies with the American National Standards Institute Type 2 precision criteria. Information about the sites with measured sound levels are documented on Existing Noise Survey Data sheets, stored in the Environmental Services Section.

The validated model was utilized to compute sound levels, for three scenarios. For consistency of comparison, the worse hourly traffic data was used for each of three scenarios. The traffic data was provided by the Bureau of Transportation Planning. See Appendix.

The scenarios are:

- existing – representing present-day acoustic environment;
- future no-build – representing design year acoustic environment, if project is not constructed;
- future build condition – representing design year acoustic environment if project is constructed.

The computed sound levels for each scenario were then analyzed. Comparing sound levels from future no-build and the future build condition provide how much traffic noise is attributable to the project. Relative impacts are determined by comparing existing sound levels with future build conditions and absolute impacts are determined by comparing future build conditions with the NAC.

An overview of highway traffic noise impacts that are forecast by the design year are provided in Table 2.

The approximate distance between potential development of land and the nearest driving lane of the highway was also calculated for predicting highway traffic noise impacts. This information is for the purpose of planning, so that noise – compatible land use can be planned accordingly adjacent to the project. If there is development within those distances, highway traffic noise abatement measures are not re-evaluated unless there is another project that meets Type 1 criteria. These distances are provided in Table 3.
Table 2 – Predicted receptors with highway traffic noise impacts

<table>
<thead>
<tr>
<th>Noise Sensitive Area</th>
<th>absolute impact (Approach FHWA Noise Abatement Criteria by one dB)</th>
<th>relative impact More than 10 dB</th>
<th>total highway traffic noise impacts</th>
<th>figure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>1</td>
<td>n/a</td>
<td>163</td>
<td>29*</td>
<td>n/a</td>
</tr>
<tr>
<td>2</td>
<td>n/a</td>
<td>17</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>3</td>
<td>n/a</td>
<td>29</td>
<td>0</td>
<td>n/a</td>
</tr>
<tr>
<td>4</td>
<td>n/a</td>
<td>19</td>
<td>3**</td>
<td>n/a</td>
</tr>
</tbody>
</table>

*Avondale Park = 10 receptors (approx. 130,767 - within 500’ of highway /12,000 square feet)
Ward Meade Park = 19 receptors (formal trail crossings and formal outdoor activities sites)

**Freedom Valley Park = 3 (formal outdoor activities sites and trail within 500’ of highway
(This park is described as a temporary course for fundraisers and club events for disc golf.)

---

Table 3 - Set-Back Distances

Exterior, approximate set-back feet distances from the nearest driving lane, according to Activity Categories from FHWA Noise Abatement Criteria

<table>
<thead>
<tr>
<th>Noise Sensitive Area</th>
<th>Activity Categories with exterior dBA Leq(h)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>66</td>
</tr>
<tr>
<td>1</td>
<td>500’</td>
</tr>
<tr>
<td>2</td>
<td>330’</td>
</tr>
<tr>
<td>3</td>
<td>320’</td>
</tr>
<tr>
<td>4</td>
<td>300’</td>
</tr>
</tbody>
</table>
2.4 Potential Highway Traffic Noise Abatement Measures

When highway traffic noise impacts are predicted to occur, noise abatement measures are required to be evaluated.

Lowering the speed limit on the proposed project by ten miles per hour (10 MPH) provides two decibels (2) dB reduction. This reduction is not discernible to the human ear. Additionally, speed reduction is not consistent with the project objectives.

Prohibiting truck traffic provides abatement if the truck volume is high however prohibiting truck traffic on an interstate is not consistent with the project objectives.

Horizontal and/or vertical alignment shifting, and buffer zones were evaluated. Constructing a buffer zone or shifting the road involves relocation of utilities, purchase of additional right-of-way and additional costs for design and construction for reconfiguration.

Preliminary noise barrier designs were evaluated for each of the NSA’s. There are considerations when evaluating noise barriers. Because sound travels over and around walls, barriers must be tall and long enough to be effective. The minimum height of a wall to break the line of sight from trucks is 12’, and the wall must extend further past the last receptor by at least four times their distance to the edge of the highway. When effective, listeners directly behind a barrier will notice a benefit (approximately 200’), whereas those further away or on a hillside or building above will receive little benefit. Because barriers are not specifically designed to withstand severe collisions, they are not constructed when safety is compromised.

Effective noise barriers incorporated into projects must meet feasibility and reasonable criteria, per KDOT Highway Traffic Noise Policy. If feasibility criteria are met, reasonable criteria may then be evaluated. According to policy, an acoustically feasible barrier must achieve at least a five (5 dBA) traffic noise reduction for 80% of first row impacted receptors and 2/3 of all impacted receptors. If achieved, reasonable criteria within the policy state the barrier must achieve a minimum of ten (10 dBA) insertion loss for the majority of benefited receptors, and also attain the cost-per-benefited-receptor ($30,000).

A preliminary noise barrier design in NSA 1, situated at the right-of-way line would be contiguous. Its approximate length and height of 7,392’and 22’, respectively, did not provide a minimum of ten (10 dBA) insertion loss for the majority of benefited receptors. The approximate total cost of $6.7 million, also did not attain the cost-per-benefited-receptor. This cost was calculated from $41.00 per square foot which is the most recent data for barrier construction. Within NSA 2, placement of a noise barrier on the bridge and elevated roadway present risks in case of vehicular impact. In addition, there are intersecting streets which prevent walls without gaps, thus rendering acoustic noise barriers, ineffective. There are also intersecting streets preventing noise barriers that would be contiguous in NSA 3. The isolated residences, terrain, and intersecting streets of SE Washington Avenue and SE Indiana Avenue, prevent walls without gaps, rendering an acoustic noise barrier, ineffective in NSA 4. Therefore, construction of noise barriers for this transportation improvement could not be incorporated into the project.
2.5 Construction Noise

Noise Sensitive areas adjacent to transportation improvements are subjected to a certain amount of construction noise during construction activity. Construction noise associated with the individual noise sensitive areas will be temporary and generally limited to less daylight hours during normal working days. Completion of the first phase of this transportation improvement, is expected within two construction seasons.

3.0 Summary

The Federal Highway Administration (FHWA) defines a Type I project as a proposed federal or federal-aid highway project for construction of a highway at a new location, the physical alteration of an existing highway that significantly changes either or both horizontal or vertical alignments, or an increase in the number of through traffic lanes. Transportation improvements that meet this criteria, are required to be evaluated for impacts from highway traffic noise, in accordance with procedures contained within 23 CFR 772.

The transportation improvements relative to this project, meet criteria as a Type 1 project and therefore were analyzed for highway traffic noise impacts. The project was segmented as four contiguous geographical areas, each assigned as a Noise Sensitive Area (NSA). Within each NSA, land use and receptors adjacent to the project were identified and assigned applicable Noise Abatement Criteria (NAC). The FHWA Traffic Noise Model (TNM) was utilized for predicting sound levels for years 2025 (let year) and 2055 (design year), based from traffic forecasts, for the worse hour of the day.

The resultant sound levels were evaluated for impacts. Impacts may occur when the NAC threshold is approached and/or there is a doubling of traffic noise from the present environment. The information predicted impacts. Because impacts were predicted, the evaluation proceeded to measures for abating highway traffic noise. Preliminary noise barrier designs were evaluated in accordance with KDOT Highway Traffic Noise Policy. The cost per benefited receptor, safety hazards posed to the traveling public, and intersections of streets that prevent acoustic effective walls were reasons why noise barriers could not be incorporated in this transportation improvement. This project is cleared of noise concerns.
NSA 1 Sound Levels dBA Leq(h)
Approximately:
- existing: 63 - 77
- future no-build: 63 - 78
- future build: 65 - 79
NSA 2 Sound Levels dBA Leq(h)
Approximately:
- existing: 65 -70
- future no-build: 67 - 72
- future build: 64 – 69 (alignment of bridge is being moved away from residences)

Figure 2
NSA 3 Sound Levels dBA Leq(h)
- existing: 60 - 77
- future no-build: 61 - 78
- future build: 64 - 79
NSA 4  Sound Levels dBA Leq(h)
• existing: 64 - 71
• future no-build: 66 - 72
• future build: 67 - 74

Figure 4
**Record of Data Furnished**

**Data for:** 070-089_KA-1266-02

**Location:** I-70 between California Avenue and MacVicar Avenue in the City of Topeka

**County:** Shawnee

**Description:**
This forecast information is provided as an update to the previous traffic forecast of February 19, 2020 for traffic on I-70 between California Avenue and MacVicar Avenue in the City of Topeka in Shawnee County. Included are existing traffic and the 2025/2055 daily forecast for the "Do Nothing" and "If Constructed" conditions, Design Hour Volume (DHV), Directional Distribution (D), Average Vehicle Speeds, and % medium/heavy trucks.

**Sources:**
- Coverage Count Master File Summary Listing
- Traffic Count Maps, State Highway System of Kansas, 1990-2019
- Regular Vehicle Classification Count Summary
- Previous Environmental Forecast of February 19, 2020
- ADR Addendum for 70-89 KA-1266-02 Dated February 5, 2021
- Additional Office Records

**Forecast:**

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<th>Location</th>
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**Completed by:** David V. Cronister

**Copies to:**
- Mr. Nat Velasquez, P.E., Pavement Engineer
- Mr. Leroy Koehn, P.E., District 1 Engineer
- Mr. Richard Backlund, FHWA Division Administrator

**Michael J. Moriarty**
Chief of Transportation Planning
Appendix F

Historical & Archaeological Consultation
PROGRAMMATIC AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION,
THE KANSAS DEPARTMENT OF TRANSPORTATION
AND THE KANSAS STATE HISTORIC PRESERVATION OFFICER
REGARDING KDOT PROJECT NUMBERS 70-89 KA-1266-02, 70-89 KA-1266-04, 70-89 KA-1266-05 and 70-89 KA-1266-06 IN SHAWNEE COUNTY, KANSAS

WHEREAS, the Federal Highway Administration (FHWA) and the Kansas Department of Transportation (KDOT) have determined that construction of the proposed Project Number 70-89 KA-1266-02, which has since been split into project numbers 70-89 KA-1266-04, 70-89 KA-1266-05 and 70-89 KA-1266-06 in Shawnee County, Kansas (undertaking) will impact the archeological component (14SH118) of the Haywood Residence, a historic property, has consulted with the Kansas State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C.A. § 306108); and

WHEREAS, substantial portions of the Area of Potential Effect (APE) of these projects cannot be surveyed for archeological remains prior to demolition of existing pavements and structures, and these areas have high potential to hold intact archeological deposits;

WHEREAS, the KDOT has consulted with the City of Topeka regarding the effects of the undertaking on historic properties in the project APE; and

WHEREAS, the KDOT on behalf of the FHWA has consulted with the Advisory Council on Historic Preservation (ACHP) and they have chosen not to participate; and

NOW, THEREFORE, the FHWA, the KDOT and the SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

The KDOT shall implement the following measures:

I. SITE EVALUATION, HAYWOOD RESIDENCE (14SH118)– Stage 1. The KDOT shall implement a site evaluation plan for the Haywood Residence as specified below. The evaluation plan has been developed in consultation with the SHPO and is consistent with the Secretary of the Interior’s Standards and Guidelines for Archaeological Documentation (48 FR 44716) and takes into account the Council’s publication Treatment of Archaeological Properties (Advisory Council on Historic Preservation 1980) and relevant SHPO guidance. To that end, the following procedures will be followed:

a. The site evaluation will begin immediately after KDOT purchase of the property, which will happen at least 12 months prior to the 70-89 KA-1266-06 let date.

b. The site evaluation will include a Phase II survey as detailed in the Memorandum of Agreement (2016 MOA) between KDOT and Kansas State Historical Society.
(KSHS), signed July 1, 2016, possibly including geophysical methods, followed immediately by Phase III test excavations if any deposits of research interest are found.

c. If test excavations reveal that a site is eligible to be registered in the National Register of Historic Places (NRHP), the Kansas State Historical Society (KSHS) will consult with the FHWA, KDOT and the SHPO to form and implement a Memorandum of Agreement (MOA) to avoid adverse effects to the property.

e. Archeological materials from the Haywood Residence will be curated by the KSHS.

f. The KSHS will produce an initial summary findings report sufficient for the Kansas SHPO to evaluate and provide recommendations on whether the project should continue. The KDOT shall ensure that KSHS submit the final archaeological report resulting from actions pursuant to this agreement to the SHPO within five (5) years of completion of the fieldwork.

II. ARCHEOLOGICAL SURVEY, DEMOLITION STAGE – Stage 2. The KDOT will ensure that demolition (70-89 KA-1266-06) begins at least 18 months before the 70-89 KA-1266-04 let date. This will be critical to allowing archeological survey within the project’s area of potential effects (APE).

a. The KSHS will provide an archeological monitor to guide the removal of modern pavements. This monitoring will constitute the initial portion of the Phase II archeological survey of the project. The contractor will be required to coordinate and cooperate with KSHS staff to allow for this monitoring.

b. The KSHS will continue Phase II survey by means of shovel and auger testing, deep soil coring, and backhoe trenching to search for deeply buried historic and prehistoric remains.

c. Any archeological components found during the Phase II survey will immediately be evaluated for NRHP eligibility by the KSHS in consultation with the SHPO and the KDOT.

d. The KSHS, SHPO, FHWA and KDOT will form and implement an MOA for any site evaluated and found eligible for the NRHP, as soon as possible once evaluation fieldwork indicates a potentially significant site is within the project APE.

e. Archeological materials from the survey and any subsequent excavations will be curated by the KSHS.
f. The KSHS will produce an initial summary findings report sufficient for the
SHPO to evaluate and provide recommendations on whether the project should
continue. The KDOT shall ensure that KSHS submits the final archaeological
report resulting from actions pursuant to this agreement to the SHPO within five
(5) years of completion of the fieldwork.

g. The KDOT shall ensure that any human remains encountered during construction
or data recovery operations are treated in accordance with K.S.A. 75-2741 to 75-
2754 and K.A.R. 126-1-1 and 126-1-2, the Kansas Unmarked Burial Site
Preservation Act and associated regulations.

III. PIER EXCAVATIONS – Stage 3. At 70-89 KA-1266-04 let date, excavation of the
overpass piers begins. The KSHS and the SHPO will determine during Stage 2 whether an
archeological monitor is warranted for this stage of the project.

a. If monitoring is determined to be necessary, the contractor(s) and KSHS shall
meet to develop procedures (in compliance with OSHA, Occupational Safety and
Health Administration, regulations) to allow for safe monitoring of up to the first
15 feet of pier excavations, prior to the beginning of excavations. The contractor
will be required to coordinate and cooperate with KSHS staff to allow for
archeological monitoring.

b. The KSHS will also develop plans at this same time, in coordination with the
contractor(s), to allow for immediate evaluation and possible salvage of
archeological deposits encountered during the pier excavations, in compliance
with relevant OSHA regulations. This step will be necessary to cover accidental
discoveries, even if monitoring is not required.

c. Archeological materials retained from the monitoring and any subsequent
excavations will be curated by the Kansas State Historical Society.

d. The KSHS will produce an initial summary findings report within three (3)
months of the conclusion of monitoring activities. The KDOT shall ensure that
KSHS submit the final archaeological report resulting from actions pursuant to
this agreement to the SHPO within five (5) years of completion of the fieldwork.

e. The KDOT shall ensure that any human remains encountered during construction
or data recovery operations are treated in accordance with K.S.A. 75-2741 to 75-
2754 and K.A.R. 126-1-1 and 126-1-2, the Kansas Unmarked Burial Site
Preservation Act and associated regulations.
IV. ARCHEOLOGICAL SURVEY OF REMAINING PROJECT AREA – Stage 4.
Following the purchase of the remainder of the corridor under KDOT project number 70-89 KA-1266-04 (the area not already demolished within 70-89 KA-1266-06) the KSHS will conduct targeted surveys of select areas within the project APE.

a. The KDOT will purchase all land required for 70-89 KA-1266-04 no later than 12 months prior to the intended letting date of the project, and provide notification to the KSHS when such purchases have been completed.

b. The KSHS will select areas for Phase II survey by identifying areas that:
   1. Have not been substantially altered by prior interstate construction.
   2. Will be directly affected by the planned construction.
   3. Have relatively high potential to have archeological deposits of interest.

c. If parts of the Stage 4 survey are conducted concurrently with any Stage 1-3 work, the KSHS will prioritize Stage 1-3 work in order to minimize the chance of compromising the construction let date.

d. Any archeological components found during the Phase II survey will immediately be evaluated for NRHP eligibility by the KSHS in consultation with the SHPO and the KDOT.

e. The KSHS, FHWA, KDOT and SHPO will develop an MOA for any site evaluated and found eligible for the NRHP.

f. Archeological materials from the survey and any subsequent excavations will be curated by the Kansas State Historical Society.

g. The KSHS will produce an initial summary findings report sufficient for the SHPO to provide clearance for the project to continue. The KDOT shall ensure that KSHS submit the final archaeological report resulting from actions pursuant to this agreement to the SHPO within five (5) years of completion of the fieldwork.

h. The KDOT shall ensure that any human remains encountered during construction or data recovery operations are treated in accordance with K.S.A. 75-2741 to 75-2754 and K.A.R. 126-1-1 and 126-1-2, the Kansas Unmarked Burial Site Preservation Act and associated regulations.

V. DURATION. This agreement will be null and void if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, the KDOT may consult with the other signatories to reconsider the terms of the agreement and amend in accordance with Stipulation VIII below.

VI. POST-REVIEW DISCOVERIES. Pursuant to 36 CFR 800.13(a)(2), if potential historic properties are discovered or unanticipated effects on historic properties found during construction activities, KDOT shall require the contractor to immediately stop work within 50
feet of the find and contact the State Archeologist. The State Archeologist will work with the
SHPO and KDOT to coordinate efforts to preserve or salvage the archeological remains.

VII. DISPUTE RESOLUTION. Should any party to this agreement object at any time to any
actions proposed or the manner in which the terms of this Programmatic Agreement (PA) are
implemented, the FHWA shall consult with the objecting party(ies) to resolve the objection. If
the FHWA determines, within 30 days, that such objection(s) cannot be resolved, the FHWA
will:

a. Forward all documentation relevant to the dispute to the ACHP in accordance with 36 CFR Part 800.2(b)(2). Upon receipt of adequate documentation, the Council shall review
and advise the FHWA on the resolution of the objection within 30 days. Any comment
provided by the Council, and all comments from the parties to the PA, will be taken into
account by the FHWA in reaching a final decision regarding the dispute.

b. If the ACHP does not provide comments regarding the dispute within 30 days after
receipt of adequate documentation, the FHWA may render a decision regarding the
dispute. In reaching its decision, the FHWA will take into account all comments
regarding the dispute from the parties to the PA.

c. FHWA's responsibility to carry out all other actions subject to the terms of this PA that
are not the subject of the dispute remain unchanged. The FHWA will notify all parties of
its decision in writing before implementing that portion of the undertaking subject to
dispute under this stipulation. The FHWA's decision will be final.

VIII. AMENDMENTS AND NONCOMPLIANCE. If any signatory (SHPO, FHWA or
KDOT) to this PA determines that its terms will not or cannot be carried out or that an
amendment to its terms must be made, that party shall immediately consult with the other parties
to develop an amendment to this PA pursuant to 36 CFR Parts 800.6(c)(7) and 800.6(c)(8). The
amendment will be effective on the date a copy signed by the signatories is filed with the ACHP.
If the signatories cannot agree to appropriate terms to amend the PA, either signatory may
terminate the agreement in accordance with Stipulation IX, below.

IX. TERMINATION. If this PA is not amended following the consultation set out in
Stipulation VII and VIII, it may be terminated by any signatory. Within 30 days following
termination, the KDOT shall notify the signatories if it will initiate consultation to execute a PA
under 36 CFR Part 800.6(c)(1) or request the comments of the Council under 36 CFR Part
800.7(a) and proceed accordingly.

Execution of this Programmatic Agreement by the KDOT, the FHWA and the SHPO, the
submission of documentation and filing of this PA with the ACHP pursuant to 36 CFR Part
800.6(b)(1)(iv) prior to FHWA's approval of this undertaking, and implementation of its terms
are evidence that the FHWA has taken into account the effects of this undertaking on historic
properties and afforded the ACHP an opportunity to comment.
The archeological investigation at the Haywood Residence will include a subsurface survey of the property by shovel testing, soil probing, and possibly geophysical survey methods, and mapping of any artifacts or features found, as well as standing structures or foundations. If this phase of the investigation does not find any potentially significant archeological deposits the investigation can conclude here. If features or potentially significant artifact concentrations are found, test excavations will be conducted in these areas to determine the significance of the deposits under Criteria D of the NRHP. If these test excavations determine any deposits meet Criteria D NRHP eligibility, a mitigation will proceed immediately. The nature of the mitigation will be coordinated between the KDOT, SHPO and KSHS.

Research Objectives

1) To accurately map and record the site.

2) To establish whether artifact concentrations or features exist at the Haywood Residence, and evaluate whether the site meets eligibility standards for inclusion in the NRHP under Criteria D The site (including the standing residence) has already been found ineligible under Criteria A, B and C.

3) If the site is found eligible for the NRHP, to salvage archeological materials from the site in a manner that preserves the context of finds for research purposes.
Research Questions

Questions 1 to 3 are primarily related to the recording of the site and evaluating whether the site could be eligible for the NRHP under Criteria D. The remaining questions are examples of research questions that could be answered through investigation of deposits at the site, if such deposits are present. As such, they might be more suitable to investigation through Phase IV data recovery excavations.

1) Are all architectural features on the property already known, or are there subsurface foundations, outbuilding locations or underground cellars?

2) Do seriated archeological deposits exist at the Haywood Residence? Examples of such deposits are middens and privy pits. These types of deposits are valuable for investigating changes in material culture over time.

3) Do intact deposits exist that can be tied to one specific period of occupation? For example, the area under the floor of a building that was in use for a few years, or a trash dump used for a brief period of time. These deposits can provide a broader view of life in that period than would be found in a serial deposit such as an outhouse.

4) What was the diet of the house residents like at any particular time, or how did it change? Targets of investigation could include the species of animals eaten at the site, degree of reliance on canned food or other processed food, evidence of the use of medicine, and the presence of non-essentials such as coffee or alcohol.

5) What activities were taken for enjoyment or relaxation? Are there gaming pieces, musical instruments, children’s toys, etc.

6) What evidence is there of material wealth? Signifiers of this can include fine china (porcelain) wares compared to more utilitarian whiteware or stoneware, silverware, the presence of perfume/cologne bottles and makeup paraphernalia, buggy parts (or, later, car parts). Does the apparent material wealth of the occupants change over time?

7) What can artifacts recovered at the site tell us about the distribution of industrial products? For example, where did the bricks used in construction originate, were bottles manufactured locally or in more distant plants? How did the source of goods change over time?

The above research questions are not an exhaustive list, KSHS anticipates forming additional questions during the investigation. These specific questions, however, are a minimum of questions that will be addressed in the final report.

Field Methods

The site evaluation at the Haywood Residence will be accomplished through a combination of soil probes and shovel testing to locate artifact concentrations and features, and manual test excavations at selected areas. Remote sensing survey methods may be used to aid the search for features.
If investigators identify human remains during the course of their investigations, it will be the responsibility of the KDOT, assisted by the contractor, to comply with K.S.A. 75-2741 to 75-2754 and K.A.R. 126-1-1 and 126-1-2, the Kansas Unmarked Burial Sites Preservation Act and associated regulations. This includes ceasing excavation within 50 feet of the suspected human remains and contacting the law enforcement agent of local jurisdiction if human remains are encountered. If the burial is an unmarked burial as defined by Kansas statutes, excavations within 25 feet of the identified human remains will continue only after the Unmarked Burial Sites Preservation Board has given consent. If the burial is evidence in a criminal case, KDOT and SHPO will coordinate with local law enforcement to ensure proper procedures.

Site investigation and analysis must include the following procedures:

1. All measurements will use the metric system;

2. Shovel tests will be at least 35 cm in diameter and extend to either 50 cm below surface or 10 cm into a clay subsoil if no artifacts are found, or 10 cm beyond the last artifact find. Shovel tests may be extended to 1 m in depth by bucket auger if deeply buried artifacts are recovered.

3. Excavation units, not to exceed a total of 12 m² to varying depths, will be excavated by hand. Excavation units may measure 1 x 1 m, 2 x 1 m, or 2 x 2 m, depending on circumstance;

4. Manual excavation will be done in arbitrary 10 cm levels;

5. Fill from all excavation (shovel tests and excavation units) will be screened through ¼” hardware cloth, excepting any samples retained for faunal or botanical analysis;

6. All identified features will be mapped and described;

7. If applicable, flotation samples for the collection of botanical or zooarchaeological data, and other specialized analyses will be collected during excavation for later analysis;

8. Any excavation that may cause personal injury from individuals falling in must be adequately marked or fenced, and must be backfilled upon completion of archaeological excavation to remove the hazard;

9. Recordation will include detailed field notes with soil descriptions, excavation unit profiles, the mapping of excavation units and all features relative to their location on the site, photographs, plan-views and cross-sections of sampled features, etc.;

10. Landmarks will be incorporated into the site maps to show the location of excavation units and features with reference to the project area. UTM coordinates of the site datum will be recorded in the field through conventional surveying methods or through use of a geographic positioning system;
11. All collected field specimens will be clearly marked and inventoried for subsequent laboratory analysis. Bag labels will include the collection unit, depth, and other pertinent provenience information. Bulk materials, such as limestone blocks and bricks, will be documented and left in the field;

12. Procedures used for the processing and analysis of collected materials will be in accordance with the Advisory Council's Handbook *Treatment of Archaeological Properties*, Part III of the Secretary of the Interior's Guidelines and currently accepted standards for the analysis of archaeological remains.

13. Modifications to these procedures can only be undertaken after discussion with and approval of the Kansas Department of Transportation (KDOT), in coordination with SHPO.

Report Requirements

1. The KSHS will prepare a report for submission to the KDOT and the Kansas SHPO within five (5) years of the conclusion of Stage 1 fieldwork.

2. The submitted report will include the following items:
   a. An abstract;
   b. Appropriate background information including, but not limited to, topography, geology, hydrology, geomorphology, soils, environmental reconstruction, and previous archeological research in the vicinity of the site;
   c. A description of the historic cultural history of Topeka, with an emphasis on the local neighborhood and the historical period surrounding the construction and early use of the Haywood Residence;
   d. An account of the methods used in the fieldwork at the site and the laboratory analysis methods employed;
   e. A description of the site, which includes a discussion of site setting, previous investigations at the site, and documentation of the recovered artifact assemblage, including a table or tables showing all recovered artifacts by type and provenience;
   f. A discussion of the results of the evaluation project as they relate to the research questions and objectives;
   g. Maps of the site, and appropriate tables, figures and photographs;
   h. A U.S.G.S. topographic map showing the project area, site location, and the areas
of investigation;

i. Other maps showing the general project location; and

j. A reference section that includes all sources cited in the report.
Attachment B: Supplementary Materials for Stage 2
The Archeological Survey for KDOT Project Number 70-89 KA-1266-04 and 70-89 KA-1266-06, and Possible Subsequent Evaluations or Site Mitigations

The approximate boundaries of the Stage 2 and Stage 3 activities.

The archeological survey for KDOT Project number 70-89 KA-1266-06 will accomplished through three (3) complementary methods. The first will be monitoring the demolition of modern pavements in the APE. This demolition will expose older streets, rail lines, sidewalks, building foundations, and other shallowly buried materials. The second method will consist of standard survey techniques using shovel testing, auger testing, and soil probes to explore for more deeply buried deposits. This methodology may find earlier historic remains but will be unlikely to go deep enough to recover prehistoric materials on this landform. This survey will be targeted based on areas of interest identified during monitoring, the intent will not be to shovel test the entire APE. The third part of the survey will explore for deeply buried deposits by a combination of deep soil coring and trench excavation. KSHS will hire a professional geoaarcheologist to oversee this work, prepare a landscape history, and render an opinion on the likelihood of further deep finds within the APE during construction. Any archeological sites located by any of these methods will be immediately evaluated for NRHP significance, using such methods and procedures as are appropriate given the scope and depth of the site. If a site appears to be likely eligible for the NRHP, KSHS will immediately begin consultation with the Kansas SHPO and the KDOT to form a mitigation plan and will begin implementation as soon as possible. The data collected during Stage 2 will be used to determine whether monitoring during pier excavation (Stage 3) will be necessary.
Stage Objectives

1) To establish whether archeological deposits are within the APE of the project.
2) To evaluate any archeological deposits found for NRHP eligibility, specifically addressing both their significance and integrity.
3) If sites within the APE of the project are found to be eligible for the NRHP, immediately develop and implement a mitigation plan prior to project let date.
4) To determine whether Stage 3 – the archeological monitoring of pier excavations – will be necessary.

Field Methods

Survey - The methodology for this survey will necessarily depart from standard SHPO guidelines, given the extent of prior development in this area and the potential for deeply buried components in this geomorphological setting. The survey will have three components: demolition monitoring, sub-surface survey, and deep subsurface survey.

Demolition monitoring – The demolition work will remove above-ground structures and modern pavement and underlay. An archeologist will be present to direct this work, ensuring that demolition does not disturb historic foundations, streets or rail lines. Sanborn fire maps, aerial photographs, and other background material will be consulted to help guide these efforts. The monitor’s other primary responsibility will be to map these features as they are revealed. Once demolition has concluded, this rough mapping will be refined using surveying equipment to map the historic neighborhood as accurately as possible. At this point KSHS will determine the boundaries of individual archeological sites. KSHS will also create several UTM-referenced datum points, create a grid and map and mark locations for shovel/auger tests during the next step of the survey.

Sub-surface survey – The subsurface survey has two goals. The first is to serve as an initial step in evaluating the sites identified during monitoring and mapping. The second goal is to probe deeper in search of older deposits. Since many tests will be within sites and all are in a high potential area, all test locations will be mapped and the results of each shovel test individually recorded. Shovel tests will be a minimum of 35 cm in diameter and will be excavated to 50 cm depth unless obstructed. All shovel tests will then be extended by auger to 1 m. All test fill will be screened through 1/4" mesh and any artifacts recovered will be retained and curated at KSHS. The test pits will be laid out as close as possible to a 15 m grid, but allowances will have to be made to avoid foundations, pavement and other obstructions.

Deep sub-surface survey – The goal of the deep sub-surface survey is two-fold. First is to identify deeply buried sites directly, and second to develop an understanding of the geomorphological history of the landscape. Any sites found will be evaluated as outlined below, though methods may vary based on the depth of the site. The landscape history will define what layers are of archeological interest and at what depths they might be encountered. This report – or its preliminary version – will be used alongside the direct results (how many sites were directly found via deep testing) to determine in consultation with the Kansas SHPO and KDOT whether archeological monitoring of the pier excavations (Phase 3) is warranted. The precise
methodology for the deep testing will have to be developed in coordination with a contracted
goarcheologist, but will generally consist of deep soil cores and a series of deep backhoe
trenches.

   Site Evaluations – The first step in evaluating the sites identified will be to supplement
the existing shovel/auger test grid with additional testing. These should follow the same
guidelines as above, but may terminate at a depth appropriate for the site under consideration. A
search for subsurface features can be best accomplished by use of soil probes, since many
geophysical methods are confounded by the presence of obstacles, metals, or soil compaction –
all of which are likely in the area. Geophysical methods may be explored if they appear practical
at the time, but their use is not anticipated. These methods also require KSHS to employ a
contractor and await their report, which is not likely to be practical on the project’s timeline.

   After additional testing and probing, locations for test units will be selected. These will
be excavated in accordance with the Kansas SHPO guidelines. In short, this generally calls for
square or rectangular test units of at least 1m in dimension, excavation in either stratigraphic or
10cm levels, dry-screening all fill through ¼” mesh, and retention, analysis and curation of
recovered artifacts. Any departure from these standard procedures will be negotiated between
KSHS, the Kansas SHPO and KDOT in advance.

   Report Requirements

Stage 2 will result in two reports: one for the monitoring, surveys and any site evaluations, and a
separate report from the geoarcheologist detailing the geomorphological history of the landscape.
The requirements for the first report are substantially similar as for Stage 1. The report will differ
mostly in that it will have a larger survey component and could include evaluation of several
sites. The landscape geomorphological report will follow a format negotiated between the
contractor and the Kansas SHPO, and will likely differ in a few regards from a standard survey
report given the different methodologies and goals of the deep sub-surface testing. The goal of
the landscape report will be to determine the likelihood of encountering deeply buried
archaeological components during the excavation of the pier footings. The report should make a
recommendation for whether archaeological monitoring of this excavation is warranted. If the
report does recommend archaeological monitoring, it should detail the appropriate depths and/or
stratigraphic markers most likely to contain archaeological resources, and at what depths it is
appropriate to cease monitoring.
Stage 3 may be included, pending the recommendations resulting from the Stage 2 geomorphological landscape history assessment and survey. If Stage 3 is required, the geomorphological assessment will detail the appropriate depths and/or stratigraphic markers most likely to contain archeological resources, and at what depths it is appropriate to cease monitoring.

Research Objectives

The objective of the Stage 3 work will be to document, record and evaluate any archeological deposits directly disturbed during pier excavation.

Field Methods

Field methodology will be monitoring of fill taken from the excavations, along with periodic visual inspection of the sidewalls of the excavation to explore for archeological features. If artifacts or features are noted, the archeologist will call a temporary halt to the excavation, work with the contractor to make the trench safe for entry, and inspect the feature or artifact deposit. The archeologist will determine as rapidly as possible after entering the trench whether excavation of that bridge pier can continue or if further archeological work is needed to evaluate the feature or artifact deposit.
Report Requirements

The Stage 3 report requirements will vary depending on whether archeological sites are discovered during the monitoring. The likely report format will be the same as a standard survey (Phase II) report. If site(s) are evaluated or mitigated, a Phase III or Phase IV report format may be substituted (see KSHPO Guide).
Stage 4 will evaluate those portions of the 70-89 KA-1266-04 APE that were not subject to early demolition as part of 70-89 KA-1266-06.

Research Objectives

1) To establish whether archeological deposits are within the APE of the project.
2) To evaluate any archeological deposits found for NRHP eligibility, specifically addressing both their significance and integrity.
3) If sites within the APE of the project are found to be eligible for the NRHP, immediately develop and implement a mitigation plan prior to project let date.

Field Methods

Due to the substantial prior disturbance of the majority of the project APE, survey will be targeted on areas that:
1. Have not been substantially altered by prior interstate construction.
2. Will be directly affected by the planned construction.
3. Have relatively high potential to have archeological deposits of interest.

Survey methodology will consist of shovel testing on a 15 m interval, possibly supplemented with other methods where appropriate.
Report Requirements

Report requirements are the same as listed for Stage 3, and can be changed to accommodate Phase III evaluations or Phase IV mitigations in the same way.
Appendix G

Hazardous Waste Maps
Environmental Screening Area

City of Topeka Shops
Topeka Park Project Site
Deggings Foundry
USPS Vehicle Maintenance Shop
Ryder Truck Rental
Toneka Foundry
Scotch Cleaners
Tessendorf Welding
Ameripride
Adams Business Forms
Police Garage
Southern Pacific Transportation
Famous Brands Distribution
Madison Avenue Cars
BP Station
EBA Building Parking Lot B
Topeka Tire & Auto
Safelite

70-89 KA-1266-02 STUDY AREA - KDHE IDENTIFIED SITES AND UNDERGROUND STORAGE TANK LOCATIONS
Note: Sites with red text indicate areas within the Construction Limits
Appendix H

Public Involvement
INTRODUCTION

Between 2011 and 2015, during the study and initial design phase of the I-70 Polk-Quincy Viaduct project, an extensive amount of public involvement was conducted to engage the public and key stakeholders. A combination of factors, including a decrease in state transportation funding, slowed progress on the project’s design. In 2020, it was selected as an Eisenhower Legacy Transportation Program (IKE) Development Pipeline project, which reignited the project’s design phase. One of the project’s design phase goals is to continue to provide focused and targeted involvement with key stakeholders, while also providing project information to the public at large.

These more focused engagement efforts allow the project team to continue developing and maintaining relationships with stakeholders, instilling trust in and support for the development process. This Public Involvement Program will continually gather substantive stakeholder input and inform the public in a socially equitable way while ensuring adherence to state and federal requirements.

This document includes:

- Project overview
- Key messages
- Project identity
- Roles and responsibilities of the project team and stakeholder groups
- Committees
- Right-of-way outreach plans
- Communication and engagement plan for the public, stakeholders, and media
- Communications schedule
The Kansas Department of Transportation (KDOT) and the City of Topeka finalized a study in August 2011 to explore transportation and community issues related to I-70 in and near downtown Topeka. The study evaluated the need for transportation improvement options, as well as related impacts, benefits and costs.

The initial design phase was a part of the KDOT T-WORKS program. It took the study concepts and worked with stakeholders to develop a recommended alternative. That recommended alternative was designed and taken to Field Check in 2015. The project was split into two phases—west side and east side—due to the overall size and cost. No construction funding was identifiable, thus putting the project on hold.

Through KDOT’s 2019 Local Consult process and evaluation of the existing bridges, the west project was supported by the local community and stakeholders to be considered in the Eisenhower Legacy Transportation Program (IKE). In 2020, the west Polk-Quincy project was added to the IKE Development Pipeline, allowing project design to resume. Assessment of evolving project needs resulted in modifications to the previous preferred alternative:

- Eliminating tunnels
- Making the west project stand alone as a construction project
- Focusing the split diamond interchange on the two bridges to North Topeka
- Aligning with the new City of Topeka Riverfront South plan
- Reducing the number of lanes on the viaduct (with expandable capacity in the future)
- Lowering the cost of the overall project.
KEY MESSAGES

It is important to have consistent messages to educate and inform key stakeholders and the public throughout the course of the project.

NECESSITY
This project will ease traffic congestion throughout downtown, improve safety, replace the deteriorating, 70-year-old bridge and accommodate economic development and job creation.

SCOPE
This project reconstructs I-70 from MacVicar Avenue to 6th Street in Topeka, Kansas.

The project incorporates several improvements:
- I-70 reconstruction to three lanes eastbound and three lanes westbound from MacVicar Ave. to Topeka Blvd.
- Split-diamond interchange between Topeka Blvd. and Kansas Ave.
- Parallel frontage roads eastbound and westbound between Topeka Blvd. and 4th St.
- Two new viaduct bridges from Topeka Blvd. to Kansas Ave. that are expandable to add an additional through lane if needed in the future.

BIKE AND PEDESTRIAN
The design team is coordinating with KDOT and the City of Topeka to incorporate bike and pedestrian elements that work with the downtown infrastructure already planned.
- On-street bike lanes are part of the Van Buren typical section that will work with the City’s plan for bike lanes from the Capitol to the Riverfront.
- On-street bike lanes are part of the 4th Street typical section to connect with City bike routes.
- On Kansas Avenue, the design team will look at future bike lanes across the Kansas River bridge and connecting bikes with Kansas Avenue downtown.
- A 10-foot-wide shared use path for bikes and pedestrians has been added on the outside of both the eastbound and westbound frontage roads from Topeka Boulevard to 4th Street, providing bike and pedestrian facilities along the perimeter of the City street improvements.

PROJECT SCHEDULE
- December 2020 through CY2025: Design phase
- Summer 2021: Property appraisals begin
- Fall 2021: Property acquisitions begin, followed by relocations as needed
- 2023: Structural demolition, as needed, between Kansas Ave. and Topeka Blvd. from 1st St. to 2nd St, followed by archeological investigations by the State Historic Preservation Office

PROJECT FUNDING
The Polk-Quincy project is in the IKE Program’s Development Pipeline, which allows projects to be studied and designed. KDOT selects projects from the Development Pipeline to move into the Construction Pipeline, where they are funded for construction depending on available funding, readiness of the project and relative need. The Polk-Quincy project entered the Development Pipeline in 2020, allowing design, utility relocation, right-of-way acquisition and building demolition planning to proceed, preparing for potential selection for the Construction Pipeline.
**PROJECT IDENTITY**

A logo for this project was developed during the study phase and used on all project-related documents. Horizontal and vertical versions allow flexibility.

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**ROLES & RESPONSIBILITIES**

**Design team**
- Collaborate with stakeholders to identify and evaluate solutions
- Develop final design recommendations
- Lead committee and stakeholder meetings, including agenda and minutes
- Staff project office in downtown Topeka
- Develop and distribute collateral (e.g. press releases, video, web, social)

**Stakeholder Group (below)**
- Offer feedback, e.g. maintenance of traffic, right-of-way, final aesthetics
- Attend meetings and/or presentations
- Help with publicity, where applicable
- Serve as project champions, advocate with neighbors, engage with design team, offer input
- Involvement in right-of-way negotiations (e.g. KDOT; Let’s Help; Harvesters)

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**COMMUNITY PARTNERS**

- State of Kansas administration
- KDOT engineers
- KTA David Jacobson
- FHWA
- Topeka City Council
- City manager Brent Trout
- Fire Chief Craig Duke
- Police Chief Bryan Wheeles
- Traffic engineer Kristi Erickson
- Planning Director Bill Fiander
- Public Works Dir. James Jackson
- Utilities Dir. Braxton Copley
- Shawnee County Commission
- Public Works Director Curt Neihaus
- Parks and Recreation Director Tim Laurent
- Greater Topeka Partnership Matt Pivamik
- Topeka Chamber Curtis Sneeden
- Downtown Topeka Inc. Rhiannon Friedman
- Riverfront Authority
- Neighborhood improvement associations
- BNSF Railway
- Capitol Federal
- Evergy
- Kansas Gas
- Let’s Help
- Harvesters
- Media (WIBW, KSNT, Capital-Journal)
COMMITTEES

The following committees will meet at least semiannually to discuss particular issues related to the project, gather feedback and drive community advocacy.

Maintenance of Traffic Committee
Explore impacts to the community based on the phasing of construction and the Traffic Management Plan (TMP) developed by the design team.
- Two committee meetings in September 2021 and January 2022, following an initial workshop with contractors in July 2021.
- 10-20 members include design engineers, KDOT representatives, downtown business owners, Greater Topeka Partnership, City of Topeka
- Key issues to discuss:
  - Construction sequencing: What parts of the project can be constructed simultaneously
  - Timeline: Expected to last two construction seasons, with through traffic during season one and diverted traffic (I-470) during season two
  - Traffic Management Plan (TMP), which includes the following elements:
    - Construction impacts info plan
    - Webcams to monitor construction and inform public
    - Work hour restrictions
    - Detours and lane closures
    - Construction phasing
    - Weekend work
    - Full roadway closures
    - Signal timing
    - Temporary traffic signals
    - Turn restrictions
    - Heavy vehicle restrictions
    - Impacts to Kansas River bridges
    - Potential closure for each
    - Detour routes and capacity
    - Changeable message boards

Community Advisory Committee
Discuss key issues for the community around right-of-way and construction process.
- Begin meeting in July at local area venues, open to public, meet semiannually
- 10-20 members include design engineers, representatives from KDOT, City of Topeka and Shawnee County, Harvesters, Let’s Help, leaders of six key neighborhood groups, local church leaders, Riverfront Authority, Topeka Chamber
- Key issues to discuss:
  - Right-of-way process updates and feedback
  - Social equity and environmental justice tenets
  - Communication outreach plans
  - Project updates

Business Advisory Committee
Discuss key issues for businesses around right-of-way and construction process.
- Begin meeting in July at downtown venues, open to public, meet semiannually
- 10-20 members include design engineers, representatives from KDOT, BNSF, Evergy, Capitol Federal, Downtown Topeka Inc., AIM Strategies, Midwest Health
- Key issues to discuss:
  - Right-of-way and Traffic Management plans
  - Communication outreach plans
  - Project updates
  - Minimizing impacts to businesses
The right-of-way negotiation and acquisition process is one of the most immediate and potentially time-consuming aspects of this project.

**SCHEDULE**

The right-of-way process could require up to three years, with property appraisals beginning in summer of 2021 and property acquisitions beginning in fall of 2021, followed by any necessary relocation efforts. This will be followed by demolition of any structures necessary for construction within the area between Kansas Avenue and Topeka Boulevard, from 1st Street to 2nd Street. The State Historic Preservation Office will follow with archeological investigations in the area.

**RISKS**

- There are potential historic issues, pending the results of the investigation.
- Right-of-way negotiations and relocations will require a fair amount of time.
- Risk mitigation efforts include expediting right-of-way process as much as possible through strategic planning and proactive communication. Additionally, the team will work closely with the State Historic Preservation Office to identify and accommodate any issues related to historic structures.

**KEY MESSAGES**

Why is this project happening now?

This project will ease traffic congestion throughout downtown, improve safety, replace the deteriorating, 70-year-old bridge and accommodate economic development and job creation. After pausing due to lack of funding in 2015, this project has been selected for KDOT’s IKE Development Pipeline, which allows design and right-of-way acquisition to proceed.

Why is property acquisition needed?

Transportation projects often result in acquisition of private property and potential displacement of people from residences, businesses and nonprofit organizations. This process includes appraisals, just compensation analysis, written offers, payment/settlement, and relocation if necessary.

Why is the viaduct moving 200 feet to the north?

Flatten the dangerous curve for safety and allow new viaducts to be built while I-70 remains open.

How can I get more information about the project?

www.polquincy.org or info@polquincy.org (include scannable QR code)

**PROCESS**

1. One-on-one meetings happened in late February 2020 and will continue to take place with potentially impacted property owners to address their specific questions about the project and associated right-of-way process. These meetings involve the design team and KDOT engineers.
2. Particular attention will be paid to Topeka Rescue Mission, Let’s Help, and Harvesters, as some of their operations will need to relocate. We will work with these organizations to address their unique concerns and offer educational info as needed for the community members they serve.
3. Door hangers will be designed for the right-of-way team to utilize as they visit each location. This will include a meeting request, contact info for the team, and a scannable QR code to the project website.
4. Public communication will take a multi-channel approach every six months, as outlined in the following pages. This will include updates on the right-of-way process, among other news.
5. Stakeholders will have a voice in issues like right-of-way negotiations, as well as maintenance of traffic and final aesthetics, through their involvement in presentations, small group planning meetings and the Business Advisory Committee or Community Advisory Committee.
6. Transparency and collaboration is essential to the right-of-way process, and will also help encourage goodwill and recruit project champions in the community.
A variety of communication methods will engage the public.

Goals are to keep members of the public updated with a regular cadence of communication and make it as convenient as possible to ask questions and offer feedback.

**TWITTER**
@PolkQuincy for project updates, to be retweeted as appropriate by @TopekaMetroKDOT and @NEKansasKDOT

**FACEBOOK**
Polk-Quincy specific account for project updates and geo-targeted advertising to promote meetings

**WEBSITE**
www.polkquincy.org for project updates, meeting recordings, FAQs and email subscriber database

**EMAIL**
Send project design and public engagement planning updates to subscriber database

**NEWS RELEASES (9)**
Distribute news releases with project updates and connect with media via project social media pages

**DOOR HANGERS**
For use by the ROW team, these will include project quick facts, project team contact info, meeting requests and scannable QR code

**FLYERS or FACT SHEETS (9)**
Will include project quick facts, latest news, contact info, scannable QR code, and will be posted in library, popular local businesses where appropriate, and distributed at community events.

**MEETINGS**
Meetings will include one-on-one as needed, advisory committees, small group, one public information meeting closer to construction time, and pop-up engagement tent at Apple Festival in Ward-Meade & Market Mondays on Evergy Plaza

**VIDEO**
Video will include drone fly of existing conditions, 4D fly-through, and recordings of public meetings
Downtown Project Office

Establishing a downtown office location, in very close proximity to the Topeka Chamber office (819 S. Kansas Ave. by U.S. Bank building), will be a particular convenience for hosting Business Advisory Committee meetings, small planning meetings or one-on-one meetings as needed throughout the right-of-way and design process. Staffed by members of the design team, the office will capitalize on foot traffic from downtown events to get higher visibility and engagement (e.g., First Fridays). The space will facilitate impromptu meetings as needed, public viewing of project concepts and convenient contact with the design team to answer public inquiries. This location also facilitates transparency and easy access for all interested parties.

Partnering Agreement Press Event

Host a public event to announce the partnering agreement in Summer 2021. Gov. Laura Kelly to speak, City of Topeka and KDOT to attend and showcase good partnership. Proposed location is Evergy Plaza and web site will be promoted on the plaza’s digital message board. Promotional communications will go out beforehand. To capitalize on crowds, suggested timing is Wednesday, June 16, June 23, July 14 or July 21 at 9:30 a.m. before Live @ Lunch music/food truck event kicks off at 11 a.m. We have also e-mailed Greater Topeka Partnership for ideas on upcoming business events that might be a good fit (TBD).

Communication Innovation

Reaching people where they are is more important than ever, and in today’s world, that involves mobile phones. The following options meet people where they are, both physically and digitally, and would expand reach and enhance community awareness around this project.

- Third-party advertising platform for mobile phone applications, geo-targeted to cell phone users discovered in this corridor at any point in time we select. We would select peak traffic times to capture commuters, evening hours to capture residents and weekend hours to capture visitors.
- Facebook advertising, geo-targeted to a 10-mile radius around project area.
- Twitter sponsored messages.
- "Ask Me Anything" event on Twitter and/or Facebook after we’ve built sufficient following on project social media channels.
- Digital advertising to promote our website on the message board at Evergy Plaza during the weekly Live @ Lunch concert events.
- Scannable QR code linking directly to polkquincy.org on all flyers and door hangers.
- Pop-up information tents at Apple Festival in Ward-Meade and Market Mondays farmer’s market on Evergy Plaza. Will distribute project information and offer engaging activities (e.g., cornhole and S.T.E.A.M educational interactive activities for kids).

Schedule Overview  A detailed schedule is included on the following page.
### MEETINGS & PRESENTATIONS

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<td>City Council presentation</td>
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<td>2020</td>
<td>Greater Topeka Partnership presentation</td>
<td>December 2020</td>
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<td>MOT workshop</td>
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<td>Virtual public meeting</td>
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<td>Business Advisory Council (BAC) Residential Advisory Council (RAC)</td>
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<td>2025</td>
<td>BAC &amp; RAC meetings</td>
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**TO BE SCHEDULED:**
- Additional stakeholder group meetings as needed
- One public meeting
- Additional website updates as needed

### FACT SHEETS & EMAILS

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### NEWS RELEASES

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### WEB UPDATES

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<td>February 2021</td>
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<td>March 2021</td>
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<td>2021</td>
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<td>January 2022</td>
</tr>
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<td>2022</td>
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<td>Update site as needed</td>
<td>Project duration</td>
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### MISCELLANEOUS

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<tr>
<td>2021</td>
<td>5,000 meeting invites mailed to project area</td>
<td>February 2021</td>
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<tr>
<td>2021</td>
<td>Establish downtown project office</td>
<td>June 2021</td>
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<tr>
<td>2021</td>
<td>Apple Festival Pop-Up Info Tent (Ward-Meade)</td>
<td>October 2021</td>
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<td>2021</td>
<td>Market Mondays Pop-Up Info Tent (Evergy Plaza)</td>
<td>July 2021</td>
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<tr>
<td>2021</td>
<td>Develop key stakeholder list</td>
<td>April 2021</td>
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<tr>
<td>2021</td>
<td>Update PI plan</td>
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</tr>
<tr>
<td>2022</td>
<td>Update PI plan</td>
<td>April 2022</td>
</tr>
</tbody>
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Communications Schedule

As the project progresses, schedule will update to reflect public engagement activities in sync with technical activities.

**JUNE 2021**
- E-mail/Fact Sheet/News Release #1 (promote press event and downtown office opening)
- Update project website and social as needed

**JULY 2021**
- Evergy Plaza *Market Mondays* (Farmer’s Market): Pop-up Bartlett & West tent for public engagement/project education
- MOT Workshop with Contractors

**SEPTEMBER 2021**
- MOT Subcommittee Meeting #1
- Business Advisory Council and Residential Advisory Council

**OCTOBER 2021**
- Apple Festival near Ward-Meade Park: Pop-up Bartlett & West tent for public engagement/project education

**JANUARY 2022**
- E-mail/Fact Sheet/News Release #2 (ROW update)
- MOT Subcommittee Meeting #2
- Update project website and social as needed

**MARCH 2022**
- Business Advisory Council and Residential Advisory Council

**JULY 2022**
- E-mail/Fact Sheet/News Release #3 (Topic TBD)
- Update project website and social as needed

**SEPTEMBER 2022**
- Business Advisory Council and Residential Advisory Council

**JANUARY 2023**
- E-mail/Fact Sheet/News Release #4 (Topic TBD)
- Update project website as needed

**MARCH 2023**
- Business Advisory Council and Residential Advisory Council

**JULY 2023**
- E-mail/Fact Sheet/News Release #5 (Topic TBD)
- Update project website as needed

**SEPTEMBER 2023**
- Business Advisory Council and Residential Advisory Council

**JANUARY 2024**
- E-mail/Fact Sheet/News Release #6 (TBD)
- Update project website as needed

**MARCH 2024**
- Business Advisory Council and Residential Advisory Council

**JULY 2024**
- Newsletter/Fact Sheet/News Release #7
- Update project website as needed

**SEPTEMBER 2024**
- Business Advisory Council and Residential Advisory Council

**JANUARY 2025**
- E-mail/Fact Sheet/News Release #8 (Topic TBD)
- Update project website as needed

**MARCH 2025**
- Business Advisory Council and Residential Advisory Council

**JULY 2025**
- E-mail/Fact Sheet/News Release #9 (Topic TBD)
- Update project website as needed

**TO BE SCHEDULED AS NEEDED:**
- Additional stakeholder group meetings as needed
- One public meeting
- Additional website updates as needed
- State of Kansas/City of Topeka 2021 joint press event. Evergy Plaza “Live @ Lunch” concert on June 16, June 23, July 14 or July 21 @ 9:30 am. Also e-mailed Greater Topeka Partnership to see if an upcoming business event might be a good fit.
February 15, 2021

FOR IMMEDIATE RELEASE

News Contacts: Kelly Kultala (785) 296-0192 or Kelly.kultala@ks.gov

KDOT Hosting Virtual Public Meeting for I-70 Polk-Quincy Project

The Kansas Department of Transportation (KDOT) will host an online public meeting for the I-70 Polk-Quincy Project on Wednesday, March 3 at 5 PM. To register and receive Zoom meeting information, visit www.polkquincy.org.

The meeting will focus on current design plans and timeline for the project. This will be followed by questions from meeting attendees, to be answered by the KDOT project team.

The I-70 Polk-Quincy Viaduct and the segment of I-70 serving downtown Topeka was designed and built in the late 1950s. At a length of almost 3,400 feet, the I-70 Polk-Quincy Viaduct spans from Polk Street on the west to Quincy Street on the east. After more than 60 years, the condition of the bridge has deteriorated, traffic volumes have increased, highway design criteria have changed and the area around the viaduct is undergoing new development and redevelopment.

For more information, questions, or to request special accommodations for the virtual public meeting, please contact the Polk-Quincy project team by emailing info@polkquincy.org or calling (785) 228-3191.

###
Kansas Department of Transportation invites you to learn about the current design and timeline for the I-70 Polk-Quincy project. You can attend the virtual public meeting held via Zoom at 5 PM on Wednesday, March 3. You may register at www.polkquincy.org to receive Zoom meeting access details by email.

Departamento de Transporte de Kansas le invitan a conocer el diseño actual y el cronograma del proyecto I-70 Polk-Quincy. Puede asistir a la reunión pública virtual que se llevará a cabo a través de Zoom 5 PM el miércoles 3 de marzo. Puede registrarse en www.polkquincy.org para recibir la información de inicio de sesión por correo electrónico.
Kansas Department of Transportation invites you to learn about current plans for the I-70 Polk-Quincy Project, designed to replace an aging viaduct and bridges, ease traffic congestion and improve safety.

El Departamento de Transporte de Kansas lo invita para conocer los planes actuales para la I-70 Proyecto Polk-Quincy, diseñado para facilitar el tráfico congestión y mejorar la seguridad.

Questions | Preguntas
785-228-3191
info@polkquincy.org
www.polkquincy.org
Learn About the I-70 Polk-Quincy Project

You have two opportunities to find out about the project timeline and ask questions:

1. You may request an individual, 15-minute Zoom meeting or phone call to discuss your unique property concerns on Monday or Tuesday, March 1-2 by calling (785) 228-3191 or emailing info@polkquincy.org.

2. Attend the virtual public meeting held via Zoom at 5 PM on Wednesday, March 3. You may register at www.polkquincy.org to receive Zoom meeting access details by email.

Tiene dos oportunidades para conocer el cronograma del proyecto y hacer preguntas:

1. Puede solicitar una reunión individual de Zoom de 15 minutos o una llamada telefónica con el equipo del proyecto el lunes o martes 1 y 2 de marzo llamando al (785) 228-3191 o enviando un correo electrónico a info@polkquincy.org.

2. Asista a la reunión pública virtual que se llevará a cabo a través de Zoom 5 PM el miércoles 3 de marzo. Puede registrarse en www.polkquincy.org para recibir la información de inicio de sesión por correo electrónico.
Kansas Department of Transportation invites you to learn about current plans for the I-70 Polk-Quincy Project, designed to replace an aging viaduct and bridges, ease traffic congestion and improve safety.

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Questions | Preguntas
785-228-3191
info@polkquincy.org
www.polkquincy.org
Polk Quincy Viaduct
Virtual Public Involvement
March 3, 2021
Meeting Platform: Zoom

- Zoom Webinar – only presenters will be on video
- **This meeting is being recorded**
- Polling – respond directly in the pop-up box
- Questions & Answers – Please add project-related questions in the **Q&A dialogue box**
Outline

• History of the project
• I-70 alignment, viaduct bridges and interchanges
• Frontage roads, side roads, bike/pedestrian inclusion
• Schedule: from now to construction
History of Polk Quincy

• Concept Study – 2011
• Field Check Design in the KDOT TWORKS program – 2015
• I-70 Polk Quincy from MacVicar to 6th Street selected for Development Pipeline “IKE” – Eisenhower Legacy Transportation Program - 2020
Bridge Condition

- Viaduct bridge condition prioritized the west project for selection
- Existing Viaduct bridge needs repairs
- KDOT will do a maintenance project in 2022 to keep it operating short term
Project Overview

MacVicar - California

West Project

East Project
Project Overview

2 Split Diamond

- Split Diamond Interchange at Topeka Blvd/Kansas Ave
- Split Diamond Interchange at 8th Street/10th Street

Legend
- Frontage Roads or City Streets
- I-70 Ramps
- I-70 Highway and Viaduct Bridges
MacVicar - Topeka

- I-70 to be 3 lanes EB & WB from MacVicar to Topeka Blvd.
- 2 lane off-ramp to Topeka Blvd.
- 2 lane on-ramp from Topeka Blvd.
- I-70 to be 2 lanes across Viaduct
- Bridges to be expandable to accommodate future
- New on/off ramps to Kansas Ave.
- Existing ramps at 4th St. to be removed
• One-way eastbound from Topeka Blvd. to 4th St.
• One-way westbound from 4th St. to Topeka Blvd.
• Two-way Topeka Blvd., Van Buren St., Jackson St., Kansas Ave., 4th St.
City Street Network Connectivity

Bike/Pedestrian Connectivity

- 1st St. & Kansas Ave. – open
- Harrison St.– shared use path under viaducts north/south
- Van Buren St. – bike lanes
- 4th St. – bike lanes, no piers
- 4th St. & Madison St. – open north
- 10′ shared use paths adjacent to frontage roads
• Year One Construction
• Year Two Construction
Schedule

- Plans to Right-of-Way: Spring, 2021
- Initial phases of Right-of-Way: Up to 3-year process
  - Property appraisals to begin: Summer, 2021
  - Property acquisitions to begin: Fall, 2021
- Final Design: 2021-2025
- Preparing for possible selection for IKE funding in the future
Questions?

Please send any comments or feedback to:
info@polkquincy.org

www.polkquincy.org
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<tr>
<th>Name</th>
<th>Title</th>
<th>Email</th>
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<td>G.G. Cush</td>
<td></td>
<td><a href="mailto:Ggcush457@gmail.com">Ggcush457@gmail.com</a></td>
<td>3207 SE 28th Terrace</td>
<td>Topeka</td>
<td>KS</td>
<td>66605</td>
<td>Resident</td>
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<tr>
<td>Steven Waugh</td>
<td></td>
<td><a href="mailto:steve.waugh50@gmail.com">steve.waugh50@gmail.com</a></td>
<td>411 SW Greenwood Ave</td>
<td>Topeka</td>
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<tr>
<td>Tom Lemon</td>
<td></td>
<td><a href="mailto:tlemmon@cavlem.com">tlemmon@cavlem.com</a></td>
<td>3200 SW Huntoon</td>
<td>Topeka</td>
<td>KS</td>
<td>66604</td>
<td>Property Owner</td>
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<tr>
<td>Donna Pearson</td>
<td></td>
<td><a href="mailto:donnarae64@gmail.com">donnarae64@gmail.com</a></td>
<td>1124 SW Huntoon</td>
<td>Topeka</td>
<td>KS</td>
<td>66604</td>
<td>Resident, Other</td>
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<tr>
<td>Linda Cook</td>
<td></td>
<td><a href="mailto:wesch46@yahoo.com">wesch46@yahoo.com</a></td>
<td>133 SW Western Ave S</td>
<td>Topeka</td>
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<tr>
<td>Steve Mohan</td>
<td></td>
<td><a href="mailto:smohan@mohanconstruction.com">smohan@mohanconstruction.com</a></td>
<td>125 S Kansas Ave</td>
<td>Topeka</td>
<td>KS</td>
<td>66603</td>
<td>Business Owner</td>
</tr>
<tr>
<td>Stephanie Barlow</td>
<td></td>
<td><a href="mailto:mommy2page2000@yahoo.com">mommy2page2000@yahoo.com</a></td>
<td>124 SW BUCHANAN ST</td>
<td>TOPEKA</td>
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<td>Resident, Property Owner</td>
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<tr>
<td>Melissa Willett</td>
<td></td>
<td><a href="mailto:melissa.willett@bwartwest.com">melissa.willett@bwartwest.com</a></td>
<td>3605 Ironwood Drive</td>
<td>Columbia</td>
<td>MO</td>
<td>65203</td>
<td>Other</td>
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<tr>
<td>Abdul Hamada</td>
<td></td>
<td><a href="mailto:abdul.hamada@wsp.com">abdul.hamada@wsp.com</a></td>
<td>2405 N Plumthicket</td>
<td>Wichita</td>
<td>AL</td>
<td>67226+</td>
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<tr>
<td>John Salisbury</td>
<td></td>
<td><a href="mailto:aliciasalisbury@att.net">aliciasalisbury@att.net</a></td>
<td>2931 SW Brewster Court</td>
<td>Topeka</td>
<td>KS</td>
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<td>Jennifer Loeffler</td>
<td></td>
<td><a href="mailto:Jennifer@letshelpinc.org">Jennifer@letshelpinc.org</a></td>
<td>200 S Kansas Ave</td>
<td>Topeka</td>
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<tr>
<td>Ardis Neal</td>
<td></td>
<td><a href="mailto:ardis_neal@yahoo.com">ardis_neal@yahoo.com</a></td>
<td>2230 se Madison st</td>
<td>Topeka</td>
<td>KS</td>
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<td>Jesse Cutter</td>
<td></td>
<td><a href="mailto:jesse.cutter@ks.gov">jesse.cutter@ks.gov</a></td>
<td>1325 SW Plass Avenue</td>
<td>Topeka</td>
<td>KS</td>
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<td>Resident</td>
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<tr>
<td>Katrina Ringer</td>
<td></td>
<td><a href="mailto:katrina.ringer@att.net">katrina.ringer@att.net</a></td>
<td>1295 SW Mulvane #1</td>
<td>Topeka</td>
<td>KS</td>
<td>66604</td>
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<tr>
<td>Steve Hare</td>
<td></td>
<td><a href="mailto:Share3141@gmail.com">Share3141@gmail.com</a></td>
<td>2624 SW Ashworth Pl</td>
<td>Topeka</td>
<td>KS</td>
<td>66614</td>
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<td>Brett Tavener</td>
<td></td>
<td><a href="mailto:btavener3@cox.net">btavener3@cox.net</a></td>
<td>6935 SW 19th Lane</td>
<td>Topeka</td>
<td>KS</td>
<td>66615</td>
<td>Resident</td>
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<tr>
<td>Dan Garrett</td>
<td></td>
<td><a href="mailto:Dgarrett@ksnt.com">Dgarrett@ksnt.com</a></td>
<td>3113 sw atwood ave</td>
<td>Topeka</td>
<td>KS</td>
<td>66606</td>
<td>Other, Resident</td>
</tr>
<tr>
<td>Sam Conaway</td>
<td></td>
<td><a href="mailto:scconaway@tfmcomm.com">scconaway@tfmcomm.com</a></td>
<td>125 SW JacksonSt.</td>
<td>Topeka</td>
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<td>66603</td>
<td>Property Owner</td>
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<tr>
<td>Bill Wagemaker</td>
<td></td>
<td><a href="mailto:WwWwagemaker@cox.net">WwWwagemaker@cox.net</a></td>
<td>224 SW Broadmoor Ave</td>
<td>Topeka</td>
<td>KS</td>
<td>66606</td>
<td>Resident, Property Owner</td>
</tr>
<tr>
<td>Kory Rupp</td>
<td></td>
<td><a href="mailto:krupp78@gmail.com">krupp78@gmail.com</a></td>
<td>6500 Nw Landon Rd</td>
<td>Topeka</td>
<td>KS</td>
<td>66618</td>
<td>Resident, Business Owner, Property Owner</td>
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<tr>
<td>Brent Trout</td>
<td></td>
<td><a href="mailto:btrout@topeka.org">btrout@topeka.org</a></td>
<td>215 SE 7th Street</td>
<td>Topeka</td>
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**User Name** | **Join Time** | **Leave Time** | **Time in Session (minutes)** | **Country/Region Name**
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**Other Attended**
Frequently Asked Questions

Why is this project needed?
After more than 60 years, there is significant deterioration on the viaduct (i.e., the bridge portion of this section of I-70). Furthermore, traffic volumes have increased, highway design criteria have changed and the area around the viaduct has undergone development. This project will improve safety with wider shoulders, a safer curve near 3rd Street and longer acceleration and deceleration lanes in certain areas.

How much will the project cost?
Project costs are expected to total more than $200 million

Why did the project stop for several years?
Funding challenges caused design plans to be suspended indefinitely in 2017. However, the project has now been selected for inclusion in KDOT’s development pipeline and hopes to secure construction funding form the “IKE” Eisenhower Legacy Transportation Program. The development pipeline allows final design to continue. This allows the project to move forward, in addition to $20 million pledged by the City of Topeka to support this project.

Will noise barriers be included in this project?
KDOT recently completed a noise study, and this project would not include noise barriers based on the findings of that study.

Why did the project team discard plans to include tunnels?
The tunnels went away with the new 2 Split Diamond concept. The new concept was a result of the updated traffic study, allows the west and east projects to be constructed independently, aligns with the city's updated development plans and eliminating tunnels saves long-term maintenance costs.
How does this project tie into the City of Topeka’s plans for bicycle and pedestrian connectivity along Kansas Avenue?
Kansas Avenue is part of the split diamond interstate ramps, handling traffic in both directions, so there is a traffic need for additional lanes through there. At the same time, the City of Topeka is planning more bicycle and pedestrian features in the Kansas Avenue area, including a grant-funded conversion of one southbound traffic lane to a two-way bicycle lane across the Kansas Avenue bridge. The project design team is working very closely with KDOT and City of Topeka to analyze how to get the best balance for motorists, pedestrians and cyclists in that area.

I understand the interstate will be three lanes starting at MacVicar Avenue. How far east will that go?
The three-lane section of I-70 will stretch between MacVicar Avenue and Topeka Blvd. Aside from that section, the interstate design currently includes only two lanes.

How much additional property will be required for this project? How much of it is considered commercial or residential?
The majority of these properties are business or commercial properties in the heart of the downtown Topeka industrial area. As an estimate, about 80 or 85 percent are commercial or industrial properties. The plans for property acquisition are still in process and will not be determined until we get the official plans for right-of-way. Our first priority will be negotiating with impacted property owners between Topeka Boulevard and Kansas Avenue, where the new viaduct is being built. We will identify those properties first and work with owners as quickly as possible to allow them time to relocate.

Will any historic properties be removed?
We have some older properties we are going to investigate, currently are not any classified historic properties that may hold up the path for this west side project.

Why is there a large separation between the lanes of I-70 through the viaduct?
We are building two lanes each direction across the viaduct, with the ability to expand that to three lanes each direction in the future if needed. That additional lane would go to the inside, hence the extra space for potential use in the future.
How much of I-70 will be closed during that second year and how will I access downtown?
The construction dates are still being finalized, but there will be a stretch from MacVicar to 6th Street that will need to close at some point in order to reconstruct I-70. While exact detour routes are still being determined, travel from Lawrence or Manhattan will likely involve an I-470 route through town. For those wanting to access downtown from the west side, possibilities include traveling MacVicar southbound to access 6th Street or 10th Street heading east. From the east side of town, 10th Street or 8th Street would be viable routes to access downtown.

What are the plans for aesthetics?
As part of the previous design process that stalled in 2015, we had a couple years of active community involvement in three different committees, and one of those committees was aesthetics. That aesthetics committee analyzed the look and texture for the new viaduct structures and which aesthetic elements would help make that an attractive section through downtown. These included elements on 6th Street, 8th Street and 10th Street bridges entering downtown (e.g., a structural steel arch to match those on Kansas Avenue). For this project, the aesthetic focus will likely remain solely on the viaducts and how they tie into design elements seen throughout downtown. The aesthetic committee’s recommendations are all still under consideration, with nothing finalized at this time.

What design elements will be below the viaduct?
There has been discussion of potentially utilizing the area beneath the future viaduct as open space, but that is an ongoing discussion between federal, state and local partners. Ultimately, it is still to be determined if and how this space could be utilized.

What is the plan with 2nd Street underneath the existing I-70 between Kansas Avenue and Topeka Avenue?
Second Street will remain open up to Jackson Street. The project team plans to remove the existing viaduct, patch in the holes in the existing Second Street where the piers are now, and then that roadway will remain open up to Jackson Street and closed from Jackson to the east.
Has consideration been given to making this section of I-70 a business route without viaducts, and rerouting the bulk of through traffic onto I-470? The existing viaduct is traveled by 35,000 vehicles per day, and the section of I-70 between Topeka Boulevard and MacVicar Avenue sees more than 50,000 vehicles per day. Turning this section of I-70 into a business route would push the vast majority of traffic back onto U.S. 24 or I-470. Neither of those routes have the capacity to absorb the volume of traffic that is currently passing through Topeka, so this option was not considered for that reason.
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<th>Askers Email</th>
<th>Answers</th>
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<tbody>
<tr>
<td>1</td>
<td>How long is this meeting expected to last tonight?</td>
<td>Lesley Hayward</td>
<td><a href="mailto:lesleyannehayward@gmail.com">lesleyannehayward@gmail.com</a></td>
<td>30 min. presentation, then 1 hr. available for Q&amp;A.</td>
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<tr>
<td>2</td>
<td>will the maps also be on the site you referenced</td>
<td>Walter Berry</td>
<td><a href="mailto:berrystopekaice@sbcglobal.net">berrystopekaice@sbcglobal.net</a></td>
<td>Hi, Walter. Yes - we will share tonight's presentation and materials to the website. Please reach out via email if you don’t find what you're looking for.</td>
</tr>
<tr>
<td>3</td>
<td>Does KDOT have historical records related to when the viaduct was constructed? I would love to know what records KDOT has on this project. Or perhaps they are with the State Historical Society?</td>
<td>Elaine Frisbie</td>
<td><a href="mailto:Gokujayhawks@gmail.com">Gokujayhawks@gmail.com</a></td>
<td>KDOT does keep a vault of old plans. I’m not sure KDOT makes a practice of making those available for distribution, but if you have interest in seeing them, perhaps reach out and we can try to accommodate your interest.</td>
</tr>
<tr>
<td>4</td>
<td>How many of those vehicles are estimated to be from Shawnee County?</td>
<td>Andy Fry</td>
<td><a href="mailto:farmerfry@gmail.com">farmerfry@gmail.com</a></td>
<td>I do know we did collect street light data as part of our updated traffic study. In a COVID environment, we weren’t able to get updated traffic volumes because they aren’t really valid right now as far as overall numbers. The traffic light data is based on cell phone usage, which provides us with some origin-destination information. I don’t know if what we get at that scale is going to tell us if they’re coming from Shawnee County or outside the county into the project area.</td>
</tr>
<tr>
<td>5</td>
<td>Will I have to move?</td>
<td>Mary Brannon</td>
<td><a href="mailto:gmaintheyellowhouse@gmail.com">gmaintheyellowhouse@gmail.com</a></td>
<td>Thank you for attending, Mary. We will not be discussing property-specific details tonight. Please reach out to our team via email and we can schedule a time to discuss: <a href="mailto:info@polkquincy.org">info@polkquincy.org</a>.</td>
</tr>
<tr>
<td>6</td>
<td>Will there be noise barriers on the South side of the highway? We’ve been here almost 30 years and when the concrete median was constructed it’s been many times worse.</td>
<td>Dudley L. Dawkins</td>
<td><a href="mailto:dawkind@reagan.com">dawkind@reagan.com</a></td>
<td>BRIAN ARMSTRONG: I know KDOT is conducting a noise study currently that is looking at projected traffic volumes along the interstate and will give us recommendations on impacts or mitigations we may want to consider as part of the design process. GREG GONZALES: Yes, I believe KDOT recently completed that noise study. I haven’t finished reviewing it, but I believe my initial take was that the project would not include noise walls based on the findings of that study.</td>
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<td>7</td>
<td>Is it possible to blow up the maps so details are larger?</td>
<td>Martha Bartlett Piland</td>
<td><a href="mailto:martha@mbpiland.com">martha@mbpiland.com</a></td>
<td>The maps will be available on the website and able to be enlarged. You can reach out to us if it doesn’t have what you need.</td>
</tr>
<tr>
<td>8</td>
<td>thank you.</td>
<td>Mary Brannon</td>
<td><a href="mailto:gmaintheyellowhouse@gmail.com">gmaintheyellowhouse@gmail.com</a></td>
<td>You are welcome.</td>
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<td>Question</td>
<td>Respondent</td>
<td>Email</td>
<td>Answer</td>
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<td>will the highway be ground level or bridge?</td>
<td>Walter Berry</td>
<td><a href="mailto:berrystopekaice@sbcglobal.net">berrystopekaice@sbcglobal.net</a></td>
<td>It's a combination of both. The interstate from MacVicar to Topeka Blvd. is going to be at ground level. From Topeka Blvd. to Kansas Ave. will be two elevated viaduct bridges, similar to the existing viaduct and about the same height. However, they will be located to the north and there will be two of them now instead of one, based on adding the shoulders to each of them. They're both about the same size as the existing. Also, at 4th Street, we will have two bridges where I-70 is over 4th Street so those will be elevated as well.</td>
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<td>what growth rate in traffic volume is assumed in the projections used to justify expansion from 2 lanes of directional traffic to 3?</td>
<td>Andy Fry</td>
<td><a href="mailto:farmerfry@gmail.com">farmerfry@gmail.com</a></td>
<td>BRIAN ARMSTRONG: I don't know the growth rate. I do know we did an extensive update in both the existing traffic volumes based on that street light data, and then projected that to a build year of 2025 just to get a number of vehicles in the near future. Then we projected that to a 30-year traffic model, year 2055, and that is what we used to analyze interstate capacity and number of lanes needed. JAKE BORCHERS: The City of Topeka has a Travel Demand Model, so we used that and projected out from there. It looks at land use in and around the area and ties it back to that origin-destination information from the street light data. One thing I would note is the three lanes of I-70 in each direction would be from MacVicar to Topeka Blvd. That third lane would end at the off-ramp going to Topeka Blvd. and westbound it would start at the on-ramp coming from Topeka Blvd. Beyond that, to the east, it is a two-lane I-70 section in each direction. BRIAN ARMSTRONG: One last point on that: we have built in the ability to expand I-70 in the future.</td>
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<td>Will all the buildings that appear in the path of the new viaduct be removed?</td>
<td>James Ogle</td>
<td><a href="mailto:jogle@freedomsfrontier.org">jogle@freedomsfrontier.org</a></td>
<td>Not knowing specifically what that question might be pointing to, the answer is yes there are buildings in the path of that viaduct that will be removed. That main impact is Kansas Avenue to Topeka Blvd. between 1st and 2nd where that new realignment is located.</td>
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<td>12</td>
<td>What are the metrics for ingress and egress to I-70 at the split diamonds so that they will not become bottlenecks and back-ups during peak traffic flow in the a.m. and p.m.?</td>
<td>Steven Waugh</td>
<td><a href="mailto:steve.waugh50@gmail.com">steve.waugh50@gmail.com</a></td>
<td>We did look at that comprehensive traffic model with the proposed number of lanes on Topeka Blvd. and Kansas Ave. and the frontage roads...what do those traffic volumes and turning movement volumes look like in year 2025 and year 2055. We did a traffic simulation model of those scenarios. How much traffic was backing up and queueing and can our proposed number of lanes handle that future volume and get traffic through the project? Especially if you think about northbound on Topeka Blvd. at 5 pm, that's several blocks of people backing up trying to get to 1st Street to get onto the interstate. We definitely have additional capacity northbound. We have two left turn lanes that have storage for that entire stretch to help get traffic back westbound on Topeka Blvd. Those metrics were providing an acceptable level of service, according to the Institute of Traffic Engineers and the Highway Capacity Manual.</td>
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<td>13</td>
<td>What are the light-blue lines on the map? They're not labeled in the map legend.</td>
<td>Matt Messina</td>
<td><a href="mailto:messina.matt@gmail.com">messina.matt@gmail.com</a></td>
<td>Thanks for your patience, Matt. They represent sidewalks and shared-use paths.</td>
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<td>14</td>
<td>Did KDOT/Topeka ever consider removing the viaduct and I-70 going through the middle of downtown and not replacing either? It's been done in other cities like Portland, OR and SF, CA.</td>
<td>Michael Bell</td>
<td><a href="mailto:theanticj@yahoo.com">theanticj@yahoo.com</a></td>
<td>BRIAN ARMSTRONG: I think the interstate volumes to handle east/west traffic through our community are such that we can't remove the interstate from downtown without needing extreme capacity expansion to the alternate route to be able to handle that additional volume. We know on the viaduct we have 35,000 vehicles per day. Between Topeka Blvd. and MacVicar, we have over 50,000 vehicles per day. There's just nowhere else to put those without causing undue harm to the other parts of the system. GREG GONZALES: I don't know that this was ever on the table. Abandoning I-70 running through downtown would require rebuilding it somewhere. It does not seem like a feasible solution without making some major improvements to those other routes in our system.</td>
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<td>15</td>
<td>Why were tunnels discarded? One worked in Seattle, WA.</td>
<td>Michael Bell</td>
<td><a href="mailto:theanticj@yahoo.com">theanticj@yahoo.com</a></td>
<td>Originally, the tunnels were pretty short and involved some access points along 4th Street. Those ramps were removed. To move forward with those ramps and tunnels, there would be extensive maintenance costs. It didn't really fit the need for capacity, and the layout for those tunnels were creating some issues with merging. That kind of played into our decision to get rid of the tunnels.</td>
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<td>Brian, how does the westbound offramp at Topeka Blvd impact bike/ped /transit connectivity across North and South on Kansas avenue?</td>
<td>Andy Fry <a href="mailto:farmerfry@gmail.com">farmerfry@gmail.com</a> Kansas Avenue is part of the split diamond, handling traffic for the eastbound on-ramp and westbound off-ramp. There is a traffic need for additional lanes through there. At the same time, the City of Topeka is looking to try to do more bicycle and pedestrian things north and south through Kansas Avenue. The City has a grant to convert one of the southbound lanes on the bridge to a two-way bike lane. So on the Kansas Avenue bridge, you’ll have a bike lane north and southbound, so only one lane of traffic coming southbound. We are still working with the City and KDOT and the design team on how those bicycles interact with Kansas Avenue east west to be able to tie back into downtown. We are aware we are mixing an interchange and pedestrians and bicycles and we are working to get the best balance of all those for everyone.</td>
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<td>Going from 2 to 3 lanes each way starting at Macvicar. How far east will that go?</td>
<td>Michael Bell <a href="mailto:theanticj@yahoo.com">theanticj@yahoo.com</a> The three-lane section starts at MacVicar and ends at Topeka Blvd. The eastbound off-ramp loses a lane going eastbound and the westbound on-ramp gains a lane going westbound to MacVicar.</td>
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<td>How much additional property will be required for the project? How much of it currently is considered commercial? Residential? COMBINED WITH QUESTION 26</td>
<td>Michael Bell <a href="mailto:theanticj@yahoo.com">theanticj@yahoo.com</a> BILL HAVERKAMP: The majority of these properties are business or commercial properties in the heart of that downtown industrial area. We haven’t put a number on it, but I would estimate about 80 or 85 percent are commercial or industrial type properties. Relevant to eminent domain, it’s always KDOT’s preference to negotiate and settle with property owners. There are instances where that does not occur and eminent domain would be a path for the acquisition of that property. Sometimes there is a property title issue that cannot be resolved without going to eminent domain. We would have to file a petition with the court to move forward and once that is certified, we would move through that process.</td>
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<td>Why is there a large separation between I-70 lanes through the bridge.</td>
<td>Mark Boyd <a href="mailto:mark.boyd@sbbeng.com">mark.boyd@sbbeng.com</a> JAKE BORCHERS: We are building two lanes each direction across the viaduct today, with the ability to expand that to three lanes each direction in the future if needed. That additional lane would go to the inside, so they are a little bit bigger today to allow for that future expansion if needed.</td>
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<td>Will eminent domain be used for property acquisition? If so, how will that work? COMBINED WITH QUESTION 24</td>
<td>Michael Bell <a href="mailto:theanticj@yahoo.com">theanticj@yahoo.com</a> SEE ANSWER LINE 24</td>
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<td>Please explain the plan for routine access to/from downtown during the year 2 closure of I-70.</td>
<td>Steven Waugh</td>
<td><a href="mailto:steve.waugh50@gmail.com">steve.waugh50@gmail.com</a></td>
<td>There will be a bigger picture overall detour for interstate traffic. So coming from Lawrence or Manhattan, you'll probably have an I-470 route to get through and continue your interstate movements. For other drivers, possibilities include using MacVicar on the west side to go south to 6th Street heading east or 10th Street heading east. Coming from the east, I'm guessing you will still be able to get off at 10th Street or 8th Street to get downtown.</td>
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<td>with original project almost 15 years old, have traffic volumes been validated to show need for expansion of Southbound Topeka Blvd expansion of lane width?</td>
<td>Andy Fry</td>
<td><a href="mailto:farmerfry@gmail.com">farmerfry@gmail.com</a></td>
<td>Yes. We evaluated all parts of the project with an updated traffic study. Those took into account all parts of the west project that we are talking about.</td>
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<td>Is the project completely funded? COMBINED WITH QUESTION 34</td>
<td>Sara O'Keeffe</td>
<td><a href="mailto:sara.okeeffe@gmail.com">sara.okeeffe@gmail.com</a></td>
<td>GREG GONZALES: As noted earlier, this project is part of the Eisenhower Legacy Pipeline. That essentially means it's not currently funded for construction. Selection for construction would be at a later date. With regards to how much the project will cost, I think just some rough numbers of construction estimates place this around $200 million or a little north of that. We are continuing to investigate funding sources. The City of Topeka is looking into grants and federal funding sources as well.</td>
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<td>so people will have to pay to get around Topeka once 70 is closed by using 470?</td>
<td>LATONIA WRIGHT</td>
<td><a href="mailto:justlatonia@gmail.com">justlatonia@gmail.com</a></td>
<td>GREG GONZALES: I think that's a yet-to-be-determined issue.</td>
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<td>So we won't know if our home will be acquiresed until this fall?</td>
<td>Lesley Hayward</td>
<td><a href="mailto:lesleyannehayward@gmail.com">lesleyannehayward@gmail.com</a></td>
<td>BILL HAVERKAMP: The plans are still somewhat in process. All the acquisitions have not been determined until we get the official plans for right-of-way. We can see on this map on the screen that there is a new viaduct going in between Topeka Blvd. and Kansas Avenue. We will be identifying those properties first and working with them as quickly as we can to allow them to get relocated.</td>
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<td>formally, what year will i-70 will close?</td>
<td>Nihar Patel</td>
<td><a href="mailto:nihar12003@yahoo.com">nihar12003@yahoo.com</a></td>
<td>We don't have a construction timeline yet.</td>
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<td>why are they not fixing the death curve first?</td>
<td>LATONIA WRIGHT</td>
<td><a href="mailto:justlatonia@gmail.com">justlatonia@gmail.com</a></td>
<td>That's why the west project is prioritized first. This project includes that I-70 realignment to make that safer.</td>
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<td>How much funding do you currently have...and how much do you need? You mentioned that you &quot;hope&quot; to be selected for future IKE funding? COMBINED WITH QUESTION 29</td>
<td>Jared Broyles</td>
<td><a href="mailto:jared.broyles@wibw.com">jared.broyles@wibw.com</a></td>
<td>SEE ANSWER LINE 29</td>
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<td>What is the plan with 2nd street underneath the existing i70 between Kansas ave and Topeka Ave.</td>
<td>Kevin Rake</td>
<td><a href="mailto:krake@hmeinc.net">krake@hmeinc.net</a></td>
<td>Second Street will remain open when we're done. We're going to remove the existing viaduct, patch in the holes in the existing 2nd Street where those piers are right now, and then most of 2nd Street all the way to Jackson will remain open. It will be closed from Jackson to the east.</td>
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<td>Also want to echo Michael Bell's question, what properties are being demolished to build the project?</td>
<td>Sara O'Keeffe</td>
<td><a href="mailto:sara.okeeffe@gmail.com">sara.okeeffe@gmail.com</a></td>
<td>Thank you for your questions, Sara. We are not discussing property-specific questions at this time.</td>
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<td>When do you hope actual construction will begin on the West Project?</td>
<td>Jared Broyles <a href="mailto:jared.broyles@wibw.com">jared.broyles@wibw.com</a></td>
<td>SEE ANSWER LINE 32</td>
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<td>32</td>
<td>Regarding the history of the Keyway Project, there's this:</td>
<td>Michael Bell <a href="mailto:theanticj@yahoo.com">theanticj@yahoo.com</a></td>
<td>Thank you</td>
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<td><a href="https://archive.org/details/relocationasitis00mcgr/page/n147/mode/2up">https://archive.org/details/relocationasitis00mcgr/page/n147/mode/2up</a></td>
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<td>33</td>
<td>How far south on Topeka Blvd will access be to cross the bridge going</td>
<td>Sheree Smith <a href="mailto:sheree@wardmeadenia.com">sheree@wardmeadenia.com</a></td>
<td>The westbound frontage road ties right into Topeka Blvd., and from</td>
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<td>north since 1st Street will be closed.</td>
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<td>there you have access to cross the bridge.</td>
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<td>34</td>
<td>Will jake brakes be disallowed in the downtown area?</td>
<td>Martha Bartlett Piland <a href="mailto:martha@mbpiland.com">martha@mbpiland.com</a></td>
<td>STEVE BAALMAN: As a matter of practice, KDOT does not put up signing</td>
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<td>disallowing the use of exhaust brakes on semis because we view it</td>
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<td>as a safety device. However, a local authority like the City of</td>
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<td>Topeka could approach us to see if they want to put up that kind</td>
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<td>of signing if they have an ordinance preventing it. This is more of</td>
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<td>a local issue than a KDOT issue.</td>
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<td>What design elements will be below the viaduct?</td>
<td>Mike Wilson <a href="mailto:mtw@ao.design">mtw@ao.design</a></td>
<td>GREG GONZALES: There has been discussion of potentially utilizing</td>
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<td>the area beneath the future viaduct as open space. However, use of</td>
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<td>that has yet to be determined. Certainly, there are liability issues</td>
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<td>with allowing any permit structures or anything with potential for</td>
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<td>fire. No determination has been made if or how we will utilize the</td>
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<td>space underneath the viaduct.</td>
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<td>36</td>
<td>Will Topeka blvd remain open to traffic during reconstruction or will I</td>
<td>Scott Campbell <a href="mailto:Hawkchabob@yahoo.com">Hawkchabob@yahoo.com</a></td>
<td>I imagine that one of the two years of construction, Topeka Blvd.</td>
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<td>have to detour over to kansas ave</td>
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<td>is going to be closed north-south across the bridge. I think the</td>
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<td>focus would be to keep either Kansas Avenue or Topeka Blvd. open at</td>
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<td>all times, but I imagine there is going to be some closure for both</td>
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<td>to make all of the reconstruction happen.</td>
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<td>Will this improve the route at 3rd and Quincy area to avoid the</td>
<td>Jill Michaux <a href="mailto:jill.michaux@gmail.com">jill.michaux@gmail.com</a></td>
<td>That is one of the main safety elements of this project. We are</td>
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<td>fatality accidents? We had another one recently.</td>
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<td>realigning I-70 to make those curves flatter and have a lot safer</td>
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<td>movement around the corner. Right now the existing curve is a lot</td>
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<td>sharper, so yes, the main focus of the alignment and shifting the</td>
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<td>bridges north is to add safety and make that area safer in the future.</td>
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<td>it would seem hard to calculate a cost benefit analysis for local</td>
<td>Andy Fry <a href="mailto:farmerfry@gmail.com">farmerfry@gmail.com</a></td>
<td>BRIAN ARMSTRONG: I can touch on COVID data to start. COVID data is</td>
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<td>Topeka tax payers if we have no concept of use.</td>
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<td>substantially less traffic while a lot of the downtown and community</td>
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<td>Also how would Covid data be any less valid than pre-Covid data?</td>
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<td>is closed, so taking traffic counts now anywhere in the city is not</td>
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<td>really relevant in trying to look at what current volumes are as</td>
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<td>compared to what they will look like when the community opens back</td>
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<td>up. So we used historic data to see what volumes were like right</td>
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<td>before everything shut down and what they will look like in the</td>
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<td>future.</td>
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<td>39</td>
<td>Has consideration be given to making this section of I 70 a business route without viaducts, if someone wishes to go beyond Topeka can go around via I470. Its only about 2 more miles or 2 min</td>
<td>Donald Snethen</td>
<td>STEVE BAALMAN: There is an overall through movement capacity that we have to maintain through Topeka, and turning this into a business route would push the vast majority of traffic back onto U.S. 24 or I-470. Neither of those have the capacity to absorb the volume that is passing through Topeka currently, so it was not really considered.</td>
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<td>41</td>
<td>What are the plans for aesthetics? Wichita has done some very nice work with landscaping and attractive sound barriers on the Kellogg improvement. What are our plans?</td>
<td>Martha Bartlett Piland</td>
<td>As a part of the design process that ended in 2015, we had a couple years of active community involvement in three different committees and one of those three was aesthetics. That aesthetics committee looked at, for the new viaduct structures, what the look and texture and aesthetic elements would be to make that an attractive section through downtown. I think all those concepts are still in consideration. I know it looked at the entire project, so there were some elements on 6th Street, 8th Street and 10th Street bridges entering downtown. There were talks of a structural steel arch on one of those to match what we've done on Kansas Avenue. For the west project, I think we will focus on the viaducts and how they match some of the elements we've been working on downtown.</td>
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<td>42</td>
<td>Will any historic properties be removed?</td>
<td>Donna Pearson</td>
<td>BILL HAVERKAMP: We have some older properties we are going to investigate, but no currently classified historic properties that would hold up the path for this west side project.</td>
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<tr>
<td>43</td>
<td>Most Civilized cities and counties have noise barriers!!!! We live in a culdasac that is literally up against the highway and now you're moving it even closer???? KDOT stopped taking care of the hillside 20+ years ago....there were no tress and now the fence runs THROUGH them!</td>
<td>Dudley L Dawkins</td>
<td>Thank you for your comment, Dudley.</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>more of a suggestion to make the improvements attractive and worthy of the city. see Ohio, especially Cincinnati as an example because they have beautiful viaducts, bridges and pedestrian bridges. KC is also putting in nice improvements and upgrades to take a look at. Topeka needs to get some wow to make people want to stop instead of accelerating on to the bigger cities like Denver and KCMO.</td>
<td>LATONIA WRIGHT</td>
<td>Thank you for your comment, Latonia.</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Any chance someone could draw an Architectural rendering? These maps are very hard to picture what it will look like.</td>
<td>Sheree Smith</td>
<td>Yes, we will be updating the architectural renderings that were made as part of that aesthetics committee. With some of the design changes we've made, we need to update to include some of the current elements, but that will be done in the future.</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>How much of I-70 will be shut down during that second year?</td>
<td>Jared Broyles</td>
<td><a href="mailto:jared.broyles@wibw.com">jared.broyles@wibw.com</a></td>
<td>There will be a stretch from MacVicar to 6th Street that will be closed at some point in time to reconstruct I-70.</td>
</tr>
<tr>
<td>47</td>
<td>St. Joseph, MO has rebuilt in a way Michael suggested. Why not rebuild Hwy 24 and 470? Much of the through traffic has no intent of stopping.</td>
<td>Andy Fry</td>
<td><a href="mailto:farmerfry@gmail.com">farmerfry@gmail.com</a></td>
<td>I think we have addressed that with the other similar questions.</td>
</tr>
<tr>
<td>48</td>
<td>Will 75/24/4 highway be signed as a potential detour to reduce tolls and backup on south Topeka entrance to KTA?</td>
<td>Walter Berry</td>
<td><a href="mailto:berrystopekaice@sbcglobal.net">berrystopekaice@sbcglobal.net</a></td>
<td>STEVE BAALMAN: We are so early in the final plans for this, but there is going to be some diversion of traffic on U.S. 24 and 75. That is a reality. What signing will be included in this project to address that has yet to be determined. Our vision for this was that I-470 would be the primary through route. We do realize there will be some impact on U.S. 24 but it will be problematic to sign it as the formal detour.</td>
</tr>
<tr>
<td>49</td>
<td>How many buildings do you anticipate being included in the displacement/acquisition process? Will they all be demolished?</td>
<td>Valerie Nicholson-Watson</td>
<td><a href="mailto:wwatson@harvesters.org">wwatson@harvesters.org</a></td>
<td>I think we have answered that with the previous, similar questions.</td>
</tr>
<tr>
<td>50</td>
<td>I think you missed Michael Bell’s question in regards to eminent domain</td>
<td>Sara O’Keeffe</td>
<td><a href="mailto:sara.okeeffe@gmail.com">sara.okeeffe@gmail.com</a></td>
<td>Thank you.</td>
</tr>
<tr>
<td>51</td>
<td>The riverfront authority is planning on putting in skate parks and things of that nature. There is an overall plan for the whole area.</td>
<td>Bill Cochran</td>
<td><a href="mailto:wcocochran@topeka.org">wcocochran@topeka.org</a></td>
<td>Thanks for that info, Bill.</td>
</tr>
<tr>
<td>52</td>
<td>1st &amp; Kansas: Will the Kansas Lottery parking stalls and use of their truck entrance on 1st Street East of Kansas Avenue remain available after the changes to 1st Street?</td>
<td>JOSEPH CHRIST</td>
<td><a href="mailto:christjr@swbell.net">christjr@swbell.net</a></td>
<td>We are looking at the design of the 1st and Kansas intersection. I don’t think we totally have a final design to look at the impacts to that specific property and those specific uses. We are keeping 1st Street open east-west now so I think the use of 1st Street will remain as it is today, for the most part.</td>
</tr>
<tr>
<td>53</td>
<td>To clarify, will access from my neighborhood around Meadows Elementary School to Topeka Blvd have to be 3rd St when you close 1st St?</td>
<td>Sheree Smith</td>
<td><a href="mailto:sheree@wardmeadenia.com">sheree@wardmeadenia.com</a></td>
<td>Yes, 1st Street as you can see on the map, doesn’t go through any more because of the I-70 eastbound off-ramp that connects directly to Topeka Blvd. 1st Street will basically have a 90-degree turn in it at Polk Street. So 3rd Street would be the closest connection to Topeka Blvd. to then be able to go back north.</td>
</tr>
<tr>
<td>54</td>
<td>I just have 2 unanswered questions. Don’t know how many more you have.</td>
<td>Michael Bell</td>
<td><a href="mailto:theanticj@yahoo.com">theanticj@yahoo.com</a></td>
<td>They are up next. Thanks for your patience.</td>
</tr>
<tr>
<td>55</td>
<td>how are you acquiring right of way without boundary control are you following fed highways regs to acquire right of way as original right of way acquisition was done without knowing who the true owners of property were in 1959</td>
<td>John Ham</td>
<td><a href="mailto:jomaham@cox.net">jomaham@cox.net</a></td>
<td>BILL HAVerkamp: Yes, we are acquiring the right-of-way with boundary control because that is the only way you can write a legal description. And we are following all federal highway regulations to acquire the right of-way for this project as was done in previous instances.</td>
</tr>
<tr>
<td>56</td>
<td>Brett Martin (You): With much of the most valuable property (historic and economic) in our downtown area, was there consideration of the historic and economic costs to the community in taking additional property for this project?</td>
<td>Brett Martin</td>
<td><a href="mailto:brettjmartin@gmail.com">brettjmartin@gmail.com</a></td>
<td>I think we’ve talked about the reasons for the project and what the impacts are.</td>
</tr>
<tr>
<td>Name</td>
<td>Email</td>
<td>Notes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>------------------</td>
<td>--------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>John Ham</td>
<td><a href="mailto:jomaham@cox.net">jomaham@cox.net</a></td>
<td>We've addressed the right-of-way process.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Martha Bartlett Piland</td>
<td><a href="mailto:martha@mbiland.com">martha@mbiland.com</a></td>
<td>Thank you for the thoughtful presentation.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

well you ask the office of inspector general to review right of way acquisition due to historical issues and project location errors.
Appendix I

KDOT Correspondence
KANSAS DEPARTMENT OF TRANSPORTATION
BUREAU OF DESIGN
ENVIRONMENTAL SERVICES SECTION

ENVIRONMENTAL TASKS

Project: (I) 70-89 KA-1266-02 FY: 2011
Rd. Squad: Br. Squad: Proj. Letting Date: 
CONSULTANT: Date File Initiated: 4-23-2009
REMARKS: Preliminary Engineering for the plan development of the
selected concept from the I-70 Corridor Study (Project No. 70-89 KA-1266
-01). Plan development will be taken through Field Check Stage. I-70
Polk/Quincy Viaduct & Approach Roadway, Topeka in Shawnee County.

N.A. Consultation Initiated: 8/5/15 No. of Tribes: 8
Remarks: Cont'd: Under MHP-01 - area beyond
Field Ck Plans Date: Before Fld Check: After Fld Check:
Field Ck Reports:

EC Plan 7/30/15.

TASK 2. Air Quality:

TASK 3. Archeological Investigations: MTR Plans 3/14/14 Waiting for PID Plans
8/5/14 EC Plans 7/30/15 EWP 8/15 - not recommended 9/14/15

TASK 4. Cultural & Historical Resources: MTR Plans 3/14/14 EWP 8/5/14
8/14/14 Monforty Sites 9 (126 SW Harrison St.) and 9S/205 SW Harrison St. are individually eligible
10/29/14 letter for Public Notice about
30/15 letter for DOE 7/23/15
EC Plans 7/30/15 EWP 8/15 - DOE - No Adverse 8/21/15
TASK 5. Wildlife: Waiting for PID plans 7/28/15
EC Plans 7/30/15 Sent KOWP letter 8/1/15
Sent 45FCA Information Notice 7/27/15.

KOWP Cleared 9/2/15

TASK 6. Farmland Protection Policy Act: 
EC Plans 7/30/15.


********** PLACE IN FRONT OF FILE **********
STPD Meeting Notes

70-89 KA-1266-02 Folk/Quay Viaducts

Get interior photographs of the stone house

Non State system bridges needing pictures:
- wants current pictures
- bridge hunters

Salvage Evaluation:
- Criteria A - as a site - eligible
### Terry Blackwell

<table>
<thead>
<tr>
<th>Subject:</th>
<th>Meeting SHPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
<td>KSHS</td>
</tr>
<tr>
<td>Start:</td>
<td>Wed 6/3/2015 2:00 PM</td>
</tr>
<tr>
<td>End:</td>
<td>Wed 6/3/2015 3:00 PM</td>
</tr>
<tr>
<td>Recurrence:</td>
<td>(none)</td>
</tr>
<tr>
<td>Meeting Status:</td>
<td>Accepted</td>
</tr>
<tr>
<td>Organizer:</td>
<td>Michael Fletcher</td>
</tr>
<tr>
<td>Required Attendees:</td>
<td>Terry Blackwell; Scott Shields</td>
</tr>
</tbody>
</table>

Please be prepared to discuss:

- **KA-1266-02** — Historic properties

- **KA-1005-03** - Cherokee County Route 66 determination of effect for potential overpass

- Stone Arch Culvert — Clearance of WB project and finalizing MOA for all stone arch culverts

- Update to SHPO on Cowley County Ark City bridge eligibility determination

- Review of historic bridge MOA, what bridges were included in particular girder bridges, photos of all bridges that were inventoried during MOA

- Truss inspections of bridges listed on the NR

- Anything else you need to discuss

- Please get with me before the meeting for internal discussion
How about Wednesday at 2:00pm so you don't have to rush. Scott Shields will not be available Wednesday but we can catch him up on the details.

Mike

-----Original Message-----
From: Patrick Zollner [mailto:pzollner@kshs.org]
Sent: Monday, June 01, 2015 8:11 AM
To: Michael Fletcher; 'Sarah Hunter'; Scott Shields; Terry Blackwell
Subject: Re: URGENT Proposed Meeting-New Dates, Topeka Viaduct

Sorry, I am already scheduled for a site visit to Cedar Point in Chase Co. on Tuesday, and I don't think I will be back by 2:00. I should be able to return by 3:00pm, however, if it will work for the KDOT contingent.

Thanks,
Patrick

Patrick Zollner
Director, Cultural Resources Division
Deputy State Historic Preservation Officer Kansas State Historical Society 785-272-8681, ext. 217
fax: 785-272-8682

On 6/1/2015 6:42 AM, Michael Fletcher wrote:
> Sarah,
> 
> Looks like June 2nd at 2:00 pm will work best for us.

> Mike
>
> -----Original Message-----
> From: Sarah Hunter [mailto:shunter@kshs.org]
> Sent: Friday, May 29, 2015 1:51 PM
> To: Scott Shields; Patrick Zollner; Terry Blackwell; Michael Fletcher
> Subject: Re: URGENT Proposed Meeting-New Dates, Topeka Viaduct
> 
> Hello again,
> 
> Pardon the delay in response, but I would like to propose two more meeting times for next week so that all parties can attend. We are available on Tuesday June 2nd and Wednesday June 3rd at 2:00 pm. Please let me know if that would work for everyone at KDOT.
>
> Thanks!
> 
> Sarah
> 
>
On 5/22/2015 8:23 AM, Scott Shields wrote:

June 4th works for me.

Scott

-----Original Message-----
From: Sarah Hunter [mailto:shunter@kshs.org]
Sent: Thursday, May 21, 2015 11:51 AM
To: Patrick Zollner; Terry Blackwell; Scott Shields; Michael Fletcher
Subject: Proposed Meeting 06/04/2015 2:00 pm, Topeka Viaduct

Good morning,

Terry and I spoke about some of the pending KDOT reviews this morning.
It sounds like we should meet about the Topeka Viaduct (70-89
KA-1266-02) project and 115 (113) & 119 SW Harrison St. Patrick and I have time Thursday, June 4th at 2:00 pm. Would that work for everyone at KDOT?

Thanks!

Sarah

Sarah Hunter
Review and Compliance Coordinator
Kansas Historical Society
6425 SW 6th Avenue
Topeka, KS 66615-1099
785-272-8681 x 225
785-272-8682 fax
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> >
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> >>
>> Scott

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>> Sent: Thursday, May 21, 2015 11:51 AM
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>> Subject: Proposed Meeting 06/04/2015 2:00 pm, Topeka Viaduct
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>>
>> Thanks!
>>
>> Sarah

>> --
>> Sarah Hunter
>> Review and Compliance Coordinator
>> Kansas Historical Society
>> 6425 SW 6th Avenue
>> Topeka, KS 66615-1099
>> 785-272-8681 x 225
>> 785-272-8682 fax
July 23, 2015

Patrick Zollner, Director
Cultural Resources Division
Kansas State Historical Society
6425 South West Sixth Avenue
Topeka, KS 66615-1099

Dear Mr. Zollner:

Subject: 70-89 KA-1266-02
NHPP-0705(214)
Shawnee County

The following structures and districts in the immediate vicinity of the project are listed on the NRHP or the Kansas Register of Historic Places.

South Kansas Avenue Historic District
Mill Block Historic District
Ward-Meade House (NRHP and State) 124 NW Fillmore Street
John and Mary Ritchie House (State) 1116 SE Madison Street

In addition to these properties, the following structures in the immediate vicinity of the project were determined potentially eligible for the NRHP.

Site Y at 124 SW Harrison Street (J. F. Van Nice Monument Co.)
Site 9 at 200 SW Harrison Street (Morton Residence)
Site U at 127 S Kansas Avenue (Wm. Schick Mattress Factory)
Site S at 108 S Kansas Avenue (L. Collins Building)
Site I at 201 S Kansas Avenue (McCord and Kistler Mercantile Co.)
Building at 631SW 1st Avenue Ryder Truck Rental (McPherson-Cless Motor Sales Co.)
House at 115 SW Harrison Street (Haywood Residence)
House at 119 SW Harrison Street (Shotgun House)
House at 1015 SE Jefferson Street
House at 1021 SE Jefferson Street

Activity III eligibility determinations for sites Y, 9, U, S and I were completed and your letter dated October 7, 2014 concurred that sites Y and 9 are individually eligible for listing in the NHRP. Sites U, S and I were determined to be contributing resources to a potential historic district.

On January 21, 2015 the projects effect on all potentially historic structures and districts were discussed and determined that Site U (127 S. Kansas Ave.), Site S (108 S. Kansas Ave.) and Site I (201 S. Kansas Ave.) would not be included in a historic district and there would be no concerns with their removal. It was
determined that the project would not have an adverse effect on the South Kansas Avenue Historic District or the Mill Block Historic District or any property contained within. It was also determined the project would not have an adverse effect on the Ward-McCade House, the houses at 1015 and 1021 SE Jefferson, Site 9 at 200 SW Harrison and the State Listed John and Mary Ritchie House.

Site Y (124 SW Harrison) would be adversely affected if destroyed by the project. Modification of the project design was discussed and it was agreed that the building could be saved with a slight realignment of the sidewalk. Attached are the revised project plan sheets which show the modifications to the project to save the structure. We request your concurrence that the project will have no adverse effect on Site Y, the structure at 124 SW Harrison.

Activity III eligibility determinations were completed for the Ryder Truck building, the (McPherson-Cless Motor Sales Co.) stone house (Haywood Residence) at 115 SW Harrison and the shotgun house at 119 SW Harrison. It was determined that none of these three properties were considered eligible for the NRHP. Your office concurred with this determination on July 1, 2015.

In summary KDOT, as agent for the Federal Highway Administration, has determined the project will not have an adverse effect on any property listed on, or eligible for, the NHRP. If further information is required, please contact this office at (785) 296-0853.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

for
Michael Fletcher, Chief
Environmental Services Section

Encl
KSR&C #15-01-046
July 1, 2015

Michael Fletcher
KDOT
Via Email

Re: 70-89 KA-1266-2
Concurrence of In-eligibility
631 SW 1st Street, 119 SW Harrison Street, 113 (now 115) SW Harrison Street
Douglas County

We have reviewed the Activity II & III materials received April 8, 2015 regarding the above-referenced project in accordance with 36 CFR Part 800. After our meeting on June 3, 2015, the SHPO concurs with the determination that the properties at 631 SW 1st Street, 119 SW Harrison Street, and 113 (now 115) SW Harrison Street are not eligible for listing on the National Register of Historic Places.

Thank you for giving us the opportunity to comment. Please refer to the Kansas State Review & Compliance number (KSR&C#) listed above on any future correspondence. Please submit any comments or questions regarding this review to Sarah Hunter at 785-272-8681, ext. 225 or shunter@kshs.org.

Sincerely,

Jennie Chinn
State Historic Preservation Officer

[Signature]

Patrick Zollner
Director, Cultural Resources Division
Deputy State Historic Preservation Officer
April 7, 2015

Patrick Zollner, Director
Cultural Resources Division
Kansas State Historical Society
6425 South West Sixth Avenue
Topeka, KS 66615-1099

Dear Mr. Zollner:

Subject: 70-89 KA-1266-2
NHP-0705(214)
Shawnee County

Attached are the Activity II/III reports for the McPherson-Cless Motor Sales Co. Building dated March 8, 2015, the Residence at 119 SW Harrison Street dated March 18, 2015 and the Haywood Residence at 113 Harrison Street (now 115 SW Harrison) dated March 17, 2015, prepared by Brenda Spencer.

McPherson-Cless Motor Sales Co. Building

The property at 631 SW 1st Street consists of a One-Part Commercial Block building constructed as an auto company c.1939. The one-story commercial building is rectangular in plan and has a brick façade with a stepped parapet on the front and rear. Steel bow trussed create a vaulted roof. A one-story block addition with flat roof was built on the rear of the building after 1955. A free-standing flat metal canopy is in place on the west, near the center of the building and a massive free-standing pole sign is in the front of the building. The former auto dealership is distinguished by its overall form, its multi-light steel windows and numerous garage bays with contemporary overhead doors.

The front facade of this building has been altered and does not reflect its original historic composition. Physical evidence suggests that the front façade likely had a central entry bay and was flanked by large square multi-light windows. The central bay and window openings have been infilled and downsized to accommodate small non-historic two-light slider windows. A single pedestrian door opening that had been cut into the façade has been filled with wood. Two small windows have been added above original openings that correspond with mezzanine offices inside.

The building is in a transitional setting of neighborhoods and three other commercial buildings. While the broader context around the site retains a residential setting, construction of the elevated highway and changes to 1st Street have significantly impacted the historic setting of the property. The interstate has cut off its tie to the commercial areas to the north that it had been a part of.
The building at 631 SW 1st Street is representative of Depression-era auto dealerships that has been significantly altered. The orientation of the building has shifted from the north side to the west. The rear garage/service area retains basic characteristics of the property type, but the building as a whole has a low to moderate level of historic integrity. KDOT has determined this property not eligible as a resource for the NHRP.

Residence at 119 SW Harrison Street

The property at 119 SW Harrison Street consists of a one-story National Folk-style shotgun house, a one-story frame residence built c.1905. It is distinguished by its simple long and narrow rectangular form and front-facing gable roof. Primary characteristics include its full-width front and rear porches with shed roofs, narrow clapboard siding, and original 1/1 double-hung wood windows. Lot 19 is one of six lots (Lots 13-23) that comprise the legal parcel addressed at 115 SW Harrison, with the primary building being a two-story masonry residence at 115 SW Harrison (north of the house at 119 SW Harrison). Lot 19 is comprised of the former one-story frame residence now used as storage and one additional resource - a one-story c.1940 frame garage located at the rear of the site.

Historically the block was a traditional residential neighborhood with one home on each lot, many with rear garages or sheds accessed from the alley. The neighborhood that this home was a part of is clearly seen on Sanborn maps dated 1889 and the neighborhood finished filling in by 1913. The working-class neighborhood began to transition to light manufacturing between 1920 and 1950. Additional damage to the residential feel of the neighborhood happened with Interstate-70 being elevated and located along the second street with massive round pillars the support the highway which further compromised the setting of the residential neighborhood.

The one-story shotgun house at 119 Harrison was built c.1905; the original owner and builder are unknown. Throughout its one-hundred years plus history, the property appears to have functioned as rental housing with frequently-changing working-class tenants. Current owner, Charles G. Garver bought the property in the 1980s and continues to reside in the two-story masonry home at 115 SW Harrison. The house at 119 SW Harrison is used as a storage shed/wood shop; it last functioned as a residence 28 years ago. Primary effect on the property’s historic integrity is two-fold – gutting of the interior of the house for use as a storage shed and the complete lack of neighborhood setting. The site retains little integrity of setting, feeling or association. KDOT has determined this property not eligible as a resource for the NHRP.

Haywood Residence at 113 Harrison Street (now 115 SW Harrison)

The residence at 115 SW Harrison is a c.1880 two-story ‘National Folk’-style limestone residence with a brick façade. It is a simple vernacular building, its most unique characteristic being the fact that it is a masonry structure in a residential neighborhood which was historically comprised primarily of wood frame homes. The home retains a high level of integrity of location and workmanship maintaining its original masonry façades and wood windows. The front entrance has been enclosed with a contemporary porch and the rear façade has been covered with stucco somewhat compromising its integrity of design and materials.

Given its simple vernacular design and lack of documentation of its origins, the residence does not have
a strong Criteria A or C basis for listing on the national register. The primary significance of the home would have been as a representative of an early railroad-era residence in a downtown Topeka neighborhood. The neighborhood in which the home is located has lost all integrity of setting, association and feeling. The neighborhood context has been adversely impacted by the transition to light-industrial/commercial use on the east side of the 100 block of SW Harrison, a transition that culminated with the Van Nice Monument (Hutton Monument) shop and a cabinet shop that remains in place across the street from the home. The removal of four of the six historic residences in the 1980s and 1990s leaves the house at 115 SW Harrison as the primary resource on a parcel comprised of six lots and four buildings. The site retains no integrity of setting or association.

Given the complete lack of neighborhood setting, the area would likely not be a contributor to a potential residential historic district due to the loss of adjacent homes resulting in drastic lack of a neighborhood setting. KDOT has determined this property not eligible as a resource for the NHRP.

Based on review of this report, the Kansas Department of Transportation has determined that the Ryder Truck Rental Building, Shotgun House and Masonry House Properties are not eligible for listing on the National Register of Historic Places.

We are formally requesting your review of this report and comment on the eligibility determination. If further information is required, please contact this office at (785) 296-0853.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

[Signature]

for
Michael Fletcher, Chief
Environmental Services Section

Encl
19 March 2015

Terry Blackwell
Environmental Services, KDOT
700 SW Harrison Street
Topeka, KS 66603-3726

Dear Mr. Blackwell:

Enclosed is the submittal of the Activity II & III Reports for the three Topeka properties in Shawnee County under Contract No: 39428, CMS Contract No. 006156606, KDOT Project No: 70-89 KA-1266-02 Shawnee County; the work orders dated January 1/16, 1/26, and 2/25/2015

As required, for each property I have enclosed two hard copies of the report and survey form, and two discs with all electronic files. The disc contains the report and survey files as well as the photos and my research and field notes.

I have updated the Kansas Historic Research Inventory Record for the properties and uploaded my photos as appropriate. As we’ve done in the past (and recommended by KSHS), I referenced the attached Activity III report in the “remarks” fields but did not actually upload the file. I understand that you or KSHS will upload the report for each of the buildings following KDOT review and approval of the reports.

Attached is an invoice for the project. Please let me know if you have any questions on the reports or if there is anything else you need. I look forward to future KDOT projects, including the Arkansas City bridge this summer.

Sincerely,

Brenda Spencer
Activity II & III Report
KDOT Project No. 70-89 KA-1266-02 Shawnee County
McPherson-Cless Motor Sales Co., 631 SW 1st Street (historically addressed at 625 W. 1st Street)
Topeka, Kansas
8 March 2015

Property Information
Owner and Occupant: Ryder Truck Rental, Inc.
Function: Commercial Business
Historic Name: McPherson-Cless Motor Sales Co. Building
Legal: POB SE COR 1st & POLK, SE 120(S) ALG ST, SWLY 35 (S), NWLY 30, SWLY 100 (S), NWLY 90 (S), NELY 195 (S) TO POB, S30 T11S R16E
khri: 177-5400-01753

Narrative Description
The property at 631 SW 1st Street consists of a One-Part Commercial Block building constructed as an auto company c.1939. The one-story commercial building is rectangular in plan and has a brick facade with a stepped parapet on the front and rear. Steel bow trusses create a vaulted roof. A one-story block addition with flat roof was built on the rear of the building after 1955. A free-standing flat metal canopy is in place on the west, near the center of the building and a massive free-standing pole sign is extant in front of the building. The former auto dealership is distinguished by its overall form, its multi-light steel windows, and numerous garage bays with contemporary overhead doors.

631 SW 1st Street Aerial View- downloaded at Bing Maps, 5 March 2015 © 2015 Microsoft & Pictometry International Corp.

Note: Map orientation is North DOWN in order to best show building.

1 Property Data from Shawnee County Appraiser's Office accessed online 4 March 2015.
Site and Neighborhood Context
The building at 631 SW 1st Street is located on the southeast corner of 1st and Polk Streets below the I-70 viaduct. The locale is a transitional area with residential neighborhoods to the west, south, and southeast. The building is one of three free-standing commercial buildings along this portion of SW 1st Street.

The site immediately around the building measures approximately 100’ x 200’. The building is setback from Polk and 1st Streets with paved parking on the front and west side of the building. A garage service canopy (free-standing) is located on the west side of the building. South of the canopy, the paved area provides access to garage bays along the west facade. The area is not pedestrian oriented; there are no sidewalks around the site. A dominant characteristic of this site is the elevated roadway (Interstate 70) that crosses 1st Street immediately northeast of the building. The elevated road is supported by massive round concrete pillars located on the north side of 1st Street, north of the building.

Historically, this block was bisected N/S by a rail spur servicing the Continental Creamery Co. that was located on the east side of the 200 block of SW Polk (late-nineteenth - early-twentieth centuries) south of the site. The west part of the 100 block was originally home to a lumber company’s storage facilities, taken over by the creamery by the mid-20th century. Continental Creamery became Beatrice Creamery and ultimately Beatrice Foods Co. by 1950. Prior to construction of the I-70 elevated roadway around downtown, single-family residences were located on 1st Street and Tyler Street on the east half of the block. Residences remain at the southeast quarter of the block. The southwest portion of the block is cleared and surrounded by a chain-link fence; it serves as the backlot for Ryder Truck Rentals, the occupant of the former auto company garage at 631 SW 1st. A second commercial building is located on 1st Street east of the auto company at 731 SW 1st.
At the time the Auto Company built this building c.1939, there were businesses along the north side of 1st Street, including multiple auto-related businesses immediately northwest of the site. This is significant in that the building at 631 SW 1st was built by one of the owners of Kansas Auto Wrecking located at 624 W. 1st who operated auto-related businesses in both locations for a period of time.

It is not known precisely when the property at 631 SW 1st took its current form. The car dealership was short-lived and by 1950, the building was occupied by Baker Truck Rental. The only change to the building footprint occurred with construction of a rear addition sometime after 1955. In 1955, The Beatrice Foods Co. remained in the 100 block of SW Polk Street (Sanborn Maps). At some point, the truck rental company occupying the building was able to purchase and clear the lots behind their building.

**Building Exterior**
The building at 631 SW 1st was built as a small auto dealership around 1939. It is a one-story concrete block building with brick facades on the front and rear. The brick facades have stepped parapets with concrete caps that hide the vaulted roof. A membrane has been applied to the roof and wrapped over
the south parapet onto the flat roof of the rear addition. The membrane is terminated with metal strips on the parapet cap on the front/north facade. All exterior masonry is painted. The form and massing of the building characterize it as a One-Part Commercial Block. The vaulted roof form with stepped parapets is typical of auto garages of the period.

Original multi-light steel windows remain on the east facade of the building, also characteristic of auto-related buildings of this era. All fenestration is punched openings with simple concrete sills. The front facade has been altered on more than one occasion and does not reflect its historic composition. Although no historic photographs have been located, physical evidence suggests that the front facade likely had a central entry bay and was flanked by large square multi-light windows. The central entrance bay and original window openings have been infilled or downsized to accommodate small non-historic two-light vertical slider windows. It appears that a single pedestrian door opening was formerly cut into the facade, now infilled with wood. Additionally two small windows have been added above the original openings, corresponding to mezzanine offices inside.

On the north end of the west facade, an original oversized opening, which could have been a “storefront” or garage door, has been infilled with block and downsized to accommodate a single aluminum-framed glass door. The door is flanked by fixed-light windows in non-original openings. The center portion of the west facade corresponds to a free-standing metal service canopy. A single door is flanked by two original multi-light steel windows. The south end of the west facade is comprised of four garage bays, plus a fifth bay at the rear addition.

A one-story concrete-block bay was formerly added at the rear of the building (date unknown). The height of the addition falls between the sidewalls of the original building and the top of the parapet. The addition is a single garage bay with overhead doors on the east and west. The addition abuts the original rear/south facade, covering its original configuration.

**Interior**

No documentation has been found regarding physical aspects of the building when it was home to the McPherson-Cless Motor Sales Co. but the building form and a basic knowledge of early auto dealerships suggests a front showroom, possibly with small mezzanine office, and large rear service garage. Even without a formal storefront or showroom at the front of the building, any motor company would have included highly-visible display space at the front of the building. The front of the existing building is occupied by offices accessed from the interior and oriented to the rear garage versus the front of the building completely changing the orientation of the original front facade.

The rear of the building continues to function as a garage with its characteristic utilitarian finishes including exposed masonry walls and concrete floors; the walls having a painted finish. In addition to the exposed masonry finishes, the distinguishing feature of the garage area is the exposed structure at the ceiling. The vaulted roof is formed by steel bow trusses. As previously mentioned, the original multi-light windows along the east wall provide light and ventilation into the garage. The front section of the building has been significantly altered to accommodate first floor and mezzanine offices where the showroom was originally located. The walls of the office area are sheetrock and extend to the lower chord of the roof trusses.

**Condition and Integrity**

The original design and configuration of the storefront is unknown but it is clear that the existing configuration reflects significant remodeling including infill of the original masonry openings. The front of the building no longer reflects the building’s original design as an auto dealership. The offices and rear
garage are both entered from the west, changing the public orientation of the original building. The change in orientation resulted in modifications to the west facade as well as the front/north facade. It is likely that the west facade was originally comprised of a row of multi-light steel windows similar to the existing east facade. The existing configuration presumably dates to the building’s use as a truck rental facility since it has served that function for more than sixty years.

With the exception of the rear addition, the building retains its original form and the original steel windows on one side of the building. The balance of the exterior reflects former modifications to accommodate the change in use from auto dealership to truck rental facility. Therefore, the exterior retains a low degree of architectural and historic integrity.

While the broader context around the site retains a residential setting, the construction of the elevated roadway and resulting changes to 1st Street below the flyover, have significantly impacted the historic setting of the property. None of the auto-related businesses, or for that matter, no buildings remain on the north side of 1st Street which provided the real context for this property.

The McPheron-Cless Motor Sales Co. Building retains a moderate degree of integrity of setting, association, materials, and association and a high degree of integrity of location. The former alterations have compromised integrity of design and workmanship. Overall, the level of historic integrity is low to moderate. The property does not clearly portray its original design and function as an auto dealership although it is clear that it was an auto-related structure. The loss of the showroom is a primary factor as evidenced by the infilled openings on the front facade and re-orientation of the building to the west side.

Statement of Significance
Only seven months after the United States Congress passed the Kansas-Nebraska Act on May 30, 1854, establishing the Kansas Territory, pioneers selected a site for a new town that would become Topeka. Located in Shawnee County, one of the 33 original counties of the State of Kansas, settlers would form the Topeka Association and elect officials in less than two weeks.2

In 1870, the population of Shawnee County had exploded 273% over the previous decade.3 By 1880, the county had more than doubled again, with the largest portion of the population in Topeka, notably due to rail access.4 The building boom and prosperity of the 1880s was followed by an economic downturn in the 1890s. By the turn of the twentieth century, Topeka’s economy was growing again at a slow and steady pace. The 1910s and 1920s saw construction of larger and taller business buildings along Kansas Avenue, the center of Topeka’s business district. One of the obvious displays of prosperity in the 1920s was the increased use of the automobile. In August 1929, The Topeka Daily Capital reported “a large portion of the retail trade is devoted to the automobile and its accessory lines.” The article also noted that “with 16 agencies dealing in pleasure cars, five devoted to trucks and tractors, and twenty tire shops, to say nothing of approximately 150 (last count) filling stations, the needs of the motorist are well cared for.”5

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While the Great Depression certainly affected Topeka, the presence of state government helped to stabilize the city during the tough economic times. Car sales did however, drop sharply during the Depression. Dealerships focused their attention on service rather than sales and often expanded repair services and sales of used autos. Material shortages during World War II extended this focus to the war years. It was not until 1945 that auto production resumed and exceeded all previous records in sales and production in attempt to meet the pent-up demand from consumers.

The McPherson-Cless Motor Sales Company was built during that service-oriented time, when new car sales were almost non-existent and dealerships focused on sales of used cars and repair and service.

**McPherson-Cless Motor Sales Co.**

The building at 631 SW. 1st Street, formerly addressed at 625 W. 1st Avenue, was in place on the 1950 update of the 1913 Sandborn Map and labeled “Private Garage” with a capacity for 40 cars. The first City Directory listing for 625 W. 1st Street was found in the 1940 Topeka City Directory. The 1938 Directory included residential listings at 615 and 617 W 1st but no business listings on the south side of 1st Street. In 1938, there were multiple business listings on the north side of 1st Street including Kansas Auto Wrecking Co. at 634 W. 1st Street, northwest of the site. McPherson and Cless formed their company and built the auto dealership/garage at 625 W. 1st Street c.1939.

McPherson-Cless Motor Sales Co. was listed at 625 W. 1st Street from 1940 – 1948. The business was operated by Clarence M. McPherson and Floyd M. Cless, and sold used cars. By 1950, the building at 625 was occupied by Baker Truck Rental. Baker was at this location through 1958, replaced by the current owner and occupant - Ryder Truck Rental - who moved to the building in 1959.

Clarence M. McPherson and Floyd Cless had a history in the auto business in Topeka. In 1929 McPherson was a “department manager” at Durant Motor Co. By 1935, McPherson was working at Kansas Auto Wrecking at 634 W. 1st Street, across the street from where he and Cless would build their motor company. In 1929, Chester Behrer had one of two auto wrecking businesses in Topeka, located at 634 W. 1st Street. By 1935, Floyd Cless was working as a mechanic at Kansas Auto Wrecking.

In 1938 McPherson worked at Capital City Auto Wrecking located on N. Kansas Avenue and Cless was a buyer at Kansas Auto Wrecking. By 1940, the two men had opened McPherson-Cless Motor Sales Co. at 625 W. 1st Street. However, both men still had connections with other auto businesses including the two aforementioned auto wrecking businesses. Cless and McPherson also had a used car business at 1010 N. Kansas Avenue in addition to their 625 W. 1st Street location. These multiple listings were present through 1948. McPherson-Cless Motor Sales Co. at 625 W. 1st Street was not listed in the 1950 Topeka City Directory (Baker Truck Rental occupied the building, with the address changed to 631 W. 1st).

McPherson remained at Kansas Auto Wrecking through 1955. Floyd Cless is listed in the 1950 and 1955 city directories, with no occupation listed. It is possible he had retired from the auto business.

The McPherson-Cless Motor Sales Co. was a relatively short-lived venture, likely built to capitalize on the rising popularity of the automobile. The partners, Clarence M. McPherson and Floyd M. Cless, had been working in the auto wrecking business in Topeka for more than a decade, including at Kansas Auto Wrecking at 634 W. 1st Street across the street from where they would build their auto company. It is

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8 *Polk’s Topeka City Directories* (Kansas City, MO: R.L. Polk Publishing Co.) 1937 – 1960 available at Shawnee County Public Library.
reasonable to assume that McPherson and Cless chose to capitalize on a depressed auto market and build a dealership that would sale and service used cars. The building they constructed is representative of Depression-era dealerships with a focus on service and repair.

The *Roadside Kansas MPS* describes the Auto Showrooms and Dealerships Property type and provides registration requirements for listing such buildings on the National Register of Historic Places.

...auto dealerships typically featured large plate glass windows at the showroom and vehicular bays on one or more elevations. Primary building materials were fireproof, including brick, hollow clay tile, concrete, and steel and the design often featured a unique structural system, such as barrel vaulted trusses that accommodated a wide, column-free expanse. Abundant windows, typically multi-light industrial metal sashes, brought light into service areas and featured operable pivot sashes to expel fumes. Multi-story auto dealerships were equipped with freight elevators or ramps that carried vehicles between floors. A significantly higher level of finishes in the showrooms distinguished them from the utilitarian service areas.⁹

The McPherson Cless Motor Sales Co. was a one-story masonry building with a vaulted roof allowing a large free-span repair shop/garage. Although documentation is sparse, the building does not appear to have incorporated a major showroom which is reasonable given its period of construction, lack of affiliation with an auto manufacturer, and its focus on used cars. New car production and sales all but ceased during the Depression and World War II; dealerships focused on service and repair during this time.

The building at 631 SW 1st Street is representative of Depression-era auto dealerships. However, the front of the building has been altered and the masonry openings infilled. The orientation of the building was shifted to the side, facing Polk Street on the west. The rear garage/service area retains basic characteristics of the property type but the building as whole has a low to moderate level of historic integrity.

**Current Views**

![Image of McPherson-Cless Motor Sales Co.]

#1 – Front/N facade of McPherson-Cless Motor Sales Co., occupied by Ryder Truck Rental 1959 – present (looking S from 1st St.)

Current Views continued

#2 – Site, looking SW from 1st Street under viaduct

#3 – Front/north and east facades, looking SW from 1st Street

#4 – Detail of membrane roof wrapped over south parapet

#5 – View of site from SE corner with south and east facades

#6 – South and west facades with addition on S end(R)

#7 – Center bay on W facade with entrance (beneath canopy)

#8 – West facade looking S from NW corner

#9 – Detail of infilled openings on front/north facade
Current Views continued

#10 – Offices on north end of interior, looking NE from W entry

#11 – Looking S in rear garage

#12 – Rear garage, looking east from west door

#13 – Detail of multi-light steel window on east wall
177-5400-01753  
McPherson-Cless Auto Sales Co.  
631 SW 1ST ST  
Topeka

LOCATION:

County: Shawnee  
Address: 631 SW 1ST ST  
Address Remarks: historically, address was 625 W. 1st Avenue  
City: Topeka  
Zip: 66603  
Parcel ID: 109-30-0-30-12-001.01-0  
Legal Description: Section 30 Township 11S Range 16E  
Legal Description Remarks: POB SE COR 1ST & POLK, SE 120(S), A LG ST, SWLY 35(S), NWLY 30, SWLY 16 0(S), NWLY 90(S), NELY 195(S) TO POB  
Latitude, Longitude 1: 39.060613 -95.678905  
Latitude, Longitude 2:  
Latitude, Longitude 3:  
Latitude, Longitude 4:  
Datum: WGS84

DESCRIPTION:

Historic Name: McPherson-Cless Auto Sales Co.  
Alternate Name: Ryder Truck Rental  
Historic Function: Transportation  
Subcategory: Road-Related (Vehicular)  
Historic Function Remarks: Building was built as auto sales and service garage for McPherson-Cless Auto Sales Co. (1939-1948). Building was home to Baker Truck Rental 1950-1958 and became home to Ryder Truck Rental in 1959 (through present day).  
Present Function: Commerce/Trade  
Subcategory: Business  
Present Function Remarks: Ryder Truck Rental (1959 through present day)  
Residential/Commercial/Religious Style: Commercial Style  
Secondary Style:  
Barn Type: Not Applicable  
Bridge Type: Not Applicable  
Physical Description/Remarks: One-story concrete block building has brick façade with stepped parapet on front and rear. Vaulted roof has membrane roofing over sheathing on bowstring trusses. Building retains some original multi-light steel windows. Openings on front façade have been infilled and/or downsized; west side has multiple garage bays. One-story concrete-block addition on rear/south end of building, date unknown.
**Plan Form:** Rectangle  
**Commercial Building Type:** One-Part Commercial Block  
**Roof Form:** Vault with Parapet  
**Stories:** 1  
**Condition:** Fair  
**Principal Material:** Concrete  
**Condition Remarks:** Concrete block building has brick facades on front and rear. All exterior masonry has painted finish.  
**Architect/Designer/Builder:** Unknown  
**Year of Construction:** 1939  
**Certainty:** Estimated  
**Date Notes:** McPherson-Cless Auto Sales Co. listed at this address in 1939 Topeka City Directory (no listings in 1938)  
**General Remarks:** See attached Activity III Report, prepared for KDOT 2015.  
**Ancillary Structures:**  
**Ancillary Structure Remarks:** Large free-standing pole sign in front of building and free-standing metal canopy with flat metal roof deck located on west side of building.

### REGISTER STATUS:

- **Listed in State Register:** No  
- **Date of State Listing:**  
- **Listed in National Register:** No  
- **Date of National Listing:**  
- **Historic District:**  
- **Demolished:**  
- **Date Demolished (if applicable):**  
- **Potentially Eligible for National Register:** No  
- **Register Status Remarks:** With modification of front façade (infill of original openings) and change of orientation to primary entrance on west façade, building retains only moderate degree of historic integrity. The garage - the rear portion of original building is intact with exposed utilitarian finishes.

### SURVEY INFORMATION:

**Survey 1**  
**Survey Project Name:** Topeka - Original Town/Ward-Meade Reconnaissance Survey (2003)  
**Sequence Number:** WM516  
**Surveyed By:** Pezzeni  
**Survey Date:** 06/01/2003

**Survey 2**  
**Survey Project Name:** Topeka - KDOT 70-89 KA-1266-02 (2014)  
**Sequence Number:**  
**Surveyed By:** KDOT/Blackwell, Terry  
**Survey Date:** 01/12/2015

### IMAGES & DOCUMENTS
631 SW 1st. Site looking SW from 1st Street beneath viaduct. Spencer, 03-06-2015.

631 SW 1st. North and east facades, looking SW. Spencer, 03-06-2015.

631 SW 1st. Detail of membrane roof wrapped over south parapet, looking SW from east side. Spencer, 03-06-2015.

631 SW 1st. Backlot, looking NW from SE corner of site. Spencer, 03-06-2015.

631 SW 1st. South and west facades, from SW corner. Spencer, 03-06-2015.

631 SW 1st. Entrance on center bay of west facade beneath canopy. Spencer, 03-06-2015.

631 SW 1st. West facade looking SE from NW corner. Spencer, 03-06-2015.


631 SW 1st. Detail of infilled openings on front facade. Spencer, 03-06-2015.

631 SW 1st. Offices enclosed at north end of building, looking NE from W entry. Spencer, 03-06-2015.

631 SW 1st. Looking south in rear garage with utilitarian finishes exposed. Spencer, 03-06-2015.

631 SW 1st. Rear garage, looking east from west entry. Spencer, 03-06-2015.

Activity II & III Report
KDOT Project No. 70-89 KA-1266-02 Shawnee County
Former Residence, 119 SW Harrison Street, Topeka, Kansas
18 March 2015

Property Information
Owner: Charles G. Carver
Function: Former Single-Family Dwelling (now used as storage shed/wood shop)
Historic Name: Residence at 119 SW Harrison Street
Legal:¹ Harrison Street Lots 13-15-17-19-21-23, Original Town, S30 T11S R16E
khrl: 177-5400-01839

Narrative Description
The property at 119 SW Harrison Street consists of a one-story National Folk-style shotgun house, a one-story frame residence built c.1905. It is distinguished by its simple long and narrow rectangular form and front-facing gable roof. Primary characteristics include its full-width front and rear porches with shed roofs, narrow clapboard siding, and original 1/1 double-hung wood windows. Lot 19 is one of six lots (Lots 13 – 23) that comprise the legal parcel addressed at 115 SW Harrison, with the primary building being a two-story masonry residence at 115 SW Harrison (north of the house at 119 SW Harrison). Lot 19 is comprised of the former one-story frame residence now used as storage and one additional resource – a one-story c.1940 frame garage located at the rear of the site.

¹ Property Data from Shawnee County Appraiser's Office accessed online 4 March 2015.
TOP: Current Site Plan 119 SW Harrison, Shawnee County GIS, downloaded 5 March 2015
BOTTOM: 1913 Sanborn Map, portion of Sheet 10 showing dwelling at 119 S. Harrison Street with garage small shed at the rear.
Site and Neighborhood Context

The former home at 119 SW Harrison is one of four buildings on the property comprised of Lots 13 – 23 at the southeast corner of the 100 block of SW Harrison Street. The lots are 25’ wide x 150’ deep, extending full width to a rear alley. The property, addressed at 115 SW Harrison, is now comprised of 6 lots, measuring 150’ x 150’.

Historically, the block was a traditional residential neighborhood with one home on each lot, many with rear garages or sheds accessed from the alley. The earliest available Sanborn Maps note the presence of “detached homes” but do not illustrate this block in 1883 or 1885. The existing primary resource – the house at 113 S. Harrison (Lot 13) was built c.1880, and was likely one of the earliest structures in the block. By 1889, homes were located on Lots 15 and Lot 17, as well as on Lots 25 – 35 at the south end of the block. Lots 19, 21 & 23 remained vacant in 1896 but homes had been built on those lots by 1913. ²

The earliest residential listing (Topeka City Directories) for 119 SW Harrison is in 1907 suggesting a c.1905 date of construction. The existing house matches the original configuration with one exception; the back porch was not present on the home in 1913 (Sanborn Map). A small rear shed was present, later replaced by the existing garage c.1940. The adjacent homes, individually located on lots 13 – 23, all remained in place in 1950.

The property took its current form around 1990. The current owner bought the existing site assembling the six lots and six homes in the 1980s. ³ The city directory confirms that the current owner lived at 113 SW Harrison in 1982; the houses at 115 and 117 were vacant at that time. ⁴ In the early 1990s, the houses at 115, 117, 121, and 123 SW Harrison were vacant and have since been demolished. ⁵ The house at 119 S. Harrison, remains on the property today functioning as a storage shed/shop (last occupied in 1987). ⁶ A one-story frame garage (c.1940) is also in place on Lot 19, behind the former residence at 119 SW Harrison. A contemporary one-story frame garage is also in place at the west end of Lot 15, southwest of the masonry home at 115 SW Harrison.

A paved alley runs along the north and west sides of the property. Two private residences remain at the south end of the block, at 125 and 127 SW Harrison. The balance of the west side of the 100 block of SW Harrison comprises the property in question. A brick sidewalk runs along Harrison Street forming the east border of the site. The property is distinguished by massive mature trees that create a dense screen around the property. Additionally, a six-foot wood fence encloses the site south and west of the corner residence. Visibility of the property from public right-of-way is extremely limited.

The block was originally bordered by the Chicago, Rock Island, and Pacific Railroad on the north, now vacant land. The freight depot was located at 1st and S. Van Buren one block east of Harrison (the passenger depot was located at 1st and Kansas Avenue). ⁷ The 100 and 200 block of South Harrison Street developed as a working-class neighborhood generally with modest single-family frame dwellings 1-1/2 – 2-stories in height. The block was developed gradually from 1880s – 1900s. By 1913 the area was fully developed as a residential neighborhood and many of the homes had free-standing garages at the rear of the site. St. Joseph’s Catholic Church was built at the northwest corner of 3rd Street and Van Buren, one

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³ Shawnee County Appraisal Records list Charles G. Carver as owner, having bought the property 12 January 1982. A deed for Lot 13 – with the house at 115 SW Harrison, was recorded from the Miller estate to C.G. Carver in 1976.
⁵ Ibid.
⁶ Ibid.
block NE of 200 S. Harrison in the first decade of the century and continues to be a prominent landmark in the neighborhood. The 200 block and the west side of the 100 block of SW Harrison Street remain residential today however, the east side of the 100 block transitioned from residential to light manufacturing between 1920 and 1950. Interstate-70 was elevated around downtown Topeka, running above 2nd Street in this neighborhood. The massive round pillars that support the elevated road are located along 2nd Street at the south end of the 100 block of SW Harrison.

**Building Exterior**

The former residence at 119 SW Harrison is a one-story frame home with a stone foundation constructed c.1905. Lacking significant details of a particular architectural style, the house is classified as a ‘National Folk’ house, a classification of homes designed primarily to provide shelter, with little regard for fashion or changing architectural styles. The front-facing gable is one primary distinguishing characteristic, categorizing it as a ‘Gable-Front Family’ subtype of the National Folk house. The second primary characteristic is the long, narrow rectangular plan form one room in width. This one-story narrow gable-front house is a traditional Southern configuration known as a ‘shotgun’ house. In addition to the narrow width and gabled roof form, the defining characteristics of the home are full-width shed-roofed front and rear porches, narrow clapboard siding, and some original 1/1 double-hung wood windows.

The one-story house is a simple rectangular form one bay (room) wide and three bays (rooms) in length. The front-facing gable roof has corrugated metal sheathing with no gutters in place. A full-width porch, with shed roof supported by square wood posts, provides access to the front entrance. The door is located on the south half of the east/front facade, with a single window north of the door. A small concrete stoop is in place at the door. A wood-frame storm door is extant, the door having been boarded with plywood from the interior. A similar porch, shed-roof supported by square wood posts, is in place at the rear/west facade. The rear porch has a wood floor on a brick and concrete foundation. A wood-framed screen door is set between porch posts with wire “screening” enclosing the rear porch. A single door opening (no door is extant) is located on the south half of the west facade with a small window north of the door.

Window openings on the south facade correspond to the original interior configuration of three rooms. Single windows at the east and west end of the south facade flank a pair of windows in the center of the south facade. The windows are simple 1/1 double-hung wood windows with wood frames, sills and lintels. Contemporary aluminum storm windows are in place. Windows on the north facade have formerly been removed and the openings infilled with wood siding to match adjacent walls. The exterior walls are sheathed with narrow clapboards with significant peeling paint in some areas.

The interior of the home was not accessible during the site investigation however; the interior was partially visible from the rear porch. The former home has been gutted of all interior walls and finishes leaving exposed structure at the ceiling. One can see from the back door through to the plywood covering the front door. The former residence is used as a shop and/or storage shed for lumber, accessed from the west/rear porch. Other than its exterior form and finishes, the building retains little integrity as a historic residence.

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*8 Ibid.*
*9 Luther Bennett is listed at this address in the 1907 Topeka City Directory, the first residential listing found for this address. Ancestry.com U.S. City Directories, 1821-1989 [database on-line]. Provo, UT, USA: Ancestry.com Operations, Inc., 2011 accessed 12 March 2015. The home was in place by 1913 (illustrated on the 1913 Sanborn Map).*
Other Buildings
The former house at 119 SW Harrison functions as one of three outbuildings to the primary building on the property – the residence now addressed at 115 SW Harrison (khri #177-5400-01838). The two other outbuildings are frame garages. One is located at the west end of Lot 19, at the rear of the lot behind the former residence at 119 SW Harrison. This building is a one-story frame garage built c.1940s. It has a gable roof with corrugated metal roofing. Exterior siding is narrow clapboards similar to the house. The garage has a pair of swinging doors on the east, facing the former residence and paired windows with shutters on the south and east sides. The second garage is a one-story frame structure, located at the west end of Lot 15, one lot southwest of the residence on Lot 13. The garage is accessed by an overhead door from the rear/west alley and a single man-door on the east. It has a gable roof with composition shingles and wide horizontal siding (likely Masonite).

Condition and Integrity
The former residence at 119 SW Harrison is in fair to poor condition and appears to be minimally maintained as a storage shed/wood shop. The former home retains the defining characteristic of the property type – the one-story narrow gable-front. The house maintains its original form with the exception of the addition of a rear porch (date unknown). Although the front porch and front entrance to the house is unused, it is extant, presumably in its original form. The house also retains some original windows (east and south facades only) and its historic clapboard siding.

The primary known exterior alterations to the home are the addition of the rear porch (not extant on the 1913 or 1950 Sanborn Maps), infill of window openings on the north side of the house, and installation of a corrugated metal roof. Constructed c.1905, the home maintains a moderate degree of historic integrity on the exterior. However, the house was last occupied as a residence in 1987. Since that time, all interior walls and most finishes have been gutted to allow use of the former house as a storage shed/shop. The interior of the home retains no historic integrity. The former house retains a high degree of integrity of location. Integrity of design, materials, and workmanship is moderate to low given the minor exterior alterations and gutting the interior of the home, as well as, the modifications to the larger site and neighborhood setting.

The primary affect on the property’s historic integrity is two-fold – gutting of the interior of the house for its use as a storage shed and the complete lack of neighborhood setting. As detailed above, the homes on this block were historically configured in a traditional residential setting with one home per lot. The existing property combines a total of six lots for a single residence – the two-story masonry home at 115 SW Harrison (Lot 13). Although the former home at 119 SW Harrison maintains its historic configuration on the site with the c.1940 garage at the rear of Lot 19, both buildings now function as outbuildings for the primary residence at 115 SW Harrison diminishing the historic neighborhood setting that was comprised of single-family homes on each lot. This negative affect is exacerbated by removal of the adjacent homes on Lots 15 & 17 to the north and Lots 21 & 23 on the south. The site on both sides of the former house is a grass yard with mature trees generally obscured from public view by a dense row of conifers and a tall wood fence. The site retains little integrity of setting, feeling, or association.
Statement of Significance

Context

Only seven months after the United States Congress passed the Kansas-Nebraska Act on May 30, 1854, establishing the Kansas Territory, pioneers selected a site for a new town that would become Topeka. Located in Shawnee County, one of the 33 original counties of the State of Kansas, settlers would form the Topeka Association and elect officials in less than two weeks.12

Kansas Avenue would lie at the heart of the new city. According to William W. Cone’s Historical Sketch of Shawnee County Kansas, the first store in Topeka was opened by J.W. Jones in the early spring of 1855 on the west side of Kansas Avenue between second and third streets.13 Jones’ store was quickly followed by a tin shop, hardware store and cabinet and brick-makers. In 1858 the capitol moved from Tecumseh to Topeka. In 1867, the courthouse was constructed at 4th and Kansas Avenue.14 Real estate brokers began angling for parcels of land to sell to settlers as the town began to boom.

According to Cutler’s History of Shawnee County, Kansas, in 1882, Topeka was in “the transition state, between the young, rough vigor of western towns and the more regulated, substantial life of Eastern cities...Already many of her business blocks are solid and metropolitan in appearance; her streets are being systematically graded; tasteful and costly churches, and home-like and palatial residences adorn the resident portions of the city, testifying to her material prosperity and her social refinement.”15

In 1870, the population of Shawnee County had exploded 273% over the previous decade.16 By 1880, the county had more than doubled again, with the largest portion of the population in Topeka, notably due to rail access.17 The building boom and prosperity of the 1880s was followed by an economic downturn in the 1890s. By the turn of the twentieth century, Topeka’s economy was growing again at a slow and steady pace. The 1910s and 1920s saw construction of larger and taller business buildings along Kansas Avenue, the center of Topeka’s business district. Residential neighborhoods west of Kansas Avenue were fully developed by 1913.18

The first Sandborn map illustrating the 100 block of SW Harrison Street, three blocks west of Kansas Avenue was published in 1889 and Lot 19, as well as Lots 21 & 23 remained vacant. Houses had been built on each of these lots by 1913, filling the residential block. While a precise construction date was not found, the first residential listing at the 119 SW Harrison Street address was in 1907.19 No ownership records were found to document original owner or builder of the home.

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14 In 1896 the courthouse was moved to 5th and Van Buren where it stayed until moving to its present location in 1965.
119 SW Harrison

Following is a listing of known occupants of the house at 119 Harrison assembled from Topeka City Directories.\(^{20}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Name/Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1907</td>
<td>Luther Bennett, Hostler w/ WT Lawless</td>
</tr>
<tr>
<td>1909</td>
<td>Charles Gileece (no occupation listed)</td>
</tr>
<tr>
<td>1910</td>
<td>Dexter E. Young, Glazier</td>
</tr>
<tr>
<td>1912</td>
<td>William H. McMahon, Plasterer</td>
</tr>
<tr>
<td>1916</td>
<td>Alton Mann, Laborer</td>
</tr>
<tr>
<td>1921</td>
<td>David F. &amp; Helen M. Oldham, Mechanic &amp; Seamstress</td>
</tr>
<tr>
<td>1924</td>
<td>Arthur &amp; Eugenia Oldham, Auto Mechanic, no occupation listed for Eugenia</td>
</tr>
<tr>
<td>1926</td>
<td>Donat J. Babineau, Mechanic</td>
</tr>
<tr>
<td>1930</td>
<td>Frank J. Gaynor</td>
</tr>
<tr>
<td>1935</td>
<td>Amos O. Moran</td>
</tr>
<tr>
<td>1940</td>
<td>Mrs. Fannie E. McMillan</td>
</tr>
<tr>
<td>1946</td>
<td>Wm. S. Bervert</td>
</tr>
<tr>
<td>1948</td>
<td>Lodi Pekarek and wife Dorothy, Dockman (owner of property)</td>
</tr>
<tr>
<td>1955</td>
<td>Vacant</td>
</tr>
<tr>
<td>1960</td>
<td>Leo Salesky</td>
</tr>
<tr>
<td>1970-1987</td>
<td>Mrs. Clayetta Watson, Maid and widow of Herman Watson</td>
</tr>
<tr>
<td>1990</td>
<td>Vacant</td>
</tr>
</tbody>
</table>

The above listings clearly portray a pattern of working-class tenants occupying the home at 119 SW Harrison. The frequently-changing names of tenants suggest that the property was used as a rental throughout most of its history. The only long-term tenant was Clayetta Watson for seventeen years in the 1970s and 1980s. Lodi Pekarek, in 1948, was the first owner of the property living at the home.\(^{21}\) A 1955 deed documents sale of the North 19' of the 25' lot, to C.D. Pigg but no other ownership records were found for the property.\(^{22}\) Lodi and Dorothy Pekarek were living at 1315 N. Jackson by 1955.\(^{23}\)

Summary

The one-story shotgun house at 119 SW Harrison was built c.1905; the original owner and builder are unknown. Throughout its one-hundred year plus history, the property appears to have functioned as rental housing with frequently-changing working-class tenants. Two exceptions emerged in this pattern. The home was owned and occupied by Lodi Pekarek and his wife in the late 1940s and early 1950s. Twenty years later, Clayetta Watson, a widow who worked as a maid, occupied the home for seventeen years; no records were found to indicate that Mrs. Watson owned the property. Although no real estate transaction was located, the current owner, Charles G. Carver bought the property in the 1980s and continues to reside in the two-story masonry home at 115 SW Harrison. The house at 119 SW Harrison is used as a storage shed/wood shop; it last functioned as a residence 28 years ago (1987).


\(^{21}\) Shawnee County real estate records (Register of Deeds) are filed and indexed by property owner name only and are not indexed by legal description or address making it difficult to identify early owners. Pekarek (1955) was the only deed found for Lot 19 Harrison Street despite extensive searching through county records.

Current Views

#1 - Looking NW on Harrison Street toward residence at 119.

#2 – South and east/front facades with public sidewalk on R
Looking NW

#3 – South facade

#4 – Front/east Facade, looking SW

#5 – North facade with privacy fence along lots N of bldg.

#6 – North and west/rear facades
Current Views continued

#7 – Rear/west facade with porch

#8 – Detail of stone foundation and clapboard siding on house; concrete slab at rear porch

#9 – Looking east through house from Rear porch (interior walls removed)

#10 – Detail of 1/1 windows with storms and narrow clapboard siding (S facade)

#11 – Front porch on east facade Looking NW
177-5400-01839
119 SW HARRISON ST
Topeka

LOCATION:

County: Shawnee
Address: 119 SW HARRISON ST
Address Remarks: Parcel address is 121 SW Harrison; shares a parcel with 115 SW Harrison.
City: Topeka
Zip: 66603
Parcel ID: 109-30-0-40-17-001.00-0
Legal Description: Section 30 Township 11S Range 16E
Legal Description Remarks: ACRES 0.51, HARRISON ST LOTS 13-15-17-19-21-23 ORIGINAL TOWN
Latitude, Longitude 1: 39.059159 -95.675154
Latitude, Longitude 2:
Latitude, Longitude 3:
Latitude, Longitude 4:
Datum: WGS84

DESCRIPTION:

Historic Name: 
Alternate Name: Residence
Historic Function: Domestic
Subcategory: Single Dwelling
Historic Function Remarks: This house first appears on the 1913 Sanborn. The first residential listing in Topeka City Directories is 1907 when the home was occupied by Luther Bennett. The home was apparently used for rental house for most of its tenure. It had frequently-changing residents, occupied by numerous working-class tenants. The only known owner/occupant was Lodi Pekarek and his wife Dorothy who owned and lived in the home in the late 1940s and early 1950s. The longest-term resident was Clayetta Watson, a maid and widow of Herman Watson, who lived in the home from 1970 - 1987. No record was found of Watson owning the home.

Present Function: Other
Subcategory: 
Present Function Remarks: House has been gutted and is used as storage shed/wood shop. It is one of three "outbuildings" on parcel with primary residence at 115 SW Harrison.
Residential/Commercial/Religious Style: National Folk
Secondary Style: 
Barn Type: Not Applicable
Bridge Type: Not Applicable
Physical Description/Remarks: One-story frame home has narrow gable front. Plan configuration is one room wide and three rooms deep with full-width porches on front and rear. Porches have shed roof supported by square wood posts. Gable roof has corrugated metal roofing; exterior siding is narrow clapboards with a painted finish. Original 1/1 double-hung wood windows are extant on east and south facades. Former window openings on north façade have been infilled. Interior of house has been gutted with walls and ceilings removed.

Plan Form: Shotgun

Commercial Building Type: Not Applicable

Roof Form: Gable-Front

Stories: 1

Condition: Fair

Principal Material: Wood

Condition Remarks: Exterior is in fair condition with significant deterioration of foundation, porches, and peeling paint on siding. Walls and ceilings have been gutted on interior leaving only exterior shell.

Architect/Designer/Builder: Unknown

Year of Construction: 1905

Certainty: Estimated

Date Notes: County appraiser site. According to the Sanborns, this was built between 1896 & 1913. The first residential listing in city directory is 1907.

General Remarks: Inventory form is archived. See March 2015 KDOT Activity III report for full description, statement of significance, and additional photographs.

Ancillary Structures: Garage/Carriage House, Other

Ancillary Structure Remarks: Former house at 199 SW Harrison is now one of three outbuildings on a parcel comprised of 6 lots, (Lot 13 - 23) with a two-story masonry home at 115 SW Harrison being the primary building on the site. The former residence at 119 SW Harrison is used as a storage shed/wood shop. A c.1940 garage is located at the rear of lot 19, behind the former house at 119. The garage is a one-story frame structure with a gable roof. The roof is corrugated metal and exterior sheathing is narrow clapboards similar to the home. A pair of swinging doors are extant on east façade and window openings are shuttered on east and south facades. A second garage is located at rear of Lot 15, SW of the house at 115 SW Harrison. It is contemporary frame construction with a shingled gable roof and wide horizontal siding (Masonite). Garage on lot 15 is accessed by overhead door off rear alley on west. Former single-family homes have been removed on Lots 21 & 23 south of house at 119, and on lots 15 & 17 north of house. Site took its current form around 1990.

REGISTER STATUS:

Listed in State Register: No

Date of State Listing:

Listed in National Register: No

Date of National Listing:

Historic District:

Demolished:

Date Demolished (if applicable):

Potentially Eligible for National Register: Yes

Register Status Remarks:

Thematic Nomination (MPDF):

SURVEY INFORMATION:

Survey 1


Sequence Number:

Surveyed By: Pezzoni, J. Daniel
Survey 2
Survey Project Name: Topeka - KDOT 70-89 KA-1266-02 (2014)
Sequence Number: HN 1
Surveyed By: KDOT/Blackwell
Survey Date: 01/28/2015

IMAGES & DOCUMENTS

KA-1266-02 HN 1-1, greenish gray shotgun house, looking NW. 01/2015.
KA-1266-02 HN 1-2, greenish gray shotgun house with close-up of front porch, looking NW. 01/2015.
KA-1266-02 HN 1-3, greenish gray shotgun house, looking NW. 01/2015.

119 SW Harrison. Looking NW on Harrison toward house at 119. B. Spencer, 03-06-2015.
119 SW Harrison. South & East facade of 119, looking N on public sidewalk with house at 115 SW Harrison in distance. B. Spencer, 03-06-2015.
119 SW Harrison. Front/east facade with shed-roofed porch, looking SW. B. Spencer, 03-06-2015.

119 SW Harrison. Detail of siding and windows extant on north facade. B. Spencer, 03-06-2015.

119 SW Harrison. Looking NW at south side of property with garage behind home at 119 (L) and garage at rear of Lot 15 (R). B. Spencer, 03-06-2015.
Activity II & III Report
KDOT Project No. 70-89 KA-1266-02 Shawnee County
Haywood Residence, 115 SW Harrison Street (historically addressed at 113 Harrison), Topeka, Kansas
17 March 2015

Property Information
Owner and Occupant: Charles G. Carver
Function: Single Family Dwelling
Historic Name: Haywood Residence at 113 Harrison Street¹ (now 115 SW Harrison)
khri: 177-5400-01838

Narrative Description
The residence at 115 SW Harrison Street is a c.1880 two-story ‘National Folk’-style limestone residence with a brick facade. It is distinguished by its corner location, its full two-story height and its masonry construction. Primary characteristics include its simple gable roof, brick facade, and 4/4 wood windows with arched brick lintels and stone sills. The home is the primary structure on the property which includes six lots, a second residence (119 SW Harrison now used as a storage shed/shop), and two rear garages.

¹ Although most early address records did not specify N. or S. Harrison, there were no residences in the 100 block of North Harrison therefore it is safe to assume listings for 113 Harrison pertain to our site.
² Property Data from Shawnee County Appraiser's Office accessed online 4 March 2015.
TOP: Current Site Plan 115 SW Harrison, Shawnee County GIS, downloaded 5 March 2015
BOTTOM: 1913 Sanborn Map, portion of Sheet 10 showing dwelling at 113 S. Harrison St. with second dwelling behind and masonry barn at rear of lot. The home, originally addressed at 113 S. Harrison, is now 115 SW Harrison.
Site and Neighborhood Context
The house at 115 SW Harrison is one of four buildings on the property comprised of Lots 13—23 at the southeast corner of the 100 block of SW Harrison Street. The lots are 25’ wide x 150’ deep, extending full width to a rear alley. The property at 115 SW Harrison is now comprised of 6 lots, measuring 150’ x 150’.

Historically, the block was a traditional residential neighborhood with one home on each lot, many with rear garages or sheds accessed from the alley. The earliest available Sanborn Maps note the presence of “detached homes” but do not illustrate this block in 1883 or 1885. The house at 113 S. Harrison, built around 1880, was likely one of the earliest structures in the block and the only masonry dwelling. By 1889, homes were located on Lots 15 and Lot 17 south of 113 (Lot 13) as well as on Lots 25—35 at the south end of the 100 block. Lots 19, 21 & 23 remained vacant in 1896 but homes had been built on those lots by 1913.3

The precise original configuration of 113 S. Harrison is unknown as the first Sanborn Map to delineate this block post-dates the home (1889). It is likely that the original structures on the site were the existing two-story masonry home and a stone barn which is no longer extant. By 1889, a second one-story frame dwelling and a small frame shed were in place on the lot, located between the stone house and rear barn. The frame house, shed, and masonry barn were all removed by 1950. At that time as it is now, the existing masonry house was the only building on the lot.4 The adjacent homes, individually located on lots 15—23, remained in place at that time (1950).

The property took its current form around 1990. The current owner bought the existing site assembling the six lots and six homes in the 1980s.5 The city directory confirms that the current owner lived at 113 SW Harrison in 1982; the houses at 115 and 117 were vacant at that time.6 The former house at 119 S. Harrison, remains on the property today functioning as a storage shed (last occupied in 1987).7 In the early 1990s, the houses at 115, 117, 121, and 123 SW Harrison were vacant and have since been demolished.8 The corner house, formerly 113, was later re-numbered to 115 SW Harrison. A one-story frame garage (c.1930-40) is in place on Lot 19, behind the former residence at 119 SW Harrison. A contemporary one-story frame garage is also in place at the west end of Lot 15, southwest of the masonry home at 115 SW Harrison.

A paved alley runs along the north and west sides of the property. Two private residences remain at the south end of the block, at 125 and 127 SW Harrison. The balance of the west side of the 100 block of SW Harrison comprises the property in question. A brick sidewalk runs along Harrison Street forming the east border of the site. The property is distinguished by massive mature trees that create a dense screen around the property. Additionally, a six-foot wood fence encloses the site south and west of the corner house. Visibility of the property from public right-of-way is extremely limited.

The block was originally bordered by the Chicago, Rock Island, and Pacific Railroad on the north, now vacant land. The freight depot was located at 1st and S. Van Buren one block east of Harrison (the passenger depot was located at 1st and Kansas Avenue).9 The 100 and 200 block of South Harrison Street

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4 Ibid.
5 Shawnee County Appraisal Records list Charles G. Carver as owner, having bought the property 12 January 1982. A deed for Lot 13 – with the house at 115 SW Harrison, was recorded from the Miller estate to C.G. Carver in 1976.
6 R.L. Polk’s Topeka (KS) City Directories (Kansas City, MO: R.L. Polk Publishers, 1926 – 1990) available at Shawnee County Public Library
7 Ibid.
8 Ibid.
developed as a working-class neighborhood generally with modest single-family frame dwellings 1-1/2 - 2-stories in height. The block was developed gradually from 1880s – 1900s. By 1913 the area was fully developed as a residential neighborhood and many of the homes had free-standing garages at the rear of the site. St. Joseph’s Catholic Church was built at the northwest corner of 3rd Street and Van Buren, one block NE of 200 S. Harrison in the first decade of the century and continues to be a prominent landmark in the neighborhood. The 200 block and the west side of the 100 block remain residential today however, the east side of the 100 block transitioned from residential to light manufacturing between 1920 and 1950.\textsuperscript{10} Interstate-70 was elevated around downtown Topeka, running above 2nd Street in this neighborhood. The massive round pillars that support the elevated road are located along 2nd Street at the south end of the 100 block.

Building Exterior
The Haywood Residence is a two-story limestone home constructed c.1880.\textsuperscript{11} Lacking significant details of a particular architectural style, the house is classified as a ‘National Folk’ house, a classification of homes designed primarily to provide shelter, with little regard for fashion or changing architectural styles. The front-facing gable is the primary distinguishing form, categorizing it as a ‘Gable-Front Family’ subtype of the National Folk house.\textsuperscript{12} In addition to the roof form, the defining characteristics of the home are the brick facade and 4/4 double-hung wood windows with arched brick lintels and cut stone sills (Owner reportedly installed stone veneer sills over the brick lintels on the south facade).

The house is a simple rectangular form two bays wide and two bays in length, approximately 18’ x 30’ with 500 square feet per floor. The roof has composition shingles and gutters are in place on the north and south sides. A square vent is located in the gable end on the front facade.

The front entrance is located at the north side of the east facade now enclosed by a small contemporary one-story gable-roofed porch. The porch/enclosed vestibule has a gable-roof with corrugated metal roofing. The wood porch sits on a brick and concrete foundation and is screened, with interior storm windows. A second entrance is located on the west end of the south facade with a multi-light wood door and wood-framed screen door. The south entrance is above grade accessed by concrete steps forming a small stoop.

Other than these doors, each bay is defined by a single window with two bays on the south, north, and east facades. The west/rear facade is the exception, having one window per floor, centrally located. Contemporary storm windows have been installed at all windows.

The front/east facade is brick and the north and south facades are limestone. The west/rear facade however, has a stucco coating that has formerly been painted. The brick facade wraps around the sides of the building and remnants of stucco is present over the brick at the northeast corner of the house. This could suggest that stucco was formerly installed over the brick and since removed. The brick facade is now painted with no other evidence of stucco.

Occupied as a private residence, the interior of the home was not accessible during the site investigation.

\textsuperscript{10} Ibid.
Outbuildings
In addition to the residence now addressed at 115 SW Harrison (on Lot 13), a one-story frame garage is located at the west end of Lot 15, one lot south of the home. The garage is accessed by an overhead door from the rear/west alley and a single man-door on the east. It has a gable roof with composition shingles and wide horizontal siding (likely masonite). A second outbuilding is located at the west end of Lot 19, at the rear of the lot behind the former residence at 119 SW Harrison. This building is a one-story frame garage built c.1930s-1940s. It has a gable roof with corrugated metal roofing. Exterior siding is narrow clapboards. The shed has a pair of swinging doors on the east, facing the former residence and paired windows with shutters on the south and east sides. The building at 119 SW Harrison is a c.1910 one-story frame residence that has been gutted and it used for a storage shed/wood shop (khri #177-5400-01839). The house has a gable roof with corrugated metal and narrow clapboard sheathing. One-over-one double-hung wood windows are extant but plywood has been installed over openings on the front/east facade. Front and rear shed porches are extant.

Condition and Integrity
The Haywood Residence at 115 SW Harrison appears to be in fair to good condition, is well maintained, and retains many of its character-defining features. The primary known-alterations to the home itself are the enclosure of a one-story porch or entry vestibule at the front entrance and application of stucco to the rear facade. Constructed c.1880, the home maintains a significant degree of historic integrity on the exterior with original wood windows and original masonry openings intact. The addition of the enclosed “porch” at the front entrance of the home is the intrusion on the building’s historic character. The house retains a high degree of integrity of location and workmanship. Integrity of design, materials, and feeling is moderate given the front entrance enclosure, addition of stucco, and site modifications.

The primary integrity issue with the property is the complete lack of neighborhood setting. As detailed above, the homes on this block historically, were configured in a traditional residential setting with one home per lot. The home at 115 SW Harrison one of four historic buildings on Lot 13 as indicated on 1889 and 1896 Sanborn Maps. A masonry barn at the rear of the site had been removed by 1950 as had two frame buildings - a small one-story dwelling and a storage shed.

The existing site combines a total of six lots for a single residence – the two-story masonry home at 115 SW Harrison (Lot 13). The lot includes two garages – one c.1940 garage on Lot 19 and one contemporary garage on Lot 15, both south and west of the home. Additionally, a second residence is in place on the property, located on Lot 19 and used as storage, accessed from the rear/west porch. The site between these buildings is a grass yard with mature trees generally obscured from public view by a dense row of conifers and a tall wood fence. The site retains no integrity of setting or association.

Statement of Significance
Only seven months after the United States Congress passed the Kansas-Nebraska Act on May 30, 1854, establishing the Kansas Territory, pioneers selected a site for a new town that would become Topeka. Located in Shawnee County, one of the 33 original counties of the State of Kansas, settlers would form the Topeka Association and elect officials in less than two weeks.¹³

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The first Sandborn map illustrating the 100 block of Harrison Street, three blocks west of Kansas Avenue was published in 1889 and shows the existing home at 113 Harrison (now 115 SW Harrison). While proof of a precise construction date was not found, it appears that Charles Wolff bought the Harrison Street property and built the existing home by 1880. Wolff was living at this address in 1880.

Charles Wolff
Charles Henry Wolff was a prominent businessman in Topeka in the late 1800s. Wolff was born in Bavaria, Germany and came to America as the age of 12, and to Kansas three years later. He learned the butcher's trade at Leavenworth and arrived in Topeka in 1870, opening a meat market in 1871. Charles married Amelia in 1873 and had 6 children; only three of whom survived to adulthood. Wolff soon expanded his business and began butchering for other firms and explored meat-packing on a larger scale. In 1886 he formed the Charles Wolff Packing Company, a prosperous endeavor that had grown to a $2.5 million industry at his untimely death in 1913. Wolff was a Councilman from Ward 4 and involved in the local community. He was known as a "stockman" and horse breeder, and recognized as one of the founders of the Topeka Stockyards.

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15 In 1896 the courthouse was moved to 5th and Van Buren where it stayed until moving to its present location in 1965.
Charles Wolff owned numerous parcels of land in Topeka, including several lots in the 300 block of S. Harrison (Lots 109 – 119) as well as land in Section 7-12-16 outside of town. The 1880 Topeka City Directory lists Charles Wolff at 113 Harrison, this being the first known listing for this address however, in 1882, Wolff is listed at 119 Harrison (no dwelling is in place at 119 Harrison on the first available Sanborn Map in 1889). A 1900, a newspaper notice lists for sale the “Wolff House” on Lots 115,117 & 119 Harrison (near 4th and Harrison). Although his ownership of 113 Harrison was not confirmed through legal records, according to the City Directory, Wolff was living at the 113 Harrison address in 1880 and was the first residential listing found for the property. It is possible that Wolff purchased the property on Harrison and built the existing home c.1880.\textsuperscript{22} If Wolff was the original owner and builder of this home, his association with the property was brief. By 1885 James Haywood and his family were living at this address and remained at the property for the next 35 years.

The Haywoods
Numerous resources link the James Haywood family with the home at 113 Harrison (now known as 115 SW Harrison). The Haywoods, as well as other individuals, are listed at this address in Topeka City Directories from 1885 through 1916.\textsuperscript{23} Real estate transactions tie the Haywoods to the property as late as 1922.\textsuperscript{24} By 1889 (first available Sanborn Map), the property had a second home- a one-story frame structure located behind the two-story masonry house on the corner at 113 Harrison. The Haywood family included James and his wife Nancy, and at least one daughter Charlotte, all who lived at the 113 address.

James A. Haywood was a freed slave formerly in Missouri, who came to Topeka around 1870. He owned a team and did day work in Topeka. Tragically, James was killed by a freight car on the rails just north of their Harrison Street home in 1890.\textsuperscript{25} James’ wife, Nancy is listed at the Harrison Street address, labeled a widow, in 1902 and 1907 directories. Nancy died in 1912, still living at 113 Harrison.\textsuperscript{26}

James and Nancy’s daughter, Charlotte Haywood (sometimes spelled Heywood), was born in 1867 in Kansas and never married. Charlotte was listed at a teacher in the 1885 Topeka City Directory, living at 113 Harrison. By 1907, she had established a dressmaking business out of the house at 113. At various times Charlotte lived in the main house as well as in the small house at the rear, through at least 1916. Charlotte owned the house until at least 1922.

The Haywoods appear to have rented rooms throughout their time on Harrison Street. It is possible that the Haywoods built the rear frame house (extant on the 1889 Sanborn Map) for rental purposes. City Directory listings include a number of individuals throughout the years including Lucy Smith, a cook (1905-1912), J.D. Smith (1914), Mr. and Mrs. Robert Young who announced the birth of a child at this address (1909), Seth Mack, a laborer (1912), etc.

Charlotte Haywood was not listed at this address after the 1920s. A cursory review of city directory listings for 113 S. Harrison indicate a frequently-changing list of occupants, suggesting the house was used as a rental for the next 20-25 years. The property was owned by Hanford Brunk in the 1940s and then

\textsuperscript{22} Deed records at Shawnee County Register of Deeds are not indexed or searchable by address requiring therefore, knowledge of a name and date in order to examine a deed. Despite extensive searching on Charles Wolff, no deed records were found to tie him to this property (Lot 13/113 S. Harrison). According to the 1880 Topeka City Directory, Charles Wolff lived at 113 Harrison.


\textsuperscript{24} Real Property searches under the Haywood name at Shawnee County Register of Deeds produced transactions in 1915 (Malinda Haywood Nichols) and in 1922 (Charlotte Haywood) for the 113 Harrison Street (Lot 13) property.


\textsuperscript{26} Topeka Daily Capital, 7 February 1912. Newspapers.com, accessed 15 March 2015.
purchased by Kenneth N. Miller in 1954. Miller owned and occupied the house until his death in the mid-1970s. The current owner, Charles G. Carver bought the property from Miller’s estate in 1976.  

Summary
Following is a summary of known owners and occupants of the house at 113 Harrison (now 115 SW Harrison)

1880 Charles Wolff, local butcher and later founder of Charles Wolff Packing Co., resided at 113 Harrison in 1880. This is the first listing for this address and suggests that Wolff may have built the house and barn c.1880. Existing 2-story masonry home is extant on 1889 Sanborn Map (first available for area)  

1885 – 1922 James and Nancy Haywood and their daughter Charlotte lived at 113 Harrison for more than thirty years 1885 until at least 1916. Charlotte owned property until at least 1922.  

1920s-1940s Apparent rental with frequently-changing occupants  

1945-1948 Hanford Brunk owned and occupied house (1948 listing for Brunk at this address; other occupants in 1946 and 1950.  

1954 – 1976 Kenneth N. Miller, who worked at Hall Lithograph and his wife Alice, bought house around 1954 and lived there for the next 20 years. By 1950, all other buildings – the stone barn, the one-story frame house and a shed were removed from the site.  

1976 – Present Current owner, Charles G. Carver bought Lot 13 with the house in 1976 and continues to live in the home at 115 SW Harrison.

The two-story stone house with a brick facade, located at 113 Harrison (now 115 SW Harrison) was built c.1880, possibly by prominent Topeka businessman Charles Wolff. Wolff’s affiliation with the property was short-lived; he relocated two blocks south on Harrison soon thereafter. By 1885, James Haywood, a freed slave, and his family made 113 Harrison their home. Haywood likely built a second home on the property for rental purposes. Haywood and his daughter, Charlotte owned and lived at the property until c.1920. For the next twenty years, the home was likely used as a rental with frequently-changing occupants. It was owned for a short time in the 1940s by Hanford Brunk and then purchased by Kenneth N. Miller in 1954. Miller owned and occupied the house for the next twenty years. Charles G. Carver, the current owner purchased the house in 1976 and continues to reside in the two-story masonry home at 115 SW Harrison. Throughout the 1980s, Carver assembled adjacent lots and demolished the other homes (all frame homes) except one on Lot 19 which he gutted and uses for wood storage. The stone house on the corner is the primary building on the site which now includes six lots and continues to serve as Carver’s residence.

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ADDENDUM - Activity II & III Report  
KDOT Project No. 70-89 KA-1266-02 Shawnee County  
Haywood Residence, 115 SW Harrison Street (historically addressed at 113 Harrison), Topeka, Kansas  
21 March 2015

Preliminary Determination of Eligibility
The residence at 115 SW Harrison Street is a c.1880 two-story ‘National Folk’-style limestone residence with a brick facade. It is a simple vernacular building, its most unique characteristic being the fact that it is a masonry structure in a residential neighborhood which was historically comprised primarily of wood frame homes. The home retains a high level of integrity of location and workmanship maintaining its original masonry facades and wood windows. The front entrance has been enclosed with a contemporary porch and the rear facade has been covered with stucco somewhat compromising its integrity of design and materials.

While the home’s early masonry construction might suggest wealth on the part of the original owner/builder, we were unable to conclusively identify the builder of the home. The first residential listing at this address was Charles H. Wolff, in 1880. It appears that Wolff, a prominent Topeka businessman who went on to establish the Wolff Packing House in 1886, may have built the house at 115 (originally addressed at 113) Harrison but relocated to the 400 block of Harrison soon after. The house then became home to James Haywood, a freed slave, and his family for the next forty years. By the mid-1920s, the home appears to have been used as a rental residence which seems typical of the adjacent properties in the block with frequently-changing working-class tenants.

Given its simple vernacular design and lack of documentation of its origins, the residence does not have a strong Criteria A or C basis for listing on the national register. The primary significance of the home would have been as a representative of an early railroad-era residence in a downtown Topeka neighborhood. However, the neighborhood in which the home is located has lost all integrity of setting, association and feeling. The neighborhood context has been adversely impacted in two areas, the first being a transition to light-industrial/commercial use on the east side of the 100 block of SW Harrison, a transition that took place between 1920 – 1950 with the construction of the VanNice Monument (later Hutton Monument) shop and a cabinet shop that remains in place across the street from the home. More significant is the change that occurred when the current owner of the home at 115 SW Harrison, assembled a total of six lots (Lots 13 – 23) and removed four of the six historic residences in the 1980s and 1990s. The house at 115 SW Harrison is the primary resource on parcel comprised of six lots and four buildings. The second remaining residence (119 SW Harrison) is extant but has been gutted on the interior and is used as a storage shed/wood shop. The other two buildings are a non-historic garage at the rear of lot 15, SW of the home and a c.1940 garage at the rear of lot 19. The site retains no integrity of setting or association.

Given the complete lack of neighborhood setting, it is the author’s opinion that the area would likely not even be a contributor to a potential residential historic district due to the loss of adjacent homes resulting in drastic changes in the neighborhood setting.
Current Views

#1 - Looking west at 1st and Harrison Street toward residence

#2 - Looking N on sidewalk south of home (S & E facade of home)

#3 - Looking W on south side of home with garage at rear

#4 - Front/east and South Facades

#5 - Front/east facade w/enclosed entry

#6 - Enclosed porch at front entry; note Remnants of stucco over brick

Looking SE at NE corner of home

#9 - Typical 4/4 double-hung wood window with modern storm unit
Current Views continued

#8 – North facade, looking SW from NE corner

#7 – North facade

#10 – North facade, looking SE from NW corner of house
In alley north of house

#11 – Contemporary garage at rear of site, west of home
Looking east in rear alley

#12 – West and south facades, looking NE from rear of site

#14 – South facade with secondary entry, looking SE from rear
Current Views continued

#13 – Rear/W facade with painted stucco

#15 – South facade w/ entry, looking NW

#16 – Front/east side of garage SW of house

#17 – Looking NW with 2nd garage at rear of Lot 19 (on l) and Main garage on right (SW of home)

#18 – Front/east facade of 2nd shed located on Lot 19 SW of house

#19 – South facade of 2nd shed on Lot 19 behind 119 Harrison
177-5400-01838
Haywood Residence
115 SW HARRISON ST
Topeka

LOCATION:

County: Shawnee
Address: 115 SW HARRISON ST
Address Remarks: Parcel address is 121 SW Harrison; shares a parcel with 119 SW Harrison. Historically, the home at 115 SW Harrison was addressed 113 S Harrison
City: Topeka
Zip: 66603
Parcel ID: 109-30-0-40-17-001.00-0
Legal Description: Section 30 Township 11S Range 16E
Legal Description Remarks: ACRES 0.51, HARRISON ST LOTS 13-15-17-19-21-23 ORIGINAL TOWN
Latitude, Longitude 1: 39.059344 -95.6751
Latitude, Longitude 2:
Latitude, Longitude 3:
Latitude, Longitude 4:
Datum: WGS84

DESCRIPTION:

Historic Name: Haywood Residence
Alternate Name:
Historic Function: Domestic
Subcategory: Single Dwelling
Historic Function Remarks: The earliest Sanborns available for Topeka, 1883 & 1885, indicate there were detached dwellings on this block, but the block was not delineated. This block was first delineated in 1889. This two-story stone house with brick facade is shown on lot 13 with a wooden porch on the east elevation. A stone carriage house is on the alley to the west. Two one-story frame outbuildings are also depicted. On lot 15 to the south a stone foundation is noted. By 1896, a frame dwelling was on the south. The house at 113 Harrison (survey property) was occupied by prominent Topeka businessman Charles Wolff (Charles Wolff Packing House) in 1880, and possibly built by Wolff. By 1885, it was home to James Haywood, a freed slave from Missouri. James, his wife Alice, and daughter Charlotte lived and/or owned property until at least 1922. The one-story rear frame structure was a house with separate residential tenants, likely built by Haywoods for rental housing. It appears that Haywoods rented rooms as several unrelated individuals and couples were listed at this address in addition to Haywoods. James was tragically killed on rails north of house in 1900; Alice lived in home until her death in 1912. Charlotte was listed as a teacher in 1885 City Directory but later became a dressmaker and ran a business out of the house in early 1900s.

Present Function: Domestic
Subcategory: Single Dwelling
Present Function Remarks: House serves as primary resource/residence on a parcel comprised of 6 lots, with three “outbuildings” in addition to the two-story masonry residence. House at Lot 13 was purchased by current owner, Charles G. Carver from Kenneth N. Miller in 1976. Miller had owned the property since 1954.

Residential/Commercial/Religious Style: National Folk

Secondary Style:
  Barn Type: Not Applicable
  Bridge Type: Not Applicable

Physical Description/Remarks: Two-story stone, gable-front house with brick facade. Stucco has formerly been applied to rear façade and remnants of stucco coating is extant over brick at southeast corner of home (possibly indicating that stucco had formerly been installed on brick façade and later removed). One-story “porch” or entry vestibule has been enclosed on north half of front façade obscuring the home’s front entrance. House retains original 4/4 double-hung wood windows with contemporary storm windows installed.

Plan Form: Rectangle

Commercial Building Type: Not Applicable

Roof Form: Gable-Front

Stories: 2

Condition: Good

Principal Material: Stone

Condition Remarks:

Architect/Designer/Builder: Unknown

Year of Construction: 1880

Certainty: Estimated

Date Notes: Charles Wolff is listed at this address (113 Harrison) in 1880, the first residential listing in city directories.

General Remarks: Inventory form is archived. See attached KDIT Activity III report.

Ancillary Structures: Garage/Carriage House, Shed, Other

Ancillary Structure Remarks: Historic configuration of Lot 13 with four total buildings on site is outlined under Historic Function above. Garage is contemporary construction with shingle roof and wide horizontal siding (Masonite). House at 115 SW Harrison is one of 4 buildings on property that includes 6 lots (13-23). Former residence on Lot 19 (khni #177-5400-01839) is used as storage shed/wood shop. It is a one-story frame shotgun house that has been gutted for use as storage. At the rear of Lot 19, a c.1940 garage is in place. It is a one-story frame garage with corrugated metal on gable roof and narrow clapboard siding. A pair of swinging wood doors are extant on east façade facing the former house.

REGISTER STATUS:

Listed in State Register: No

Date of State Listing:

Listed in National Register: No

Date of National Listing:

Historic District: Demolished:

Date Demolished (if applicable): Potentially Eligible for National Register: Yes

Register Status Remarks:

Thematic Nomination (MPDF): SURVEY INFORMATION:

Survey 1
Sequence Number:
Surveyed By:  Pezzoni, J. Daniel
Survey Date:  06/01/2003

IMAGES & DOCUMENTS

115 SW Harrison. East elevation. 08/2013. From county appraiser's website.

1889 Sanborn.

1896 Sanborn.

1913 Sanborn.

KDOT/Blackwell photo 1, southeast corner of house with painted brick facade and limestone wall with cut limestone lintels and sills. 2015

KDOT/Blackwell photo 2, south side of home showing the limestone wall with cut limestone lintels and sills, vinyl storm window has been added. 2015

KDOT/Blackwell photo 3, northeast corner of house with painted brick facade and limestone wall with brick lintels and cut limestone sills. 2015

KDOT/Blackwell photo 4, close up of the stone work on the south side of house. 2015

KDOT/Blackwell photo 5, north side of house. 2015

KDOT/Blackwell photo 6, close up of the stone work on the north side of house. 2015

KDOT/Blackwell photo 7, close up of northeast corner showing the stone work and some brick work under stucco. 2015

KDOT/Blackwell photo 8, back of house appears to be covered in stucco. 2015
Haywood House at 113 SW Harrison.
Looking N on sidewalk south of home (South and East facades visible). B.Spencer, 03-06-2015

Haywood House at 113 SW Harrison.
Looking W on south side of home with contemporary garage at rear of Lot 15, SW west of home. B.Spencer, 03-06-2015

Haywood House at 113 SW Harrison.
Garage at rear of Lot 15, SW of house, looking E from rear alley. B.Spencer, 03-06-2015

Haywood House at 113 SW Harrison.
West and south facades of home. B.Spencer, 03-06-2015

Haywood House at 113 SW Harrison.
Looking NW at SE corner of site with two garages on property. B.Spencer, 03-06-2015.
Deb,

I just spoke with the SHPO regarding the Historic Districts. He did not have the plans in front of him but as he recalls at our January 21, 2015 meeting the issue of moving the viaduct closer to the north district was discussed and it is their opinion that the viaduct has been there for 50 years and moving it closer would not be an adverse effect. He also indicated that doing some sidewalk work in front of the buildings would be no more than a de minimis impact at most.

The Districts are now on the State Register and will be forwarded to the Dept. of Interior for consideration on the National Register.

The bigger issue to him is the stone house at 115 SW Harrison. Our consultant had determined this structure was not eligible for the National Register but there is disagreement at the SHPO’s office. They are reviewing the information and will issue their eligibility determination. Once we have the eligibility determination for this and the other two buildings (Ryder Building and 119 SW Harrison) and we have enough information on impacts to all eligible properties we will make a determination of effect for the project.

If the stone house is determined eligible and will be taken by the project some type of mitigation will be required for Section 106. This is often in the form of documentation and large format photography. A Section 4(f) evaluation would also be required.
That will work for me. I have done site work and research on the barn just need to get it written up. I plan to do the Topeka ones late Feb - early March.

Brenda

On Feb 13, 2015 6:50 AM, "Terry Blackwell" <Blackwell@ksdot.org> wrote:

Brenda,

I would appear that yet another building at 119 Harrison has caught the eye of the SHPO's office. Would you be able to add this to the survey that you are doing for the two properties listed above?

If you are able I will need to send you paper work so that it can be added to the work order that is currently open for this project.

Thanks,

Terry D. Blackwell

Environmental Services Section

Cultural Resources and Highway Noise Analysis

Ph. (785) 296-8414

Email: blackwell@ksdot.org
Hi Terry,

I think the problem, generally speaking, is that this is a new project, 12ish years since the area was surveyed for the bridge replacement. In talking to Patrick, we can only assume that the area was not given as close a scrutiny in 2003 because it was not going to be ultimately affected, so when it was "cleared," there were no properties being affected in this block. As you know, buildings change, and sometimes for the better, so we’re glad to see updated photographs of some of these properties.

The shotgun house at 119 SW Harrison appears potentially eligible to our staff because of its integrity but also because this is a house-type that is becoming more and more rare in Topeka. Because of this, we request an Activity 3 report for this property, as well.

Amanda.

On 1/30/2015 1:41 PM, Terry Blackwell wrote:

  Amanda,

  After doing some digging into projects that were surveyed in that area, we found that a picture of the property at 115 Harrison Street was submitted (by Marsha King) with Project 89 U-1943-01 (Topeka Boulevard Bridge) to Dick Pankratz. The property is listed as point 19 on the photo log and I am attaching some digital photos from the negatives that we have. The photographs show that the house had a stucco finish at that time (2003) that the current home owner has since partially removed. We think that this area was missed because it had been looked at during the Topeka Boulevard Bridge project and once it was completed, it was assumed that the area was cleared during the survey process. When the Polk/Quincy Viaduct Project (70-89 KA-1266-01) began the study area overlapped the area from the previous project which may have led to the oversight. When I sent over the plans for 70-89 KA-1266-02 I had assumed the entire area that Marsha had reviewed was either cleared or the specific properties had already been identified for an Activity II.

Hi Mike & Terry,

We drove by 124 SW Harrison on the way back to the office just out of curiosity and did a double-take at a property to its northwest: A two-story stone house with brick facade at 115 SW Harrison St. Looking back through my records, this house was somehow missed in 2008 when Marsha King did her survey of the area. Our KHRI database indicates it was surveyed (not by Marsha) in 2004 and marked potentially eligible. We believe this house is still potentially eligible. It is also slated to be taken-out by the highway project.
Could we request Brenda do an Activity III for this house while she's doing the Ryder Building? I've updated the KHRI entry, but we need more information/photos (KHRI link: http://khri.kansasgis.org/index.cfm?in=177-5400-01838). We apologize for not catching this sooner.

Let us know if you have any questions or concerns,
Amanda.

---
Shape the future of historic preservation in Kansas by taking this survey: Kansas Preservation Plan Survey

Amanda K. Loughlin
Survey Coordinator
Cultural Resources Division
Kansas Historical Society
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Topeka, Kansas 66615-1099
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aloughlin@kshs.org
Kansas Historic Resources Inventory: www.kshs.org/khri

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City Hall/TPAC building could become part of historic district
Move would make structure eligible for rehabilitation tax credits

Posted: November 23, 2014 - 4:35pm

By Tim Hrenchir
tim.hrenchir@cjonline.com

Historic tax credits to help cover rehabilitation and preservation costs.

That is what the city of Topeka could qualify to receive if the 75-year-old City Hall/Topeka Performing Arts Center building it owns becomes part of a proposed Downtown National Historic District.

The Topeka City Council tentatively plans to discuss but not act on the matter during its meeting on Dec. 2.

Council members also plan to talk about whether to express support for the nomination by the city's planning department and Downtown Topeka Inc. of two downtown areas to be named as "historic districts" on the National Register of Historic Places.

The National Register is the official list of the nation's places worthy of historic preservation, according to its website at http://1.usa.gov/1BWCauw.

That register is administered by the National Park Service, which is part of the Department of the Interior. Properties listed on that register also are automatically listed on the Kansas Register of Historic Places.

A list of Shawnee County structures and historic districts on the State and National Registers can be found at http://cjonline.com/yzK1UgZ.

While individual buildings comprise most of the Shawnee County listings on those registers, they also include four "historic districts" in Shawnee County containing multiple connected properties that have historical value. Those are Holliday Park Historic Districts I and II, Potwin Place Historic District and College Avenue Historic District.

The agenda packet for the Dec. 2 city council meeting identifies two areas being nominated as new historic districts.

They are:

- The west side of the 100 block of N. Kansas Avenue, which is just west of the south base of the Kansas Avenue Bridge.

- Most, but not all, of the property located between S.W. Jackson, S.E. Quincy, S. 6th Street and S. 10th Street, in an area where the city is in the midst of carrying out a redevelopment of S. Kansas Avenue between S. 6th and 10th streets.

That proposed district additionally would include the Central National Bank building at 800 S.E. Quincy and the City Hall/TPAC building at 215 S.E. 7th and 214 S.E. 8th.

City planning director Bill Flender recommends the City Hall/TPAC building be part of that district, according to a document that is part of the Dec. 2 meeting agenda impact.

Suzie Gilbert, the city's communications and marketing director, said the nominations were proposed after the city's planning department in 2011 through 2012 used money from a state preservation grant to contract with Rosin Preservation LLC to conduct a survey of buildings in
downtown Topeka and North Topeka’s NOTO District to determine their eligibility for a historic district.

Gilbert said the survey revealed three areas of potential, which were the two areas being considered and N. Kansas Avenue in NOTO.

"With the help of DTI, the majority of property owners in the two downtown areas showed support to pursue historic district listing," Gilbert said.

The area in NOTO isn’t being nominated at this time.

A document in the agenda packet for the Dec. 2 meeting said the National Park Service ultimately will decide whether to approve the historic district nominations, with the districts potentially being in place by the summer of 2015.

The document indicated that, as owner of the City Hall/TPAC building, the city would be asked whether it agrees to be part of the proposed larger downtown historic district.

"The City is not required to formally approve the district, but a resolution of support would be a typical action municipalities make to enhance the consideration by the State," the document said.

Tim Hrenchir can be reached at (785) 295-1184 or tim.hrenchir@cjonline.com.
Follow Tim on Twitter @timhrenchir.
Downtown Topeka Nomination Area #1
DOWNTOWN TOPEKA
HISTORIC RESOURCES SURVEY

PREPARED FOR:
The City of Topeka, Kansas

PREPARED BY:
Rosin Preservation, LLC

February 29, 2012
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APPENDIX A – RESOURCE LIST
INTRODUCTION

The City of Topeka (City) contracted Rosin Preservation, LLC to conduct an intensive-level survey of historic resources along North and South Kansas Avenue in Topeka and North Topeka. Kansas Avenue has long been Topeka’s primary commercial thoroughfare. It was the heart of the original town site established in 1854, and remains the core of the city’s central business district.

The survey area includes roughly twenty-four blocks flanking Kansas Avenue in Topeka, Kansas. Twenty blocks are south of the Kansas River; four blocks are north of the river (Figure 1). Historically, this street spanned the Kansas River, connecting the commercial areas on both sides of the river.¹ The study area includes all of the resources on South Kansas Avenue between Crane Street and 10th Avenue. Also included are resources on numbered cross streets between SW Jackson Avenue and SE Quincy Avenue from 4th Street to 10th Avenue, as well as resources on the east and west sides of SW Jackson Avenue between SW 4th Street and SW 10th Avenue and the east and west sides of SE Quincy Avenue between SE 6th Street and SE 10th Avenue. The survey area in North Topeka includes all of the resources lining North Kansas Avenue between North Gordon and North Norris Streets. The survey examined a total of 221 buildings.

While previous survey work addressed selected individual buildings along Kansas Avenue, usually in conjunction with an individual nomination to the National Register of Historic Places or as part of an informal survey project, such as the 1996 survey of North Topeka, the City now wishes to evaluate all resources within a defined survey boundary in order to generate a more comprehensive picture of commercial development patterns along Kansas Avenue and to identify resources that may be eligible for financial incentives for preservation, such as state and federal historic tax credits.

To that end, the Downtown Topeka Historic Resources Survey encompasses two objectives:

1) to identify, record, photograph, and evaluate through intensive-level architectural/historic survey those individual properties and potential historic districts in the project area that, on the basis of age and integrity, meet the eligibility criteria for listing in the National Register of Historic Places or the Register of Historic Kansas Places, and to substantiate such assessments; and

2) to identify and characterize those portions of the project area which, on the basis of insufficient age or integrity, warrant no further study to exclude them from consideration for nomination in the National Register of Historic Places or Register of Historic Kansas Places and to substantiate such assessments.

During September and October 2011, Rosin Preservation principal Elizabeth Rosin, associate Rachel Nugent, and sub-consultant Brad Finch completed survey activities. City planning staff and members of

¹ The Kansas Avenue Bridge constructed in 1964-67 connected South Kansas Avenue to NE Quincy Street rather than North Kansas Avenue.
the Topeka Landmarks Commission had defined the survey boundaries prior to the start of the survey. Ms. Rosin and Ms. Nugent initiated the project by visiting Topeka to meet with City planning staff and to review the survey area. Ms. Nugent and Mr. Finch completed the field survey, photography, and archival research in October. During October and November Ms. Nugent entered data into a Microsoft Excel spreadsheet. Ms. Nugent uploaded the Excel spreadsheet to the Kansas State Historical Society’s (KSHS) online database, the Kansas Historic Resources Inventory (KHRI). Finally, Ms. Rosin and Ms. Nugent analyzed the data and developed management recommendations. Ms. Rosin, assisted by Ms. Nugent, prepared this report of findings. Unless otherwise noted, all photographs in this report were taken by Mr. Finch.

This report, through the historic contexts it presents, connects downtown Topeka’s built environment to the city’s past. More specifically, it establishes relationships between resources that share historical themes, time frames, and geographic areas. Some resources, however, are at risk as demolition and significant exterior alterations continue to threaten not only older buildings but Topeka’s mid-twentieth century Modern Movement buildings, some of which may be significant works of architecture. Revitalization will be successful if the community embraces and celebrates the architectural past of downtown Topeka as a record of the community’s shared history.

2 The website for Kansas Historic Resources Inventory (KHRI) is http://www.kshs.org/khri.
Figure 1. Downtown Topeka Historic Resources Survey Area
METHODOLOGY

Rosin Preservation completed the Downtown Topeka Historic Resources Survey in conformance with the procedures for intensive-level survey outlined in National Register Bulletin 24: Guidelines for Local Survey: A Basis for Preservation Planning. Evaluation of resources for significance was in accordance with National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation.

FIELD SURVEY & DATA ENTRY

During field survey the consultant examined every resource in the survey area regardless of whether it had been previously surveyed. The consultant recorded the architectural style, primary and secondary materials, the configuration and materials of windows and storefronts, condition, present use, and significant alterations or additions and took digital photographs of each resource. Primary and secondary elevation photographs conform to KSHS standards for survey documentation.

Information collected in the field was entered into the Kansas Historic Resources Inventory (KHRI) Field Spreadsheet provided by KSHS in Excel format. A separate spreadsheet was extracted from KHRI containing 136 existing entries for previously surveyed buildings. Additional entries were created for resources that were not previously surveyed. Tim Paris, City of Topeka Planner, also provided the consultants with a spreadsheet containing owner information and GIS identifiers for the surveyed properties. These fields were amended to the KHRI spreadsheet. While in the field, the consultant confirmed the addresses provided by the City. Because each parcel can contain more than one building, additional entries were created in the spreadsheet so that each surveyed resource would have its own entry. The final spreadsheet contains 221 entries. Following consultation with KSHS staff, entries were not created for the 12 vacant lots in the survey area.

Several fields within the spreadsheet have drop-down menus from which to select appropriate information. Such fields include County/City, Historic and Present Function, Primary Style, Plan and Roof Form, Commercial Building Type, Number of Stories, Condition, Principal Material, Listed in the State Register and National Register, and Potentially Eligible for National Register. If the approved list did not contain an adequate choice, additional information was entered in corresponding Remarks fields. Entries conform to KSHS requirements for the standardized representation of data, such as inserting “Commercial Building” in the Alternate Name field when no historic name exists.

The information in the 136 existing KHRI entries contained varying amounts and types of data that was often outdated or incorrect. Some had attached photographs, but many did not. The KHRI inventory number and all of the entered data with the exception of owner information was transferred to the main spreadsheet. New information was added to the existing entries, and incorrect or irrelevant information was removed.

3 The Shawnee County Public GIS on-line viewer and the Bing bird’s eye view maps were used to determine separate building footprints.
Several properties had been surveyed within the last two years (427-429, 926, 928, 930, and 934 S. Kansas Ave). KHRI included extensive research for these resources, including multiple photographs and attachments. These entries were reviewed for accuracy and only updated with owner information, current use, and photographs. All of the existing photographs and attachments were retained.

The consultant uploaded the completed spreadsheet to the KHRI website using the batch uploading procedure. KSHS staff then assigned KHRI inventory numbers to the 85 resources not previously surveyed. Once the batch upload was complete, two current photographs of each resource were uploaded and captioned according to KSHS requirements.

HISTORICAL RESEARCH & HISTORIC CONTEXTS
Historical research is critical to understanding the commercial history of Topeka and the evolution of the built environment. Research occurred concurrently with field survey and data review. This approach allowed the team to merge field and research data to create a strong and understandable relationship between the events in Topeka’s history and its built environment, to develop a historic context for the survey area, and to establish dates of construction for individual properties.

A variety of primary and secondary resources provided a wealth of background information about the people, buildings, and developments within Topeka to create the urban core that exists in 2011. The consultants reviewed existing National Register nominations for properties within the study area; written histories of Topeka and Shawnee County; existing entries in KHRI; and other primary and secondary resources and maps. Materials were gathered from the Topeka and Shawnee County Public Library and from the Kansas State Archives. Both repositories have pertinent primary resources in their general collections. The Topeka and Shawnee County Public Library has the most complete collection of Topeka city directories beginning in 1870. The Kansas State Archives has historic maps, photographs, and an index on microfilm of Topeka building permits issued between 1880 and 1926. Sanborn Fire Insurance Maps for Topeka were accessed on-line through Mid-Continent Public Library. Other internet resources examined included primary resources accessed through Google Books and historic photographs available through Kansas Memory.

DETERMINING NATIONAL REGISTER ELIGIBILITY
In order to make management recommendations, the consultants evaluated all inventoried properties according to the criteria and standards for historic resources established by the National Park Service. This included a preliminary assessment of individual eligibility for listing in the National Register and/or as contributing elements to a National Register historic district, using three primary categories of data.

- Architectural Style/Property Type
- Date of Construction
- Architectural Integrity
Architectural Analysis

After compiling and reviewing the results of the field survey, Rosin Preservation assigned each building an architectural style and/or vernacular property type. The Buildings of Main Street: A Guide to American Commercial Architecture by Richard Longstreth and A Field Guide to American Houses by Virginia and Lee McAlester provided guidance for identifying properties by architectural style, building form, and function and ensured the use of terminology consistent with National Register nomenclature. The KHRI spreadsheet also includes an approved list of architectural styles accepted by the KSHS that is derived from the categories and subcategories presented in the National Register Bulletin How to Complete the National Register Registration Form. Accordingly, resources with simple but historic commercial facades were identified as “Minimal Commercial (Early-Mid Twentieth Century).” Resources covered entirely in non-historic facades that obscure any stylistic features were identified as “Not Applicable/No Style.”

Date of Construction

Sources from the Topeka and Shawnee County Public Library and from the Kansas State Archives (such as building permits or newspaper clippings) were first consulted to determine dates of construction for individual resources. Dates were also found in county tax assessor records. When these sources were not fruitful, dates were gleaned or deduced from Sanborn Fire Insurance Maps and city directories. If dates still remained unknown, they were estimated based on available information. Estimated dates are indicated in the database.

Using architectural style to estimate a resource’s date of construction is unreliable. Original facades, particularly in commercial districts, were often replaced in an effort to modernize the building’s appearance. Topeka’s indexed list of building permits from 1880 to 1926 indicates that “New Fronts” were added to many buildings in the early years of the twentieth century. While most of the new facades were simple with little or no ornament, some of the facades reflected architectural styles popular at the time of their construction. Many of these “new” facades have since gained historical significance by virtue of their longevity.

Evaluation of Integrity

All properties eligible for listing in the National Register, whether for individual significance or as contributing elements to a historic district, must retain sufficient architectural integrity to convey the period of time in which they are significant. The National Park Service uses the following areas to define integrity and a property must retain integrity in a majority of these areas.

- Location: The place where the historic property was constructed or the place where the historic event occurred.
- Design: The combination of elements that create the form, plan, space, structure, and style of a property.

4 A contributing property to a historic district does not have to meet the same threshold for significance as an individual landmark, but it must contribute to the significance of the district. Properties contributing to a district that is significant in the area of architecture must retain a higher degree of architectural integrity than properties in a district significant for associations with an important individual or with historical events or patterns of history.
• Setting: The physical environment of a historic property.
• Materials: The physical elements that were combined during a particular period of time and in a particular pattern or configuration to form a historic property.
• Workmanship: The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
• Feeling: A property's expression of the aesthetic or historic sense of a particular period of time.
• Association: The direct link between an important historic event or person and a historic property.5

Based on visual inspection, each building received an integrity rating of Excellent, Good, Fair, or Poor based primarily on how much of the building’s original design, workmanship, exterior materials, and overall feeling of a past period of time remain.6 The following criteria served as the basis for rating architectural integrity in this survey.

When evaluating the architectural integrity and potential register eligibility of individual resources, the consultants employed the “glass half-full” approach, considering the reversibility of alterations as well as the quality of alterations. The goal was to give as many buildings as possible the opportunity to access state and federal historic tax credits to help fund rehabilitation and adaptive-reuse, either as individually-eligible resources or as contributing resources to a historic district.

**Excellent**

• The majority of the building’s openings are unaltered or were altered in a sensitive and appropriate manner using similar materials, profiles, and sizes as the original building elements;
• The exterior cladding material has not been altered;
• Significant decorative elements are intact;
• Design elements intrinsic to the building’s style are intact;
• The overall feeling or character of the building for the time period in which it was erected is intact. Changes over a period of time are sympathetic and compatible to the original design in color, size, scale, massing, and materials;
• Character-defining elements from the time period in which the building had significant associations with events or important individuals remain intact; and
• If over fifty years in age, the building appears to be individually eligible for listing in the State or National Register of Historic Places or would be a contributing element to a historic district.

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6 Architectural integrity differs from physical condition. A building with excellent integrity may be in very poor condition and, conversely, a building with very poor integrity may be in excellent condition.
**Good**

- Some alteration of original building openings or spaces has occurred using new materials and profiles, but not causing irreversible damage to the original configuration of openings and spaces;
- Significant portions of original exterior cladding materials remain;
- Significant decorative elements remain intact;
- Alterations to the building are reversible and the historic character of the property could be easily restored;
- Additions to a secondary elevation are in an appropriate manner, respecting the materials, scale, and character of the original building design;
- The historic feeling or character of the building is slightly weakened by change or lack of maintenance; and
- The building would be a contributing element to a historic district and/or it might be independently eligible for register listing if restored in conformance with the Secretary of the Interior’s Standards for Rehabilitation.

**Fair**

- The majority of the building’s openings were altered in an inappropriate manner using new materials, profiles, and sizes;
- Exterior cladding material has been altered or added; however, there is some indication upon visual inspection that if removed, enough of the original cladding material might remain that the property could be restored to its original appearance;
- Additions were made in a manner respecting the materials, scale, and character of the original building design and, if removed, the essential form of the building remained intact;
- Historic feeling or character of the building is compromised, but the property could be restored, although reversal of alterations and removal of inappropriate materials could be costly; and
- If restored in conformance with the Secretary of the Interior’s Standards for Rehabilitation, and if the property has associations with a district’s area of significance, the property might be a contributing resource to a historic district.

**Poor**

- The majority of the building’s openings, such as windows and doors, were altered in an inappropriate manner using new materials, profiles, and sizes;
- Exterior materials were altered;
- Alterations are irreversible or would be extremely difficult, costly, and possibly physically damaging to the building to reverse;
- Later additions do not respect the materials, scale, or character of the original building design;
- The overall historic feeling and character of the building is significantly compromised; and
- Further investigations after removal of non-historic materials and alterations may reveal that the structure retains greater architectural integrity than originally apparent and should be re-evaluated.

**Evaluation Criteria**

In addition to retaining the integrity of their historic architectural design, properties listed in the National Register of Historic Places must meet certain criteria of historic significance. Historic significance is the importance of a property to the history, architecture, archaeology, engineering, or culture of a community, a state, or the nation. To be listed, properties must have significance in at least one of the following areas.

- **Criterion A:** Association with events, activities, or broad patterns of history.
- **Criterion B:** Association with the lives of persons significant in our past.
- **Criterion C:** Embody distinctive characteristics of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.
- **Criterion D:** Have yielded, or be likely to yield information important in prehistory or history.

To qualify for listing in the National Register of Historic Places under National Register Criteria A and/or C, properties must retain strong integrity in the areas of association and location. To be eligible for **individual** listing under Criterion A, a building should retain a high degree of architectural integrity in setting, materials, and workmanship for its period of significance. It should also clearly illustrate its architectural style or property type, possessing the distinct physical characteristics that define it as this property type. For example, because many commercial resources in the survey area are one or two stories tall, are on narrow lots, and have restrained commercial styling, it is important that the primary façade retain its original fenestration and spatial arrangements; in particular, the historic storefront elements or entrance treatments that define this property type. In addition to the above requirements, to be listed as an **individual** resource under Criterion C, the property must be an outstanding example of a specific style of architecture, retaining excellent integrity in setting, materials, and the architectural elements that define the style.

To be eligible for listing as a **contributing element** to a historic district under Criterion A, a property should retain sufficient stylistic and structural features to link the property with its period of significance. Specifically, integrity of façade arrangement and fenestration are important. Additions are acceptable if they are on secondary elevations and are subordinate in size, scale, and massing to the original building.
On commercial buildings, façade arrangement and fenestration define the property type. The primary façade should retain sufficient character-defining elements to express the distinct separation of upper floors from the ground floor. The individual historic windows do not have to be present as long as the rhythm of the fenestration and bays is evident. Window, door, and storefront infill or replacement should not destroy or obscure original openings. These types of alterations must be judged in accordance with the architectural style and impact on character-defining features to determine if the property retains sufficient integrity to contribute to a district. Alterations to the primary façades of large buildings may be acceptable if they do not alter a significant portion of the façade and the original appearance of the façade can be restored. Alterations to the façades of simple small buildings should be minimal and should not significantly impact the original appearance of the building. In addition to the above requirements, buildings that are part of a larger grouping may also be eligible for listing as contributing elements to a district under Criterion C as representative examples of a specific style of architecture or vernacular property type. In both instances, integrity of design, materials, and workmanship associated with its period of significance are necessary.

National Register Eligibility
Physical characteristics and historic significance provide the basis for evaluating resources for their National Register eligibility. Information about each resource, such as date, function, associations, and physical characteristics, also affects the significance of the property.

The consultants analyzed data relating to the architectural integrity and historic significance of each property within the survey area to identify contiguous districts and individual properties that appear potentially eligible for National Register listing. Rosin Preservation used the following standard terminology to complete this analysis.

- **Individually Eligible** applies to those properties that retain excellent architectural integrity and clearly represent associations with established historic context(s).

- **Contributing to a District** applies to properties located within a historic district that enhance the district's historic associations and the historic architectural qualities for which the district is significant. A National Register District is a significant concentration of sites, buildings, structures, or objects that are united historically or aesthetically by design or physical development. Contributing properties do not have to be individually distinctive, but must contribute to a grouping that achieves significance as a whole. The majority of the components that define a district's historic character, even if they are individually undistinguished, must possess integrity, as must the district as a whole. A property that independently meets the National Register Criteria for Evaluation can also be a contributing property to a district if it has associations with the district's areas of significance. Contributing buildings typically have “Excellent” or “Good” integrity, although there may be occasions where resources with “Fair” integrity are contributing.

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7 The Kansas State Historical Society staff makes official determinations of National Register eligibility for properties in Kansas.
• **Not Eligible** applies to individual properties no longer possess historical integrity due to alterations or to properties that are located within a historic district but have lost their historical integrity, were not present during the period of significance or do not relate to the documented significance of the district. Buildings with integrity ratings of “Fair” may become eligible as contributing resources if non-historic alterations are reversed.

• **Less than Fifty Years of Age** applies to properties that are less than fifty years of age. The National Register Criteria for Evaluation exclude properties that achieved significance within the last fifty years, unless they are of exceptional importance. Fifty years is the general threshold of time needed to develop historical perspective and to evaluate significance. For this Survey, the fifty-year cut-off was 1962. Buildings in this category that received integrity ratings of excellent or good may be eligible for the National Register once they reach fifty years.
SURVEY RESULTS

The Downtown Topeka Historic Resources Survey examined 221 resources flanking Kansas Avenue, the historic primary commercial thoroughfare in the Central Business Districts of Topeka and North Topeka, Kansas. The survey included 179 properties along S. Kansas Avenue between Crane Street and 10th Avenue and 54 properties along N. Kansas Avenue between N. Gordon and N. Norris Streets in North Topeka. (See Figure 1) The 221 surveyed resources document the development and evolution of Topeka from its inception in 1854 as a small territorial settlement to the bustling state capital it is today. All of the resources were evaluated as described above, according to their historic function, date of construction, architectural style, and integrity. Appendix A details the findings for each resource.

LOCATION AND SETTING

Kansas Avenue runs perpendicular to a flat stretch of the Kansas River (The Kaw). This alignment, rather than true north, orients the orthogonal grid of downtown Topeka. The river divides the city, with the majority of the commercial district concentrated south of the Kaw and more-industrial resources to the north. Kansas Avenue is relatively flat in North Topeka and between 10th Avenue and 4th Street. Beginning at 4th Street, Kansas Avenue slopes gently downward to meet the levee at the bank of the Kansas River. The numbered side streets west of Kansas Avenue also slope gently down towards SW Jackson Avenue.

North Kansas Avenue

The buildings lining N. Kansas Avenue in North Topeka are between one and three stories tall. All occupy between one and three narrow city lots. The buildings directly abut concrete sidewalks, presenting a cohesive streetscape of late nineteenth and early twentieth century commercial architecture. Wide sidewalks and parking aisles line the two-lane road. This two-block stretch of N. Kansas Avenue is less than one block north of the railroad tracks and one block west of the re-routed N. Kansas Avenue Bridge, which merges into NE Quincy Street. South of the survey area, between N. Norris Street and the river is an industrial zone with low warehouse buildings and tall concrete grain elevators. The blocks north, east, and west of the survey area are predominantly residential.

South Kansas Avenue

The survey area south of the Kansas River contains buildings of varying heights and widths, from one story to fifteen stories, from one narrow city lot to one-quarter of a city block. The buildings form solid streetwalls on most blocks. South Kansas Avenue is much wider than its northern counterpart. There are four driving lanes and angled parking on either side of the street. South of 4th Street a wide landscaped median runs down the center of the street. Designated crosswalks cut through the medians at the center of each block. Wide brick and concrete sidewalks line S. Kansas Avenue. The east side of the street

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8 The survey area also includes 12 paved parking lots, created between 1970 and 1998 following the demolition of earlier buildings. Each of these parking lots has a distinct parcel number and is not associated with a specific building. The National Park Service requires that functional parking lots such as these be identified and counted as unique resources when they fall within the boundaries of a historic district. After consultation with KSHS staff, it was agreed that the 12 parking lots would not be inventoried at this time.
beginning at 2nd Street and the west side of the street beginning at 4th Street have grassy strips or flush planter beds between the sidewalk and the street that are planted with small deciduous trees.

The survey area extends east and west to include SE Quincy and SW Jackson Streets. Southeast Quincy Street is a wide two-way street, while SW Jackson Street is one-way with traffic heading north. Large Modern Movement buildings, some associated with Topeka’s Urban Renewal movement, occupy much of the block fronting SE Quincy Street. SW Jackson Street includes small and large buildings, generally from an earlier era.

Just east of the survey area, the interstate highway (I-70) cuts a northeasterly path one block wide and eight blocks long parallel to Kansas Avenue. The six-lane sunken highway becomes an elevated roadway over 2nd Street as it makes a 90-degree turn and crosses Quincy Street, Kansas Avenue, and Jackson Street to follow the river west out of downtown.

The blocks east of the survey area contain large industrial and institutional complexes as well as extensive train yards. Large government buildings, including the Kansas State Capitol, dominate the blocks west and south of the survey area. Further west the blocks become predominantly residential, lined with single-family homes and associated facilities such as churches and schools.

**FUNCTIONAL PROPERTY TYPE**

In order to better understand the development of Kansas Avenue, the consultants identified the surveyed properties based on their original function as well as their architectural style and/or vernacular building form. A property type is a set of individual resources that share physical or associative characteristics. Property types link the ideas incorporated in the historic contexts with actual buildings that illustrate those ideas. By examining resources according to (1) original function and (2) architectural style, the analysis addressed both shared functional characteristics as well as physical (architectural style/building form/type) characteristics.

### Figure 6. Original Function

<table>
<thead>
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<th>Function</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>Specialty Store</td>
<td>150</td>
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<tr>
<td>Financial Institution</td>
<td>17</td>
</tr>
<tr>
<td>Business</td>
<td>17</td>
</tr>
<tr>
<td>Warehouse</td>
<td>12</td>
</tr>
<tr>
<td>Department Store</td>
<td>2</td>
</tr>
<tr>
<td>Restaurant</td>
<td>1</td>
</tr>
<tr>
<td>Transportation</td>
<td>7</td>
</tr>
<tr>
<td>Social</td>
<td>5</td>
</tr>
<tr>
<td>Government</td>
<td>5</td>
</tr>
<tr>
<td>Other/Mixed Use (Primary comm)</td>
<td>3</td>
</tr>
<tr>
<td>Domestic</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>221</strong></td>
</tr>
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</table>
Drawn from the National Register subcategories for function and use, the consultants identified different categories of historic building functions for the surveyed properties. While the functions of some buildings have changed from their original use, this analysis was based on original building function. The overwhelming majority of resources are commercial buildings, followed by road-related transportation resources, specifically parking garages. There is architectural diversity within each of these functional categories, reflecting the span of construction from 1855 to 2009.

**COMMERCIAL BUILDINGS**
The buildings in the Downtown Topeka survey area are predominantly commercial with 91% (202) of the 221 buildings identified as such. These commercial resources exhibit a variety of building forms, ranging from small one-story retail blocks to rambling warehouses to a fifteen-story office tower. The variety of business concerns housed in these buildings reflects the needs of a functioning metropolis. The functional subcategories they represent include specialty stores (150), financial institutions (17), business or office buildings (17), warehouses (12), department stores (2), and a restaurant. Three buildings housed multiple functions, with a commercial entity as the primary user.

Usually sited on one or two lots, the older commercial buildings have rectangular plans oriented with the short side facing the street. The two-story designs incorporate public spaces on the first floor and office, residential, meeting, storage, or light industrial spaces on the upper floors. A defining feature of the early commercial property types is a well-defined ground floor “storefront” that distinctly separates it from the upper stories and reflects a difference in public and private uses. Storefronts housed retail or wholesale vending, public entry, showroom, or office spaces. Late-nineteenth and early-twentieth century commercial buildings often have elaborate decorative ornament at the upper stories.

Stylistic treatments for the commercial properties in the survey area reflect architectural styles popular in the era in which they were built. They typically have either a flat or barrel roof, although a few resources have gable roofs behind flat parapets. Depending on the date of construction, structural elements include load-bearing stone and brick walls, concrete block, or steel members. Similarly, storefronts incorporate combinations of brick, glass, metal, stone veneer and wood.

**Specialty Store**
The overwhelming majority of small commercial buildings disbursed throughout the survey area had retail sales or service functions that are typical of business districts throughout the country, identified broadly as the “specialty store.” The specialty store includes any commercial entity where goods are available for purchase. The one- to four-story buildings are business houses designed for small operations providing wholesale or retail sales involving the receipt and distribution of goods (Figure 7). Goods and services offered in the specialty stores on Kansas Avenue in

*Figure 7. 909-911 S. Kansas Ave.*

Rosin Preservation, LLC
Downtown Topeka Historic Resources Survey
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downtown Topeka varied from the Palace Clothing store at 709 S. Kansas (c. 1910) to the filling station at 635 SE Quincy (c. 1935) to the billiards hall on the first floor of 106-108 SE 8th Street (c. 1900). The majority of the resources were constructed before 1960, with only three resources constructed between 1969 and 1995.

Financial Institutions
The seventeen resources identified as financial institutions exhibit a range of sizes and styles, depending on the period in which they were constructed (Figure 8). The concentration of this functional resource type illustrates the importance of this area in the development of the city, as the presence of banking institutions indicates successful commerce. The eight financial resources constructed before 1935 are one or two stories in height and illustrate Romanesque Revival (800 N. Kansas, c. 1900), Commercial Style (435 S. Kansas, 1910), Beaux Arts (845 N. Kansas, 1926 and 701 S. Kansas, 1927), Colonial Revival (120 SW 6th Street, 1930), and Art Deco (844 N. Kansas, 1935) architecture. The nine financial institutions constructed after 1960 exhibit the materials and stylistic features of the Modern Movement, with banded windows and strong horizontal and vertical elements. Half of these buildings are one or two stories in height and occupy small lots, while the other half are between six and sixteen stories.

Businesses
The seventeen resources identified as historically having business functions do not have first-floor storefronts. These buildings were constructed as offices for a single business or as speculative ventures for multiple tenants (Figure 9). The six business buildings constructed between 1888 and 1915 embody a variety of architectural styles: Romanesque Revival (Crawford Building at 501 SW Jackson (1888) and the Columbian Building at 112-114 SW 6th Street (1889)); Gothic Revival (Real Estate Building at 701 SW Jackson (1893)); Classical Revival (Aetna Building at 112 SW 7th Street (1909) and the Atchison, Topeka, & Santa Fe Railroad Building at 900 SW Jackson (c. 1915)); and Sullivanesque (New England Building at 503 S. Kansas (1911)) architecture. Of the six buildings constructed in the third quarter of the twentieth century, three were constructed for public utilities companies Southwestern Bell Telephone (823 SE Quincy in 1951 and 812 SW Jackson in 1960) and Kansas Power & Light Company (818 S. Kansas in 1962). Three buildings were constructed on the land cleared for Topeka’s Urban Renewal development: the one-story

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9 The Crawford Building at 501 SW Jackson was listed in the National Register of Historic Places on 22 August 1975. The Columbian Building at 112-114 SW 6th Street was listed in the National Register of Historic Places on 5 September 1975.
buildings at 200 S. Kansas (1974) and 234 S. Kansas (1966), and the two-story X-shaped office building designed for the American Home Life Insurance Company in 1970. Five business buildings were constructed after 1980. Newer, mid- to late-twentieth century business buildings often sit with their long side facing the street. The mid- to late-twentieth century office buildings present the sleek, unbroken lines of the glass and steel or concrete office tower that became popular after World War II. They also retain public space on the ground floor in the form of a building lobby and leased retail space. These buildings housed offices for financial institutions or utility companies and provided leased space for smaller professional businesses.

Warehouses
Twelve buildings were identified as warehouses. All of these resources were constructed north of 3rd Street, including all of the buildings on the west side of N. Kansas between 1st and Crane Streets. The earliest warehouse was constructed for Parkhurst Davis & Co. Wholesale Grocers at 109 N. Kansas Avenue prior to 1888 (Figure 10). This three-story building has a brick façade and rubble stone secondary walls. The warehouses at 128 N. Kansas (1967) and 116 S. Kansas (1968) were both constructed on land in the Keyway Subdivision cleared under Topeka’s Urban Renewal program, although it is debatable whether these buildings were designed to revitalize the downtown area, to fill vacated land, or to supplement adjacent business operations.

Other Commercial Property Types
Two resources were constructed as department stores. The three-story building at 716 SW Jackson (c. 1910) housed the west half of the Crosby Brothers Company store. It is the only building that remains of the original department store that closed in 1975. William T. and Erastus H. Crosby opened their store on the west side of the 700 Block of S. Kansas in 1880. Over the years the brothers expanded to the east side of SW Jackson (716 SW Jackson) and eventually connected to the Jayhawk Hotel and Theater through an internal arcade constructed within 714 SW Jackson. The original building at 717-719 S. Kansas was demolished and replaced with a mixed-use commercial and residential structure in 2009.

A Macy’s department store was constructed at 800 S. Kansas in 1965. The four-story concrete department store and parking garage exhibits the massing and banded windows typical of Modern Movement design. While not constructed on land specifically cleared under Topeka’s Urban Renewal program, the Macy’s was near the Urban Renewal area, designed in a style popular for the era, and erected with the intention of revitalizing the downtown commercial center.

One building (735 S. Kansas) was constructed as a restaurant in 1960. This one-story building occupies a narrow corner lot and has simple architectural features. The front façade has been altered with non-historic materials.
NON-COMMERCIAL PROPERTY TYPES

The twenty (9%) non-commercial buildings in the survey area represent a range of functions. Two were constructed as hotels, two as post offices, three as government offices, six as social halls, and seven as parking garages.

Hotels
While the National Register categorizes hotels as a Domestic function, the hotel itself is a commercial entity that contributes to the commercial character of the survey area. The form and design of hotels, particularly those from the early twentieth century, also shares many traits with the architecture of commercial buildings. The two hotels in the survey area are the Kansan Hotel at 830 S. Kansas (Figure 11) and the Jayhawk Hotel at 700 SW Jackson. Constructed in the mid-1920s, both buildings occupy large lots on prominent corners and are much taller than the contemporary commercial buildings around them. The nine-story Kansan Hotel has first-floor retail storefronts and ornate trim at the second-story. The eleven-story Jayhawk Hotel also has retail space in the first story, and an ornate two-story base and relatively plain upper stories.

Government Buildings

Five buildings in the survey area were constructed for the purpose of executing government functions. These civic buildings exhibit a wide variety of characteristics depending on original function and period of construction. The earliest governmental building is Constitution Hall at 427-429 S. Kansas (Figure 12). This two-story stone building was constructed in 1855 to house the constitutional convention where the first state constitution was written and ratified. Constitution Hall was built as a free-standing structure, but as the city grew, the building was quickly engulfed in the solid commercial streetscape of Kansas Avenue. Like many buildings around it, Constitution Hall received a new brick façade in the early twentieth century, refreshing its appearance in keeping with the architectural trends of the period.

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10 Constitution Hall was listed in the National Register of Historic Places on 15 July 2008.
The two U.S. Post Office buildings at 424 S. Kansas and 935 N. Kansas were constructed in 1933 and 1938, respectively. The post office at 935 N. Kansas is a one-story brick building with simple Classical Revival ornament and façade configuration (Figure 13). The building occupies two small corner lots and blends with the surrounding small-scale brick commercial buildings on N. Kansas. The U.S. Post Office and Federal Courthouse at 424 S. Kansas is a high-style Classical Revival building with a limestone temple-front façade. This grand building occupies nearly a third of the block, clearly communicating its important civic function.

City Hall and Municipal Auditorium at 215 SE 7th Street was constructed in 1939 as a PWA project (Figure 14). Standing at the center of a landscaped block, the limestone building has inscribed Art Deco ornament and banded metal windows. The building continues to house city government offices and the Topeka Performing Arts Center. The governmental office building at 515 S. Kansas was built in 1989. The four-story building has concrete cladding with banded windows and is set back from the sidewalk to create a small plaza.

Social/Civic Buildings
Of the five surveyed buildings constructed for social functions, one was built for civic organizational offices, while the remaining four were built as social halls. Memorial Building at 120 SW 10th Avenue was built in 1914 to memorialize the Kansas soldiers and sailors who fought in the Civil War. The Beaux Arts building has granite and marble cladding with a colonnaded portico and symmetrical façade. The building now contains State offices. The Elks Club Building at 122 SW 7th Street is a brick and limestone Italian Renaissance Revival building with glazed terra cotta ornament. The building retains its historic social function. The three remaining buildings were designed with first-floor storefronts and gathering space in the upper stories to better blend with their commercial surroundings. Topeka architect Frank Squires designed the two-story building at 918-920 S. Kansas in 1914 for the Kansas Children’s Home Society. By 1955, a chapter of the Fraternal Order of Eagles (F.O.E.) occupied the building. The Independent Order of Odd Fellows (I.O.O.F.) Hall at 837 N. Kansas was constructed in 1880, while the I.O.O.F. Hall at 117-119 SW 6th Street was built in 1921 (Figure 15). Both buildings have brick facades and modified storefronts.

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11 Memorial Hall was listed in the National Register of Historic Places on 17 July 1975.
Transportation – Road Related
The seven buildings identified as having Transportation/Road Related functions are all parking garages. These large concrete structures are between four and six stories and occupy large lots. They were constructed between 1961 and 2009. Two parking garages (500 S. Kansas and 723 SE Quincy) are associated with Topeka’s Urban Renewal development during the mid-twentieth century (Figure 16). The parking garage at 500 S. Kansas was designed in 1968 as part of the Townsite Plaza Development, an official Urban Renewal project. The parking garage at 723 SE Quincy was constructed in 1961 and is associated with the Capital Federal Building constructed the same year at 700 S. Kansas.

Parking Lots
A modern bustling commercial center requires parking for customers and employees. In downtown Topeka, parking is available in multiple parking garages, in designated areas on the street, or in open lots paved and striped specifically for that purpose. Several buildings in the survey area do not occupy their entire lot. The remaining space on these lots is often paved for parking. Occasionally when buildings are demolished, the lot is absorbed into the adjacent parcel and the empty space is paved for parking. The parking area immediately west of 120 SE 10th Avenue and included in the building’s parcel was utilized for parking as early as 1955 when the building housed an automobile sales and service building. The four remaining parking lots associated with buildings in the survey area were paved in the 1980s. The twelve parcels that function as independent parking lots were paved between 1970 and 1998. Most are striped but some are simply paved with asphalt.

ARCHITECTURAL STYLES AND BUILDING FORMS
Classifications based on shared physical attributes include categorization by architectural styles and/or vernacular building forms. The architectural styles and vernacular forms identified in the survey area and assigned to the surveyed properties follow the terminology and classifications accepted by the National Register of Historic Places program and as presented in the Kansas Historic Resources Inventory database template. This hierarchy and nomenclature relies heavily on the forms and styles discussed for commercial buildings in The Buildings of Main Street: A Guide to American Commercial Architecture by Richard Longstreth. Longstreth classifies commercial buildings by building function and form, such as the “one-part commercial block.” Such terminology is often combined with the building’s style (i.e., “Italianate one-part commercial block”).

The 221 surveyed buildings include 103 that represent formal architectural styles. One hundred eighteen have simple early twentieth century commercial facades or no discernible style. Figures 17 and 18 show the distribution of properties by building form and by architectural style.
COMMERCIAL BUILDING FORMS
Commercial architecture is distinguished first by building form and second by its architectural style. In *The Buildings of Main Street: A Guide to American Commercial Architecture*, Richard Longstreh identifies and categorizes buildings common to central business districts and neighborhood commercial areas according to the composition of their façades. Despite intricate detailing and stylistic treatments or the lack thereof, the organization of the commercial façade can be reduced to simple patterns that reveal major divisions or zones. Due to their functional nature, many commercial buildings exhibit restrained architectural details. The cornice area followed by the first-story storefront are the most prominent and distinctive features of a commercial building. In addition to the storefront, cornice, and parapet, important character-defining elements of commercial buildings include bulkheads, transoms, signs, and doors.

Figure 17. Building forms

<table>
<thead>
<tr>
<th>Two-Part Commercial Block</th>
<th>135</th>
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<tbody>
<tr>
<td>One-Part Commercial Block</td>
<td>59</td>
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<tr>
<td>Three-Part Vertical Block</td>
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</tr>
<tr>
<td>Two-Part Vertical Block</td>
<td>4</td>
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<tr>
<td>Temple Front</td>
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<tr>
<td>Stacked Vertical Block</td>
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</tr>
<tr>
<td>Arcaded Block</td>
<td>1</td>
</tr>
<tr>
<td>Central Block with Wings</td>
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</tr>
<tr>
<td>Not Applicable (parking garages)</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>221</strong></td>
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Figure 18. Architectural Style

<table>
<thead>
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<tr>
<td>Italianate (High Victorian Italianate)</td>
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<tr>
<td>Late 19th &amp; Early 20th Century Classical Revival</td>
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<td>Modern/Modern Movement</td>
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<td>12</td>
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<tr>
<td>Richardsonian Romanesque/Romanesque Revival</td>
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<tr>
<td>Commercial Style</td>
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<td>Streamlined/Art Moderne</td>
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<td>Art Deco</td>
<td>3</td>
</tr>
<tr>
<td>Spanish Eclectic</td>
<td>3</td>
</tr>
<tr>
<td>Beaux Arts</td>
<td>2</td>
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<tr>
<td>Other (Sullivanesque)</td>
<td>1</td>
</tr>
<tr>
<td>Colonial Revival</td>
<td>1</td>
</tr>
<tr>
<td>Gothic Revival</td>
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<td>Italian Renaissance</td>
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<tr>
<td>Neoclassical Revival</td>
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<tr>
<td>Other (Utilitarian; Contemporary facades)</td>
<td>3</td>
</tr>
<tr>
<td>No Discernible Style</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>221</strong></td>
</tr>
</tbody>
</table>
Commercial buildings and the streetscape they create define both the functional and visual character of the distinct neighborhoods within the survey area. Dating from the 1900s through the late twentieth century, most of the commercial buildings surveyed are simple, one-, two-, or three-story structures. The traditional building material is brick.

The central business district surrounding Kansas Avenue contains several tall buildings in addition to the numerous one- and two-story commercial buildings. These are predominantly office towers with concrete or metal/steel structures.

The most conspicuous alterations to commercial buildings in the survey area reflect the modernization of first-story display windows and entrances or the application of a new façade at the upper stories. Many of these alterations have left the original openings and spatial relationships of the storefront intact. Other changes are more-easily reversible, such as the addition of awnings and applications of wood or metal sheathing over original openings or transoms. Where left exposed, the upper stories usually retain their historic integrity and original appearance and are the principal means to identify the building’s original style.

Utilizing Longstreth’s basic commercial building property types, the most abundant in the survey area are the Warehouse/Light Industrial and One-Part Commercial Block building types. The categorizations of One- or Two-Part Commercial Blocks, Free-Standing Commercial Block, Temple Front, or Arcade Front all apply to buildings four stories and under. Two- and Three-Part Vertical Blocks, the Stepped Vertical and the Free-Standing Tower describe tall buildings.

The majority of the commercial building forms represented in the survey area are Two-Part Commercial Blocks (135) and One-Part Commercial Blocks (59). The survey area also contains examples of the Arcaded Block, Temple Front, Stacked Vertical Block, Two-Part Vertical Block, and Three-Part Vertical Block.

**One-Part Commercial Block**

The One-Part Commercial Block building is a simple one-story cube with a decorated façade. In many examples, the street frontage is narrow and the façade comprises little more than plate glass windows and an entrance with a cornice or parapet spanning the width of the façade (Figure 19).

KHRI does not distinguish the Free-Standing Commercial Block, a building form related to the One-Part Commercial Block, as a separate property type. It is more commonly a late-twentieth century commercial development that occupies a lot independent of the surrounding streetscape (Figure 20). Examples of the Free-Standing form, house government
offices, banks, auto service stations and convenience stores, fast food restaurants, and a variety of retail and professional businesses. In the downtown urban core these resources are often identified as office buildings or specialty stores between one and six stories and do not necessarily have first-floor retail space with discernible storefronts.

Two-Part Commercial Block
Slightly more complex than their one-story cousins, Two-Part Commercial Block buildings are typically two- to four- stories in height. They have a clear visual separation of use between the first-story customer service/retail space and the upper-story office, meeting room, or residential uses (Figure 21). Similar to One-Part Commercial Block buildings, the styling of the first story focuses on the storefront glazing and entrance(s). The design of the upper stories identifies the building’s architectural influences.

Two-Part Vertical Block
The Two-Part Vertical Block is a taller version of the Two-Part Commercial Block (over four stories) with a clear visual separation between the first story, or the “base,” and the upper stories, or the “shaft” (Figure 22). The design of the upper stories identifies the building’s architectural influences and often uses decorative or structural elements to emphasize the verticality of the building.

Three-Part Vertical Block
The Three-Part Vertical Block is a tall building that contains the same distinct zones of “base” and “shaft” as the Two-Part Vertical Block. The uppermost one to three stories form the third part of the vertical block, becoming the “capital” (Figure 23). This creates an analogy between the façade organization and the parts of the classical column. It is therefore common for these buildings to be designed in the Classical Revival style or a related style, such as Beaux Arts, although some mid-century office buildings exhibit similar façade arrangements executed in materials and forms that reflect the Modern Movement.

Stacked Vertical Block
The Stacked Vertical Block is similar to the Two-Part Commercial Block but has three or more horizontal divisions on the front façade. Each division has slightly different façade ornament and no hierarchy of ornament is implied (Figure 24). This form developed in the mid- to late-
nineteenth century for commercial buildings typically with about five stories.

Temple Front
The defining feature of the Temple Front building form is the application or the implied application of columns to the main façade (Figure 25). While this form was most popular for banks and government buildings, it was occasionally applied to other commercial buildings also. In these cases, the columns are not free-standing and therefore do not create a portico.

Arcade Front
The Arcade Front building has a series of round-arched openings that are evenly-spaced along the first story of the main façade (Figure 26). These buildings are generally between one and three stories tall.

ARCHITECTURAL STYLES
Nationally, after the Civil War commercial centers became specialized according to administrative, retail, wholesale, industrial, or recreational use. New building types and reinterpretations of traditional building types appeared as styles changed. The concentration of a few distinct architectural styles in the survey area illustrates the building booms that defined Topeka's history. Downtown Topeka contains at least one example of nearly all of the formal styles within the National Register categories of Late Victorian, Late Nineteenth and Early Twentieth Century Revivals, Late Nineteenth and Early Twentieth Century American Movements, and Modern Movement. A few high-style examples of these architectural idioms mingle with the smaller, simpler vernacular versions that dominate the survey area. Commercial, social, and governmental resources all exhibit formal architectural styles. While the majority of resources in the survey are identified using KHRI nomenclature as Minimal Commercial (Early – Mid 20th Century), the most common formal architectural styles are the Italianate (specifically the High Victorian Italianate) and the Classical Revival.

Late Victorian
There are thirty-one examples of Late Victorian architecture scattered throughout the survey area. Constructed from circa 1880 to 1926, the majority of these resources are located on North Kansas Avenue. Identified by a variety of textures and colors, the proliferation of High Victorian Italianate, Richardsonian Romanesque and Romanesque Revival, and Italian Renaissance styles reflects the building boom that occurred in Topeka during the last decades of the nineteenth century. These resources are between two and five stories tall with brick or stone walls and stone or pressed metal trim.
Italianate (High Victorian Italianate)
The twenty-two resources identified as High Victorian Italianate are two or three stories tall. This style was commonly used for commercial buildings in the 1870s and 1880s. The simple brick facades have carved stone lintels and ornate pressed metal cornices with elaborate brackets and gables (Figure 27). The shallow segmental arch was a common shape for upper-story window openings and was highlighted by ornate lintels. Historic photographs of streetscapes within the survey area show many High Victorian Italianate facades, some of which were replaced with newer facades beginning as early as the 1910s.

Richardsonian Romanesque/Romanesque Revival
The Richardsonian Romanesque and the Romanesque Revival styles exhibit similar features such as the use of classical symmetry and round-arched window openings (Figure 28). The five Romanesque Revival resources have brick facades with simple ornamental brickwork and corbelling. The two Richardsonian Romanesque resources have rusticated stone facades with ornament composed of terra cotta or stone of a different color. Turrets or other rounded applied features are also common on Richardsonian Romanesque resources.

Late-Nineteenth and Early-Twentieth Century Revivals
There are thirty examples of various Late-Nineteenth and Early-Twentieth Century Revival styles in the survey area. These facades date from circa 1910 to circa 1938, although in some cases they are applied to a building that dates to the nineteenth century. The contemporaneous Classical Revival, Gothic Revival, Colonial Revival, Mission/Spanish Colonial Revival, and Beaux Arts styles reflect the influences of historic architecture derived from European and American antecedents.

Classical Revival
The twenty-two resources identified as Classical Revival have symmetrical façade and simple, classically-inspired ornament (Figure 29). These resources fall into two categories. The smaller resources are One- or Two-Part Commercial Blocks with brick facades and simple stone or terra cotta ornament at the lintels and parapets. The taller resources are Two- or Three-Part Vertical Blocks. They have a strong base often clad in stone and sometimes punctuated by round-arched openings. A difference in cladding material and simplification of ornament differentiate the upper stories from the base.

Spanish Eclectic
The three Spanish Eclectic resources have Two-Part Commercial Block forms with Spanish-influenced
applied ornament (Figure 30). Typical of the Spanish Eclectic style, these resources were constructed between 1922 and 1927 with buff brick walls, terra cotta ornament, and red clay tile pent roofs applied at the parapet. The multi-colored terra cotta columns and friezes ornament the facades.

Beaux Arts
The grand and dramatic Beaux Arts style is often applied to large-scale commercial or to formal institutional or governmental buildings (Figure 31). The two resources identified as Beaux Arts are three and four stories tall and were constructed in 1909 and 1914. These buildings have symmetrical stone facades with highly sculptural ornament.

Minimal Commercial (Early – Mid Twentieth Century)
Nearly half of the resources in the survey area are identified as Minimal Commercial (Early – Mid Twentieth Century), a term used in the KHRI database to define the one- to three-story commercial resources with generic brick facades and little or no applied ornament (Figure 32).

Modern Movement
The Modern Movement encompasses the wide variety of architectural styles developed in the twentieth century as a significant break from the historical revival styles that dominated previous eras. Beginning in the 1920s and continuing into the 1970s, architects sought inspiration in the innovations of man and machine rather than in the architecture of the past or in nature. The goal was to create completely new forms that reflected the energy, creativity, and engineering ingenuity of the age. As the first formal style to emerge from the Modern Movement, Art Deco utilized stylized geometric ornament to emphasize modernity and progress. Subsequent styles, such as Streamline Moderne, International, and New Formalism, stripped the building of all formal ornament. Form, construction, and man-made materials became the main components of architectural expression. These later styles were predominantly used for large-scale, free-standing commercial buildings in urban areas.

Art Deco
The Art Deco style gained popularity in the United States after the 1925 L’Exposition Internationale des arts Décoratifs et Industriels Modernes in Paris. While initially decorative in nature, architects embraced Art
Deco forms as symbols of modernity. The Topeka Municipal Auditorium and City Hall was constructed in 1938 with the aid of a PWA grant (Figure 33). The nearly block-long building is a grand structure with simple ornament carved into the limestone façade. The small, one-story Kaw Valley State Bank (844 N. Kansas) built in 1935 is brick with limestone trim inscribed with chevrons and engaged pendants carved with low relief. The W. T. Grant Building at 705 S. Kansas was constructed circa 1910 but a distinctly Art Deco limestone façade was added in the late 1930s or early 1940s.

Streamlined Moderne
Examples of Modern Movement commercial design generally first appeared in the survey area 1930s. At the start of this period, architects began applying the streamlined forms popular in industrial design to commercial buildings. In the 1930s, the Streamlined Moderne style featured cubic and cylindrical forms with a horizontal emphasis, smooth surfaces, curving shapes, and a minimum of ornamentation (Figure 34). The four Streamlined Moderne buildings in the survey area have buff brick walls or stucco walls and aluminum canopies that define their architectural style. The three-story F. W. Woolworth Building at 627-631 S. Kansas was constructed in 1948. Patterned brickwork provides the only ornament in the form of vertical pilasters between the window openings. A one-story filling station (635 SE Quincy) and a two-story warehouse (100 S. Kansas) have simple, curvilinear features that illustrate their style. The one-story building at 921 N. Kansas has a replacement façade that reflects the Streamlined Moderne style.

Modern Movement – Other
In the post-World War II period, buildings, especially commercial buildings, got bigger and sleeker. All vestiges of architectural ornament and references to historic styles were removed. Skins of glass and metal replaced traditional veneers of brick and stone. Windows became expansive ribbons of glass rather than punched openings. Twenty buildings of this genre rose in downtown Topeka during the post-war boom and into the early 1970s. Commercial businesses embraced forward-looking Modern Movement architecture to represent their own visions of the future. The 1974 Topeka Savings Association (800 SE Quincy Street) is an excellent example of New Formalism, where the most prominent features are the circular form, the wide projecting roof slab, and the shaped columnar supports. The Kansas Power & Light Building (1962) illustrates the Miesian subtype of the International Style (Figure 35). Features of this style include the recessed ground floor walls and the regular pattern of the façade created by the exposed concrete frame.
DATES OF CONSTRUCTION

For dates of construction not provided by City of Topeka property records or historic building permits, the consultants utilized Sanborn Maps, city directories, and other archival sources described in the Methodology to estimate dates of construction. Architectural style was not used to estimate construction dates since original facades were often replaced in an effort to modernize the building’s appearance. Dates of building additions and alterations were not considered in this analysis. Figure 36 presents the distribution of buildings by estimated date of construction. Figures 38 and 39 map the distribution of buildings by estimated dates of construction.

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<tr>
<th>Era</th>
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<td>1880 – 1899</td>
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<td>1900 – 1919</td>
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<td>1930 – 1959</td>
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<td>1960 – 1979</td>
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<tr>
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More than 75 percent of the resources in the survey area were constructed before 1930, with three major building booms around 1890, 1910, and 1925. The nation-wide trend in the 1960s of revitalizing urban centers through new construction as well as rebuilding after the 1966 tornado account for the increase in construction activity during the mid-1960s and early-1970s.

INTEGRITY

All properties eligible for listing in the National Register of Historic Places must retain sufficient architectural integrity to convey the period of time for which they are significant. As described above in the Methodology, each building received an integrity rating of Excellent, Good, Fair, or Poor based on the degree of alteration to its exterior facades. Buildings that are less than 50 years of age were excluded from this evaluation. Figure 37 presents the results of that analysis. Figures 40 and 41 map the distribution of buildings by integrity rating.

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Figure 39. North Kansas Avenue Survey Area – Dates of Construction
Figure 40. South Kansas Avenue Survey Area – Integrity
Figure 41. North Kansas Avenue Survey Area - Integrity

Legend
- Excellent
- Good
- Fair
- Poor
- <50 Years of Age
- Parking Lot/Vacant Lot

Rosin Preservation, LLC
Downtown Topeka Historic Resources Survey
31
HISTORIC CONTEXT

EARLY SETTLEMENT AND STATEHOOD
The early history of Topeka is closely tied to the journey of Kansas from territory to statehood. The United States Congress passed the Kansas-Nebraska Act on May 30, 1854, establishing the Kansas Territory at the heart of the Louisiana Purchase. On December 5, 1854, nine pioneering strangers with a common desire to see the Territory admitted to the Union as a free state, met in a rude log cabin on the south bank of the Kansas River for the expressed purpose of establishing a town. These nine men, Colonel Cyrus K. Holliday, Frye W. Giles, Daniel H. Horne, George Davis, Enoch Chase, J. B. Chase, M. C. Dickey, C. Robinson, and L. G. Cleveland, formed a Town Company. They selected a site and laid out one and a half square miles to be surveyed for a town site and staked claims on the land surrounding the log dwelling. These men and several others formed the Topeka Association with formal articles of association for the Town Company filed and officials elected less than two weeks later.

The Topeka Association aligned the street grid perpendicular to a relatively straight section of the Kansas River. Narrow lots lined the long blocks. The primary street at the heart of the new town was Kansas Avenue. With spring approaching in early 1855, more settlers, including families, arrived in the new town and constructed temporary and semi-permanent wood dwellings vital to their initial survival.

Once the settlers discovered an abundant source of limestone and perfected the process of making a lime-based mortar with available materials, the feasibility of building permanent structures increased greatly. In 1856 settlers in Topeka began making bricks and erecting permanent houses and commercial buildings. Solid masonry structures soon dotted the landscape along Kansas Avenue and Quincy Street from the river south to Sixth Avenue.

Residents John and Loring Farnsworth built the first masonry structure in 1855 on the west side of Kansas Avenue between 4th and 5th Streets. The building was almost immediately employed as the meeting place for the framers of the first state constitution, the “Topeka Constitution,” and quickly earned the name “Constitution Hall.” The building was often used for political gatherings and as a senate chamber in the early days of the state government. A rendering from 1856 shows a two-story free-standing building

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13 Giles, 39.
14 Giles, 40. Constitution Hall was listed in the National Register of Historic Places on 15 July 2008.

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with stone walls and large window openings (Figure 42).

Immigration from Eastern Free States steadily increased the population of Topeka in the years after its founding. The first commercial entities established were those necessary to support the growing town, specifically a saw mill, a grist mill, hotels, and a variety of mercantile businesses. The mills were constructed along the banks of the Kansas River, but the commercial businesses lined Kansas Avenue, the path that lead from the river through the heart of the settlement. Masonry buildings (limestone side and rear walls with brick facades) erected throughout the 1850s and 1860s infilled the streetscape of Kansas Avenue. The formerly free-standing Constitution Hall was integrated into the streetscape with the application of a new brick façade, following the completion of flanking two-story masonry buildings beginning in 1863 (Figure 43).

TOPEKA AS COUNTY SEAT AND STATE CAPITAL

Much like the established city of Lawrence, Topeka’s founders were Free-Staters, including representatives from the New England Emigrant Aid Society, while pro-slavery Missourians founded cities and towns along the eastern border of the Territory. The political and ideological differences between the free-state and pro-slavery factions in the Kansas Territory caused tension and outbreaks of violence in the years leading up to the Civil War. In 1855, Free-Staters in Topeka gathered in Constitution Hall to draft a constitution based on the notion that Kansas would be a Free State. Pro-Slavery politicians in the first Territorial Legislature declared the convention unauthorized and thus disqualified the Topeka Constitution. By 1858, however, Free-Staters gained a majority in the Territorial Legislature. In July 1859, delegates from across the Territory held a convention in Wyandotte. The Wyandotte Constitution embraced the same principles as the Topeka Constitution and established the temporary state capital in Topeka. The U.S. Congress accepted the Wyandotte Constitution on January 29, 1861, which admitted Kansas to the Union as a Free State and named Topeka the temporary capital.

The first Territorial Legislature established counties in the Kansas River valley using the river as a boundary. Although the area north of the river at Topeka was not part of the original settlement, the city founders believed development would spread away from the river in both directions and thus objected to using the river as the northern boundary of the County. The northern boundary was set at a latitude several miles north of the river. This same Territorial Legislature, which also disqualified the Topeka Constitution, declared Pro-Slavery Tecumseh, the closest town to the east along the Kansas River, the

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15 Giles, 105.
county seat. The Free-State Legislature of 1859 nullified that decision and put the question up to popular vote in the general election. When it became clear that the results favored Topeka, the presiding judge from Tecumseh tasked with publishing the decision abscended with the results. A loyal clerk returned the findings and nearly two months after the vote was cast, Topeka was officially named the Shawnee County seat.16

After achieving statehood, the question remained of which city would become the permanent state capital. Topeka's only real competition was Lawrence, whose similarities included location along the Kansas River and Free-State sensibilities and whose advantages included a larger population and earlier founding.17 The decision was again put to a vote in a state-wide special election on November 5, 1861. Topeka won with 52 percent of the vote, compared with 35 percent for Lawrence.18 The selection of Topeka as the capital of Kansas cemented the monetary value of land in this new city as well as the perceived value of the city in the eyes of potential settlers. The new state's legislators met in leased space within private buildings. A masonry structure was erected adjacent to Constitution Hall in 1863 to temporarily house the capitol. This building, too, was integrated into the commercial streetscape by 1870 (Figure 43). Cyrus K. Holliday, one of Topeka's founders, donated 20 acres for the site of permanent capitol. Construction of the Kansas Statehouse began with the east wing in 1866 and ended with the construction of the center dome in 1889.

Once the county seat and state capital had been located, the development of Topeka more closely resembled that of other nascent cities in the Midwest during the mid-1800s. Settlers established homes and businesses to accommodate daily necessities. Their success attracted more people to the city, perpetuating the cycle.

Railroads
As is common in many pioneer cities west of the Mississippi River, the railroad played an integral part in the early success of the Topeka. The ability to import and export raw materials and finished products provided boundless opportunities for entrepreneurs and manufacturers. The two major rail lines serving Topeka were the Union Pacific Eastern Division Railroad (Union Pacific), arriving in 1866, and the Atchison, Topeka & Santa Fe Railroad (AT&SF), which began construction both east and west from Topeka in 1868.19

In 1855, the Territorial Legislature incorporated Leavenworth, Pawnee & Western Railroad Company to construct a railroad line of the Union Pacific Eastern Division from the mouth of the Kansas River to the 100th meridian at the western end of the Territory to connect the Missouri Pacific with the main line of the Union Pacific Railroad. After some adjustment by way of a Congressional amendment, this alignment was designed to follow the river valley passing through Topeka and Lawrence or on the bank immediately

16 Giles 109.
17 Giles, 249.
18 Giles 253. The remaining 13 percent of the vote was divided between Leavenworth, Baldwin, Emporia, Sac-and-Fox Agency, Lecompton, Kickapoo, Whiskey Point, and Tecumseh.
19 Giles, 280. The Union Pacific Eastern Division was not associated with the more-established Union Pacific railroad company until the 1880s.
opposite the city. Construction began in 1864 and was completed to Topeka in 1866. The first train on this line arrived in the rail yard of Eugene (now North Topeka) on New Year’s Day 1866.  

Cyrus K. Holliday, one of the original Topeka founders, chartered the Atchison and Topeka Railroad in 1859. In 1860 the U.S. Congress passed a bill granting lands to the Kansas Territory for the construction of a railroad from Topeka to the southwest border of the Territory, via Council Grove. It was another eight years before construction began on the renamed Atchison, Topeka & Santa Fe Railroad. While the first line of track from Topeka to Pauline, Kansas was laid in 1868, it was another four years before the road reached the border of Colorado in December 1872. Working eastward, the railroad connected to Atchison that same year. In addition to constructing the railroad through Topeka, the company also decided, with some financial incentive from the City, to build its shops and offices in Topeka. This decision meant a great number of jobs for the citizens of Topeka and provided a boost to the local economy. In 1884, the Atchison, Topeka & Santa Fe Railroad built a four-story office building at the southeast corner of West 9th and Jackson Streets. A ten-story building was constructed just south of the original office building in 1910. A north wing and a connecting center block, both ten stories, were added, completing the nearly block-long building at 900 SW Jackson Street in 1924.

THE BRIDGE ACROSS THE KAW

A bridge across the Kansas River was critical to maintain trade with the northern counties and to improving the commercial viability of any city along its banks. Again Topeka was in direct competition with its eastern neighbor, Tecumseh, to complete this task first. Although Tecumseh was the first to charter a company for this purpose in 1855, Topeka’s leaders obtained a bridge charter in 1857 and commenced construction almost immediately. The proximity of Tecumseh increased the need be the first city with a bridge, since it would make the neighboring bridge unnecessary and the rival city less attractive to commercial entities. Topeka’s first wooden bridge was completed May 1, 1858, well before the bridge at Tecumseh. Within three months, however, heavy rains and flooding swept wood decking from the piles. The rapid destruction of the bridge discouraged other towns from pursuing similar schemes and the ferry became again the primary mode of crossing the river at Topeka. When plans developed to construct the Union Pacific Railroad on the north side of the river, City leaders quickly realized the importance of building a new bridge in order to take full advantage of the opportunities the railroad provided. A pontoon bridge was constructed in 1865 and served its purpose until 1868 when the city proposed a bond issue for the construction of an iron bridge. A permanent iron bridge was built on massive stone piers in 1869 connecting Kansas Avenue on both sides of the river. Almost immediately, it had a positive impact on the development of North Topeka.

NORTH TOPEKA

A treaty between the United States and the Kansas Tribe, signed in 1825, granted tracts of land on the north side of the Kansas River to twenty-three individuals of French and Kansa descent. One of these

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20 Giles, 277.
21 Giles, 283.
22 Giles, 91.
23 Giles, 96.
individuals, Julia Gonvil, owned tract No. 4 directly north of what would become the Topeka settlement.24 Gonvil was the daughter of a French trader and a Kansa Indian. She and her sisters each married one of the three Pappan brothers from Missouri. They moved to Gonvil’s land in 1840 to capitalize on the popular but difficult movement westward. The Pappan brothers established the first ferry across the Kansas River in 1842.25 In 1860, Congress authorized the sale of the reservation lands, including that of Julia Gonvil. In 1867, Louis Laurent and William Curtis purchased this land and platted the town of Eugene.

Louis Laurent departed France in 1848 and traveled to the Kansas Territory via London, New York, and St. Louis, Missouri, arriving in Topeka in 1859. Appreciating the unpretentious air of Topeka compared with the nearby communities of Lecompton and Tecumseh, Laurent decided to settle there. He built a house and set up a store on the north side of the river.26 A loose community of merchants and settlers established themselves in that area during the late 1850s and early 1860s. In 1865 Laurent and fellow settler William Curtis formally platted the community of Eugene, aligning it with the grid of Topeka on the south side of the river.27 The Union Pacific Railroad began running along the north bank of the river at Eugene in 1866. Topeka annexed Eugene in 1867, renaming it North Topeka.28 Once the first Kansas Avenue Bridge across the Kansas River was completed, access between the commercial entities south of the river and industrial areas north of the river was convenient and reliable.29

North Topeka flourished in the 1880s with a solid commercial core along North Kansas Avenue, industry and rail yards along the river, and residential neighborhoods filling the surrounding blocks. By 1883, North Kansas Avenue between Norris and Laurent Streets, just north of the rail yards, had a relatively cohesive commercial streetscape. The narrow one- and two-story buildings housed grocers, bakers, jewelers, dry goods, hardware, music, clothing, liquor, furniture, and drug stores.30 Permanent structures had stone side and rear walls and more decorative brick front facades with wood or cast iron storefronts, carved stone window lintels, and ornate pressed metal cornices. The T. M. James Building at 822 North Kansas Avenue and its neighbors at 824 and 826 North Kansas Avenue are relatively intact examples of the Late Victorian commercial buildings prevalent in North Topeka at this time.

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24 Giles 129.
25 Giles, 16.
27 Giles, 129. William Curtis is the paternal grandfather of Charles Curtis, who served as a U.S. Representative from 1893 to 1907, U.S. Senator from 1907 to 1929, and U.S. Vice President under Herbert Hoover from 1929 to 1933.
28 Giles, 129.
29 The iron bridge was replaced in 1899 with the concrete Melan Bridge. The Melan Bridge withstood the 1903 and 1951 floods, finally collapsing in 1965. The reinforced concrete Kansas Avenue Bridge, completed in 1967, connects South Kansas Avenue with NE Quincy Street rather than North Kansas Avenue like its predecessors.
30 Sanborn Fire Insurance Map, 1883, Sheet 12.
BOOM AND BUST

Although the Civil War effectively halted development, the aftermath brought renewed interest in Topeka, and the population doubled within six months of the war's end. In 1869, with the city firmly established as the state capital and construction of the east wing of Kansas Statehouse underway, public and private projects greatly improved the appearance of the developing settlement. The City graded Kansas Avenue, laid curbstones from Third Street to Eighth Avenue, and paved the gutters. Roughly 500 new, permanent houses were constructed that year, and permanent structures were erected for a wide variety of commercial establishments. The Union Pacific and Santa Fe Railroads, along with the newly-completed iron bridge greatly increased the ability of Topeka's businesses to trade merchandise and materials.

Improvements made during the 1860s and 1870s laid the foundation for the exponential growth of Topeka during the 1880s. The unparalleled expansion of railroads throughout the country connected large cities and small towns in unprecedented ways. The Atchison, Topeka & Santa Fe Railroad, with its office headquarters and maintenance shops in the community, enhanced Topeka's economy with the addition of roughly 5,000 jobs. Utilities improved the quality of life in Topeka with the introduction of gas illumination in 1870 and electric illumination in 1882. With these opportunities and amenities, Topeka grew rapidly. The streetscapes in the original town site filled in with one- to four-story masonry buildings constructed to house all of the commercial and cultural concerns needed to sustain a modern town. By 1883, grocers, druggists, barbers, hardware stores, hotels, jewelry stores, saloons, restaurants, and banks could be found along Kansas Avenue between 3rd Street and 8th Avenue. Fifth and Sixth Streets were also densely built streets at this time.

Unchecked speculation and interest from outside investors led to a building boom in the 1880s. The Missouri Pacific and the Chicago, Rock Island & Pacific railroads entered Topeka in 1886 and 1887, respectively. In addition to the miles of sidewalk and street pavement laid throughout the city in 1888, 3,000 new buildings were erected. The facades reflected the Late Victorian architectural styles popular at the time, specifically the Romanesque Revival, Richardsonian Romanesque, and High Victorian Italianate, which was often used for speculative commercial structures. Some of the high-style resources designed and constructed in that one exceptional year include the Columbian Building (112-114 SW 6th Avenue), the Thacher Building (112 SE 8th Avenue), and the Crawford Building (501 SW Jackson Street). The inevitable economic depression that followed such explosive growth hit Topeka in the early

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31 Connelley, 813.
32 Giles, 242.
33 Giles, 242.
35 Giles, 376, 379.
37 Connelley, 814.
38 Connelley, 814.
39 The Columbian Building was listed in the National Register of Historic Places on 5 September 1975. The Thacher Building was listed in the National Register of Historic Places on 31 March 1975. The Crawford Building was listed in the National Register of Historic Places on 22 August 1975. All three buildings were listed in the Register of Historic Kansas Places on 1 July 1977.

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1890s. The population decreased by 5,000 persons. The Atchison, Topeka & Santa Fe railroad had expanded beyond its capacity and could not compete with its rivals in the southwest. The company went into receivership in 1893 when company stock prices dropped 85 percent.\(^{40}\)

**TWENTIETH CENTURY GROWTH**

At the turn of the twentieth century, Topeka’s economy was growing again but at a much slower pace. Topeka had regained its pre-1890 population with 33,608 persons.\(^{41}\) The state government and railroads, once the AT&SF regained its footing, provided steady employment, which in turn attracted private businesses that supported the needs of the city’s residents. This relatively stable economy and a location roughly near the center of the country attracted banking institutions and insurance companies, many of whom established headquarters in Topeka.\(^{42}\)

The first decade of the twentieth century marked the fifty-year anniversary of Kansas statehood. As this anniversary approached, interest in updating the appearance of commercial buildings along Kansas Avenue increased. Simpler brick facades with flat parapets, sometimes incorporating Classical ornament, replaced the fussy Victorian facades with peaked cornices. The two-story commercial building at 839 North Kansas Avenue is an excellent example of this type of alteration (Figure 44). The rubble stone rear wall indicates the early date of construction for the building. One of numerous building permits issued in 1910 and 1911 indicates that a new façade was constructed for this building in 1911.

The 1910s and 1920s saw the construction of taller buildings or buildings with larger footprints than their nineteenth century neighbors. Most construction in Topeka during these early decades filled gaps between subdivisions and annexed neighborhoods. New construction also filled gaps along established commercial streetswalls. These new buildings occupied more of the streetscape than older counterparts and were often sited on prominent corners, like the Mills Building (901 S. Kansas Avenue) constructed in 1912. The mid-1920s were particularly productive years in downtown Topeka with the construction of the Hotel Kansan and the Jayhawk Hotel and the headquarters for Capital Federal Savings & Loan.\(^{43}\) Although businesses often changed locations, the same types of commercial establishments existed along Kansas Avenue throughout the early- to mid-twentieth century: banks, grocers, restaurants, offices

Construction in the 1930s and 1940s was limited mostly to government building and façade replacement. In the late 1930s or early 1940s, a limestone façade with Art Deco features replaced the simple 1910 façade of 705 South Kansas Avenue. While the Great Depression certainly affected Topeka, the presence

\(^{40}\) The railroad company has remained viable through various mergers over the decades, most recently merging with Burlington Northern to become BNSF in 1995.

\(^{41}\) Connelley, 815.


\(^{43}\) The Capital Federal Building at 6th and Kansas Avenues was demolished when the new headquarters building was constructed at 700 S. Kansas Avenue in 1961.
of the state government helped to stabilize the city during these tough economic times. Two post office facilities were constructed in the early 1930s. The North Topeka post office at 935 North Kansas Avenue is a one-story building, typical for a small, regional facility. The building constructed at 424 South Kansas Avenue housed a larger U.S. Post Office and the Federal Courthouse. This block-long building exhibits high-style Classical architecture befitting its important function.\(^{44}\) The City constructed another large building at 215 SE 7th Street for the Municipal Auditorium and City Hall. The grand limestone structure was built using PWA funds in 1938.

**Urban Renewal and Downtown Revitalization**

Provisions in the Federal Housing Act passed in 1954 enabled state authorities to design redevelopment programs that would accomplish the federal mission of preventing the physical deterioration of good neighborhoods in urban areas as well as addressing blighted neighborhoods through rehabilitation where possible or clearance and redevelopment of areas designated as slums. The goal was to use federal and municipal funds to acquire deteriorated urban areas and encourage and facilitate private redevelopment. By 1956, when Topeka was 100 years old, the local newspaper described the city as “districts of crumbling and decaying buildings – clusters of them rimming the business district itself.”\(^{45}\) A formal survey of the area identified 480 residential buildings, many of which did not have indoor plumbing.\(^{46}\) In March 1956, Topeka’s Real Estate Board proposed a feasibility study for implementing an urban redevelopment program to address these areas, quickly garnering support from such prominent figures as Henry A. Bubb, the president of Capital Federal Savings & Loan and Fred Mann, the state director of the FHA.\(^{47}\) Acting on the recommendations of the Real Estate Board, Mayor George Schnellbacher appointed a 35-member committee to study the urban core and the federal redevelopment program to determine whether Urban Renewal would benefit Topeka. By June 1956 the committee unanimously approved a tentative redevelopment program. This approval allowed the mayor to appoint a five-member Urban Renewal Authority (URA) which, under the Federal Housing Act, could develop an Urban Renewal plan and apply for federal funds to support two-thirds of project costs.

A pharmacist, a glass dealer, an architect, an attorney, and an investment broker comprised Topeka’s URA, officially named at the beginning of August 1956. These five businessmen were tasked with developing a program that would address blighted areas through a variety of options including block clearance, encouraging neighborhood rehabilitation, creating industrial sites, and/or initiating infrastructure such as roads, parks, bridges, or playgrounds.\(^{48}\)

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\(^{44}\) In 1951, a three-judge panel of the U.S. District Court of Kansas heard the *Brown v. Board of Education* case at the U.S. Federal Courthouse in Topeka (424 S. Kansas). The panel upheld the “separate but equal” doctrine announced in the 1896 *Plessy v. Ferguson* decision. This decision was later overturned by the U.S. Supreme Court on May 17, 1954.


The URA initially identified a thirty-seven-block area in the northeast corner of downtown, south of the river that they deemed in need of redevelopment (Figure 45). The project area extended from Crane Street to 8th Avenue, Kansas Avenue to Adams Street. In November 1956 redevelopment of the Keyway Urban Renewal Area was estimated at $20 million. This area included a number of blocks designated as a path for an interstate highway (I-70) that was still in the planning phase.

After two years of planning, the program for addressing the Keyway Area was approved in 1958, as was $16.2 million for appraisal and acquisition of property, beginning with the four blocks between 4th Street and 6th Avenue, Kansas Avenue to Monroe Street. The URA identified 26 businesses within the project area that would not need to be removed because their function conformed to the purpose of the redevelopment project, although the URA could require these businesses to improve any vacant land around them. One of the saved sites is the two-story warehouse building at 100 South Kansas Avenue, then housing the Hill Packaging Company.

At the beginning of 1960, the City Commission officially designated the Keyway area as blighted. Progress slowed throughout the year while the City amended the plan, removing the area between 6th and 8th Avenues from Monroe to Adams Streets in order to focus on the area from the Kansas River to the Post Office (424 South Kansas Avenue). In March 1961, the URA purchased properties for the interstate highway right-of-way and began clearing the land. By the end of 1962, 70 acres within the Keyway Urban Renewal Area was made available for private purchase and redevelopment. Thirty-five acres were

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designated for light industrial uses, and 25 acres were designated for commercial uses. Nearly 100 local and national companies expressed interest in establishing locations within the redevelopment area. Interested parties were required to submit schematic plans with their proposals. These companies proposed using the sites for wholesale warehousing, light manufacturing, motels, shopping center, and service stations.

Throughout the decade beginning in 1964, private companies purchased sites in the Urban Renewal Area and constructed large and small buildings. The new development changed the scale and character of South Kansas Avenue. The new buildings were often free-standing commercial blocks employing Modern Movement design features and materials, such as concrete and glass. Typically designed for offices, the new buildings lacked storefronts and were not built out to the streetwall. Some of the large-scale projects in the Keyway Urban Renewal Area developed a Ramada Inn hotel and convention center complex on the east side of the new interstate highway (1964); a sprawling one-story Montgomery Ward’s department store in the 300 block of South Kansas Avenue (1966); Fidelity State Bank at 600 South Kansas Avenue (1967); the Townsite Plaza in the 500 block of Kansas Avenue, Quincy Street, and Monroe Street, specifically 500 and 534 South Kansas Avenue (1968); and the American Home Life Building at 400 South Kansas Avenue (1970).

Activity within the designated Urban Renewal Area may have inspired development on nearby blocks as a contribution to the city’s downtown revitalization efforts. Concurrent new construction on South Kansas Avenue, SW Jackson Street, and SE Quincy Street included the Capital Federal Savings & Loan headquarters at 700 S. Kansas (1961); Kansas Power & Light Company Building at 818 S. Kansas (1962); Macy’s Department Store at 800 S. Kansas (1965); Merchants National Bank at 800 SW Jackson (1969); and the Topeka Savings Association Bank at 800 SE Quincy (1973).

**CONCLUSION**

Through the mid to late twentieth century, Topeka continued to grow mainly south and west from the original town site. Revitalization efforts in the 1960s and 1970s encouraged larger-scale redevelopment, and many businesses relocated throughout the city. South Kansas Avenue was left with a concentration of banks, restaurants, and offices for government, utilities, and private companies. With few exceptions, new construction of infill buildings in recent decades has successfully maintained the historic streetwall and traditional commercial character of Kansas Avenue.

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PROJECT RECOMMENDATIONS

The Downtown Topeka Historic Resources Survey evaluated all of the buildings within the survey area, individually and within the context of the surrounding streetscape. In an urban environment setting is an important factor of integrity. Solid streetwalls are typical of commercial corridors that developed in the late nineteenth and early twentieth centuries. Together the surveyed resources reflect the continuum of commercial development along Kansas Avenue and the historic fabric of Topeka’s urban core.

Based on date of construction, architectural integrity and historical associations, the survey data identified resources that appear eligible for listing in a historic register as well as resources that do not appear to be register-eligible. While a majority of resources lack the distinction necessary for individual listing, there are concentrations of resources that could form National Register Historic Districts. Other resources, identified as “Vintage,” received “good” or “fair” integrity ratings but stand in locations that could not support a historic district due to significant alterations or removal of surrounding context. Resources with poor integrity and those constructed after 1962 are scattered throughout the survey area. No resources built after 1962 appear to meet criteria for exceptional significance. Figures 46 and 47 identify resources by their potential for register listing as well as possible historic district boundaries.

NATIONAL REGISTER LISTED AND INDIVIDUALLY ELIGIBLE RESOURCES

Eleven resources in the survey area are listed in the National Register of Historic Places and the Register of Historic Kansas Places. One additional resource is listed solely in the Register of Historic Kansas Places. These resources represent a variety of uses and eras of construction reflecting the continuum of commercial and civic development of downtown Topeka.

The survey identified two additional buildings that appear to meet at least one of the four National Register Criteria for Evaluation and retain sufficient architectural integrity and historical associations to qualify them for similar status. These are the U.S. Post Office at 424 South Kansas Avenue and the Topeka City Hall and Municipal Auditorium at 215 SE 7th Street.

CONTRIBUTING RESOURCES

Contributing resources do not retain sufficient integrity to individually merit listing on the historic register, although they would be eligible as contributing resources to a historic district. It is possible that additional research, beyond the scope of this project, could identify an area of significance or important historical associations for a Contributing resource that would change its status to Individually Eligible.

VINTAGE RESOURCES

Vintage Resources are buildings over fifty years of age that possess a level of importance that is distinctly above that of Non-Contributing resources. They may not retain sufficient integrity to be considered Contributing to a historic district and/or they may be physically isolated from a group of buildings that could form a historic district. Regardless of their surroundings, Vintage buildings should not be considered “throw-away” resources. They enhance our understanding of Topeka’s built environment and
Figure 46. Kansas Avenue Historic Districts
Contributing/Non-Contributing Map
Figure 47. North Kansas Avenue Historic District Contributing/Non-Contributing Map
give legitimacy to the history of their surroundings. Like Contributing Resources, it is possible that additional research, beyond the scope of this project, could identify an area of significance or important historical associations for some of these resources that would change their status to Contributing, or possibly even Individually Eligible. Similarly, the reversal of unsympathetic alterations might restore sufficient integrity to an altered resource to consider it for register listing.

NON-CONTRIBUTING RESOURCES
Non-Contributing resources are those that have lost significant integrity and/or are less than fifty years of age and, therefore, do not merit consideration for National Register listing at this time. Where integrity is an issue, the level of alterations is beyond the point where removal of modifications could restore individual eligibility or contributing status. The eligibility of resources that are less than fifty years of age should be re-evaluated when they reach this National Register threshold.

A number of resources constructed after 1962 have direct associations with Topeka’s Urban Renewal program or are good examples of Modern Movement design. While these resources do not appear exceptionally significant to merit listing under Criteria Consideration G, their non-contributing status should be reevaluated when they reach fifty years of age.

HISTORIC DISTRICTS
A historic district is a grouping of resources that shares significant associations of history or architecture. These resources must be located in a concentrated geographical area to create a unified entity that is clearly distinct from the resources outside the district boundaries. Resources within a historic district can include individually distinctive resources (resources that might also qualify for individual register listing) as well as resources that lack the qualities of design or association to merit individual listing. District boundaries can encompass resources that lack integrity or association with the historic context and are considered “non-contributing,” although resources of this type must be a minority within the district.

The consultants identified three clusters of buildings that as contiguous groups retain their historical/architectural integrity and appear to meet at least one of the four National Register criteria. These potential historic districts would be locally significant under National Register Criterion A in the area of Commerce. As groupings of buildings, the setting, design, materials, and workmanship of these buildings continues to convey feelings about and provide associations with the City’s commercial past as it evolved over time.

General Registration Requirements
Resources eligible for listing as a contributing property to a historic district must retain the architectural and structural features that tie the resource to its original function and period of significance. Alterations to primary building facades are acceptable if they do not alter a significant portion of the façade, if the changes are reversible, and if the original appearance of the façade can be restored. Infill of original fenestration openings should not destroy or obscure the original openings and should be fully reversible. The resource should represent a style of architecture or a type, period or method of construction and
should retain sufficient integrity of design, materials, and workmanship to represent the style or the property type. All of the districts described below meet these general requirements.

North Topeka Commercial Historic District (Figure 47)
Late nineteenth and early twentieth century commercial buildings line North Kansas Avenue between Gordon and Norris Streets. The resources illustrate commercial functions and a continuum of architectural styles and vernacular building forms that convey information about the history and evolution of the North Topeka commercial district. The contributing buildings reflect commercial development in North Topeka as parallel to but semi-independent from South Topeka. The period of significance is 1865-1962, beginning with the year in which the town of Eugene (now North Topeka) was platted and ending with the fifty-year closing date for periods of significance where activities begun historically continue to have significance but no more-specific date can be defined.

The district contains forty intact resources that exhibit a variety architectural styles, though most commonly the High Victorian Italianate style. Fourteen non-contributing resources were constructed within the period of significance but have sustained extensive alterations and lack sufficient integrity to communicate associations the period in which they were constructed. Some of the contributing resources have facades that were replaced between the 1910s and 1950s, which have since achieved historical significance in their own right. These two blocks present a uniformity of scale, materials, and associations with the commercial context.

Kansas Avenue Industrial Historic District (Figure 46)
Six intact industrial warehouses on the west side of North Kansas Avenue (south of the Kansas River) form a small historic district comprised of a single property type. These resources reflect the light industrial and commercial warehouse development that occurred along the river once the presence of railroads was firmly established. The resources continue to function as warehouses. This district contains six contributing resources and no non-contributing resources. The period of significance is 1880-1962, beginning with the estimated date of construction for the earliest resource and ending with the fifty-year closing date for periods of significance where activities begun historically continue to have significance but no more-specific date can be defined. The four-story building at the south end of the block stands on the site of Topeka’s earliest structure, the log cabin where the city founders first met.

South Kansas Avenue Commercial Historic District (Figure 46)
The eight blocks flanking South Kansas Avenue between 6th and 10th Avenues form a district that contains 75 contributing resources and 39 non-contributing resources. This area represents the densest concentration of historic commercial and governmental resources in the survey area. The historic fabric forms solid streetscapes typical of the period of development. The wide variety of architectural styles and building forms reflect the steady growth and evolution of downtown Topeka over a 150-year period.

Many of the narrow two-story buildings in the district have rubble stone side and rear walls indicating late-nineteenth century construction. The early-twentieth century facades reflect owners’ efforts to update and refresh their properties in an era of changing architectural aesthetics. Despite the shifts in
architectural tastes from Victorian to historical revival to Modern Movement, the district has maintained its definitive commercial character. The period of significance is 1880-1962, beginning with the estimated date of construction for the earliest resource and ending with the fifty-year closing date for periods of significance where activities begun historically continue to have significance but no more-specific date can be defined. The 32 resources constructed after 1962 include several buildings with direct associations with the urban revitalization efforts of the late 1960s and early 1970s and provide good examples of Modern Movement design. These resources should be re-evaluated when they reach fifty years of age.

**Urban Renewal**

Topeka experienced many of its most extreme changes after World War II, when civic leaders attempted to revitalize the community’s business and governmental center. This coincided with the City’s centennial anniversary, a time when many of Topeka’s older buildings were entering a natural cycle of decline. In this light, Urban Renewal monies were an attractive means to entice private development to create a new commercial and industrial area of modern buildings; buildings that drew attention to the city’s present and future, rather than its past. The survey area includes a number of resources dating from the period of Urban Renewal. The rich mix of mid-twentieth century Modern Movement styles with buildings from earlier, more-traditionally “historic” eras enhances the texture of downtown Topeka and tells a complete story of its history. Due to their more recent construction and intact but vernacular Modern Movement designs, some could face demolition or significant alteration if the context for their development is not fully understood. While none of the resource developed under the Urban Renewal program, particularly as part of the Keyway project, appears to be exceptionally significant and eligible for historic designation at this time, they should be re-evaluated when they reach fifty years of age.
CONCLUSION

CAPITALIZING ON THE HISTORIC COMMERCIAL ASSETS OF TOPEKA

Kansas Avenue remains an important commercial corridor that embodies the evolution of Topeka from Territorial settlement to State capital. The buildings that document this sequence of development tell a unique and important story. They define the commercial history of the community and provide tangible reminders of the past that create a unique sense of place. The story of the survey area is also intrinsically entwined with the history of the United States, of the region, of the county, and of the city. The on-going continuum of development already obscures much of the area’s beginnings and early development. As Topeka’s commercial core continues to evolve, change provides the opportunity to strengthen and enrich its visual character and to enhance the quality of life already appreciated by residents and visitors.

The goal of this survey was to identify and evaluate historic resources as part of on-going efforts to maintain a vital commercial center and to move toward change in a positive manner — as a catalyst for capitalizing on the synergy of the old and new. To achieve this goal, it is necessary first to recognize and understand the assets that contribute to the survey area’s unique physical and cultural character; and to develop goals, policies, and initiatives to assist the City and the community in the future identification, interpretation, evaluation, and protection of its remaining cultural resources.

The survey findings can provide the basis for many preservation decisions, including nominating buildings and districts eligible for the National Register of Historic Places and evaluating the impacts of government actions on historic resources. As a planning tool, the National Register encourages preservation without public control over private property interests. Listing a property does not impose responsibilities upon the private property owner for maintenance or restoration, but can provide owners with access to financial incentives. Survey results can also help the City better protect its historic resources by raising awareness among the public of the significance of the city’s building inventory and by boosting interest in private investment in the rehabilitation of historic buildings for new uses.

BENEFITS OF PRESERVATION

Preservation has its own intrinsic value in celebrating a community’s history. As noted by John W. Lawrence, former Dean of the School of Architecture at Tulane University, it enables the citizens of today and tomorrow “to understand the present as a product of the past and a modifier of the future.” It allows a greater awareness of the relationships of the past, the present, and the future — a deeper understanding of the continuity and contrasts of life.

Another compelling argument for protecting historic resources is simply that people like them. People seek out historic settings because they offer quality craftsmanship and materials, create variety, and encourage human interaction in a familiar context. Moreover, preservation has proven value as a tool for economic development.

As noted by nationally known real estate professional Donovan D. Rypkema in his book The Economics of Historic Preservation, commitment to preservation may be one of the most effective acts of fiscal responsibility governmental entities can undertake. Older neighborhoods and commercial centers
represent a considerable taxpayer investment in infrastructure and building stock. Conservation of buildings, neighborhoods, and sites of historic and aesthetic value is one of the best tools for recovering the worth of past investments while fueling new economic activity.

**SOME BENEFITS OF HISTORIC PRESERVATION**

✓ The physical appearance of its buildings and streetscapes reflects the community’s overall vitality and economic health.

✓ Maintaining the vitality of the city’s older commercial and residential areas, by rehabilitating older buildings and designing quality new buildings, can attract larger commercial ventures to the community, even if these ventures do not locate in the historic core of the city.

✓ Rehabilitation of individual buildings is more attainable and stabilizing to a local economy than a single large economic development project.

✓ Cultural resources represent the unique evolution, history, and diversity of a community and a region and differentiate them from other areas. Rehabilitating older buildings and sites distinguishes one community from another by preserving the unique character of each.

✓ The value of a property is determined by the buildings, public improvements, and activities around it. Rehabilitation of a historic property directly benefits adjacent property owners and nearby businesses.

✓ The value of rehabilitated properties in a city’s historic core increases more rapidly than the real estate market in the larger community.

✓ Older buildings with easy access to professional and support services are ideal for many smaller and start-up businesses, which typically generate a majority of new permanent jobs.

The most successful revitalization efforts in the country utilize historic rehabilitation as the core of their revitalization strategies. These efforts document that the most successful approach to create sustainable communities merges the old and the new. The creative combination of preservation, adaptive reuse, and new construction capitalizes on the aesthetics and craftsmanship of other eras, provides opportunities for architectural innovation, and promotes problem-solving, thereby enhancing the community’s character and fabric.

The State of Kansas and the federal government recognize the role rehabilitation of historic buildings can play in strengthening the local economy. To encourage sustainable neighborhoods and communities as well as to encourage preservation of important cultural resources, they provide incentives to encourage rehabilitation of historic buildings. The investment tax credit for rehabilitation of historic buildings is available from both the state and federal governments.
The 20 percent Federal Historic Rehabilitation Tax Credit applies to owners and some renters of income-producing National Register listed properties. All residential and commercial properties (income-producing and owner-occupied) listed in the National Register of Historic Places and the Register of Historic Kansas Places are eligible for a 25 percent Kansas Historic Preservation Tax Credit. When used together, the federal and state tax credits provide a significant financial incentive.

In exchange for the tax credits, the rehabilitation work must comply with the Secretary of the Interior’s Standards for Rehabilitation. The Secretary’s Standards are designed to address changes that will allow older buildings to function in the twenty-first century. The common sense guidelines address new construction as well as the rehabilitation of historic buildings. Several properties in the survey area have already taken advantage of the tax credits with dramatic results.

In addition to the economic advantages to preservation, preservation is also an effective and important tool for the conservation of natural resources. After years of exploiting resources, people are now considering how their surroundings fit into the larger environment. Better stewardship of older buildings and structures recognizes the important embodied energy contained in built resources. Buildings contain energy that has already been expended, materials that have been mined or harvested, manufactured, shipped, and assembled. Material from demolished buildings accounts for up to 40 percent of landfill materials, the cost of which is indirectly borne by taxpayers. At the same time, new construction consumes new energy and resources.

When considered together – the embodied energy, the cultural memory, the craftsmanship and artistry – preservation provides a critical mechanism to ensure the long-term vitality and sustainability of our unique built environments. Financial incentives, such as historic tax credits, provide the means to encourage individual owners to take actions that benefit our communities as a whole.
BIBLIOGRAPHY


APPENDIX A
SURVEY RESULTS

(Address, Historic Name, Commercial Building Type, Primary Style, Year Built, Architect, Integrity Rating)
<table>
<thead>
<tr>
<th>Address</th>
<th>Historic Name</th>
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<th>Commercial Building Type</th>
<th>Architect/Builder</th>
<th>Date</th>
<th>Integrity</th>
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<td>One-Part Commercial Block</td>
<td></td>
<td>1967</td>
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</tr>
<tr>
<td>116</td>
<td></td>
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<tr>
<td>116</td>
<td></td>
<td>Other - Utilitarian</td>
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<td>100</td>
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<td></td>
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<td>Date</td>
<td>Integrity</td>
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<td>424</td>
<td>U.S. Post Office And Federal Court House</td>
<td>Late 19th &amp; 20th Century Classical Revival</td>
<td>Temple Front</td>
<td>Simon, Louis</td>
<td>1933</td>
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<td>400</td>
<td>American Home Life Insurance Co. Building</td>
<td>Modern/Modern Movement</td>
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<tr>
<td>534</td>
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<td>Three-Part Vertical Block</td>
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<td>Townsite Plaza</td>
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<td>628-632</td>
<td>G. W. Stanfield Commercial Building</td>
<td>Minimal Commercial (Early-Mid 20th Century)</td>
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<td>618</td>
<td></td>
<td>Postmodern/Neoeclectic</td>
<td>One-Part Commercial Block</td>
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<td>Farmers National Bank</td>
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<td>1905</td>
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<td>Two-Part Commercial Block</td>
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<td>Fair</td>
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<td>Two-Part Commercial Block</td>
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<td>Primary Style</td>
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<td>Architect/Builder</td>
<td>Date</td>
<td>Integrity</td>
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<td>722 S</td>
<td>KANSAS AVE</td>
<td>Minimal Commercial (Early-Mid 20th Century)</td>
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<td>KANSAS AVE</td>
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<td>Two-Part Commercial Block</td>
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<td>712 S</td>
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<td>700 S</td>
<td>KANSAS AVE</td>
<td>Capital Federal Building</td>
<td>Three-Part Vertical Block</td>
<td>Shepard &amp; Wiser (Kansas City)</td>
<td>1961</td>
<td>Poor</td>
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<tr>
<td>830 S</td>
<td>KANSAS AVE</td>
<td>Hotel Kansan</td>
<td>Three-Part Vertical Block</td>
<td></td>
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<td>Fair</td>
</tr>
<tr>
<td>826 S</td>
<td>KANSAS AVE</td>
<td>Italianate</td>
<td>Two-Part Commercial Block</td>
<td></td>
<td>1900</td>
<td>Fair</td>
</tr>
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<td>822 S</td>
<td>KANSAS AVE</td>
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<tr>
<td>820 S</td>
<td>KANSAS AVE</td>
<td>A. W. Vogel Commercial Building</td>
<td>Minimal Commercial (Early-Mid 20th Century)</td>
<td>Two-Part Commercial Block</td>
<td>1922</td>
<td>Fair</td>
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<tr>
<td>818 S</td>
<td>KANSAS AVE</td>
<td>Kansas Power &amp; Light Company Building</td>
<td>Modern/Modern Movement</td>
<td>Two-Part Commercial Block</td>
<td>1962</td>
<td>Excellent</td>
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<td>800 S</td>
<td>KANSAS AVE</td>
<td>Macy's Department Store</td>
<td>Modern/Modern Movement</td>
<td>Two-Part Commercial Block</td>
<td>1965</td>
<td>Less than 50 years of age</td>
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<tr>
<td>934 S</td>
<td>KANSAS AVE</td>
<td>Electric Automobile and Repair Company</td>
<td>Modern/Modern Movement</td>
<td>Arcaded Block</td>
<td>1967</td>
<td>Less than 50 years of age</td>
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<tr>
<td>930 S</td>
<td>KANSAS AVE</td>
<td>Italianate</td>
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<td>928 S</td>
<td>KANSAS AVE</td>
<td>Shawnee Motor Car Company</td>
<td>Minimal Commercial (Early-Mid 20th Century)</td>
<td>Two-Part Vertical Block</td>
<td>1890</td>
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<td>KANSAS AVE</td>
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<td>924 S</td>
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<td>KANSAS AVE</td>
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<tr>
<td>Address</td>
<td>Historic Name</td>
<td>Primary Style</td>
<td>Commercial Building Type</td>
<td>Architect/Builder</td>
<td>Date</td>
<td>Integrity</td>
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<td>918-920</td>
<td>Kansas Children's Home Society</td>
<td>Late 19th &amp; 20th Century Classical Revival</td>
<td>Two-Part Commercial Block</td>
<td>Squires, Frank</td>
<td>1914</td>
<td>Fair</td>
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<td>914</td>
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<tr>
<td>912</td>
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<td>Minimal Commercial (Early-Mid 20th Century)</td>
<td>Two-Part Commercial Block</td>
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<tr>
<td>908</td>
<td></td>
<td>Modern/Modern Movement</td>
<td>Two-Part Commercial Block</td>
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<td>906</td>
<td></td>
<td>Modern/Modern Movement</td>
<td>Two-Part Commercial Block</td>
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<td>1960</td>
<td>Excellent</td>
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<tr>
<td>900</td>
<td>Gordon Building</td>
<td>Commercial Style</td>
<td>Two-Part Commercial Block</td>
<td>Squires, Frank</td>
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<td>120</td>
<td>Memorial Building</td>
<td>Beaux Arts</td>
<td>Central Block with Wings</td>
<td>Chandler, Charles</td>
<td>1914</td>
<td>Excellent</td>
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<tr>
<td>120</td>
<td></td>
<td>Late 19th &amp; 20th Century Classical Revival</td>
<td>Temple Front</td>
<td></td>
<td>1922</td>
<td>Poor</td>
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<tr>
<td>120</td>
<td></td>
<td>Minimal Commercial (Early-Mid 20th Century)</td>
<td>One-Part Commercial Block</td>
<td></td>
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<tr>
<td>118</td>
<td>Kansas Newspaper Union</td>
<td>Italianate</td>
<td>Two-Part Commercial Block</td>
<td></td>
<td>1888</td>
<td>Good</td>
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<td>Two-Part Commercial Block</td>
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<td>Fair</td>
</tr>
<tr>
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<td></td>
<td>Minimal Commercial (Early-Mid 20th Century)</td>
<td>Two-Part Commercial Block</td>
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<td>108</td>
<td>Crosby Place Public Parking</td>
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<td>Minimal Commercial (Early-Mid 20th Century)</td>
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</tr>
<tr>
<td>112</td>
<td>Thacher Building</td>
<td>Richardsonian Romanesque/ Romanesque Revival</td>
<td>Two-Part Commercial Block</td>
<td>Haskell, John G.</td>
<td>1888</td>
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<td>Architect/BUILDER</td>
<td>Date</td>
<td>Integrity</td>
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<tr>
<td>122 SW 7TH AVE</td>
<td>Elks Club Building</td>
<td>Italian Renaissance</td>
<td>Not Applicable</td>
<td>Sayler, William; Seddon, Herbert</td>
<td>1907</td>
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<tr>
<td>112 SW 7TH AVE</td>
<td>Aetna Building</td>
<td>Beaux Arts</td>
<td>Temple Front</td>
<td>Holland, James C.</td>
<td>1909</td>
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<td>115 SE 7TH AVE</td>
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<td>Two-Part Commercial Block</td>
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<td>1925</td>
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<td>119 SE 7TH AVE</td>
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<td></td>
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<tr>
<td>215 SE 7TH AVE</td>
<td>Topeka City Hall &amp; Auditorium</td>
<td>Art Deco</td>
<td>Not Applicable</td>
<td></td>
<td>1939</td>
<td>Excellent</td>
</tr>
<tr>
<td>112-114 SE 7TH AVE</td>
<td>Gorbutt Building</td>
<td>Minimal Commercial (Early-Mid 20th Century)</td>
<td>Two-Part Commercial Block</td>
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<td>1880</td>
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<td>116 SE 7TH AVE</td>
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<td>1880</td>
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<tr>
<td>118 SE 7TH AVE</td>
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<td>Fair</td>
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<tr>
<td>107 SW 6TH AVE</td>
<td>New Stormont Building</td>
<td>Late 19th &amp; 20th Century Classical Revival</td>
<td>Two-Part Commercial Block</td>
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<tr>
<td>117-119 SW 6TH AVE</td>
<td>IOOF Hall</td>
<td>Late 19th &amp; 20th Century Classical Revival</td>
<td>Two-Part Commercial Block</td>
<td></td>
<td>1921</td>
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<td>123 SW 6TH AVE</td>
<td>Bates Block</td>
<td>Minimal Commercial (Early-Mid 20th Century)</td>
<td>Two-Part Commercial Block</td>
<td>Holland, James C.</td>
<td>1902</td>
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<td></td>
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<td>Two-Part Commercial Block</td>
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<tr>
<td>112-114 SW 6TH AVE</td>
<td>Columbian Building (Knox Building)</td>
<td>Richardsonian Romanesque/Romanesque Revival</td>
<td>Stacked Vertical Block</td>
<td>Davis, Seymour</td>
<td>1889</td>
<td>Excellent</td>
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<tr>
<td>115 SE 6TH AVE</td>
<td></td>
<td>Minimal Commercial (Early-Mid 20th Century)</td>
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<td>117 SE 6TH AVE</td>
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<td>Minimal Commercial (Early-Mid 20th Century)</td>
<td>Two-Part Commercial Block</td>
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<td>Two-Part Commercial Block</td>
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<td>121-123 SE 6TH AVE</td>
<td>Dibble Building</td>
<td>Minimal Commercial (Early-Mid 20th Century)</td>
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<td>Address</td>
<td>Historic Name</td>
<td>Primary Style</td>
<td>Commercial Building Type</td>
<td>Architect/Builder</td>
<td>Date</td>
<td>Integrity</td>
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<td>Minimal Commercial (Early-Mid 20th Century)</td>
<td>One-Part Commercial Block</td>
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<td>G. J. Sage Commercial Building</td>
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<td>Two-Part Commercial Block</td>
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<td>Carrier &amp; Brooks Building</td>
<td>Minimal Commercial (Early-Mid 20th Century)</td>
<td>Two-Part Commercial Block</td>
<td></td>
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<td>Fair</td>
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<td>1888</td>
<td>Fair</td>
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<td>A. K. Longren Aircraft Works</td>
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<td>Two-Part Commercial Block</td>
<td></td>
<td>1920</td>
<td>Fair</td>
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<td>Bank</td>
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<td>Crawford Building</td>
<td>Richardsonian Romanesque/Romanesque Revival</td>
<td>Stacked Vertical Block</td>
<td>Davis, Seymour</td>
<td>1888</td>
<td>Excellent</td>
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<tr>
<td>507-509</td>
<td></td>
<td>Minimal Commercial (Early-Mid 20th Century)</td>
<td>One-Part Commercial Block</td>
<td></td>
<td>1900</td>
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Terry Blackwell

From: John.Knowles@dot.gov
Sent: Monday, November 03, 2014 9:24 AM
To: Michael Fletcher; James Brewer
Cc: Debbie Tanking; Terry Blackwell; Kelly Farlow; Scott King; Judy Sprout; Jim L. Kowach
Subject: RE: historic structure in Proposed Polk Quincy Viaduct 70-89 KA-1266-02

Mike and Jim,

I agree that we should contact the City and let them know the potential problems that may occur with this project if those areas become a historic district.

John

From: Michael Fletcher [mailto:Fletcher@ksdot.org]
Sent: Monday, November 03, 2014 9:15 AM
To: James Brewer
Cc: Debbie Tanking; Terry Blackwell; Kelly Farlow; Scott King; Knowles, John (FHWA); Judy Sprout; Jim L. Kowach
Subject: RE: historic structure in Proposed Polk Quincy Viaduct 70-89 KA-1266-02

Jim,

I believe it would be appropriate to let them know all of the potential impacts of the project.

Mike

From: James Brewer
Sent: Monday, November 03, 2014 9:11 AM
To: Michael Fletcher
Cc: Debbie Tanking; Terry Blackwell; Kelly Farlow; Scott King; 'John.Knowles@dot.gov'; Judy Sprout; Jim L. Kowach
Subject: FW: historic structure in Proposed Polk Quincy Viaduct 70-89 KA-1266-02

Mike,

Thanks for the good response. This does give good information, but leaves the project in somewhat a tentative state. Since this project is subject for future funding, beginning with R/W acquisition, should we advise whoever (city??) wants to make this a historic district so they know the consequences.

It could leave us in a lurch in the future.

Thanks,

Jim

From: Michael Fletcher
Sent: Friday, October 31, 2014 11:19 AM
To: James Brewer; Debbie Tanking
Cc: Terry Blackwell; Kelly Farlow; Scott King
Subject: RE: historic structure in Proposed Polk Quincy Viaduct 70-89 KA-1266-02

Jim and Deb,

ESS completed the initial historic survey in 2008, the SHPO did not request a review of the property at 127 S. Kansas (labeled U on the attached maps) at that time. In 2012 a Downtown Topeka Historic Resources Survey was completed for the city of Topeka, and property U (among others) was determined to meet the criteria for listing in the National
Register as a contributing resource in a historic district. Two historic districts were recommended but did not include the area of around property U.

Materials and Research plans received in March 2014 expanded the scope of the project beyond the original study area. In addition this office received a request to compile information for a documented Categorical Exclusion. Project plans were submitted to the SHPO for review along with documentation regarding the previous surveys and clearances.

In August 2014 the SHPO stated property U had been determined to meet the criteria for listing as a contributing resource but did not believe the proposed historic district would include this property. However, the SHPO requested property U be evaluated for individual National Register eligibility along with properties at 124 Harrison, 108 S. Kansas, 201 S. Kansas, and 200 SW Harrison. As a result of the evaluation it was determined in October 2014 that property U was not individually eligible for the National Register but was eligible as a contributing resource to a potential historic district. In addition to property U the other two properties on Kansas Avenue are also eligible as contributing resources (labeled S and 1) to a potential historic district. The two properties on Harrison (labeled Y and 9) are individually eligible for the National Register.

After contacting the SHPO it was determined that there is no proposal to included property U, property S or property 1 within a historic district at this time. Therefore at this time these properties are not eligible for the National Register either individually or as contributing resources to a historic district and can be cleared. However, if a historic district is established for this area of downtown Topeka in the future and these properties are included they would be eligible for the National Register as contributing resources. Section 4(f) would apply to properties contributing to the eligibility of the historic district.

In the 2008 historic survey by ESS, property 9 was recommended for additional study but was not to be impacted by the project. Property Y had not been recommended for additional study at that time. I don’t know whether the 2012 Topeka survey prompted a re-evaluation of this property. Current project plans indicate that property 9 will not be disturbed but it appears that property Y will be taken by the project. If property Y is taken by the project it will be an adverse effect and Section 4(f) would apply.

A determination of effect for all potentially historic properties adjacent to the expanded project area is underway. I do want to note that one of the recommended historic districts is north of the existing viaduct along Kansas Avenue between 1st street and Crane street. The SHPO indicated that moving the viaduct closer to a historic district would have to be evaluated for the potential of adverse visual impact. At this time there is no historic district established but if one were established in the future before the viaduct is relocated its effect on the district would need to be evaluated. We should be able to complete this evaluation now.

The documented CE report will address any other environmental issues such as the need for a noise study and noise abatement analysis, potential archeological resources, potential wetlands and hazardous waste issues.

We will issue the Final Status of Environmental Concerns once the Field Check plans are reviewed and approved by the resource agencies.

Mike

From: James Brewer  
Sent: Thursday, October 23, 2014 2:32 PM  
To: Michael Fletcher; Terry Blackwell  
Cc: Kelly Farlow; Debbie Tanking; Scott King  
Subject: RE: historic structure in Proposed Polk Quincy Viaduct 70-89 KA-1266-02

Mike/Terry,
I am surprised and thought the earlier “preliminary review” about two years ago didn’t reveal historic property. Why are we just finding out now? Are there going to be other historic properties or other environmental issues? If so, we need the Final Status of Environmental concerns quickly and the identification of near eligible sites. There are not feasible and prudent actions to be taken at this location for avoidance.

While we do not have construction funding, and it is expected to be a while, we don’t know. There is talk of advance R/W purchase. We have major challenges with the design, R/W, and traffic accommodations, so we can’t be re-deciding the alignment. We have years invested in this study and should know by now what issues we face. We have met with the public and multiple advisory committees of locals and expectations are high.

If we need to write 4(f) statement (s), that will take a long while, so we don’t want start over again on the next one. Please advise of your schedule and be sure to include the Road Office in any correspondence.

Thanks,

Jim

From: Debbie Tanking
Sent: Thursday, October 23, 2014 10:03 AM
To: 'Scott Uhl (scott.uhl@bartwest.com)'; 'Tobaben, James'
Cc: Kelly Farlow; James Brewer
Subject: historic structure in Proposed Polk Quincy Viaduct KA-1266-02

KDOT ESS has just alerted us of a historic building in the middle of our proposed realignment for Polk Quincy.

The location is 127 South Kansas. The age of the bldg. (prior to 1887), and the fact that it is part of the original Downtown makes it historic.

We will need to go through the 4F process and show why can’t avoid it. Terry Blackwell from KDOT ESS is going to try to forward me a previous example of a 4F report for a building. He will also send me more details about the building.

Options that we should discuss
1.) Why we can’t bridge over the top of building
2.) Why we can’t change the alignment
KSR&C # 08-10-046
October 17, 2014

Michael Fletcher
KDOT
Via Email

Re: 70-89 KA-1266-02 Polk Quincy Viaduct, Topeka – Shawnee County

We have reviewed the materials received October 13, 2014 regarding the above-referenced project in accordance with 36 CFR Part 800. The SHPO concurs that Sites U (127 S. Kansas Ave.), S (108 S. Kansas Ave.) and #1 (201 S. Kansas Ave.) should be considered eligible as contributing resources to a potential historic district. We further concur that Sites Y (124 SW Harrison St.) and #9 (200 SW Harrison St.) are individually eligible for listing in the National Register.

Thank you for giving us the opportunity to comment on this proposal. Please refer to the Kansas State Review & Compliance number (KSR&C#) listed above on any future correspondence. Please submit any comments or questions regarding this review to Patrick Zollner at 785-272-8681, ext. 217 or pzollner@kshs.org.

Sincerely,

Jennie Chinn
State Historic Preservation Officer

Patrick Zollner
Director, Cultural Resources Division
Deputy State Historic Preservation Officer
Terry Blackwell

From: Robert Hoard <rhoard@kshs.org>
Sent: Wednesday, October 15, 2014 1:35 PM
To: Terry Blackwell
Cc: twagg >> Tricia Waggoner
Subject: I-70 viaduct preliminary review, site 14SH369

Terry, Tricia is out of town, I'm checking her voice mail and heard your message of 10.14.2014. Site 14SH369 appears to be outside of the Area of Potential Effects for the proposed project. However, it is possible that the project APE could change in the final design stage and encroach upon this site. The sole investigation of this site was a telcom trench that intersected deposits from the mid to late 1800s. If the site is within the APE we may want to carry out Phase II work, which may involve the use of heavy equipment, such as a backhoe to remove concrete and expose a larger portion of the site. Evidence of intact features could lead to the need for avoidance or further work.

I hope this addresses your question, but if not, please feel free to call.

Thank you for your attention to this matter.
Bob

Copy to file

--
Robert J. Hoard, PhD
State Archeologist, Kansas Historical Society
6425 SW 6th Avenue, Topeka, KS 66615-1099, USA
v: 785.272.8681 x269  f: 785.272.8682  rhoard@kshs.org
Terry Blackwell

From: Tricia Waggoner <twaggoner@kshs.org>
Sent: Tuesday, October 07, 2014 12:03 PM
To: Terry Blackwell; culturalresources; Robert Hoard; Tim Weston; Kim Norton Gant; Patrick Barry
Subject: Re: 70-89 KA-1266-02 Shawnee Co. Preliminary Review Complete

Terry,

We have received the preliminary plans for project 70-89 KA-1266-02 in Shawnee County. There are several cultural resource concerns we have about this project. There are a few recorded archeological sites in the area including the two Richie Houses (14SH370 and 14SH375) which are very close to the highway and a historic relocated cemetery (14SH338) which appears to be a little further away. These sites are not the main concern however. This project will go through historic parts of Topeka which were occupied early in the city’s history. In addition the highway goes through part of an old Wyandotte Reservation. There is a good chance that archeological sites will be discovered during the construction phase of this project, because as roadways and parking lots are removed there could be intact deposits underneath. We will not be able to check for these things prior to construction because they are currently under pavement. We will need your cooperation both before and during construction on this project to ensure the no National Register eligible sites are destroyed during construction. I recommend that, in consultation with the SHPO, we create an emergency data recovery plan so that an agreed upon procedure is in place if significant cultural resources are encountered during construction. We look forward to working with you on this project.

Tricia Waggoner
10/07/2014

Tricia Waggoner
Archeologist II (Highway Archeologist)
Kansas State Historical Society
6425 SW 6th Avenue
Topeka, KS  66615-1099
785-272-8681  x267
785-272-8682  fax
twaggoner@kshs.org

On 10/2/2014 10:36 AM, Terry Blackwell wrote:

Tricia,
Attached is the title sheet for project 70-89 KA-1266-02 the Polk-Quincy Viaduct. Let me know if there are any resources that might be effected.
I also attached some aerial photos from Google earth.
Thanks,

Terry D. Blackwell
Environmental Services Section
Cultural Resources and Highway Noise Analysis
Ph. (785) 296-8414
Email: blackwell@ksdot.org
October 10, 2014

Patrick Zollner, Director
Cultural Resources Division
Kansas State Historical Society
6425 South West Sixth Avenue
Topeka, KS 66615-1099

Dear Mr. Zollner:

Subject: 70-89 KA-1266-02
NHPP-0705(214)
Shawnee County

Attached is the Activity II&III report, dated September 26, 2014, for Sites U (127 S. Kansas Ave.); Y (124 Harrison St.); S (108 S. Kansas Ave.); #1 (201 S. Kansas Ave.); and #9 (200 S.W. Harrison) prepared by Brenda Spencer.

Based on review of this report, the Kansas Department of Transportation has determined that Sites U (127 S. Kansas Ave.), S (108 S. Kansas Ave.) and #1 (201 S. Kansas Ave.) are eligible for listing on the National Register of Historic Places. These sites should however be considered for eligibility as part of a historic district and not stand alone sites. We base our determination on the following criteria.

These sites are commercial in nature and retain some historic features of their original construction with some changes to the facades. These buildings also retain some historic interior features, but have also been remodeled to fit the change in use over time.

Based on review of this report, the Kansas Department of Transportation has determined that Sites Y (124 Harrison St.) and #9 (200 S.W. Harrison) are eligible for listing on the National Register of Historic Places. We base our determination on the following criteria.

Site Y retains the historic features of the original construction with some changes to the facade. This building also retains some historic interior features. Site #9 retains a high degree of structural integrity with no major exterior modifications. It is a good example of the Italianate style of architecture.
We are formally requesting your review of this report and comment on the eligibility determination. If further information is required, please contact this office at (785) 296-0853.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

[Signature]

for
Michael Fletcher, Chief
Environmental Services Section

Encl
Tricia,

Attached is the title sheet for project 70-89 KA-1266-02 the Polk-Quincy Viaduct. Let me know if there are any resources that might be effected.

I also attached some aerial photos from Google earth.

Thanks,

Terry D. Blackwell
Environmental Services Section
Cultural Resources and Highway Noise Analysis
Ph. (785) 296-8414
Email: blackwell@ksdot.org
25 September, 2014

Terry Blackwell
Environmental Services, KDOT
700 SW Harrison Street
Topeka, KS 66603-3726

Dear Mr. Blackwell:

Enclosed is the submittal of the Activity II & III Reports for the five Topeka properties in Shawnee County under Contract No: 12336, KDOT Project No: 70-89 KA-1266-02; the work order dated August 30, 2014.

As requested, I have enclosed two hard copies of the report and survey form, and discs with all electronic files. The disc contains the report and survey files as well as the photos and my research and field notes.

I have updated the Kansas Historic Research Inventory Record for the properties and uploaded my photos. As we’ve done in the past (and recommended by KSHS), I referenced the attached Activity III report in the “remarks” fields but did not actually upload the file. I understand that you will upload the report for each of the buildings following KDOT review and approval of the reports. I also did not revise the “potentially eligible for listing” field on the survey form since KDOT will be making that determination in consultation with KSHS.

Attached is an invoice for the project. Please let me know if you have any questions on the reports or if there is anything else you need. I look forward to future opportunities with KDOT.

Sincerely,

Brenda Spencer
Activity II & III Report
KDOT Project No. 70-89 KA-1266-02 Shawnee County
Wm. Schick Mattress Company Building
127 S. Kansas Avenue, Topeka, Kansas
26 September, 2014

Property Information
Owner: Gary Smith, dba Gary D. Smith Construction
Occupant: Topeka Foundry Warehouse (first-floor rental); Second Floor Vacant/Unused
Historic Name: Wm. Schick Mattress Factory
Legal:\footnote{Property Data from Shawnee County Appraiser’s Office accessed online 10 September 2014.} Lot 27 Kansas Avenue South, Original Town; S31 T115 R16E
khri: 177-5400-01931

Narrative Description
The property at 127 S. Kansas Avenue is a Two-Part Commercial Block built c.1883. The two-story stone building has a c.1935 brick facade and one-story rear addition.

Site and Neighborhood Context
The building at 127 S. Kansas Avenue is located mid-block on the west side of the 100 block of S. Kansas Avenue. The locale is a traditional downtown commercial setting with buildings fronting Kansas Avenue. A public concrete sidewalk runs along the front/east building facade, between the building and street curb. A one-story building at 121-125 S. Kansas abuts the 127 building on the north. Five two-story c.1880 buildings located south of 127 S. Kansas have been demolished in recent years leaving an exposed stone party wall at the south facade of 127. The lots south of the building are vacant and unkempt with grass and weeds, spanning to 2nd Street at the south end of the block. A dominate physical characteristic of the block, Interstate 70 is an elevated roadway, above 2nd Street in this area.

Current View of 127 S. Kansas Avenue site, downloaded at Bing Maps, 18 September 2014.
The building at 127 S. Kansas has a rectangular footprint. The original two-story building was approximately 25' wide by 80' deep. The one-story rear addition, approximately 70' deep, extended the building to the alley at the rear of the lot. The alley runs N/S between 1st and 2nd Streets defining the west boundary of the lot.

The earliest available Sanborn Map for this area is 1883 with the existing building at 127 S. Kansas Avenue in place at that time. The parcel at 127 S. Kansas was likely home to frame buildings prior to the construction of the existing building in 1883 (see history below). By 1883, the block was dotted with small clusters of shops, businesses and some individual dwellings. However, the area evolved rapidly. By 1885 the Topeka Stock Yard was located along the northwest section of the 100 block of South Kansas Avenue and a lumber yard had opened at the southwest portion of the block. The 100 block of North Kansas Avenue was already developing as an industrial/manufacturing area with the Topeka Manufacturing Co., Topeka Cracker Co., Kansas Preserving Co., and a steam laundry in place by the mid-1880s. By the end of the decade, the stockyards were replaced by the Chicago, Rock Island, and Pacific Railroad Passenger Depot (CRI&P) and the Chesterfield Hotel had been built at 113-121 S. Kansas, north of the building at 127. Wholesalers began constructing large warehouses after the turn of the century. Many of the earlier commercial buildings were expanded with rear additions by 1950.

Building Exterior
The original two-story building has a tapered roof with parapet. There are three small square brick chimneys spaced along the north and south facades, rising approximately two feet above the parapet. The one-story rear addition also has a flat/tapered roof with a simple brick parapet that steps toward the rear. Except at the front facade, the parapet caps are covered by modern flashing or roofing material.

The two-story Two-Part Commercial Block building has a c.1935 tan brick primary facade and stone secondary facades. The first story contains a c.2000 altered storefront with wood panel infill. A steel beam with rosettes spans the storefront opening. The storefront has cut-stone piers at the corners and a cast-iron column framing a doorway at the south end of the storefront that provides access to the upper floor apartment(s). A stone beltcourse runs the length of the facade at the second-story sill level.
The second story contains two large window openings with soldier course surrounds. Stone squares articulate the corners. The stepped and peaked parapet has stone coping. A simple stone cornice with stone brackets caps the second story. Like the storefront, the upper windows on the front facade have been infilled with wood siding in recent years.

A one-story building abuts 127 on the north and there are no openings on the exposed second story. A tar coating has been applied over the stone north facade. The south facade, now exposed, was formerly a stone interior paring wall with no openings. The rear facade of the original building is exposed above the rear addition on the west. The stone facade is three bays wide with one opening per bay. The openings have two-tier segmental arched brick lintels. Originally single windows flanked a center door (rear stair was in place on 1889 Sanborn Map). A contemporary door is in place at the center opening; the transom above the door is infilled with wood as are the flanking window openings.

The one-story brick addition was built at the rear of the original building between 1913 and 1950, likely dating to the mid- to late-1930s when the property was purchased by a grocery wholesaler. The addition has two punched openings on the south facade with brick sills. The openings have been downsized with wood siding to accept contemporary stock 1/1 double-hung windows. The west/rear facade has an overhead garage door on the south end and a single metal slab door on the north. Concrete block has been installed north of the garage opening around the single door.

**Interior**

The commercial space reflects a c.2000 remodeling with contemporary finishes and the enclosed storefront. The storefront is comprised of a contemporary slab door with narrow light and a small single-light window. The walls are sheetrock and carpet was installed on the floor. A suspended acoustical tile ceiling has been installed. This finished room spans approximately 25-30' deep. The rear portion of the ground floor of the original building retains its historic finishes. The walls have a rough textured finish, exposed concrete floor, and the ceiling is fluted beadboard in poor condition. A freight elevator, between the basement and first floor is centrally located on the south wall in the rear portion of the building and a small restroom is enclosed opposite the elevator on the north wall. An oversized opening with steel lintel is in place between the original building and rear addition. Former openings on the west/rear facade of the original building are bricked-in but the segmental arched lintels are visible.

The rear addition retains its original utilitarian finishes with exposed concrete floors, exposed joists at the ceiling, and exposed brick walls with a painted finish. The second floor was not accessible during site visit. *West side of 200 block of S. Kansas Avenue, looking NW from roof of 226 Kansas. Arrow pointing to 127 S. Kansas Avenue. Kansas State Historical Society, 1887.*
Condition and Integrity

The following section details the history of the building in terms of businesses that called 127 S. Kansas Avenue their home in the past one hundred thirty years. However, some mysteries remain regarding the original design and configuration of the building and its early significant alterations. The 1887 photo above clearly illustrates a brick storefront extant on the building at 127 S. Kansas Avenue. In contrast to the existing facade, the 1887 building had four windows on the upper facade with segmental arched brick lintels like those extant on the rear facade of the original building. The first Sanborn Map (1883) indicates 'Boarding' in the basement, 'Confectionary & Crackers' on the 1st floor, and 'Dwelling' on the 2nd floor. Two years later, the mattress factory occupied the basement and 1st floor with dwellings on the 2nd floor. Early city directory listings included other small business ventures at 127 including a medical doctor in addition to the factory, possibly suggesting offices on the upper floor or basement. By 1903, the mattress factory reportedly occupied the entire building at 127 (all three floors) and had expanded into adjacent buildings in the block.1 The Sanborn Map is the only documentation of dwellings located on the 2nd floor; no residential listings were found in early directories so the precise use of the 2nd floor is unclear. The freight elevator, which remains in the building, provided access between the first floor and basement only; it does not serve the upper floor. The earliest Sanborn Map illustrates the interior stairway along the south side of the building, accessed from the front sidewalk. A rear stair accessing the 2nd floor was in place by 1889.

Wm. Schick, whose mattress factory occupied this building shortly after its 1883 construction, had relocated by 1907.2 The rear addition was not in place on the 1913 Sanborn Map but was in place on the 1950 update of the 1913 map.

Based on the development of the area and the history of business occupants in 127, the building was likely expanded between 1930 and 1950 with the one-story rear addition and the existing “new” brick facade installed. As detailed below, by the mid- to late-1930s the building occupants included a produce company, a separate produce broker, and at least one resident. The wholesale grocery was replaced by a beer distributor in 1950 and either of these occupants could have built the rear addition for warehouse space. Physical evidence - the brick construction (of the rear addition) and the tan brick facade - suggest the earlier date c.1935. The produce broker was listed at 127-1/2 for 25 years, presumably occupying the basement that had formerly been occupied by the mattress factory. The current building owner reports that the 2nd floor is comprised of dilapidated apartments but physical inspection was not possible. The presence of apartments on the 2nd floor might suggest that the building was remodeled, possibly when the new facade was installed c.1935 if the mattress factory indeed occupied all three floors in 1903 (suggesting the upper-floor apartments were not present at the time).

The primary former alterations to the building were the c.1935 construction of the rear addition and installation of the existing brick facade. The storefront was likely modified and possibly completely replaced on multiple occasions. The current owner installed the existing wood infill at the storefront and upper windows c.2000 and remodeled the front commercial space. The owner reported that when he purchased the property, a garage door had been installed at the front storefront so the front of the building has not portrayed its historic storefront configuration for some time. The interior rear portions of the ground floor retain their original utilitarian configuration and finishes, and the 2nd floor reportedly

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1 Topeka Daily Capital, 8 November 1903.
2 Wm Schick Mfg. Co. ad at 2nd and Jackson Street location, Topeka Daily Capital, 1 December 1907.
retains its historic apartment configuration. The building is in fair to poor condition due in large part to the exposed party wall on the south.

**Statement of Significance**

Only seven months after the United States Congress passed the Kansas-Nebraska Act on May 30, 1854, establishing the Kansas Territory, pioneers selected a site for a new town that would become Topeka. Located in Shawnee County, one of the 33 original counties of the State of Kansas, settlers would form the Topeka Association and elect officials in less than two weeks.¹⁴

Kansas Avenue would lie at the heart of the new city. According to William W. Cone’s _Historical Sketch of Shawnee County Kansas_, the first store in Topeka was opened by J.W. Jones in the early spring of 1855 on the west side of Kansas Avenue between 2nd and 3rd Streets.⁵ Jones’ store was quickly followed by a tin shop, hardware store and cabinet and brick-makers. In 1858 the state capitol moved from Tecumseh to Topeka. In 1867, the county courthouse was constructed at 4th and Kansas Avenue.⁶ Real estate brokers began angling for parcels of land to sell to settlers as the town began to boom.

In 1870, the population of Shawnee County had exploded 273% over the previous decade.⁷ By 1880, the county had more than doubled again, with the largest portion of the population in Topeka, notably due to rail access.⁸

According to Cutler’s _History of Kansas (Shawnee County)_, in 1882, Topeka was in “the transition state, between the young, rough vigor of western towns and the more regulated, substantial life of Eastern cities...Already many of her business blocks are solid and metropolitan in appearance; her streets are being systematically graded; tasteful and costly churches, and home-like and palatial residences adorn the resident portions of the city, testifying to her material prosperity and her social refinement.”⁹

The parcel of land at 127 S. Kansas Avenue has a storied history. The first documented evidence of business at the site appears in the 1868 Topeka City Directory, which states that the United States District Court Room was located at 127 Kansas Avenue.¹⁰ The court convened twice a year on the second Monday of April and October. In addition to the court, the U.S. District judge, his clerk, a U.S. marshal, a U.S. attorney and a register in bankruptcy were listed at the address.¹¹ It is unclear how long the site housed the government offices or what kind of building they utilized but that function clearly pre-dates the existing building.

By 1876 at least one business was operating at 127 S. Kansas - J.W. Stoker & Co., Undertaker. His 1876 advertisement in the _Daily Commonwealth_ states that Stoker has “long experience in the East” and the “finest hearse in the city.”¹² As evidenced by his advertisements in the local paper and city directories,

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⁶ In 1896 the courthouse was moved to 5th and Van Buren and moved to its present location in 1965.


¹¹ Ibid.

Stoker’s business would remain at the address until early 1883 when the existing building was constructed. The directory entries note that Stoker lived on the premises.

On March 21, 1883, Edwin A. Taft was issued two building permits for the construction of a brick and stone “business house” at 127-129 Kansas Ave. Taft, a resident of Topeka, was listed in the 1882 Topeka City Directory as a co-owner of Stevenson, Emery & Taft, a dry goods store that resided at 131 Kansas Ave. It is likely that Taft bought the neighboring lots to construct a new building and was able to sell the building within a few months.

According to news articles highlighting local businesses, the William Schick Mattress Company opened for business at 127 Kansas Avenue in June 1883. By 1903 Schick employed 40-50 “skilled hands” and had expanded to 127-129 & 131 S. Kansas, occupying all three floors of the original building. At that time, Schick also occupied buildings at 112-114 S. Kansas and 109-111-113 S. Kansas as warehouses. Schick, born in Pennsylvania, came to Topeka with the express purpose of starting a new business. His enterprise started small but quickly grew, selling to Topeka residents as well as an almost equal number in surrounding towns. Schick had varying numbers employees during the early years, going as high as ten and averaging six workers year round. In 1888, the Schick Mattress Company sold $16,000 worth of mattresses.

By 1905, the Schick enterprise was evolving to remain competitive. Schick placed an advertisement in the Topeka paper for awnings during the summer months. The advertisement is notable because it implores citizens to buy local, thereby boosting jobs and growth in Topeka. A 1907 advertisement reflects a company name change from a mattress company to the broader category of manufacturing company and further stresses the local nature of the business by naming their top product after the city. The “Topeka Felt” was marketed as the “finest, most luxurious and lasting mattress on the market today.” Even though he had expanded into adjacent buildings north and south of his original location at 127 S. Kansas, Schick’s business continued to grow requiring more space than was available in the 100 block of Kansas Avenue. A 1907 advertisement lists the Wm. Schick Mfg. Co. at the 2nd and Jackson Street location. The 1913 Sanborn map shows the company at 124-136 Jackson Street in the former Williams and Updegraff’s Lumber Yard and the W.H. Griffith’s Roller Skating rink west of the Kansas Ave.

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15 “Buy Topeka Made Awnings to Support the City,” The Topeka Daily Capital, 8 June 1905.
17 Topeka Daily Capital, 1 December 1907.
building. The buildings at 129 and 131 Kansas Avenue were still in use as an "Iron Bed Ware Room" and "Mattress Material".\textsuperscript{18}

Following Schick’s departure, 127 Kansas Ave. is labeled "S" reflecting an unspecified commercial business on the 1913 Sanborn map. Polk’s Topeka City Directories, published biennially, route the frequent changes of building occupants in the following decades.\textsuperscript{19} In 1917, the OK Barber Shop is present, but is replaced in 1918 by the Semple Café, which remained through 1921. By 1935, 127½ is occupied by Russell T. Wilcox, produce broker; Mr. Wilcox remains at 127½ through 1960. It is likely Mr. Wilcox took over his part of the building in 1935 when Stone Produce occupied the main part of the building. Stone Produce was replaced in three years by Kingsbury Sales Co, a brewer’s agent, but by 1940 they had left the building. In 1950, a beer distributor, Stratham Sales Co, moved into 127 and remained there through 1960. It is likely 127 Kansas was vacant between 1960 and 1965 when a restaurant and store fixtures wholesaler took over the building, remaining there through 1985. The building was then occupied by a roofing company in the 1980s-90s. The current owner; Gary D. Smith Construction, purchased the building in the late-1990s. It is currently leased by Topeka Foundry for warehouse/storage space.

Summary

Multiple businesses include the U.S. District Court and Stoker Undertaking predate the existing building on this site. The Two-Part Commercial Block building at 127 S. Kansas Avenue was constructed by Edwin A. Taft in 1883 and housed the Wm. Schick Mattress Company from 1883 until the early 1900s. The two-story stone building was constructed with a brick facade featuring segmental arched brick lintels. The interior was uniquely configured with the factory initially occupying the basement and first floor, with dwellings above. By 1903, Schick had expanded his factory into adjacent buildings and occupied at least two additional buildings in the 100 block of S. Kansas Avenue as warehouses. Schick continued to expand his business ventures and outgrew the 127 S. Kansas location, moving to the former lumberyard at 2nd and Jackson by 1907. For the next twenty-plus years, the building housed a variety of businesses including a barber shop and café as the neighborhood transitioned to a warehouse district. By 1935, 127 S. Kansas became home to Stone Produce, followed by Kingsbury Sales Co. (brewer agent), and ultimately Stratham Sales Co, a beer distributor in the 1950s. Although the precise date is unconfirmed,

\textsuperscript{18} 1913 Sanborn Fire Insurance Map for Topeka, KS, Sheet 11.


\textsuperscript{20} It is unclear if the produce broker occupied the basement or second floor of the building at 127 S. Kansas Avenue. At least one residential listing was found for the building during this period thus, it is assumed that Wilcox’s business was located in the basement.
it is likely that the building was expanded and remodeled c.1935. The existing brick facade and the one-story rear warehouse date to this time period. The history of the interior configuration is less certain. Russell R. Wilcox, a produce broker was listed at 127-1/2 from 1935-1960. It is unclear if the upper-floor apartments remained throughout this period suggesting Wilcox’s business was located in the basement, or if the building expansion included major interior alterations. Gary D. Smith Construction Co. has owned the building the past fifteen years, leased to Topeka Foundry as a warehouse. The existing wood storefront and window infill date to the current owner in the late 1990s. Otherwise, the exterior of the building dates to the c.1935 expansion and remodeling. While the front commercial space has contemporary finishes, the balance of the building retains historic finishes and features. The owner reports that apartments are in place on the 2nd floor but they have not been used for years.

Current Views

#0 - West side of 100 block S. Kansas Ave (127 on L) looking SW
#1 - West side 100 block S. Kansas Ave looking NW below I70

#2 - Front/east and south facades
#3 - Detail of exposed parting wall at SE corner of building

#4 - South facade of rear addition with alley on left
#5 - West/rear facade with overhead garage door
#11 – Freight elevator severing basement and 1st floor

#12 – Detail of wood ceiling at rear of 1st floor original bldg.

#13 – W wall of original building, now shared with rear addition

#14 – Detail of oversized opening at original W/rear facade
Now between original building and rear addition

#15 – Looking west from east end of rear addition
177-5400-01931
Wm Schick Mattress Company
127 S KANSAS AVE
Topeka

LOCATION:

County: Shawnee
Address: 127 S KANSAS AVE
Address Remarks:
City: Topeka
Zip: 66603
Parcel ID: 109-31-0-10-02-008.00-0
Legal Description: Section 31 Township 11S Range 16E
Legal Description Remarks: ORIGINAL TOWN, Lot 27, KANSAS AVE SO
Latitude, Longitude 1: 39.057753 -95.670928
Latitude, Longitude 2:
Latitude, Longitude 3:
Latitude, Longitude 4:
Datum: WGS84

DESCRIPTION:

Historic Name: Wm Schick Mattress Company
Alternate Name:
Historic Function: Commerce/Trade
Subcategory: Specialty Store
Historic Function Remarks: The building housed the Wm. Schick Mattress Company from 1883 until the early 1900s. By 1903, Schick had expanded his factory into adjacent buildings and occupied at least two additional buildings in the 100 block of S. Kansas Avenue as warehouses. Schick continued to expand his business ventures and outgrew the 127 S. Kansas location, moving to the former lumberyard at 2nd and Jackson by 1907. For the next twenty-plus years, the building housed a variety of businesses including a barber shop and café as the neighborhood transitioned to a warehouse district. By 1935, 127 S. Kansas became home to Stone Produce, followed by Kingsbury Sales Co. (brewer agent), and ultimately Stratham Sales Co., a beer distributor in the 1950s. Russell R. Wilcox, a produce broker was listed at 127-1/2 from 1935-1960.
Present Function: Commerce/Trade
Subcategory: Warehouse

Present Function Remarks: Gary D. Smith Construction Co. has owned the building the past fifteen years, leased to Topeka Foundry as a warehouse. The owner reports that apartments are in place on the 2nd floor but they have not been used for years.

Residential/Commercial/Religious Style: Minimal Commercial (Early-Mid 20th Century)
Secondary Style:
Barn Type: Not Applicable
Bridge Type: Not Applicable

Physical Description/Remarks: The two-story stone building was constructed with a brick facade featuring segmental arched brick lintels. The interior was uniquely configured with the factory initially occupying the basement and first floor, with dwellings above. Although the precise date is unconfirmed, it is likely that the building was expanded and remodeled c.1935 when it became home to the Stone Produce Co. The existing brick facade and the one-story rear warehouse date to this time period. The history of the interior configuration is less certain. It is unclear if the upper-floor apartments remained throughout this period suggesting Wilcox’s business was located in the basement, or if the building expansion included major interior alterations. The existing wood storefront and window infill date to the current owner in the late 1990s. Otherwise, the exterior of the building dates to the c.1935 expansion and remodeling. While the front commercial space has contemporary finishes, the balance of the building retains historic finishes and features.

Plan Form: Rectangle
Commercial Building Type: Two-Part Commercial Block
Roof Form: Flat with Parapet
Stories: 2
Condition: Fair
Principal Material: Brick

Material and Condition Remarks: See attached report for detailed description.

Architect/Designer/Builder: Unknown
Year of Construction: 1883
Certainty: Documented

Date Notes: Two-story 1883 building is stone with c.1935 brick storefront and c.1990s wood storefront infill. The one-story rear addition is brick built c.1935.

General Remarks: The building at 127 S. Kansas Avenue was constructed by Edwin A. Taft in 1883 and occupied shortly thereafter by the Wm. Schick Mattress Co.

Ancillary Structures:
Ancillary Structure Remarks:

REGISTER STATUS:

Listed in State Register: No
Date of State Listing:
Listed in National Register: No
Date of National Listing:
Historic District: Demolished
Date Demolished (if applicable):
Potentially Eligible for National Register: Contributing

Register Status Remarks: Fair integrity, would contribute to a potential historic district.
Thematic Nomination (MPDF):
**SURVEY INFORMATION:**

**Survey 1**

**Survey Project Name:** Topeka - Downtown Survey (HPF 2011)

**Sequence Number:** 062

**Surveyed By:** Nugent, Rachel

**Survey Date:** 09/27/2011

**Survey 2**

**Survey Project Name:** KDOT 70-89 KA-1266-02

**Sequence Number:**

**Surveyed By:** Spencer Preservation

**Survey Date:** 09/12/2014

**IMAGES & DOCUMENTS**


127 S. Kansas Ave. South and West elevation. Finch. 09/27/11.

127 S. Kansas Ave. West side 100 block Kansas Ave. looking NW. Spencer. 09/23/2014

127 S. Kansas Ave. West side 100 block Kansas Ave. (127 on L). Spencer. 09/12/2014

127 S. Kansas Ave. South and east facades. Spencer. 09/12/2014

127 S. Kansas Ave. Exposed parting wall on south. Spencer. 09/12/2014

127 S. Kansas Ave. South facade of rear addition with alley on L. Spencer. 09/12/2014

127 S. Kansas Ave. South and west/rear facades. Spencer. 09/12/2014

127 S. Kansas Ave. Rear/west facade of original 2-story building. Spencer. 09/12/2014
127 S. Kansas Ave. Front/east facade. Spencer. 09/12/2014

127 S. Kansas Ave. Cast-iron column at street entry to 2nd floor on front facade. Spencer. 09/12/2014

127 S. Kansas Ave. Looking W at rear portion of ground floor in original building. Spencer. 09/12/2014

127 S. Kansas Ave. Deteriorated fluted beadboard ceiling on 1st floor. Spencer. 09/12/2014

127 S. Kansas Ave. Freight elevator serving basement and 1st floor. Spencer. 09/12/2014

127 S. Kansas Ave. Oversized opening at rear facade of original building. Spencer. 09/12/2014

127 S. Kansas Ave. Looking W in one-story rear addition. Spencer. 09/12/2014

127 S. Kansas Ave. West wall of original building. Spencer. 09/12/2014

Activity II & III Report
KDOT Project No. 70-89 KA-1266-02 Shawnee County
J. F. Van Nice Monument Co. Building
124 S. Harrison Street, Topeka, Kansas
26 September 2014

Property Information
Owner: Chris & Susan Hutton
Occupant: Midwest Millwork, Inc. (rental warehouse/storage)
Historic Name: J.F. Van Nice Monument Co. Building
Legal: Original Town, Lot 26, Harrison Street South, S30 T11S R16E
khri: 177-5400-01840

Narrative Description
The property at 124 S. Harrison Street consists of a One-Part Commercial Block built in 1929 as the new home of J.F. Van Nice Monument Company.

Site and Neighborhood Context
The building at 124 S. Harrison Street is located on the east side of the 100 block of S. Harrison, facing Harrison. Set back approximately 40' from the front property line, parking is available in front of the building. The one-story building at 114 S. Harrison abuts the Van Nice Building on the north. There are two dwellings extant at the south end of the 100 block, on the east side. A vacant lot on the south side of the 124 property is parceled with the residence at 126 S. Harrison has a dense tree row and fence along the front/west side of the property. Measuring approximately 25’ x 100’, the Van Nice Building terminates just shy of the alley on the east. The mid-block alley provides vehicular access to the building via an overhead garage door on the rear/east facade.

124 S. Harrison Street Site downloaded at Bing Maps,
20 September 2014 © 2012 Pictometry International Corp.

¹ Property Data from Shawnee County Appraiser’s Office accessed online 10 September, 2014.
The Van Nice Building is one of five business buildings on the east side of the 100 block, all of which are now occupied by the same business—Midwest Millwork, Inc. However, the building at 124 S. Harrison was built to house a monument company and served its original function for approximately thirty years.

The 100 and 200 blocks of South Harrison Street originally developed as a working-class neighborhood with modest single-family dwellings. The area was not detailed on the first two Sanborn Fire Insurance Maps in 1883 and 1885. The 1883 map noted the presence of 3 brick dwellings, 14 frame dwellings, 6 barns and a grocery store in the 100 block of South Harrison. The map illustrated “Turner Park” present on the east side of the 100 block of North Harrison Street, one and a half blocks north of 124 S. Harrison and a city park in place in the 200 blocks of North Van Buren and Jackson Streets, northeast of the site on Harrison. By 1889 homes were in place on the majority of lots including 124 S. Harrison; there were only two commercial properties in the two blocks—one at the south end of the 100 block and one at the north end of the 200 block, both facing 2nd Street. The Chicago, Rock Island, and Pacific Railroad had been established along First Street by 1889. The freight depot was located at 1st and S. Van Buren one block east of Harrison (the passenger depot was located at 1st and Kansas Avenue). By 1913 the area was fully developed as a residential neighborhood and the 200 block remains residential today. In the late 1920s, the east side of the 100 block began a slow transition from residential to light manufacturing with the establishment of Van Nice’s monument shop. By 1950 a cabinet company had built a shop north of the monument building. A date stone on the Van Nice Building at 124 S. Harrison records its construction in 1929. As noted above, Midwest Milling now occupies the entire block of business buildings on the east side of the 100 block. The west side of the 100 block remains residential.2

Building Exterior
The Van Nice Building is a one-story building constructed of structural clay tile with a variegated tan brick front facade and concrete cap. The facade features a date stone inscribed “J.F. Van Nice 1929” and a mansard red clay tile pent. Two storefront windows flank a central door. The openings have stretcher course lintels and header course sills. Six-light transoms top the single-light display windows. The central door is a single-light over three-panel wood door with matching sidelight on the south and a narrow three-light transom. When compared to a historic view of the building, the existing door appears to be a former replacement but is consistent with the character of the building.

The south facade is red brick with the parapet stepping down toward the rear/east. The parapet has a tile coping. Irregularly-spaced windows are the original 12-light steel units with operable 6-light panels. The rear facade shows evidence of former patching on each side of a central oversized door with an overhead garage door in place. There is significant spalling of brick and open mortar joints on the rear facade. A square brick chimney rises above the roofline at the northeast corner.

Interior
The building transitioned from its original function in the early 1960s to shop and warehouse space for a variety of businesses for the past fifty-plus years. There is currently no power or heating/cooling to the building. It is used solely for storage. A small room is enclosed on the north side inside the front entrance. The enclosure is sheathed with vertical beadboard and does not extend to the ceiling. Other than the small room enclosure, likely an office or bathroom, the interior is one large open space spanning from front to rear. The walls are exposed brick and block with a painted finish; the floor is exposed concrete. The wood storefront windows and doors are in place (although the north display window is boarded due to broken glass). Original steel windows are in place at most secondary openings with squared masonry returns and no trim. Fiberboard panels with a painted finish were formerly attached to the bottom of the roof joists as a finished ceiling; panels are now deteriorated and many are missing. The deteriorated panels suggest water infiltration from a former or active roof leak.

Condition and Integrity
The building was designed and built as the new home to J. F. Van Nice Monument Company in 1929 and later occupied by Hutton Monument, Van Nice's successor, until the early 1960s. There is no physical evidence of any significant interior or exterior alterations except the installation of a new wood door at the front entry (style is different from historic view). The building retains its exposed utilitarian finishes characteristic of its original function as a monument company however, it is in fair to poor condition. The primary threat to its integrity is its long-term minimal use as a warehouse. The building is clearly suffering from lack of needed repairs and general maintenance and reportedly has no electricity, heating or cooling. There is significant masonry deterioration and evidence of moisture infiltration.
Statement of Significance

Only seven months after the United States Congress passed the Kansas-Nebraska Act on May 30, 1854, establishing the Kansas Territory, pioneers selected a site for a new town that would become Topeka. Located in Shawnee County, one of the 33 original counties of the State of Kansas, settlers would form the Topeka Association and elect officials in less than two weeks.3

Kansas Avenue would lie at the heart of the new city. According to William W. Cone’s Historical Sketch of Shawnee County Kansas, the first store in Topeka was opened by J.W. Jones in the early spring of 1855 on the west side of Kansas Avenue between 2nd and 3rd Streets.4 Jones’ store was quickly followed by a tin shop, hardware store and cabinet and brick-makers. In 1858 the state capitol moved from Tecumseh to Topeka. In 1867, the county courthouse was constructed at 4th and Kansas Avenue.5 Real estate brokers began angling for parcels of land to sell to settlers as the town began to boom.

In 1870, the population of Shawnee County had exploded 273% over the previous decade.6 By 1880, the county had more than doubled again, with the largest portion of the population in Topeka, notably due to rail access.7

According to Cutler’s History of, Kansas (Shawnee County), in 1882, Topeka was in “the transition state, between the young, rough vigor of western towns and the more regulated, substantial life of Eastern cities...Already many of her business blocks are solid and metropolitan in appearance; her streets are being systematically graded; tasteful and costly churches, and home-like and palatial residences adorn the resident portions of the city, testifying to her material prosperity and her social refinement.”8

The J.F. Van Nice Monument Company Building was constructed at 124 S. Harrison Street in 1929. James Francis Van Nice was born in Switzerland County, IN on May 6, 1867. He moved to Topeka, KS and married Elise Furze in April 1898. Together they had one son. Mr. Van Nice trained as a stone cutter and began work with C.W. Guild Monuments in Topeka around 1902 before starting his own firm c.1922.9 He gained a reputation for quality as his business grew. By 1929 he bought land and moved from his 231 Jefferson Avenue location to his newly constructed facility at 124 S. Harrison.10 The Van Nice Monument Company was sold to the Arthur Hutton Monument Company after Van Nice’s death in 1935.

Author Hutton, born in Topeka, KS c.1882, became involved in the stone crafting and monument business at an early age. He in turn trained his sons, A. Clinton and William G. in his trade. Arthur Sr. passed away in 1948 leaving his business in the hands of his two sons. The Hutton family had a strong tradition of honor and respect. When the Arthur Hutton Monument Company took over Van Nice’s business in 1935, Hutton Monuments used the succession in advertising and vowed to continue the standards Van Nice had

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5 In 1896 the courthouse was moved to 5th and Van Buren and moved to its present location in 1965.
10 Polk’s Topeka City Directories: 1929 & 1933, Kansas City, MO: R. L. Polk & Company.
helped to establish in the Topeka community. The Company continued to use the Van Nice name in the Topeka City Directories well into the 1950s.\footnote{Hutton Advertisements, as well as address listings reference they are the “successors to JF Van Nice” in the 1938, 1940 and 1955 Polk’s Topeka City Directories.}

William “Bill” Hutton died in 2000. He was followed by his brother Clinton Hutton in 2001. In addition to being a partner in the monument company, Clinton had served in the Army Infantry in World War II, including 18 months in combat in the Philippines and Okinawa. He had retired in 1980. Successive generations of Huttons now run the company, including Chris Hutton, who retains ownership of the building at 124 Harrison Street.

Hutton Monument Works moved from the 124 Harrison to 201 SW Topeka in the early 1960s. The Topeka Boulevard business remains one of many Hutton Monument locations today. From the 1960s Hutton sought businesses interested in a long term lease of the 124 S. Harrison Street building. In 1965, Whelan Cabinet Shop and Blanchard’s Foundation & Waterproofing Warehouse shared the space. In 1975, an Auto Body and Custom Shop moved in and remained through the 1980s. In 1990, Midwest Millwork took over the lease and continues to use the building for storage today.

**Summary**

The One-Part Commercial Block building at 124 S. Harrison Street was constructed in 1929 by J.F. Van Nice to house his monument businesses. Following Van Nice's death in 1935, the business was purchased by Hutton Monument who remained in the building until the early 1960s when they built their current facility at 2nd and Topeka Boulevard. Since that time the building has been leased generally as warehouse space. The one-story building has a brick facade distinguished by a clay tile pent above the storefront. It retains wood windows and door on the front facade and multi-light steel windows on secondary facades. The building continues to portray its original design and construction with no significant remodeling however; it is in fair to poor condition with minimal maintenance and no heat or power for years.
Current Views

#1 - East side of 100 block S. Harrison Street (124 on R)

#2 - West/front facade

#3 - Date stone on front facade

#4 - Pent across front facade with red clay tile roof

#5 - Rear/east facade with rear alley, looking NW

#6 - South facade with original multi-light steel windows

#7 - Rear/east facade with overhead garage door

#8 - Interior view, looking W toward storefront/office on R
#9 – Looking E toward rear of building, from front storefront

#10 - Detail of block & brick wall, fiberboard ceiling, and steel windows
177-5400-01840
J. F. Van Nice Monument Co.
124 SW HARRISON ST
Topeka

LOCATION:

County: Shawnee
Address: 124 SW HARRISON ST
Address Remarks:
City: Topeka
Zip: 66603
Parcel ID: 109-30-0-40-19-003.00-0
Legal Description: Section 30 Township 11S Range 16E
Legal Description Remarks: Original Town, Lot 26, Harrison Street South
Latitude, Longitude 1: 39.05831 -95.674790
Latitude, Longitude 2:
Latitude, Longitude 3:
Latitude, Longitude 4:
Datum: WGS84

DESCRIPTION:

Historic Name: J. F. Van Nice Monument Co.
Alternate Name:
Historic Function: Commerce/Trade
Subcategory: Specialty Store
Historic Function Remarks: The One-Part Commercial Block building at 124 S. Harrison Street was constructed in 1929 by J.F. Van Nice to house his monument businesses. Following Van Nice's death in 1935, the business was purchased by Hutton Monument who remained in the building until the early 1960s when they built their current facility at 2nd and Topeka Boulevard. Since that time the building has been leased generally as warehouse space.

Present Function: Commerce/Trade
Subcategory: Warehouse
Present Function Remarks: It is currently occupied by Midwest Milling, Inc., the business located in the adjacent buildings north of 124 S. Harrison and used as a warehouse.

Residential/Commercial/Religious Style: Minimal Commercial (Early-Mid 20th Century)
Secondary Style: Mission
Barn Type:
Bridge Type:
Physical Description/Remarks: The Van Nice Building is a one-story building constructed of structural clay tile with a variegated tan brick front facade and concrete cap. The facade features a date stone inscribed "J.F. Van Nice 1929" and a mansard red clay tile pent adding a Mission flavor to the facade. Two storefront windows flank a central door. The openings have stretcher course lintels and header course sills. Six-light transoms top the single-light display windows. The central door is a single-light over three-panel wood door with matching sidelight on the south and a narrow three-light transom. The south facade is red brick with the parapet stepping down toward the rear/east. The parapet has a tile coping. Irregularly-spaced windows are the original 12-light steel units with operable 6-light panels. The rear facade shows evidence of former patching on each side of a central oversized door with an overhead garage door in place. A square brick chimney rises above the roofline at the northeast corner.

Plan Form: Rectangle
Commercial Building Type: One-Part Commercial Block
Roof Form: Flat with Parapet
Stories: 1
Condition: Fair
Principal Material: Brick

Material and Condition Remarks:
Architect/Designer/Builder: Unknown
Year of Construction: 1929
Certainty: Documented

Date Notes:
General Remarks: See attached report for complete description and history.
Ancillary Structures:
Ancillary Structure Remarks: none

REGISTER STATUS:
Listed in State Register: No
Date of State Listing:
Listed in National Register: No
Date of National Listing:
Historic District:
Demolished:

Date Demolished (if applicable):
Potentially Eligible for National Register: Yes
Register Status Remarks:
Thematic Nomination (MPDF):

SURVEY INFORMATION:
Survey 1
Survey Project Name: KDOT 70-89 KA-1266-02
Sequence Number:
Surveyed By: Spencer Preservation
Survey Date: 09/17/2014

IMAGES & DOCUMENTS
124 S. Harrison. 100 Block of S. Harrison, looking NE. Spencer. 09/17/2014

124 S. Harrison. Front/west facade. Spencer. 09/17/2014

124 S. Harrison. Datestone on front/west facade. Spencer. 09/17/2014

124 S. Harrison. Clay tile pent above storefront on west facade. Spencer. 09/17/2014

124 S. Harrison. Rear/east facade at alley. Spencer. 09/17/2014

124 S. Harrison. South facade with original steel windows. Spencer. 09/17/2014

124 S. Harrison. Rear facade with overhead garage door. Spencer. 09/17/2014

124 S. Harrison. Interior view looking W toward storefront. Spencer. 09/17/2014

124 S. Harrison. Interior view looking east toward rear. Spencer. 09/17/2014

124 S. Harrison. Interior detail of block & brick wall, fiberboard ceiling and steel window. Spencer. 09/17/2014
124 S. Harrison. Front/west facade. Spencer. 09/17/2014

124 S. Harrison. Wood door with sidelight and wood-framed display window with 6-light transom at front facade. Spencer. 09/17/2014
Activity II & III Report
KDOT Project No. 70-89 KA-1266-02 Shawnee County
Morton Residence, 200 S. Harrison Street, Topeka, Kansas
26 September 2014

Property Information
Owner and Occupant: Randy S. Young
Function: Single Family Dwelling
Historic Name: Morton Residence at 200 S. Harrison Street
Legal:¹ West 100’ of Lots 38, 40, & 42, Harrison Street South, Original Town, S30 T11S R16E
hri: 177-5400-01845

Narrative Description
The property at 200 S. Harrison Street consists of a two-story frame Italianate residence built c.1875. It is distinguished by its corner location, its full two-story height and its Italianate architectural style. Primary characteristics include its shallow hipped roof with bracketed eaves and paneled cornice, and porches at the primary entrances.

¹ Property Data from Shawnee County Appraiser’s Office accessed online 10 September 2014.
street on the west and north with a carpentry shop at the rear (see following section for history). A driveway is accessed off Harrison Street south of the residence with a concrete drive extending to a non-historic one-story garage that is located at the southeast corner of the property (on Lot 42). The garage is one-story with a shallow gable roof sheathed with asphalt shingles. The exterior walls are vertical wood siding and a garage door is located on the west.

The corner property is bordered on the north and west by public sidewalks with wide strips of grass spanning between the sidewalk and the street curb. Mature trees are located in the grass area, in the public right-of-way. Partially obscuring the house, a 4’ tall shrub and wire fence defines the north and west boundaries of the yard inside the public sidewalk. Mature trees are also located in the back yard east of the home. A short concrete wall defines the east/rear property line between the house at 200 S. Harrison and a bungalow addressed at 313 SW 2nd Street (located on the east 50’ of Lots 38, 40 & 42). A brick walk and patio is located on the south and east sides of the home with a small porch at the home’s back door on the east. These features are not original.

The 100 & 200 blocks of S. Harrison were not detailed on the first two Sanborn Fire Insurance Maps in 1883 and 1885. The 1883 map merely listed extant structures in the 200 block including: 1 brick dwelling, 14 frame dwellings, 5 barns and a carpenter shop. The map illustrated “Turner Park” present on the east side of the 100 block of North Harrison Street, two blocks north of 200 S. Harrison and a city park in place in the 200 blocks of North Van Buren and Jackson Streets, northeast of the S. Harrison neighborhood. The Chicago, Rock Island, and Pacific Railroad was established along First Street by 1889. The freight depot was located at 1st and S. Van Buren one block east of Harrison (the passenger depot was located at 1st and Kansas Avenue).²

The 100 and 200 block of South Harrison Street developed as a working-class neighborhood generally with modest single-family dwellings. The two-story residence at 200 S. Harrison Street is one of the few exceptions. Most homes are 1-1/2 stories and occupy single or double lots 150' deep extending to a mid-block alley and 25 or 50' in width with less than ten feet between many of the mid-block homes.

By 1889 homes were in place on a majority of the lots in both blocks, including 200 S. Harrison. There were two commercial properties in the two blocks - one at the south end of the 100 block and one at the north end of the 200 block, both facing 2nd Street. By 1913 the area was fully developed as a residential neighborhood and many of the homes had free-standing garages at the rear of the site. St. Joseph's Catholic Church was built at the northwest corner of 3rd Street and Van Buren, one block NE of 200 S. Harrison in the first decade of the century and continues to be a prominent landmark in the neighborhood. The 200 block remains residential today (the east side of the 100 block transitioned from residential to light manufacturing between 1920 and 1950. Interstate-70 was elevated around downtown Topeka, running along (above) 2nd Street in this neighborhood. The massive round pillars that support the elevated road are located on the right-of-way north of the home at 200 S. Harrison.

It appears that the property at 200 S. Harrison took its current form in 1925 when the lots were replatted to their current configuration and the residence at 313 SW 2nd Street constructed on the site of the original Carpenter Shop. The only significant potential exception is the addition (or replacement) of the garage in the early 1990s.

Building Exterior
The Morton Residence is a two-story wood-frame Italianate home built c.1875. The house reflects common characteristics of the Italianate style including its shallow hip roof, bracketed cornice, tall narrow 1/1 double-hung windows and one-story porches at both primary entrances.

With the T-shaped plan, the home has an intersecting hipped roof clad with metal and supported by decorative wood brackets with a paneled cornice. The frame structure has a glazed-brick foundation. Exterior walls are wood clapboard painted white. The west/front section of the home is approximately 20' square with two bays per side generally comprised of one window per bay on the 1st and 2nd floors. The east/rear section of the home measures approximately 16' x 20' with a single bay on the north and south sides and three bays across the rear/east facade. One-story porches, accessed by wood steps, are located on the north and south sides where the front and rear sections intersect. The porches have simple square wood columns and decorative brackets and cornice. The north porch is small, approximately 4' x 8' located at the intersection of the front and rear sections with a simple wood railing. A flat square canopy covers the east half of the porch over the door.

The south porch spans the entire south side of the front/west section of the home where the front entrance is located and has a simple metal railing. Another distinguishing feature of the south facade is a one-story bay window on the ground-level of the rear section. The five-sided bay features tall narrow windows in the outer three sides and has a simple bracketed cornice at the eave.

Like the other sides of the home, the rear/east facade has one opening per bay on each floor. A back door is located in the center of the ground floor accessed through a small, non-original porch. The rear porch (c.1950s-60s) has a brick foundation, a shed roof, and wrought-iron metal posts and railing.

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3 ibid.
The doors and windows have wide wood frames with rectangular wood tops. The 1/1 double-hung windows are characteristic of the Italianate style. The primary doors have single-light transoms and screen doors. Occupied as a private residence, the interior of the home was not accessed during the site investigation.

**Condition and Integrity**

There have been physical changes in the configuration of the property at 200 S. Harrison namely a reduction in the size or depth of the parcel and construction of a garage. It is unclear if the property originally included two or three lots when the house was constructed c.1875. Due to the difficulty in conducting deed research in Shawnee County it was not practical to track changes in property ownership or in the land parcels.⁴

The early Sanborn Maps show the house on Lots 38 and 40 with the carpenter shop at the rear. A garage is in place at the rear of Lot 42, adjacent on the south and there was no separate residence at 204 or 206 S. Harrison (Lots 42 or 44).³ Without deed records, it is unclear if the third lot (Lot 42) was included in the original 200 Harrison Street parcel. However, the absence of an adjacent residence suggests that the garage, and therefore the third lot was likely included in the original corner parcel on which the Morton home and carpenter shop were constructed.

According to the Sanborn Maps, the carpenter shop was removed and the east 50’ of the three lots replatted for a residence at 313 2nd Street between 1913 and 1950.⁵ The 1926 Topeka City Directory provides the first known residential listing at 313 SW 2nd Street, a date that is consistent with the physical appearance of the existing bungalow at 313 SW 2nd. It seems probably that the reconfiguration of the site dates to c.1925 when A.C. Ticehurst resided at 200 S. Harrison and was issued a permit to build a garage.

A garage is in place at the southeast corner of the 200 S. Harrison site today. Although Shawnee County Appraisal records date the existing garage at 1991. It is unclear if the existing garage is a contemporary structure as the appraiser’s record suggests or whether the c.1925 was remodeled in the early 1990s. The garage is smaller than most contemporary garages yet has a very shallow gable roof. The existing vertical wood siding does not appear historic. It is the author’s belief that the garage is not a historically-

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⁴ Deed records at Shawnee County Registrar of Deeds are not indexed or searchable by address requiring therefore, knowledge of a name and date in order to examine a deed.

³ The house at 206 S. Harrison was first in place on the 1913 Sanborn Map (the existing residence south of corner residence).

⁵ Sanborn Maps available for this area jump from 1913 to a 1950 update.
significant resource. As noted above, the brick patio and rear porch are other non-historic features on the site.

The home appears to be in fair to good condition and retains its primary character-defining features including decorative cornice and brackets, porches, wood siding and wood windows. There are no obvious alterations to the home itself that significantly detract from the character of the home. Repairs are currently underway at the eaves where new ogee profile fascia has been installed and is awaiting painting.

The primary former alteration involves the separation/removal of the east 50’ from the original lots and the addition or substantial remodeling of a garage. The residence at 200 S. Harrison is a good example of a c.1875 Italianate home. The home’s size, siting, and architectural style distinguish it in this downtown Topeka neighborhood.

Statement of Significance
Only seven months after the United States Congress passed the Kansas-Nebraska Act on May 30, 1854, establishing the Kansas Territory, pioneers selected a site for a new town that would become Topeka. Located in Shawnee County, one of the 33 original counties of the State of Kansas, settlers would form the Topeka Association and elect officials in less than two weeks.7

Kansas Avenue would lie at the heart of the new city. According to William W. Cone’s Historical Sketch of Shawnee County Kansas, the first store in Topeka was opened by J.W. Jones in the early spring of 1855 on the west side of Kansas Avenue between second and third streets.8 Jones’ store was quickly followed by a tin shop, hardware store and cabinet and brick-makers. In 1858 the capitol moved from Tecumseh to Topeka. In 1867, the courthouse was constructed at 4th and Kansas Avenue.9 Real estate brokers began angling for parcels of land to sell to settlers as the town began to boom.

In 1870, the population of Shawnee County had exploded 273% over the previous decade.10 By 1880, the county had more than doubled again, with the largest portion of the population in Topeka, notably due to rail access.11

According to Cutlers History of Shawnee County, Kansas, in 1882, Topeka was in “the transition state, between the young, rough vigor of western towns and the more regulated, substantial life of Eastern cities…Already many of her business blocks are solid and metropolitan in appearance; her streets are being systematically graded; tasteful and costly churches, and home-like and palatial residences adorn the resident portions of the city, testifying to her material prosperity and her social refinement.”12

The first Sandborn map illustrating the 200 block of Harrison Street, three blocks west of Kansas Avenue was published in 1889 and shows the home at 200-202 S. Harrison Street and behind the house, a carpenter shop and a small outbuilding. While proof of a precise construction date was not found, it is likely that Edward Morton bought land at the southeast corner of Harrison and 2nd Street in Topeka about

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9 In 1896 the courthouse was moved to 5th and Van Buren where it stayed until moving to its present location in 1965.
12 William G. Cutler’s History of the State of Kansas. (1883) A. T. Andreas, Chicago, IL.
1875 to build a home for his growing family. Mr. Morton was a carpenter and thus, likely constructed and operated the 2-story carpentry shop behind his home. The 1887 Topeka City Directory lists Morton as a "contractor and builder" as does the 1880 and 1900 Federal Census records, lending credence to this assertion.

In September 1831, Edward Morton was born in New York City to Irish parents who had immigrated to the United States through Ellis Island. In 1869, he and his wife Sarah Jane, fifteen years his junior, were married. Together they would raise six children to adulthood in Topeka, four of whom would live out their lives here. Daughter Gertrude was a school teacher in Topeka public schools, while Emma was a clerk and Mary a stenographer. Son John followed in his father’s footsteps and became a carpenter, likely working alongside his father in the family business. Edward Morton died in 1912 and there is no clear proof of his family owning the house after 1910.

In 1925, Topeka resident A. C. Ticehurst was issued a permit by the City of Topeka to build a garage at 200 S. Harrison. The 1926 Topeka City Directory lists Ticehurst residing at 200 S. Harrison and identifies real estate as Almon’s profession. In 1910, the A.C. Ticehurst family owned a grocery store and resided at 501 Paramore in Topeka but by 1912 A.C. was listed as a carpenter and the family had several changes of address between 1910 and 1925. They evidently bought the house at 200 S. Harrison around 1925. The Ticehurst family inhabited the house for only three years but the replatting of the lots and the construction of a garage date to this time period.

The house at 200 S. Harrison was purchased by Carl Frejd in 1933. Carl Frejd was born in 1873 in Skofde, Sweden. He immigrated to the United States in 1888 and settled in Topeka where he met and married Amanda. Carl & Amanda had four children, two of whom survived to adulthood. According to the 1920 census Mr. Frejd was a “railroad car carpenter.” He became a naturalized citizen in 1916. The Frejd family remained in the house on Harrison Street for two generations. After Amanda and Carl passed away in 1947 and 1949, respectively their daughter Ethel lived in the house for another 50 years. After Ethel Frejd passed away in 1990, the house was rented until Randy Young purchased it in 1993.

Summary
Edward Morton, a carpenter, likely bought the corner property at 200 S. Harrison around 1875 and built the existing two-story Italianate home for his family. In 1883 the residence was in place, as well as, a two-story carpenter shop at the rear of the property facing 2nd Street on the north. The home is distinguished in the Harrison Street neighborhood by its corner location, its full two-story height and its Italianate architectural style. Primary characteristics include its shallow hipped roof with bracketed eaves and paneled cornice, and porches at the primary entrances. The Mortons were gone from the property by 1910. A.C. Ticehurst, a member of the Topeka real estate profession, bought the property in the mid-

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18 Death notices of two children were in the Topeka paper. Obituaries, Topeka Daily Capital, 29 Jul 1910 and 17 October 1911.

19 "He Voted for Grant; Became a Citizen 44 Years Later." Topeka Daily Capital, 10 April 1916.
1920s and was issued a permit to build a garage in 1925. It is likely that Ticehurst replatted the parcel, selling off the rear/east 50' of Lots 38-40 & 42. The existing bungalow addressed at 313 SW 2nd Street was in place by 1926 behind the residence at 200 S. Harrison. The 200 Harrison property was purchased by Carl Frejd in 1933 and it remained in the Frejd family for nearly 60 years (purchased by current owner, Randy Young in early 1990s). A one-story garage is in place at the southeast corner of the lot. It is unclear if the existing garage is contemporary construction or a substantial remodel of the 1925 structure. Despite the site alterations including replatting of the property and construction of the garage in the mid-1920s, the house retains a high degree of historic integrity with no major exterior modifications.

Current Views

#1 - Looking north down Harrison Street toward residence

#2 – Front/west facade with elevated roadway on north (L)

#3 – View of residence at 200 S Harrison, from NW across street

#4 – North Facade

#7 – Looking W along south side of site

#8 – East/rear facade
177-5400-01845
Morton Residence
200 SW HARRISON ST
Topeka

LOCATION:

County: Shawnee
Address: 200 SW HARRISON ST
Address Remarks:
   City: Topeka
   Zip: 66603
   Parcel ID: 109-31-0-10-06-003.00-0
Legal Description: Section 31 Township 11S Range 16E
Legal Description Remarks: W100' Lot 38, 40 & 42, Harrison Street South, Original Town
   Latitude, Longitude 1: 39.058161 -95.674997
   Latitude, Longitude 2:
   Latitude, Longitude 3:
   Latitude, Longitude 4:
Datum: WGS84

DESCRIPTION:

Historic Name: Morton Residence
Alternate Name: Frejd Residence 1933-1990
Historic Function: Domestic
Subcategory: Single Dwelling
Historic Function Remarks: Edward Morton, a carpenter, likely bought the corner property at 200 S. Harrison around 1875 and built the existing two-story Italianate home for his family. In 1883 the residence was in place, as well as, a two-story carpenter shop at the rear of the property facing 2nd Street on the north. The Mortons were gone from the property by 1910. A.C. Ticehurst, a member of the Topeka real estate profession, bought the property in the mid-1920s and was issued a permit to build a garage in 1925. It is likely that Ticehurst replatted the parcel, selling off the rear/east 50' of Lots 38-40 & 42. The existing bungalow addressed at 313 SW 2nd Street was in place by 1926 behind (E) the residence at 200 S. Harrison. The 200 Harrison property was purchased by Carl Frejd in 1933 and it remained in the Frejd family for nearly 60 years (purchased by current owner, Randy Young in early 1990s).

Present Function: Domestic
Subcategory: Single Dwelling
Present Function Remarks: 200 S. Harrison remains in use as a single-family home, owned and occupied by Randy S. Young since early 1990s.

Residential/Commercial/Religious Style: Italianate
Secondary Style:
   Barn Type: Not Applicable
Bridge Type: Not Applicable

Physical Description/Remarks: The Morton Residence is a two-story wood-frame Italianate home built c.1875. The house reflects common characteristics of the Italianate style including its shallow hip roof, bracketed cornice, tall narrow 1/1 double-hung windows and one-story porches at both primary entrances. The home is distinguished in the Harrison Street neighborhood by its corner location, its full two-story height and its Italianate architectural style. Despite the site alterations including replatting of the property and construction of the garage in the mid-1920s, the house retains a high degree of historic integrity with no major exterior modifications.

Plan Form: T-Shaped

Commercial Building Type: Not Applicable

Roof Form: Hip

Stories: 2

Condition: Good

Principal Material: Wood

Material and Condition Remarks: See attached report for complete description.

Architect/Designer/Builder: Edward Morton, carpenter

Year of Construction: 1875

Certainty: Estimated

Date Notes: House and Carpenter Shop at the rear were in place on 1883 Sanborn Map. Original resident, Edward Morton was carpenter with shop at rear of his home.

General Remarks: See attached report for complete description and known history

Ancillary Structures: Garage/Carriage House

Ancillary Structure Remarks: A one-story garage is in place at the southeast corner of the lot. Garage is a frame structure with shallow gable roof and vertical wood siding. It is unclear if the existing garage is contemporary construction or a substantial remodel of the 1925 structure.

REGISTER STATUS:

Listed in State Register: No

Date of State Listing:

Listed in National Register: No

Date of National Listing:

Historic District:

Demolished:

Date Demolished (if applicable):

Potentially Eligible for National Register: Yes

Register Status Remarks:

Thematic Nomination (MPDF):

SURVEY INFORMATION:

Survey 1

Survey Project Name: KDOT 70-89 KA-1266-02

Sequence Number:

Surveyed By: Spencer Preservation

Survey Date: 09/17/2014

IMAGES & DOCUMENTS
Activity II & III Report
KDOT Project No. 70-89 KA-1266-02 Shawnee County
McCord and Kistler Mercantile Company Building
201 S. Kansas Avenue, Topeka, Kansas
26 September 2014

Property Information
Owner: Paul Properties, LLC
Occupant: Paul Properties Office and Warehouse (Commercial Property Management)
Historic Name: McCord and Kistler Mercantile Co. (Wholesale Grocery)
Legal: 1 ORIGINAL TOWN, Lot 37 +, KANSAS AVE LOTS 37-39 & PT LOT 41 D AF
BEG NW COR LOT 41, TH ELY 150' SL Y 4.78' WLY 150.37' NLY 4.15' TO POB,
S31 T11SR16E Topeka, Shawnee County, KS
khri: 177-5400-01937

Narrative Description
The property at 201 S. Kansas Avenue consists of a Two-Part Commercial Block built in 1906 as the home of the McCord Kistler Mercantile Company. The three-story commercial building is rectangular in plan form and has a brick facade and tapered roof with parapet.

Site and Neighborhood Context
The building at 201 S. Kansas Avenue is located on the southwest corner of S. Kansas Avenue and 2nd Street on the west side of the 200 block of S. Kansas Avenue. The locale is a traditional downtown commercial setting with buildings fronting Kansas Avenue and a mid-block paved alley running N/S defining the rear/west property line. The building at 201 is approximately 50’ wide and 150’ deep spanning the full width and depth of the lot. A public sidewalk runs along the front/west building facade, between the building facade and the street curb. The sidewalk is split-level, concrete next to the building and brick, one step down, spanning to the curb.

The dominant characteristic of this site is the elevated roadway (Interstate 70) that runs above 2nd Street north of the building. The elevated road, level with third-floor of the building, is supported by massive round concrete pillars approximately 10’ from the north facade of the building. 2nd Street is at the building grade and transitions to concrete along the north side of the building with no curb. A concrete loading dock with metal canopy is located on the north facade.

North of the site, a one-story commercial building was in place at 205 N. Kansas by 1889, extant when the Mercantile Company was built in 1906, as were other commercial buildings on the block. Today, the only buildings on the west side of the 200 block are the building at 235 S. Kansas on the south end of the block and the Mercantile Building at 201 on the north end. All other buildings have formerly been demolished and the site paved for use as a parking lot that spans between the two buildings. The rear facade abuts the alley on the west.

1 Property Data from Shawnee County Appraiser’s Office accessed online 10 September 2014.
The 100 and 200 blocks of S. Kansas Avenue were dotted with small clusters of shops, businesses and individual dwellings in the early 1880s but the area changed rapidly during its first thirty years. By 1885 the Topeka Stock Yard was located along the northwest section of the 100 block of South Kansas Avenue and a lumber yard had opened in the southwest portion of the block. The 100 block on North Kansas Avenue was already developing as an industrial/manufacturing area with the Topeka Manufacturing Co., Topeka Cracker Co., Kansas Preserving Co., and a steam laundry in place by the mid-1880s. By the end of the decade, the stockyards were replaced by the Chicago, Rock Island, and Pacific Railroad Passenger Depot (CRI&P) and the Chesterfield hotel had been built at 113-121 S. Kansas Avenue across from the depot. Shawnee Mills opened in the southwest portion of the 200 block but the northwest quarter of the block remained residential in scale with several small business buildings along Kansas Avenue, into the first decade of the twentieth century. After the turn of the century, wholesalers began constructing large warehouses or expanding earlier buildings in the 100 and 200 blocks transitioning the character of the area from manufacturing to warehousing. Numerous grocery wholesalers were located in this area into the mid-twentieth century.
Building Exterior
This three-story Two-Part Commercial Block has a brick facade on the east and south facades with a contemporary storefront. The facade is variegated brown brick with raised courses that form quoin and a center pilaster dividing the front facade into two bays. Short square concrete chimneys align with the pilasters on the front facade. There are three windows per floor in each bay which are punched openings with cut stone sills. Plywood panels fill the window openings but windows are reportedly in place behind the wood infill. Decorative brickwork and a deteriorated stone belt course form a simple cornice and the parapet has metal flashing over the cap. A lower cornice is in place above the storefront. What appear to be replacement stone columns divide the storefront into two bays or two separate storefronts (occupied by a single business). The storefront is a c.1980 non-historic aluminum and glass unit on the south half with opaque panels suggesting a bulkhead and transom. A single glass door is in place slightly off center to the north. The north storefront is also aluminum and glass with a shed “roof” resembling a sunroom (corresponding to an interior conference room). A square column with horizontal wood siding frames a recessed entrance on the south end of the north storefront with a contemporary wood door.

Built at the southwest corner of Kansas Avenue and 2nd Street, the building fronted Kansas Avenue as the primary entrance but the Mercantile Building was constructed with two finished facades. The northeast 2nd Street facade was also brick with detailing matching the front facade and the storefront wrapped around the corner to the first bay on the north facade. The storefront bay on the north facade is infilled with horizontal wood siding. The upper facade is nine bays wide with a single window per
floor in each bay. Metal fire escapes are extant at the second and ninth bays (from the east) and a concrete loading dock spans the third through fifth bays with a corrugated metal canopy. Openings along the first floor do not align with the upper floors at the east end of the south facade due to the presence of an oversized door at the east end of the loading dock. Unlike the front facade, the south facade has an exposed stone foundation below the brick facade and the parapet has a tile cap.

The south and rear/west facade are random-coursed field stone. Window and door openings on the stone facades are distinguished by three-tier header-course arched lintels, quoin brick surrounds and cut-stone sills. Former window openings on the 2nd and 3rd stories of the south facade have been infilled with stone but the brick lintels define the original locations. A horizontal line along the length of the south facade indicates the former presence of an abutting one-story building at 205. The rear elevation is four bays wide with one window in each bay on the upper floors and single windows in the outer bays flanking oversized door openings in the central bays on the ground floor. The door openings are raised approximately 30” above grade, clearly designed for off-loading from the alley. An overhead door is in place at the south door; the north opening has been downsized with corrugated metal to accept a single man-door.

The 1/1 historic double-hung wood windows remain in place at most openings on the north and west/rear facades. Wire-mesh security panels are in place on most first-floor windows. Openings on the south facade have been infilled with stone and those on the front/east facade are covered with plywood.

Interior
For more than thirty years, the building has served as the home to Paul Properties, LLC, a commercial property-management firm. The first floor was extensively remodeled in 1981 to convert the former warehouse to office space. The existing configuration and finishes are all contemporary dating to the 1981 remodel. Interior photography was not permitted by the building owner. At least one historic feature – a “Moiser” safe – was retained and incorporated into the new building function. No other historic features or finishes were visible from the front of the building. The basement and upper floors were reportedly not remodeled as a part of the project; only the boarding of the front windows due to repeated glass breakage from the vibration of nearby traffic. Designed and constructed as a wholesale grocery warehouse, the upper floors were large open spaces and reportedly remain that way today. Sanborn Maps indicate the office was originally located at the front/east end of the first floor and note that the upper floors had iron columns and wood joists. No other information is known about the upper floors.

Condition and Integrity
The original design and configuration of the storefront is unknown; no early views of the building have been found. The existing storefronts and first-floor office space date to the 1981 remodeling by Paul Properties to convert the former warehouse to the firm’s offices. After serving as a wholesale grocery for fifty years, the building was occupied by three service-related businesses for several years. The extent of the remodeling conducted for that change in use is unknown. The upper floors reportedly retain their original warehouse design with exposed utilitarian finishes.

Aside from the first floor office remodeling and contemporary storefronts, the only significant modifications have been the infill of the window openings on the south facade and likely repointing of the stone on the south and west facades. The windows on the front/east facade are reportedly in place, covered by wood. The original windows are extant and visible at most openings on the north and
west/rear facades. The building generally appears to be in fair to good condition with deterioration of the stone cornices being the primary exterior condition issue. There are areas of loose and missing mortar on the brick facades but no substantial deterioration is evident.

Statement of Significance
Only seven months after the United States Congress passed the Kansas-Nebraska Act on May 30, 1854, establishing the Kansas Territory, pioneers selected a site for a new town that would become Topeka. Located in Shawnee County, one of the 33 original counties of the State of Kansas, settlers would form the Topeka Association and elect officials in less than two weeks.  

Kansas Avenue would lie at the heart of the new city. According to William W. Cone’s *Historical Sketch of Shawnee County Kansas*, the first store in Topeka was opened by J.W. Jones in the early spring of 1855 on the west side of Kansas Avenue between 2nd and 3rd Streets.  

Jones’ store was quickly followed by a tin shop, hardware store and cabinet and brick-makers. In 1858 the state capitol moved from Tecumseh to Topeka. In 1867, the county courthouse was constructed at 4th and Kansas Avenue. Real estate brokers began angling for parcels of land to sell to settlers as the town began to boom.

In 1870, the population of Shawnee County had exploded 273% over the previous decade. By 1880, the county had more than doubled again, with the largest portion of the population in Topeka, notably due to rail access.

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**McCORD-KISTLER MERCANTILE CO., WHOLESALE GROCERS**
Handle Only Such Goods as Comply With All Pure Food Laws


In January 1907, Topeka’s wholesale grocery firm of Kistler-Metzler was renamed McCord-Kistler when James McCord of St. Joseph, MO, became president and Mr. Metzler left the company. James McCord, long known in the grocery wholesale business for his role in St. Joe’s largest grocery firm, Nave-McCord, partnered with E.G. Kistler, a native of Topeka. McCord-Kistler moved into their new 3-story building with basement at 201 S. Kansas Avenue. The new building represented significant growth from Kistler’s former enterprise. McCord-Kistler was prominent in Topeka’s wholesale business, regularly winning

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4 In 1896 the courthouse was moved to 5th and Van Buren and moved to its present location in 1965.
contracts with the state government to provide goods such as fruit, vegetables, rice and tea for state institutions. Within seven years (1914) the firm would be listed as one of the top sixteen firms in Topeka with a valuation of over $115,000.

The Kistler family had been long-time residents of Shawnee County almost since the county’s inception, with one relative of the grocery wholesaler, Benjamin F. Kistler, acting as a two-term Chairman of Board of nascent County Commission in the 1860s. Through the years, city directories reveal that numerous Kistler family members worked for the company including sons, daughters, cousins and uncles.

The 1920s were a time of transition for the company. The McCord-Kistler Mercantile Co. was in business at 201 S. Kansas Avenue until the death of James McCord in 1922. Within a few years the Kistler family sold the building, renamed the firm V.B. Kistler Mercantile Co. and focused the family’s business on a smaller Topeka location and on a sister store in Emporia. V.B. Kistler, a long-time Topeka resident became president of the new company, while E. G., who had moved his family to Emporia before 1920 to run the second location, became secretary and treasurer.

In 1929, the Lux Witwer Wholesale Grocer Company moved into the building at 201 S. Kansas, followed by Western States Grocery (1938) and Fleming Wholesale Grocer Company (1950-60) thus maintaining its original usage for over fifty years. During the 1960s-70s the building, while still used as a warehouse, transitioned into a home for three separate businesses that shared the space. Hydronic Heating Storage, North American Van Lines and Comet Moving & Storage occupied the building for almost 15 years. Paul Properties has occupied the building since purchasing and remodeling it in 1981.

Summary

The three-story brick warehouse at 201 S. Kansas Avenue was constructed in 1906 as the home to the newly-merged McCord-Kistler Mercantile Co. McCord-Kistler joined at least two other grocery wholesalers in the 100 & 200 blocks of S. Kansas at the time. This Two-Part Commercial Block has a brick facade on the east and south facades with a c.1981 contemporary storefront. The facade is variegated brown brick with raised courses that form quoins and a center pilaster dividing the front facade into two bays. Window openings are covered on the front/east facade but the original 1/1 DH wood windows are in place on the north and west facades. A loading dock is extant at the north facade along 2nd Street. The McCord-Kistler Mercantile Co. moved following the death of James McCord in 1922. In 1929, the property became home to the Lux Witwer Wholesale Grocer Company, followed by Western States Grocery (1938) and Fleming Wholesale Grocer Company (1950-60) thus maintaining its original usage for over fifty years. Paul Properties LLC has occupied the building since purchasing and remodeling it in 1981. Except the contemporary storefront and infilled upper windows on the front facade, the exterior of the building closely resembles its historic appearance. The interior of the ground floor was remodeled for offices in 1981 but the upper floors reportedly retain their original open plan configuration and exposed finishes.

10 “16 Have Over $100,000,” Topeka Daily Capital, 22 June 1914.
11 J.L. King (1905), History of Shawnee County, Kansas, and Representative Citizens, Chicago, Ill: Richmond & Arnold.
During the same era of the wholesale grocery, the Kistler family owned and operated Kistler Auto Supply Co., where many family members also worked.
13 Ibid.
DONT MISS THE ADVANTAGES TO BE GAINED BY USING

IDEAL

Washing Flake

An Ounce of Testimony is worth a Ton of Argument. We have the Testimonials.

FOR SALE BY ALL GROCERS

THE PARKHURST-DAVIS AND McCORD-KISTLER MER. COS.
DISTRIBUTORS

Product advertisements referencing McCord Kistler Mercantile Co.,
Left - Topeka Daily Capital, 16 February, 1908; Right - Topeka Daily Capital, 16 July, 1919
Current Views

#0 – West side of 200 block S. Kansas Ave, looking SW

#1 – Front/east facade

#2 – Looking west from NE corner, along N facade with elevated roadway on right

#3 – Loading dock in center of N facade, looking SW

#4 – North facade, looking SE from 2nd Street
#13 – Brick quoining and corbelling, NE corner

#14 – Storefront from NE corner

#15 – Original sill plate remains at storefront, stamped Brooks and Brooks, Topeka, Kansas

#16 – Original Moiser safe extant on interior of 1st floor
Kansas Historic Resources Inventory
Printed: 09/25/2014

177-5400-01937
McCord-Kistler Merchantile Co.
201 S KANSAS AVE
Topeka

LOCATION:

- **County:** Shawnee
- **Address:** 201 S KANSAS AVE
- **Address Remarks:**
  - **City:** Topeka
  - **Zip:** 66603
- **Parcel ID:** 109-31-0-10-08-001.00-0
- **Legal Description:** Section 31 Township 11S Range 16E
- **Legal Description Remarks:** ORIGINAL TOWN, Lot 37 +, KANSAS AVE LOTS 37-39 & PT LOT 41 D AF BEG NW COR LOT 41 TH ELY 150' SL Y 4.78' WLY 150.37' NLY 4.15' TO POB
- **Latitude, Longitude 1:** 39.057244 -95.671419
- **Latitude, Longitude 2:**
- **Latitude, Longitude 3:**
- **Latitude, Longitude 4:**
- **Datum:** WGS84

DESCRIPTION:

- **Historic Name:** McCord-Kistler Merchantile Co.
- **Alternate Name:**
- **Historic Function:** Commerce/Trade
- **Subcategory:** Warehouse
- **Historic Function Remarks:** The three-story brick warehouse at 201 S. Kansas Avenue was constructed in 1906 as the home to the newly-merged McCord-Kistler Mercantile Co. The company moved following the death of James McCord in 1922. In 1929, the property became home to the Lux Witwer Wholesale Grocer Company, followed by Western States Grocery (1938) and Fleming Wholesale Grocer Company (1950-60) thus maintaining its original usage for over fifty years. Paul Properties LLC has occupied the building since purchasing and remodeling it in 1981.
- **Present Function:** Commerce/Trade
- **Subcategory:** Business
- **Present Function Remarks:** The building has been home to Paul Properties, LLC (a commercial property management firm) since the early 1980s.
- **Residential/Commercial/Religious Style:** Minimal Commercial (Early-Mid 20th Century)
- **Secondary Style:**
  - **Barn Type:** Not Applicable
  - **Bridge Type:** Not Applicable
Physical Description/Remarks: This three-story Two-Part Commercial Block has two modified storefronts and brick cladding on the upper stories. The first story contains non-historic aluminum and glass storefronts and a non-historic door to the upper stories. Raised brick courses form quoins and a center pilaster. This brickwork divides the facade into two bays with three windows in each bay at each story. The punched openings have stone sills. Plywood panels fill the window openings. Decorative brickwork and a deteriorated stone beltcourse form the simple cornice. The stepped parapet has stone coping. The side and rear elevations are field stone. The rear elevation retains its historic arched window and door openings with brick quoins.

Plan Form: Rectangle
Commercial Building Type: Two-Part Commercial Block
Roof Form: Flat with Parapet
Stories: 3
Condition: Good
Principal Material: Brick

Material and Condition Remarks: This Two-Part Commercial Block has a brick facade on the east and south facades with a c.1981 contemporary storefront. The facade is variegated brown brick with raised courses that form quoins and a center pilaster dividing the front facade into two bays. Window openings are covered on the front/east facade but the original 11 DH wood windows are in place on the north and west facades. A loading dock is extant at the north facade along 2nd Street. Except the contemporary storefront and infilled upper windows on the front facade, the exterior of the building closely resembles its historic appearance. The interior of the ground floor was remodeled for offices in 1981 but the upper floors reportedly retain their original open plan configuration and exposed finishes.

Architect/Designer/Builder: Unknown
Year of Construction: 1906
Certainty: Documented
Date Notes: The building was constructed in 1906 as the home of McCord-Kistler Mercantile Co., a wholesale grocer.

General Remarks: See attached report for complete description and history.
Ancillary Structures:
Ancillary Structure Remarks:

REGISTER STATUS:

Listed in State Register: No
Date of State Listing:
Listed in National Register: No
Date of National Listing:
Historic District: 
Demolished: 
Date Demolished (if applicable): 
Potentially Eligible for National Register: Contributing
Register Status Remarks: Good integrity, would contribute to a potential historic district.

SURVEY INFORMATION:

Survey 1
Survey Project Name: Topeka - Downtown Survey (HPF 2011)
Sequence Number: 053
Surveyed By: Nugent, Rachel
Survey Date: 09/27/2011
Survey 2

Survey Project Name: KDOT 70-89 KA-1266-02

Sequence Number:

Surveyed By: Spencer Preservation

Survey Date: 09/17/2014

IMAGES & DOCUMENTS


201 S. Kansas Ave. West elevation. Finch. 09/27/11.

201 S. Kansas Ave. Front/east facade. 09/23/2014

201 S. Kansas Ave. Loading dock on N facade. 09/17/2014

201 S. Kansas Ave. Looking W along N facade from NE corner. 09/17/2014

201 S. Kansas Ave. North facade, looking SE. 09/17/2014

201 S. Kansas Ave. Rear facade, looking SE. 09/17/2014

201 S. Kansas Ave. Brick parapet at SW corner. 09/17/2014
Activity II & III Report  
KDOT Project No. 70-89 KA-1266-02 Shawnee County  
Labon Collins Building  
108 S. Kansas Avenue, Topeka, Kansas  
26 September 2014

Property Information
Owner: Team Kansas Inc. (Tom Lemon, contact)  
Occupant: Capital City Office Products  
Historic Name: L. Collins Building  
Legal:  
Original Town, Lot 97 + 1st Ave Lots 97, 99, 101. 103, 105, 107 109 W of RR spur  
20’ R/W exc N75’ OF SD Lots, Section 31 Township11S Range16E  
khr:  
177-5400-01928

Narrative Description
The property at 108 S. Kansas Avenue consists of a Two-Part Commercial Block built in 1883. The two-story stone commercial building has a c.1930 brick facade and two- and three-story rear addition.

Site and Neighborhood Context
The building at 108 S. Kansas Avenue is located on the east side of the 100 block immediately north of the original mid-block alley. The alley has been abandoned and is included in the building parcel. The space now serves as a mid-block paved parking lot located between 108 and 112 Kansas Avenue. The parking lot is accessed via a curb cut off Kansas Avenue south of 108 and the alley on the east.

The locale is a traditional downtown commercial setting with buildings fronting Kansas Avenue (although the lots were platted fronting 1st Street). A public concrete sidewalk boarded by a strip of grass runs along the front/west building facade, between the building and street curb. A two-story building at 106 S. Kansas abuts the 108 building on the north and the c.1930 rear addition on 108 extends east terminating short of the rear of the lot/alley. A concrete dock and ramp provides loading access at the rear of the building. A rail spur, dating to an 1880s lumber company and a coal company at the north end of the 100 block south, remains in place in the rear alley and south parking lot.

Early Topeka City Directories in the late 1860s and 1870s list multiple businesses and residents at the 108-110-112 S. Kansas Avenue address including Woodruff Ag Implements and Labon Collin’s Sample Room. These businesses pre-date the existing building. A reference in the local paper documents that Collin’s building was under construction in April 1883. The earliest available Sanborn Map for this area

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1 Property Data from Shawnee County Appraiser’s Office accessed online 10 September 2014.  
is 1883 and the existing building two-story masonry building at 108 S. Kansas Avenue was in place at that time.

In the early 1880s, the block was dotted with small clusters of shops, businesses and some individual dwellings. However, the area evolved rapidly. By 1885 the Topeka Stock Yard was located along the northwest section of the 100 block of South Kansas Avenue and a lumber yard had opened at the southwest portion of the block. The 100 block of North Kansas Avenue was already developing as an industrial/manufacturing area with the Topeka Manufacturing Co., Topeka Cracker Co., Kansas Preserving Co., and a steam laundry in place by the mid-1880s. By the end of the decade, the stockyards were replaced by the Chicago, Rock Island, and Pacific Railroad Passenger Depot (CRI&P) and the Chesterfield Hotel had been built at 113-121 S. Kansas across from the depot. Shawnee Mills opened in the southwest portion of the 200 block. The Davies Lumber Company and Green Coal Co. had opened at the north end of the 100 block, on the east side, and a rail spur extended southward behind the building at 108. Wholesalers began constructing large warehouses after the turn of the century. Many of the earlier commercial buildings were expanded with rear additions by 1940.

The original two-story building at 108 S. Kansas retained its stone facade in 1924. The rear additions were first illustrated on the 1950 update of the 1913 Sanborn Map, replacing a former dwelling east of the original two-story building. The existing brick facade and two- and three-story rear additions were likely constructed around 1930 when The Peabody School Furniture Company occupied the building.

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with offices and a warehouse. With the exception of the parking lot south of the building, the existing site configuration generally dates to the c.1930 remodeling and construction of the rear additions.

**Building Exterior**

The building is composed of the original/front stone building constructed in 1883 and a two- and three-story brick addition constructed at the rear of the stone building around 1930. The stone building has a brick facade added around 1930 as well but was originally constructed with two separate storefronts and a central stair accessing the upper floor. This is made clear in the fenestration on the primary facade. The first story of the primary (west) facade contains a storefront with c.2006 aluminum and glass display windows and a recessed entry in the center of the north half of the storefront. Brick pilasters with concrete caps divide the first story into two irregular bays that correspond to the original two-storefront configuration. The second story has seven rectangular window openings, three above the north storefront and four above the south storefront. The windows have c.2006 single-pane fixed sashes and soldier course lintels with concrete squares at the corners. Soldier course beltcourses run the length of the facade above the storefront, below the second-story windows, and at the parapet. The stepped parapet has brick coping.

*TOP: Current Site Plan of 108 S. Kansas Avenue, downloaded at Bing Maps, 18 September 2014  
BOTTOM: Photo #2-Current View of 108 S. Kansas Avenue looking NW, September 2014 (Spencer)*

The south facade of the original stone building has arched window openings on the second story with single-pane replacement windows matching those on the front facade. The rear addition is a concrete structure comprised of two sections that appear to have been built together. Like the original building, the roof form is flat or tapered with a parapet. Two small square brick chimneys are located on the south wall of the three-story addition and one square brick chimney located at the northeast corner of the addition. The two-story portion of the addition abuts the rear of the original building, inset on the south facade. A freight elevator penthouse with corrugated metal siding is located in the two-story section near the west end. The rear/east portion of the addition is three stories in height. The west

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facade of the third story is also sheathed with corrugated aluminum siding. Both sections of the rear addition have brick walls with rectangular punched openings. Windows include single-pane replacement units and original multi-light steel windows. There are multiple door openings including some historic wood doors and contemporary replacement doors. Some south openings have been infilled with concrete block. The first-floor entrances on the south facade of the addition are raised above grade suggesting a former loading dock and a line on the brick facade between the first and second stories suggests a former canopy or covered dock.

The rear/east facade has a concrete loading dock and ramp. The facade is brick with upper-floor window openings formerly infilled with block or wood. Slab metal doors provide access at the south end of the east facade while an overhead garage door provides vehicular access on the north.

Interior
The building is occupied by an office products company comprised of a small retail store, administrative offices, and warehouse. The retail portion is entered from the street through a glass vestibule on the north half of the storefront and is comprised of a large open space with counter at the rear. An oversized opening has been cut between the former two storefront spaces which links the office and retail areas. The south storefront space is also one large open space with cubicle offices along the west storefront and south wall. An open interior stairway is located near the rear, on the north wall of the south space. The L-shaped stairway has square metal newell posts and simple metal railings, accessing open office space on the second floor. The office and retail spaces generally have plaster walls, carpeted flooring and exposed structure at the ceiling (first floor). A suspended acoustical tile ceiling has been installed in the second-floor office space.

The rear addition is accessed from the exterior on the south and east and from the interior on the ground floor. The addition is used for storage of office products. A freight elevator, located at the northwest corner of the addition provides access between the first and second floors. Finishes in the rear warehouse are exposed masonry walls, concrete floors and concrete structure at the ceiling and roof.

Condition and Integrity
The building was designed with two separate commercial spaces on the ground floor with a central stair, accessed from the street, to the second floor. It was occupied by one or two ground-floor businesses and dwelling(s) on the upper floor for its first fifty years. Between 1913 and 1950, the existing storefront was installed, the interior remodeled, and the rear additions constructed converting the building to a commercial/warehouse use, a function it remains today. The second-floor dwelling was removed as a part of the c.1930 remodel when the building was converted to a school supply company that included retail, office and warehouse space. The interior configuration, finishes, and features such as the interior open stairway, date to the c.1930 remodel with no major contemporary interior alterations. The evident contemporary interior modifications are contemporary lighting throughout, the suspended ceiling on the second floor, and carpeting throughout the retail and office space. Plaster walls remain in the finished spaces and the rear warehouse is distinguished by exposed concrete and masonry finishes.

No photos have been found documenting the appearance of the original facade. Other than the contemporary storefront and windows, the exterior of the building closely resembles its c.1930 remodeling and expansion. The replacement windows are clearly contemporary although the style of the upper windows on the original building is unknown. Despite alterations to some openings on the
rear addition, original steel windows and wood doors are extant at some openings providing visual clues to the additions' original construction as a warehouse.

The site also generally dates to the c.1930 expansion of the original two-story building with the two- and three-story additions at the rear. The former dwelling located at the rear of the 1883 commercial building, was removed prior to, or for, construction of the rear addition.

Statement of Significance
Only seven months after the United States Congress passed the Kansas-Nebraska Act on May 30, 1854, establishing the Kansas Territory, pioneers selected a site for a new town that would become Topeka. Located in Shawnee County, one of the 33 original counties of the State of Kansas, settlers would form the Topeka Association and elect officials in less than two weeks.6

Kansas Avenue would lie at the heart of the new city. According to William W. Cone's *Historical Sketch of Shawnee County Kansas,* the first store in Topeka was opened by J.W. Jones in the early spring of 1855 on the west side of Kansas Avenue between 2nd and 3rd Streets.7 Jones' store was quickly followed by a tin shop, hardware store and cabinet and brick-makers. In 1858 the state capitol moved from Tecumseh to Topeka. In 1867, the county courthouse was constructed at 4th and Kansas Avenue.8 Real estate brokers began angling for parcels of land to sell to settlers as the town began to boom.

In 1870, the population of Shawnee County had exploded 273% over the previous decade.9 By 1880, the county had more than doubled again, with the largest portion of the population in Topeka, notably due to rail access.10

According to Cutler's *History of, Kansas (Shawnee County),* in 1882, Topeka was in "the transition state, between the young, rough vigor of western towns and the more regulated, substantial life of Eastern cities...Already many of her business blocks are solid and metropolitan in appearance; her streets are being systematically graded; tasteful and costly churches, and home-like and palatial residences adorn the resident portions of the city, testifying to her material prosperity and her social refinement."11

The building at 108 S. Kansas Avenue was built by Labon Collins in 1883. Collins was an enterprising man of color. Born in Tennessee circa 1823, he came to Kansas with his wife Mary. The 1870 Census lists Collins as mulatto while Topeka city directories categorize him as colored.12

The earliest Topeka city directories from the 1870s attribute numerous businesses to Labon Collins in the 100 block of S. Kansas Street. In 1870, Collins is listed as the proprietor of the City Launder located on the east side of Kansas Avenue between First and Second streets.13 By 1874, Collins has a quarter-

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8 In 1896 the courthouse was moved to 5th and Van Buren and moved to its present location in 1965.
page advertisement in the directory for his Sample Room, touting the wonders of his products that included the “choicest brands of liquors and cigars.” Four years later, he has opened a confectionary on the same block. It is likely that he continued to sell liquor and may have had a saloon through 1882 and it appears fairly certain that throughout this period he resided at the same address. These early businesses pre-date the existing two-story masonry building at 108 S. Kansas Avenue.

LABON COLLINS,
SAMPLE ROOM,
KANSAS AVENUE NEAR FIRST AVENUE, TOPEKA, KANSAS.

The Choicest Brands of Liquors and Cigars kept on hand.
Labon Collins advertisement, 1876 Topeka City Directory (located in existing building at 108 S. Kansas Avenue)

1883 is the first reference to 108 S. Kansas (the existing building), when the Topeka paper notes that “Collins has the walls of his new store building up one story high.” The 1883 Sanborn map confirms the presence of a two-story masonry building at the 108 address. After this period there are no specific references to Collins' business ventures, however, the 1889 Sanborn map lists his name on the building at 108-110 S. Kansas Avenue. Additionally, Mr. Collins may have played a role in state politics as a mention was made of his participation in the Kansas Republican Central Committee of Shawnee County, the organization that elected delegates to state offices.

Two separate business spaces remain in the building at 108 S. Kansas Avenue on the 1896 Sanborn Map; the north storefront is vacant, the south occupied by a restaurant. The 1913 Sanborn map lists two stores at 108-110 but no other information on the businesses was discovered. No business records were found on the 108 address again until 1924, thus it must be assumed that during at least part of the period the building was vacant. The 1924 Hall's City Directory of Topeka listed George W. Charles as the proprietor of the Charles Café at 108 S. Kansas and describes the location as a “2 story stone front building.” Mr. Charles was listed as colored. He operated his café in 108 for at least three years, 1924-26. Additionally, he resided above the restaurant.

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14 Collins saloon is listed in the 1877 Topeka City Directory, followed by the confectionary a year later and then back to the saloon/liquor sales through 1882. Some of the city directories list residence as the same including 1876 & 1878. As noted under 'Site' above, there was a separate dwelling on the site, behind the 1883 commercial building until at least 1913. Additionally, the 1885 Sanborn Map notes the second floor in use as a dwelling. "Radges' 1876, 1878 & 1882 Directory of Topeka and Shawnee County," and "1877 Topeka Directory (no publisher info given)," Ancestry.com. U.S. City Directories, 1821-1989 [database on-line]. Accessed 22 September 2014.
16 1889 and 1913 Sanborn Fire Insurance Co. Maps of Topeka, KS, Sheet 5 and Sheet 12 respectively.
17 "The Shawnee County Republicans: The Central Committee to Meet Next Saturday Afternoon," The Daily Commonwealth, 12 April 1888.
18 1896 and 1913 Sanborn Fire Insurance Co. Maps of Topeka, KS, Sheet 6 and Sheet 12 respectively.
By 1931 the Peabody School Furniture Company had taken over the building. The city directory of that year lists Peabody as a distributor for “School furniture, equipment and supplies, opera and folding chairs, theater and church furniture.” The listing states that both an office and warehouse are present at the 108 building. This is the first reference to a warehouse function in the building. Although no specific reference to the remodeling or expansion was found, the brick storefront and rear additions presumably date to the School Furniture Company occupancy from 1931-1933.

Through the early 1940s the building was vacant until Hill Packing Company, later Hill Meats and Pet Foods (predecessor to today’s Hill’s Pet Products that remains a prominent Topeka business), took over the building as an additional warehouse for their main location, then at 500 Harrison Street. The 1950 and 1954 Sanborn maps list the 108 S. Kansas location as a “grocery wholesale” business, which is likely a general classification for the food packaging business. Hill remained in the building through 1965. The current owner, Team Kansas, Inc. bought the building in recent years. Capitol City Office Products, who leases the building for their office products’ retail, office, and warehouse facility, has occupied the building since 2009.

Hill Packing Co. advertisement (warehouse was located at 108 S. Kansas Avenue while packaging plant was at 500 Harrison)

1952 Topeka City Directory

East side of 100 Block S. Kansas Avenue looking SE (108 S. Kansas Avenue in center).
Photo courtesy of Kansas State Historical Society—“Topeka-Street Scenes” Urban Renewal 13 March, 1963.

Summary
Labon Collins, an enterprising man of color, constructed the building at 108 S. Kansas Avenue in 1883. Collins previously operated a variety of businesses at or near the 108 property including a saloon, confectionary, and sample room. The Two-Part Commercial Block building had a stone facade and two storefront businesses. Upper-floor apartment(s) were accessed via a central stair from the street front. The building housed a variety of commercial businesses including a restaurant into the first two decades of the twentieth century as the neighborhood transitioned to a warehouse district. By 1931, the Peabody School Furniture Company occupied the building. Because their business included retail, office, and warehouse facilities, it is likely that the building’s expansion and remodeling dates to the school supply business. The existing brick facade, general interior configuration with interior open stairway, and the two- and three-story rear warehouse additions were in place by 1950. By that time, the building served Hill Packing Co. (and later Hill Meat and Pet Foods) as a warehouse for their primary packaging location at 500 Harrison. After years of standing vacant, the building was purchased by Team Kansas, Inc. and leased to Capital City Office Products who has occupied the building for the past five years. The building at 108 S. Kansas serves as Capital City Office Products’ retail, office and warehouse facility for their office products’ company. The existing storefront and replacement windows date to the c.2006 remodel for Capital City. Aside from these alterations, the building generally portrays its c.1931 expansion and remodel.

Current Views

#1 - East side of 100 block S. Kansas Ave. (108 on R), looking NE

#3 - South Facade

#4 - Rear/east and South facades, looking W from rear

#5 - Rail spur and rear loading dock, looking N at rear
#6 – Front/West facade with contemporary storefront & windows

#7 – Brick detailing and parapet, front facade

#8 – c1931 2 & 3-story brick rear addition, looking NE

#9 – Intersection of rear addition from S

#10 – Detail of openings on S facade

#13 – Interior stairway to 2nd floor c.1931 in office space on south side of 1st floor
#11 – Looking E inside front entrance, N side retail space

#12 – Looking W in retail space on N side toward front entry With opening to offices on south side of first floor

#14 – Offices on 2nd floor, looking W from rear stairway

#15 – Looking E in rear warehouse addition
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<td>Specialty Store</td>
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<tr>
<td>Present Function Remarks</td>
<td>The building at 108 S. Kansas serves as Capital City Office Products' retail, office and warehouse facility for their office products' company.</td>
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Bridge Type: Not Applicable

Physical Description/Remarks: This two-story Two-Part Commercial Block is composed of a square stone building constructed 1883 and a two- and three-story brick addition constructed at the rear of the stone building around 1935. The stone building has a brick façade added around 1935 as well but was originally constructed as two separate buildings. This is made clear in the fenestration on the primary facade. The first story of the primary (west) facade contains a storefront with non-historic aluminum and glass display windows and a recessed entry. Brick pilasters with concrete caps divide the first story into two irregular bays that correspond to the original two-building configuration. The second story has seven rectangular window openings, three above the north storefront and four above the south storefront. The windows have single-pane fixed sashes and soldier course lintels with concrete squares at the corners. Soldier course beltcourses run the length of the facade above the storefront, below the second-story windows, and at the parapet. The stepped parapet has brick coping. The south elevation of the stone building has arched window openings on the second story. The rear addition has brick walls with rectangular punched openings with single-pane and multi-light windows. The rear elevation has a concrete loading dock and large vehicular entrance.

Plan Form: Rectangle
Commercial Building Type: Two-Part Commercial Block
Roof Form: Flat with Parapet
Stories: 2
Condition: Good
Principal Material: Brick

Material and Condition Remarks: The Two-Part Commercial Block building originally had a stone facade and two storefront businesses. Upper-floor apartment(s) were accessed via a central stair from the street front. The existing brick facade, general interior configuration with interior open stairway, and the two- and three-story rear warehouse additions were in place by 1950, likely dating to the c.1931 Peabody School Furniture Co. occupancy. By 1950 the building served Hill Packing Co. (and later Hill Meat and Pet Foods) as a warehouse for their primary packaging location at 500 Harrison. The existing storefront and replacement windows date to the c.2006 remodel for Capital City Office Products. Aside from these alterations, the building generally portrays its c.1931 expansion and remodel.

Architect/Designer/Builder: Unknown
Year of Construction: 1883
Certainty: Documented
Date Notes: The building at 108 S. Kansas Avenue was under construction in April 1883, to house the businesses of Labon Collins. The existing brick facade and rear additions likely date to c.1931.

General Remarks: See attached report for full description and history.
Ancillary Structures:
Ancillary Structure Remarks:

REGISTER STATUS:
Listed in State Register: No
Date of State Listing:
Listed in National Register: No
Date of National Listing:
Historic District:
Demolished:
Date Demolished (if applicable):
Potentially Eligible for National Register: Contributing
Register Status Remarks: Fair integrity, would contribute to a potential historic district.
Thematic Nomination (MPDF):
SURVEY INFORMATION:

Survey 1
Survey Project Name: Topeka - Downtown Survey (HPF 2011)
Sequence Number: 067
Surveyed By: Nugent, Rachel
Survey Date: 09/27/2011

Survey 2
Survey Project Name: KDOT 70-89 KA-1266-02
Sequence Number:
Surveyed By: Spencer Preservation
Survey Date: 09/11/2014

IMAGES & DOCUMENTS


108 S. Kansas Ave. Front/West and South facade. Spencer. 09/11/2014


108 S. Kansas Ave. Front/West facade with contemporary storefront and windows. Spencer. 09/11/2014
108 S. Kansas Ave. Detail of brick parapet at NW corner. Spencer. 09/11/2014


108 S. Kansas Ave. Junction of original building and rear addition from S. Spencer. 09/11/2014


108 S. Kansas Ave. 2nd floor office space, looking W from rear stair. Spencer. 09/11/2014


Activity II/III Research Needed

70-89 KA-1266-02
Shawnee County

Activity II/III investigations, including determination of eligibility for listing on the National Register of Historic Places, are needed for five properties within the vicinity of the Polk-Quincy Viaduct project between NW Harrison Street and SE Quincy Street along I-70 in Shawnee County, Kansas. Basic documentation on these three properties is attached, including photographs of the structures, topographic quadrangle maps and aerial photographs. The five structures are identified on the maps and photographs as:

- U) a 2-story stone and brick building, located at 127 S. Kansas Avenue (NE¼ NE¼ NE¼ Sec. 31, T11S, R16E);
- Y) a 1-story brick building, located at 124 Harrison Street (SE¼ SE¼ SE¼ Sec. 30, T11S, R16E);
- S) a 2-story stone and brick building, located at 108 S. Kansas Avenue (NE¼ NE¼ NE¼ Sec. 31, T11S, R16E);
- #1) a 3-story stone and brick building, located at 201 S. Kansas Avenue (NE¼ NE¼ NE¼ Sec. 31, T11S, R16E);
- #9) a 2-story white house, located at 200 SW Harrison Street (NE¼ NE¼ NE¼ Sec. 31, T11S, R16E).

Services to be provided by the contractor:

1) Visit each structure/property in order to assess its overall condition and integrity;
2) Photograph each structure/property;
3) Conduct in-depth research in state and local archives to gather all available information on the structure, including construction and renovation dates, architect, builder, ownership, occupation, and use history;
4) Collect additional information concerning the dimensions, materials, and construction of the structure;
5) Update existing records on the Historic Resources Inventory as needed;
6) Prepare a document presenting the results of the research on the property, including the history of the property, a detailed architectural description, and a statement placing the property within local, state, and national contexts, and summary of findings;
7) Eligibility determinations will be made by the FHWA in consultation with the SHPO.

Deliverables, to be sent to Michael Fletcher, Chief, Environmental Services Section at KDOT for eventual curation at the Kansas State Historical Society:

1) Completed Activity III report for properties U, Y, S, #1 and #9, prepared following the standards and guidelines of the KSHS Historic Preservation Office (Kansas Historic Preservation Office Historic Resources Inventory Survey Manual) and the appropriate National Park Service publications (National Register Bulletin Nos. 15, 16A, 16B, and 39);
2) Any research materials gathered during preparation of the Activity III report (including field notes, photographs, newspaper articles, manuscript references, etc.).

Questions regarding technical issues may be directed to:

Michael Fletcher, Chief
Environmental Services Section
Bureau of Right-of-Way
Kansas Department of Transportation
Docking State Office Building
700 SW Harrison Street
Topeka, KS 66603-3754
phone: (785) 296-3726
fax: (785) 296-8399
e-mail: fletcher@ksdot.org
Terry - I've got 2 projects on a similar schedule but it is possible. I need to check on timing of one proposal which I haven't yet received their signed contract. If they are flexible, I can probably fit it in. Can I let you know tomorrow?

Brenda

Spencer Preservation
10150 Onaga Road
Wamego, KS 66547

350-456-9857
spencerpreservation.com

On Mon, Aug 25, 2014 at 1:38 PM, Terry Blackwell <Blackwell@ksdot.org> wrote:

Brenda,

Would you have time to do a job here in Topeka? I have 5 properties in the area of the I-70 viaduct in downtown Topeka.

I would need this completed by September 29th or as close to this date as possible.

Is this something that you could do?

Thanks,

Terry D. Blackwell

Environmental Services Section

Cultural Resources and Highway Noise Analysis

Ph. (785) 296-8414

Email: blackwell@ksdot.org
Brenda,

Attached are the work order and estimate forms. Please complete the estimate sign and send back to me. If you need additional information please let me know.

Thanks,
Terry

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From: Brenda Spencer [mailto:brenda@spencerpreservation.com]
Sent: Tuesday, August 26, 2014 12:15 PM
To: Terry Blackwell
Subject: Re: 70-89 KA-1266-02 Shawnee Co.

Terry - It will be tight but I think I can fit it in. I assume the five properties are together, i.e. that I can do site work and research on all together? Send me the information and I will confirm.
Thank you.
Brenda

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Thanks,

Terry

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From: Brenda Spencer [mailto:brenda@spencerpreservation.com]
Sent: Monday, August 25, 2014 2:08 PM
To: Terry Blackwell
Subject: Re: 70-89 KA-1266-02 Shawnee Co.
Terry Blackwell

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I would need this completed by September 29th or as close to this date as possible.

Is this something that you could do?

Thanks,

Terry D. Blackwell

Environmental Services Section

Cultural Resources and Highway Noise Analysis

Ph. (785) 296-8414

Email: blackwell@ksdot.org
Terry Blackwell

From: Susan J Ford <citysusan@gmail.com>
Sent: Monday, August 25, 2014 1:37 PM
To: Terry Blackwell
Subject: Re: 70-89 KA-1266-02 Shawnee Co.

Terry,

I'm out of town the last 2 weeks of September and crazy busy before then. If you can wait until the end of October I could probably make it work.

Sorry,

Susan

On Mon, Aug 25, 2014 at 1:25 PM, Terry Blackwell <Blackwell@ksdot.org> wrote:

Susan,

Would you have time to do a job here in Topeka? I have 5 properties in the area of the I-70 viaduct in downtown Topeka.

I would need this completed by September 29th or as close to this date as possible.

Is this something that you could do?

Thanks,

Terry D. Blackwell

Environmental Services Section

Cultural Resources and Highway Noise Analysis

Ph. (785) 296-8414

Email: blackwell@ksdot.org

--

Susan Jezak Ford
Citysearch Preservation
3628 Holmes Street
KSR&C #08-10-046
August 13, 2014

Michael Fletcher
KDOT
Via Email

Re: 70-89 KA-1266-01 I-70 Polk-Quincy Viaduct, Topeka – Shawnee County

We have reviewed the materials received August 5, 2014 regarding the above-referenced project in accordance with 36 CFR Part 800. After a thorough review of the survey materials and the proposed alignment, the SHPO requests Activity III investigations for the following properties as labeled in the 2008 survey: U (127 S. Kansas); Y (124 Harrison); S (108 S. Kansas); #1 (201 S. Kansas) and #9 (200 SW Harrison).

Properties S, U, and #1 have also been surveyed as part of the downtown reconnaissance survey project completed by the City of Topeka in 2012. These properties were determined to meet the criteria for listing in the National Register as contributing resources in a historic district. However, it does not appear that the proposed historic district will extend that far north so they will not be included. Since they will not be included in the historic district, our office recommends that they be evaluated for individual National Register eligibility.

Thank you for giving us the opportunity to comment on this proposal. Please refer to the Kansas State Review & Compliance number (KSR&C#) listed above on any future correspondence. Please submit any comments or questions regarding this review to Kim Gant at 785-272-8681, ext. 225 or kgant@kshs.org.

Sincerely,

Jennie Chinn
State Historic Preservation Officer

Patrick Zollner
Director, Cultural Resources Division
Deputy State Historic Preservation Officer
DATE: September 30, 2014
TO: File
FROM: Michael Fletcher, Chief, Environmental Services Section
RE: Status of Projects Environmental Concerns (PRELIMINARY)
70-89 KA-1266-02
BRF-070-5(214)
Preliminary Engineering for the plan development of the selected concept from the I-70 Corridor Study Project No. 70-89 KA-1266-01. I-70 Polk/Quincy Viaduct & approach roadway, Topeka, Kansas. Shawnee County

Task 1 -- Traffic Noise
This improvement is classified as a Type I project (23 CFR 772). In accordance with KDOT Highway Traffic Noise Policy a traffic noise study will be required.

Task 2 -- Air Quality -- PROJECT CLEARED
The project is located within a Kansas Metropolitan Urbanized Area (KMUA) as defined in the Environmental Manual. However, it is located outside a non-attainment area. This type of project is included in paragraph (c) or (d) of 23 CFR 771.117 concerning categorical exclusions, therefore, the project is cleared of air quality concern.

Task 3 -- Archeological Salvage -- PHASE 1
A Phase 1 investigation will be initiated.

Task 4 -- Cultural and Historic Resources -- ACTIVITY 1
An Activity 1 Cultural Resources Investigation will be initiated.

Task 5 -- Wildlife -- LEVEL 1
A Level 1 Wildlife Habitat Review will be initiated.

Task 6 -- Farmland Protection -- PROJECT CLEARED
Provisions of the Farmland Protection Policy Act (FPPA) do not apply because the project is located in an area already in or committed to urban development or water storage as defined by the FPPA.

Task 7 -- Hazardous Waste -- Initial Site Assessment
An Initial Site Assessment has been initiated.

Task 8 -- Permits and Approvals
The need for a U.S. Army Corps of Engineer’s 404 permit and a Kansas Department of Agriculture permit will be investigated. The need for a NPDES (Storm Water Run-off) permit will be investigated.

MF:skb
August 5, 2014

Patrick Zollner, Director
Cultural Resources Division
Kansas State Historical Society
6425 South West Sixth Avenue
Topeka, KS 66615-1099

Dear Mr. Zollner:

Subject: 70-89 KA-1266-02
NHPP-0705(214)
Shawnee County

The Kansas Department of Transportation requests the Kansas State Historical Society to proceed with a review of the above referenced improvement. The project is defined on the attached project description and materials and research plans dated March 21, 2014. These plans are preliminary and subject to change.

A general description of the project is as follows: I-70 Polk/Quincy Viaduct realignment and approach roadways in Shawnee County.

We have reviewed the Kansas Historic Resources Inventory database, plans and Google earth. Pursuant to 36 CFR 800.4 our finding is no historic properties affected.

Should your review find that subsequent activities of the agreement will need to be initiated, submit request to our office. Please advise if further information is required.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

for
Michael Fletcher, Chief
Environmental Services Section

Encl
Kim,

These are the aerial maps that show building locations that we survey previously. The yellow labeled buildings are the ones that your office was interested in from the surveys conducted by Marsha King and Dale Newton. I have also attached copies of previous letters between our two offices as additional background information. Also attached find an electronic set of plans.

Terry D. Blackwell  
Environmental Services Section  
Cultural Resources and Highway Noise Analysis  
Ph. (785) 296-8414  
Email: blackwell@ksdot.org
October 6, 2008

Marsha King  
Environmental Services Section, Bureau of Design  
Kansas Department of Transportation  
Eisenhower Office Building, 700 SW Harrison  
Topeka, KS 66603

RE: I-70 Viaduct from Polk Street to Quincy Street Corridor Study, Topeka  
70-89 KA-1266-01  
Shawnee County

Dear Ms. King:

We have reviewed the materials received October 3, 2008 regarding the above-referenced project in accordance with 36 CFR Part 800. Our staff has determined that additional information is required to conduct a determination of eligibility for the buildings within the project scope. At this time, we recommend an Activity II level review for properties lettered I and O and properties numbered 4, 5, 6, 7, 9, 12, 13, 14, 15, 19, 20, 21, 25, 26, and 27.

Thank you for giving us the opportunity to comment on this proposal. Please submit any comments or questions regarding this review to Kim Norton at 785-272-8681, ext. 225.

Sincerely yours,

Jennie Chinn  
State Historic Preservation Officer

Patrick Zollner  
Director, Cultural Resources Division  
Deputy State Historic Preservation Officer

RECEIVED  
OCT 07 2008
October 2, 2008

Patrick Zollner, Director
Cultural Resources Division
Kansas State Historical Society
6425 South West Sixth Avenue
Topeka, KS 66615-1099

Dear Mr. Zollner:

Subject: 70-89 KA-1266-01
IMD-070-1(050)
Shawnee County

The Kansas Department of Transportation requests the Kansas State Historical Society to proceed with Activity I review of the above referenced improvement. The project is defined on the enclosed photographs, photo logs, and plans dated September 9, 2008. Field reconnaissance of the portion of the project area north of the existing I-70 viaduct was conducted August 15, 2008, by Marsha King, and these photos are labeled A-Z. Field reconnaissance of the portion of the project area south of the existing I-70 viaduct was conducted September 19 & 25, 2008, by Dale Newton, and these photos are labeled 1-27. All structures not photographed were either newer or had artificial siding (e.g., asbestos, composite, vinyl, or aluminum siding).

A general description of the project is as follows: I-70 Viaduct from Polk Street east to Quincy Street. Develop highway concepts that will provide improvements on I-70 in the area of the I-70 viaduct and select a preferred alternative.

We hope to complete all necessary activities and processes related to the agreement by December 1, 2008. Should your study find that subsequent activities of the agreement will need to be initiated, please submit your request to our office. If further information is required, please advise.

Sincerely yours,

Jim L. Kowach, P.E.
Chief, Bureau of Design

Marsha K. King
Archeologist II
Environmental Services Section

Encl
AGENDA

Internal KDOT Kick Off Meeting

Project 70-89 KA-1266-02

March 12, 2012

- Meeting goals and brief introductions
- Project update by consultants (Bartlett & West and PB)
  - Summary of completed study (Proj. 70-89 KA-1266-01)
  - Public Involvement plan
  - Project schedule
- Program and Project Management -- Scope, schedule, and project funding (Right of Way and Construction are not presently funded)
- Metro and District Staff --- Key considerations?
- Headquarters and District Public Involvement Staff --- Coordination of PI effort (mostly before Field Check).
- Coordinating Section --- Many utility impacts. How much can be done before Right of Way is acquired? --- Railroad coordination on the MacVicar to 1st Street segment and bridges east of downtown.
- Survey Section --- Survey is complete. However, section corners and property lines will not be established until the construction limits are identified.
- Environmental Services Section --- Historical, archeological, threatened and endangered species, wetlands, noise, permits and clearances. Any “red flags” at this point?
- Geotech Unit -- Pavement condition on the east and west ends of the project. We will be adding additional lanes. Should existing lanes be rehabilitated? -- Pavement recommendation. --- MSE wall recommendations (30+ wall systems -- 8000+ Lin. Ft.).
- Geology Unit -- Soil and rock investigations. Major coring effort will be required. How will delayed Right of Way acquisition affect your schedule?
- Transportation Planning --- Traffic volumes, current and projected, for the project --- Break in Access coordination and traffic modeling required for the project. --- Accident data
- Transportation Safety and Technology --- Traffic management during construction, signing, traffic signals, pavement marking, lighting and ITS.
- Bridge Design --- Priority decisions? Aesthetics examples.
- Right of Way --- Attend stakeholders meetings to explain the acquisition and relocation process.
- Road Design --- Over all project coordination (Bob Hirt is project manager) -- Resolve the access issue (High priority).
- What information is needed by the consultants from KDOT Bureaus?
- Establishment of a Project “Core” team to review options and establish criteria. Each Bureau should recommend at least one delegate.
- Other Bureaus to be involved? -- Other topics?
- City Concerns?
- FHWA Concerns?
### Project Consultant Contact List

**Bartlett & West**  
[www.bartwest.com](http://www.bartwest.com)  
785.272.2252  
1200 SW Executive Drive  
Topeka, Kansas 66615

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Phone</th>
<th>Cell Phone</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Neil Dobler, PE</td>
<td>Principal-in-Charge, Public Involvement</td>
<td>785.272.2252</td>
<td>785.215.2000</td>
<td><a href="mailto:neil.dobler@bartwest.com">neil.dobler@bartwest.com</a></td>
</tr>
<tr>
<td>Scott Uhl, PE</td>
<td>Project Manager</td>
<td>785.228.3322</td>
<td>785.633.6151</td>
<td><a href="mailto:scott.uhl@bartwest.com">scott.uhl@bartwest.com</a></td>
</tr>
<tr>
<td>Brian Armstrong, PE</td>
<td>Arterial Design, Traffic Engineering</td>
<td>785.228.3308</td>
<td></td>
<td><a href="mailto:brian.armstrong@bartwest.com">brian.armstrong@bartwest.com</a></td>
</tr>
<tr>
<td>John Hobelman, PE</td>
<td>Drainage Design</td>
<td>785.228.3320</td>
<td></td>
<td><a href="mailto:john.hobelman@bartwest.com">john.hobelman@bartwest.com</a></td>
</tr>
<tr>
<td>Paul Deitering, PE</td>
<td>Walls/Production</td>
<td>785.272.2252</td>
<td></td>
<td><a href="mailto:paul.deitering@bartwest.com">paul.deitering@bartwest.com</a></td>
</tr>
<tr>
<td>Chris Criswell, PE</td>
<td>Structural Design</td>
<td>573.634.3181</td>
<td></td>
<td><a href="mailto:chris.criswell@bartwest.com">chris.criswell@bartwest.com</a></td>
</tr>
<tr>
<td>Wendy Van Duyne, LA</td>
<td>Landscape Architecture</td>
<td>785.330.7045</td>
<td></td>
<td><a href="mailto:wendy.vanduyne@bartwest.com">wendy.vanduyne@bartwest.com</a></td>
</tr>
<tr>
<td>Tracy Rafferty</td>
<td>Admin. Assistant</td>
<td>785.228.3105</td>
<td></td>
<td><a href="mailto:tracy.rafferty@bartwest.com">tracy.rafferty@bartwest.com</a></td>
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**Parsons Brinckerhoff**  
[www.pbworld.com](http://www.pbworld.com)  
913.310.9943  
16201 W 95th Street  
Lenexa, Kansas 66219

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<tr>
<td>Jim Tobaben, PE</td>
<td>Project Manager</td>
<td>913.754.5545</td>
<td>913.940.5655</td>
<td><a href="mailto:tobaben@pbworld.com">tobaben@pbworld.com</a></td>
</tr>
<tr>
<td>Raja Govindaswamy, PE</td>
<td>Principal-in-Charge</td>
<td>316.425.8910</td>
<td></td>
<td><a href="mailto:govindaswamy@pbworld.com">govindaswamy@pbworld.com</a></td>
</tr>
<tr>
<td>Bob Boyer, PE</td>
<td>Highway Design</td>
<td>913.754.5561</td>
<td></td>
<td><a href="mailto:boyerr@pbworld.com">boyerr@pbworld.com</a></td>
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Polk-Quincy Viaduct Design  
70-89 KA-1266-02
# Project Consultant Contact List

<table>
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<th>Consultant</th>
<th>Department</th>
<th>Phone Number</th>
<th>Email Address</th>
</tr>
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<tbody>
<tr>
<td>Abdul Hamada, PE</td>
<td>Structural Design</td>
<td>316.425.8920</td>
<td><a href="mailto:hamada@pbworld.com">hamada@pbworld.com</a></td>
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<tr>
<td>David Church, PE</td>
<td>Traffic Engineering</td>
<td>913.754.5546</td>
<td><a href="mailto:church@pbworld.com">church@pbworld.com</a></td>
</tr>
<tr>
<td>Pam Seipp</td>
<td>Project Administrator</td>
<td>314-206-4403</td>
<td><a href="mailto:seipp@pbworld.com">seipp@pbworld.com</a></td>
</tr>
<tr>
<td>Robin Christians</td>
<td>Website Design</td>
<td>303.390.5926</td>
<td><a href="mailto:christiansro@pbworld.com">christiansro@pbworld.com</a></td>
</tr>
<tr>
<td>Marcia Gray</td>
<td>Admin. Assistant</td>
<td>913.310.9943</td>
<td><a href="mailto:grayma@pbworld.com">grayma@pbworld.com</a></td>
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**Finney & Turnipseed**  
[www.finturn.com](http://www.finturn.com)  
785.235.2393  
603 SW Topeka Blvd., 4th Floor  
Topeka, KS 66603  
Craig Mattox, PE  
Structural Engineer  
785.235.2393  
cmattox@finturn.com

**Architect One**  
[www.architectonepa.com](http://www.architectonepa.com)  
785.271.7010  
3500 SW Fairlawn Rd.  
Topeka, Kansas 66614  
Scott Gales, AIA  
Aesthetics  
785.271.7010  
sgales@architectonepa.com

Polk-Quincy Viaduct Design  
70-89 KA-1266-02
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KANSAS DEPARTMENT OF TRANSPORTATION
Construction Project Authorization

Program Addition

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<td>DA Index #</td>
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SCOPE OF IMPROVEMENT:
Preliminary Engineering for the plan development of the selected concept from the I-70 Corridor Study (Project No. 70-89 KA-1266-01). Plan development will be taken through Field Check Stage.

PROJECT IS AUTHORIZED FOR PE ONLY
Preliminary Engineering for the preparation of design plans through Field Check Stage (FDCHK). The Program Review Committee and the Bureau of Program and Project Management should be updated on the status of the project after the completion of the field check, in order to determine the next steps in project development.

JUSTIFICATION/REASON FOR CHANGE:
Program Addition - As discussed in February 20, 2009 meeting with Dan Scherschligt, Director of Engineering and Design, and Jim Kowach, Bureau Chief, Bureau of Design.

Inflation Rate: 0.00%
Base Year: 0
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SEE ATTACHED SHEET FOR STRUCTURES

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*This project is not exempt for the payment of sales tax

Initiated By: Bureau of Program & Project Mgmt (Coufal) Signature: Francis R. Date: 3/18/2009

Comments:

Chief of Program & Project Management Date: 4/15/2009

FHWA Concurrence
☑ Proposed Environmental Classification

STE PROJECT AUTHORIZATION ☐ Approve ☑ Disapprove
Comments:

Date 04/07/09

Date 04/22/09

DOT Form No. 883
### KANSAS DEPARTMENT OF TRANSPORTATION

**Construction Project Authorization**

*Project Schedule*

Milestones/Checkpoints & Responsibility

* denotes automatically assigned dates

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KANSAS DEPARTMENT OF TRANSPORTATION
Construction Project Authorization

Location Detail
I-70 Polk/Quincy Viaduct in Topeka, Kansas

Project Notes
# Federal BRF Funding will be 100% Pro Rata using toll credits.

Schedule Notes
Initial schedule. LS Fritton 4/8/09
Please work with KSHS and Deb to develop an emergency data recovery plan and special provision.

Thanks

From: Debbie Tanking
Sent: Tuesday, January 05, 2016 8:20 AM
To: Michael Fletcher
Cc: Terry Blackwell; Scott Shields
Subject: RE: KA-1266-02

Thanks Mike, I read through it a little more yesterday. FHWA said that they would give us a conditional break in access and then we apply for the real deal when we have funding and the final environmental clearance and design summary. It’s a lot to remember in 8+ years 😊

From: Michael Fletcher
Sent: Tuesday, January 05, 2016 8:19 AM
To: Debbie Tanking
Cc: Terry Blackwell; Scott Shields
Subject: KA-1266-02

Deb,

The report we submitted on August 28, 2015 is not our Final Project Status Memo but should be sufficient for the Documented CE. This is what we submitted for the Nickerson to Sterling Documented CE. However, for a more recent Documented CE in Cherokee County FHWA stated they wanted our noise study completed before signing off. The noise study for this project is scheduled to be completed late summer 2016.

For the Final Project Status Memo we need to complete the noise study, hazardous waste clearance and Phase II archeology. Archeology cannot be completed until the hard surfaces (pavement and buildings) are removed but we should be able to obtain a conditional clearance from the SHPO after developing a special provision that functions as an emergency data recovery plan spelling out the procedure that allows KSHS archeologist time to investigate uncovered surfaces and procedures if significant cultural resources are encountered. I would recommend working with Terry and Scott to develop the special provision and data recovery plan so we can move forward with the archeology clearance.

Let me know if you have any questions.

Mike
Ok, that make sense. Make sure and put her response in the project file.

Thanks

Mike,
Sarah’s response, makes it sound like they are clear and agree with our determination for the historic side of things, but they are also speaking to the archeological side as well.

Terry

We had concurred with your determination in a letter on August 24, 2015. We responded with the language below because we understand that archaeological investigations are being reviewed.

I’m out of office today, but will be back tomorrow if we need to chat!

Sarah

On Oct 21, 2015, at 10:34 AM, Terry Blackwell <Blackwell@ksdot.org> wrote:

Sarah,

Have we received your offices’ determination on effect? Mike and I thought that we had, so we are curious as to what is meant by “let us know once a final determination of effect has been made”?

Thanks,

Terry

Environmental Services Section
Cultural Resources and Highway Noise Analysis
Ph. (785) 296-8414
Email: blackwell@ksdot.org
From: Sarah Hunter [mailto:shunter@kshs.org]
Sent: Monday, October 19, 2015 3:41 PM
To: Terry Blackwell
Cc: culturalresources; Scott Shields
Subject: Re: 70-89 KA-1266-02 Shawnee Co.

Terry,

Thank you for providing us with an extension on this project. After reviewing the F/C plans, we have determined that our office does not require any additional activities at this time, however, we do request to be notified if plans should alter. Please let us know once a final determination of effect has been made.

Thanks,

Sarah

Sarah Hunter, MSHP
Review and Compliance Coordinator
Kansas Historical Society
6425 SW 6th Avenue
Topeka, KS 66615-1099
785-272-8681 x 225
785-272-8682 fax

On 8/4/2015 1:01 PM, Terry Blackwell wrote:

Sarah,
Find attached the letter for the above noted project. The plan sheets for the above noted project have been sent via the ftp site due to the size of the file. A hard copy of the plans will be sent in the mail. If you need additional information please let me know.

Terry D. Blackwell
Environmental Services Section
Cultural Resources and Highway Noise Analysis
Ph. (785) 296-8414
Email: blackwell@ksdot.org
Terry Blackwell

From: Tricia Waggoner <twaggoner@kshs.org>
Sent: Tuesday, September 29, 2015 12:55 PM
To: Terry Blackwell; culturalresources; Robert Hoard; Tim Weston
Subject: Re: 70-89 KA-1266-02 Shawnee Co.
Attachments: viaduct phase 1.pdf; B5852.pdf

Terry:
Phase II Recommended: 70-89 KA-1266-02
Shawnee County
KA-1266-RCNS-02
Tricia Waggoner
9/29/2015

Tricia Waggoner
Archeologist II (Highway Archeologist)
Kansas State Historical Society
6425 SW 6th Avenue
Topeka, KS 66615-1099
785-272-8681 x267
785-272-8682 fax
twaggoner@kshs.org

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Terry D. Blackwell
Environmental Services Section
Cultural Resources and Highway Noise Analysis
Ph. (785) 296-8414
Email: blackwell@ksdot.org
Phase I Review

Kansas State Historical Society
Contract Archeology Program

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Review Resources

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Any recommendation made here is with the understanding that due to the nature of archeological manifestations, it is always possible that cultural deposits could be encountered during the course of the project. If that occurs, the remains should be left in place and the State Archeologist contacted immediately so that the appropriate mitigative measures can be carried out as soon as possible. Thank you for your cooperation in helping to preserve the State's archeological resources.

Phase I Clearance

Background Research has been conducted by consulting resources listed above. The results indicate that there are no recorded prehistoric or historic archeological sites in the project area and that there is a low potential for the occurrence of sites eligible for listing on the National Register of Historic Places. We therefore see no need for further archeological investigations.

Phase II Recommended

Background research has been conducted by consulting resources listed above. Results indicate either the presence of recorded sites or a high potential for the occurrence of sites eligible for listing on the National Register of Historic Places. We therefore recommend a phase II investigation of all or parts of the project area.

[Signatures]

Timmy Warden
SHPO Archeologist

9/24/15
Date

9/4/15
Date
Summary and Phase I Recommendations for

KDOT Project 70-89 KA-1266-02

The Bottoms area of Topeka is the oldest part of the city where the first houses and businesses were built. The river and then the railroad had significant parts to play in the development of the business and government districts farther to the south. But the oldest part of town can also be the poorest part of town with the least amount of re-development and thus, less disturbed archeological deposits. Urban renewal and the construction of I-70 wiped out at least half of the potential historic resources in the Area of Potential Effect (APE). This is why most of the archeology efforts should be concentrated along the east-west portion of the APE between 3rd Street and Topeka Boulevard, hereafter known as the Area of Concern (AOC, Figure 1).

The recommendations for Phase II survey made here are generalized and will depend on additional, more detailed plans.

First, Phase II investigations are not possible before hard surface coverings are removed. After they are removed, the AOC should be surveyed for the possibility of intact sub-surface remains. Where those remains are discovered, they will be recorded and evaluated for eligibility for listing on the National Register of Historic Places, as per the usual Phase II methods.

Second, the areas within the AOC where deeper subsurface disturbance will be performed during construction will be identified in reference to final construction plans. Those areas include the locations of piers and areas where foundations are to be razed or in-filled. In those locations, intensive Phase II survey methods might involve a visual inspection, hand excavation, or machine excavation, depending on the potential for or observation of intact deposits.

A Phase II Report will be prepared based on the field observations and evaluations.

It is always possible that buried cultural deposits could be encountered anywhere within the APE, either inside or outside the AOC, which were not detected during the Phase II investigation. If that occurs, the remains should be left in place and the State Archeologist contacted immediately so that appropriate actions can be carried out as soon as possible.
Area of Concern in the Phase I Summary and Recommendations overlaid on Google Earth image.
Phase I Archeological Summary for KDOT Project 70-89 KA-1266-02, The Topeka Viaduct Project, Shawnee County, Kansas

by Gina S. Powell
September 25, 2015

In accordance with the goals and procedures of the Memorandum of Agreement (MOA) between the Kansas Historical Society and the Kansas Department of Transportation (KDOT), effective July 1, 2011, and as requested by the KDOT, the Contract Archeology Program (CAP) of the Kansas Historical Society recently completed a Phase I archeological background research investigation of KDOT project number 70-89 KA-1266-02. The purpose of the investigation was to determine whether any significant archeological resources would be affected by the proposed project. Specifically, the investigation was conducted to ensure compliance with laws governing the treatment of cultural resources, particularly Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800.

As currently planned, the project will entail the improvements and re-alignment of the I-70 viaduct through downtown Topeka from approximately SE 10th Ave on the southeast end to SW Taylor Street on the northwest end in Shawnee County, Kansas. The 1.5-mile project crosses Sections 30, 31, and 32 in Township 11 South, Range 16 East on the Topeka USGS 7.5-minute quadrangle. The project location is shown in Figures 1-2.

The Phase I investigation was initiated by correspondence between CAP and KDOT relating to the potential impact of the project on cultural resources. A Phase I investigation (archival research) was requested by KDOT in August 2015.

Within the Area of Potential Effect (APE) as we understand it in September 2015 (Figure 1), there are several areas of concern. Most of them are along the east-west portion of the APE between 1st and 3rd Streets and between Tyler and Quincy Streets. A summary of time periods and potential resources with references are presented below.

**Time Periods**

*Prehistory*

No prehistoric artifacts or sites have been reported within a mile of the Project APE, but there is always the chance that some prehistoric materials and deposits have been fortuitously preserved.
Early History and Indian Removal Era

Recorded history in the Topeka area starts with French explorers and traders. In 1830 Cyperian Chouteau built a trade house on the Kansas River about 10 miles upstream. The Chouteaus served the Kansa Indians, including Fool Chief’s village (14SH305), who moved to the area in the 1830s. The great flood of 1844 destroyed of Fool Chief’s village and the little settlement of Joseph and Ahcan Papan and their ferry at Topeka (Giles 1886). The Pottawatomie were granted part of the Kansa reservation in 1847 after the Kansa were removed to the Council Grove area. The General Land Office (GLO) surveyors recorded the locations of the Wyandotte Reserve #20 in downtown Topeka and “Half-Breed” (Kansa) lands along north side of Kansas River in 1858 (Figure 2). The Oregon Trail traversed through Topeka (GLO records) but several miles south of the APE.

Territorial Era

Shortly after the passage of the Kansas-Nebraska Act opening Kansas to settlement, a group of nine men travelled up the Kansas River from Lawrence to scout for suitable lands for town sites. They perhaps were associated with the New England Emigrant Aid Society although Giles (1886) claims this is an often-repeated error. They landed in what would become Topeka on December 5, 1854 (Andreas 1883) and developed plans for a town. The men created the Topeka Association and the signers included Colonel Cyrus K. Holliday (President), Frye W. Giles, Daniel H. Horne, George Davis, Enoch Chase, J. B. Chase, M.C. Dickey, C. Robinson, and L. G. Cleveland (Giles 1886). The town was, from the beginning, a Free-State settlement where temperance was to be practiced. The next year dozens of men and women arrived to settle the town. It took a month to decide on the name “Topeka” (Giles 1886:51-55), a Kansa word referring to the entire Kansas River Valley as a “good place to dig wild potatoes” meaning the prairie turnip, Psoralea esculenta (or Pediomelum esculentum).

The earliest settlement was along Kansas Avenue between the river and 6th Street. Buildings consisted of log cabins until the first sawmill was functional in 1855 at the foot of Madison Street. Trees to cut into lumber were limited and so, as soon as lime for mortar could be manufactured, the first stone building in Topeka was erected in 1855. It is now known as Constitution Hall (Kansas Historic Resources Inventory [KHRI] 177-5400-00100) and is located at 429 S. Kansas Ave. The building is listed on the National Register of Historic Places (NRHP) for its importance in early Topeka history, such as the use of the building for the 1855 Topeka constitution convention and subsequent Federal and armed action to disperse the Free-State assembly at the Hall on the Fourth of July 1856. Constitution Hall was also the headquarters for a supply route to and from the north, known as “Lane’s Trail to Freedom” (NRHP nomination p. 6, 14). Supplies were sent south to support the Free State activities and slaves were sent north to Iowa and freedom.

Bricks were manufactured near the river in 1856 and soon the first three brick buildings were erected (Giles 1886). The first bridge across the Kaw was opened in May of 1858 and
immediately destroyed by a massive flood in July of 1858. A permanent bridge was not re-reected in this location until 1869.

**Early Statehood and the Civil War**

Topeka’s patent application was approved in 1859 and a Kansas constitution was finally ratified by Congress in 1861, admitting Kansas to the Union as a free state. Of course, this act did not calm the border war activity between Kansas and Missouri and progress in Topeka was greatly slowed but not stopped.

Fort Simple, also called Fort Folly (Garfield 1931), was a roofless log stockade built in 1863 to protect the Topeka government center from Confederate or bushwhacker guerilla attack. Topeka citizens received word in October 1864 that General Sterling Price was advancing into Missouri and it was feared that Free State holdings in Kansas would be next. Captain F.W. Giles (the author of Giles 1886) commanded 64 militia men who comprised a portion of the Topeka home battalion. They were on duty from October 12-26, 1864 and they erected a stockade at Kansas Avenue and 6th Street of cottonwood timbers standing 10 feet high. Two sets of trenches were excavated east of Fort Simple, one near 6th and Jefferson streets and one near 8th and Madison streets (Giles 1886:302). Although the archaeological visibility of these trenches is probably very low at this time, the latter set was probably obliterated during construction of I-70.

**Post-Civil War-Urban Renewal**

The Topeka business district spread out from Kansas and 4th Street. Warehouses and light industry developed closer to the river aided by river traffic and shortly thereafter, the railroad. Population doubled in the five years between 1875 (7,272) to 1880 (15,528) and did so again in the next five years. Manufactured goods and businesses that traded in them boomed. House construction got cheaper and more stylish with the coming of the railroads.

**Railroads**

The St. Joseph and Topeka Railroad was chartered in 1857 by a group of men including Cyrus K. Holliday and Dr. Crane (Giles 1886:266). This railroad failed mainly due to attention to the Civil War. At the same time, the Kansas Central Railroad was similarly created and failed. The Union Pacific Railroad, on the other hand, had the might of the federal government behind it and in 1866 laid tracks to Topeka and the railroad bridge over the Kansas River was completed in March 1869. The Santa Fe Railway company (renamed Atchison, Topeka, and Santa Fe [AT&SF] Railroad) was chartered by Cyrus K. Holliday, Topeka town founder, prior to 1859. Actual construction of tracks was not accomplished until after the Civil War when the pent-up energy resulted in some of the first completed lines in Topeka in 1868 and the crossing of Kansas by the end of 1872.
In 1887, the Chicago, Rock Island, and Pacific Railroad (CRI&PRR, or Rock Island) came to town and in 1889 it and the Union Pacific RR signed an agreement to share tracks in North Topeka (http://www.rits.org/www/histories/R1History.html). Rock Island built a passenger depot at 1st Street and Kansas Avenue (Figures 3-6). Its dome with clocks was a familiar landmark for the area. The passenger depot burned in 1908 and was re-built. However, in 1935, Rock Island moved its passenger service to North Topeka because the trains had to back into the station in Topeka, using valuable time. The depot was used for railroad offices until another fire and in 1943, the passenger depot was demolished.

The freight depot for the Rock Island Line was located between Jackson and Van Buren south of the railroad tracks that ran along 1st Street (Figures 3, 7, and 8). It would have served the many businesses along the river and in the bottoms and also encouraging more. The freight depot continued until 1980 after the company declared bankruptcy in 1979 (Great Overland Station exhibits). The depot was torn down between 1991 and 2002, according to Google Earth Historic imagery.

Dwellings and Businesses
In 1873, there are houses on the northern 125 feet of the blocks south of 1st Street (Beers 1873, Figure 9). In 1885, the northern end of Block 6 was stock yards and the north ends of the blocks to the west are mostly frame dwellings although there are a few brick dwellings and barns (Sanborn 1885). In 1889, the stockyards are replaced by the Rock Island passenger depot with the Chesterfield Hotel to its south and the Rock Island freight depot to the west (discussed above). South of the freight depot stand detached dwellings including the Haywood House (below). The depots and hotel remain on the 1896 Sanborn Fire map with the addition of a coal lot and cattle pen at the SE corner of 1st and Topeka Ave. By 1913 (Sanborn 1913, Figure 10), more of the houses are replaced with businesses, such as the People's Ice and Fuel Company and the Southwestern Furniture Company, both west of the Chesterfield Hotel.

The standing architecture in a portion of the APE was surveyed for listing on the NRHP (Rosin Preservation 2012), namely the half block on either side of Kansas Avenue from Crane Street to 10th Street. The block from Crane to 1st Street contains eight buildings, all but one of which was constructed before 1930. The Mill Block NRHP District comprises five warehouses that date to the early-to-middle 20th century. They served as storage for goods being transported by train and truck (Rosin Preservation 2015).

A portion of a residential block bounded by 1st and 2nd, Harrison, and Kansas has been preserved. Within it lies the Haywood House, KHRI #177-5400-01838. The house was built by 1889 at the latest: the earliest date of a detailed Sanborn fire map but not as early as 1873 because no structure is shown here on the Willits map (1873). In 1885 the house was owned by James Haywood, a freed slave from Missouri, and his family (KHRI entry). The standing stone and
brick house is of interest as is the potential archeological resources preserved below the ground surface.

"The Bottoms"
This was the oldest part of town with the oldest and most outdated infrastructure. Rents were low in the bottoms, and possibly for this reason it had been a landing spot for spot for exodusters after the Civil War and low-income immigrant families. The area known as “the Bottoms” ran roughly from the river to 4th Street and from Adams to Kansas Street. It was populated by low-income residents, predominantly black, white, and Hispanic families (http://cjonline.com/stories/082605/loc_bottoms.shtml#.Vfb75SsXPaU). This area did not enjoy the rapid expansion and improvements of post-WWII times. In fact, an article in Topeka Magazine from 1946 titled “They Call these Homes!” speaks to the housing shortage in Topeka and the slums of the bottoms with inadequate sanitation (Figure 11).

1951 Flood
Conditions in the bottoms did not improve after the July 1951 flood. According to some estimates, 7,000 buildings were damaged or destroyed (http://www.kshs.org/kansapedia/flood-of-1951/17163; http://cjonline.com/indepth/flood/) with the hardest hit being the low areas next to the Kansas River in Topeka and North Topeka (Figures 12-13).

Urban Renewal and I-70 Construction
In 1956, the mayor of Topeka designated a committee to oversee urban renewal (Wallace and Bird 1971:247). They focused on an area encompassing the Bottoms and the adjacent Santa Fe workshops, which they called the “Keyway.” The I-70 viaduct (finished in 1964), light industry, and warehouses replaced the old neighborhoods in the area.

All traces of the houses in the block-wide swath between Monroe and Madison streets from 4th to 10th where I-70 lays below grade have probably been destroyed. However, in the east-west segment of the viaduct north of 4th Street, portions of the historic buildings, outbuildings, and below-ground traces of them might be preserved under the surface coverings of asphalt and concrete. In fact, the preservation of the brick streets in parts of the area are a good sign that some of the historic fabric is intact.

Previous Research

Previously Recorded Archeological Sites and Surveys
Sites 14SH113 and 14SH114 are areas around and including the Monroe School excavations performed by the National Park Service (Nickel and Hunt 1999; Stadler 2002; Sturdevant 2004) (Figure 14). The Monroe School was one of the players in the historic Brown V. Board court case. Site 14SH338 is a portion of the old town cemetery (Good 1986), which was relocated. Site 14SH369 is a historic site recorded in 2000 during a small excavation near 4th and Adams streets. Limestone and brick foundation remnants were found near a trash midden with slag, clay,
and household debris dating to the late 19th century. Site 14SH370 is the John Ritchie House, the home of John and Mary Ritchie at 1116 SE Madison Street. The house is listed on the Kansas Register of Historic Places for the integrity of the building and for its association with John Ritchie, a town founder, abolitionist, and philanthropist. Site 14SH375 is the Hale Ritchie House, next door to the Ritchie House and current location of the Shawnee Historical Society. Testing has been performed at both of these houses (King 1998; and others). Site 14SH371 is the area of several archeology projects on the grounds of the state capital (Stein 2002).

NRHP Surveys

Many buildings adjacent to the APE have been nominated and entered onto the NRHP (Figure 15). Rosin Preservation (2012) surveyed standing buildings in several blocks along Kansas Avenue in Topeka and North Topeka for the City of Topeka. The Mill Block Historic District was discussed above.

Urban Surveys in the St. Louis Area

It has been assumed that urban development totally destroys the evidence for previous occupation(s). This has been proved to be untrue in several cases where efforts have been made to perform archeological survey. For example, notable projects in St. Louis and East St. Louis have identified prehistoric mounds (Caba 2011), French colonial houses (Campbell and Michael 2015) and immigrant housing in St. Louis (Naglich and Harl 1995).
Summary and Phase I Recommendations for
KDOT Project 70-89 KA-1266-02

The Bottoms area of Topeka is the oldest part of the city where the first houses and businesses were built. The river and then the railroad had significant parts to play in the development of the business and government districts farther to the south. But the oldest part of town can also be the poorest part of town with the least amount of re-development and thus, less disturbed archeological deposits. Urban renewal and the construction of I-70 wiped out at least half of the potential historic resources in the Area of Potential Effect (APE). This is why most of the archeology efforts should be concentrated along the east-west portion of the APE between 3rd Street and Topeka Boulevard, hereafter known as the Area of Concern (AOC, Figure 16).

The recommendations for Phase II survey made here are generalized and will depend on additional, more detailed plans.

First, Phase II investigations are not possible before hard surface coverings are removed. After they are removed, the AOC should be surveyed for the possibility of intact sub-surface remains. Where those remains are discovered, they will be recorded and evaluated for eligibility for listing on the National Register of Historic Places, as per the usual Phase II methods.

Second, the areas within the AOC where deeper subsurface disturbance will be performed during construction will be identified in reference to final construction plans. Those areas include the locations of piers and areas where foundations are to be razed or in-filled. In those locations, intensive Phase II survey methods might involve a visual inspection, hand excavation, or machine excavation, depending on the potential for or observation of intact deposits.

A Phase II Report will be prepared based on the field observations and evaluations.

It is always possible that buried cultural deposits could be encountered anywhere within the APE, either inside or outside the AOC, which were not detected during the Phase II investigation. If that occurs, the remains should be left in place and the State Archeologist contacted immediately so that appropriate actions can be carried out as soon as possible.
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Focusing on Topeka's Past and Future.

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Maps
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1936, 1951, 1969 (HWY 70 present), 1973

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Appendix I. Figures
Figure 1. Simplified Area of Potential Affect (APE, pink) of Topeka project 70-89 KA-1266-02 and affected buildings (green) overlaid on 2015 Google Earth Image.

Figure 2. General Land Office (GLO) features (pink lines) overlaid on Topeka USGS 7.5-minute topographic quadrangle with APE
Figure 3. 1889 Sanborn Fire Insurance maps overlaid on Google Earth image showing the APE (pink lines) and locations of several known historic resources of archeological concern: the Haywood House, the Rock Island Freight and passenger depots, and the Chesterfield Hotel.

Figure 4. CRI&PRR passenger depot, Topeka, at SW corner of 1st Street and Kansas Avenue, ca. 1900, view to southwest. Chesterfield Hotel in background. From KSHS Kansas Memory.
Rock Island depot, 1st and Kansas Avenue (SW corner), 1908

The Rock Island depot was a four-story stone structure well-known for its domed clock tower. It was badly damaged by this fire in 1908, but was soon rebuilt. In the 1935, the Rock Island began using the tracks of the Union Pacific depot on the north side of the river, and soon closed their depot. The building was demolished in 1943.

Figure 5. On exhibit, Great Overland Railroad Museum, North Topeka, Kansas. View to the northwest.

Figure 6. Passenger depot area in 2015. View to the northwest.
Figure 7. CRI&PRR freight depot, Topeka, 1958. View to the northwest.

Figure 8. CRI&PRR freight depot, Topeka, ca. 1982, same orientation.
Figure 9. Beers (1873) map with APE (pink lines) showing lots and existing buildings.

Figure 10. Sanborn (1913) map with APE (pink lines) showing lots and existing buildings.
Topoeka's housing shortage has been termed "acute" and the same word can aptly describe the condition of the things people call "home" in the city.

With additional population, in combination with building material shortages and slow progress, minority and low-income families are being crowded into one-room shacks, home-made trailers, and houses that resemble "ghost towns." "Across the tracks" and "in the bottoms" are common expressions among Topekans depicting the slum districts. Eyesores that many Topekans have never seen even though they may have lived here many years.

The photographs on this page fail to reveal the "vast" extent it come to picturing Topoeka's slum sections. They are only a few shacks in different areas. Block after block of homes needing paint, general repair and some that should get a watch exist here.

Neglect of the slums is not negligence on the part of Topoeka. Plenty of resources exist here for good living, but in-based development has imprisoned a large portion of the population into overcrowded sections lacking sanitation -- the slums.

Some thought should be given the slum district because conditions in those sections isn't improving. It's one of Topoeka's big needs -- adequate and better housing for the lower income families.

Figure 11. Page from Topeka Magazine (1946) exposing sub-par housing in the bottoms.
Figure 12. 1951 flood damage. Topeka Boulevard bridge looking southeast from North Topeka (from USGS website).

Figure 13. The Kansas River (at top) overflows its banks and surrounds the Rock Island Railroad Station, in center, view to north (from USGS website).
Figure 14. Previously recorded archeological sites (red polygons) and surveys (purple polygons) near the APE (pink polygon) on USGS topographic quadrangle.
Figure 15. NRHP properties and districts near the APE (pink polygon) on USGS topographic quadrangle.

Figure 16. Area of Concern in the Phase I Summary and Recommendations overlaid on Google Earth image.
KSR&C #15-01-046
August 24, 2015

Michael Fletcher
KDOT
Via Email

Re: 70-89 KA-1266-02
    NHPP-0705(214)
    Concurrency of No Adverse Effect
    Site Y (124 SW Harrison)
    Shawnee County

We have reviewed the revised project design and associated materials received July 24, 2015 regarding the above-referenced project in accordance with 36 CFR Part 800. After review, the SHPO concurs with the determination that the project will have no adverse effect on the National Register-eligible Site Y (124 SW Harrison).

Thank you for giving us the opportunity to comment. Please refer to the Kansas State Review & Compliance number (KSR&C#) listed above on any future correspondence. Please submit any comments or questions regarding this review to Sarah Hunter at 785-272-8681, ext. 225 or shunter@kshs.org.

Sincerely,

Jennie Chinn
State Historic Preservation Officer

Patrick Zollner
Director, Cultural Resources Division
Deputy State Historic Preservation Officer
Mr. Ehrlich,

We have reviewed the information for referenced project in Shawnee County (KA-1266-02: road reconstruction). The project was reviewed for potential impacts on crucial wildlife habitats, current state-listed threatened and endangered species and species in need of conservation, and Kansas Department of Wildlife, Parks, and Tourism managed areas for which this agency has administrative authority.

We provide the following general recommendations as applicable:

- When applicable, reseed with native warm-season grasses and forbs.

- Implement and maintain standard erosion control Best Management Practices such as silt fencing, hay / straw bale ditch checks, erosion control blankets, storm drain inlet protection and temporary weed-free seeding / mulching.

Results of our review indicate there will be no significant impacts to crucial wildlife habitats; therefore, no special mitigation measures are recommended. The project will not impact any public recreational areas, nor could we document any potential impacts to currently-listed Threatened or Endangered species or SINC. No Department of Wildlife, Parks and Tourism permits or special authorizations will be needed if construction is started within one year, and no design changes are made in the project plans.

Since the Department’s recreational land obligations and the State’s species listings periodically change, if construction has not started within one year of this date, or if design changes are made in the project plans, the project sponsor must contact this office to verify continued applicability of this assessment report. For our purposes, we consider construction started when advertisements for bids are distributed.

Consider this email our official project review. Contact me with any questions.

Daren Riedle

--

J. Daren Riedle, Ecologist
Ecological Services
Kansas Dept. of Wildlife, Parks, and Tourism
512 SE 25th Ave
Pratt, KS 67124
office: 620-672-0746
fax: 620-672-2972
United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kansas Ecological Services Field Office
2609 Anderson Avenue
Manhattan, Kansas 66502

September 16, 2015

Cliff Ehrlich
Kansas Department of Transportation

RE: 70-89 KA-1266-02, Shawnee Co.

Dear Mr. Ehrlich:

This is in response to your email dated August 17, 2015, requesting concurrence with a determination of effect on the northern long-eared bat (Myotis septentrionalis)(NLEB) in the construction of Kansas Department of Transportation’s Project No. 70-89 KA-1266-02. The project is a Road Reconstruction on I-70, on the Polk/Quincy Viaduct, in Topeka, Shawnee County, Kansas.

Pursuant to Section 7(a)(2) of the ESA, the Kansas Department of Transportation (KDOT) (authorized by the Federal Highways Administration) determined the proposed tree clearing may affect, but is not likely to adversely affect, the federally-listed threatened northern long-eared bat (Myotis septentrionalis). Given the project location, limited Right-of-Way (ROW) expansion, and minimal acreage of additional tree removal (< 1.0 acre), we concur with this determination.

In addition, the Service has identified such area as those counties within 150 miles of the boundaries of U.S. counties or Canadian districts where the WNS has been detected. If any portion of a county falls within the 150 miles of a county or district where WNS has been detected, the entire county will be considered affected. For illustrative purposes, the most recent map of such areas can be viewed at: www.fws.gov/midwest/nleb. The map will be updated regularly. Although WNS has not yet been detected in Kansas, portions are included in the buffer zone including Shawnee County, Kansas. Neither our agency nor KDWPT has specific information at this time identifying known maternity roosting trees or hibernacula near the project site.

The proposed project area is within the 150 mile buffer area. The interim 4(d) rule allows an exemption for minimal tree clearing of ≤1 acre. Because the total amount of tree clearing is one acre or less, the exemption would be allowed if the associated conservation measures were applied. The conservation measures are:

1. Activity occurs more than 0.25 mile (0.4 km) from a known, occupied hibernacula.

2. Activity avoids cutting or destroying known, occupied roost trees during the pup season (June 1–July 31).
3. Activity avoids clearcuts within 0.25 mile (0.4 km) of known, occupied roost trees during the pup season (June 1-July 31).

For more information about the northern long-eared bat, the final listing as threatened, the 4(d) rule and related information, visit the Service’s web site at www.fws.gov/midwest/endangered/mammals/nleb. For more information about white-nose syndrome visit www.whitenosesyndrome.org.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the ESA. This response does not preclude additional Service comments under other legislation.

Thank you for this opportunity to comment this proposed project. If we can be of any further assistance, please call Ms. Michele McNulty, of this office, at 785-539-3474 ext. 106.

Sincerely,

[Signature]

Jason Luginbill
Field Supervisor

cc: KDWPT, Pratt, KS (Ecological Services)
Mr. Luginbill,

Please find the attached project plans and aerial view for the above mentioned project. This project is Road Reconstruction on I-70 on the Polk/Quincy Viaduct in Topeka. Less than an acre of trees will be removed beyond 100 foot of existing right of way as shown on the attached KMZ file (yellow line is construction limits). Also attached is a project title sheet with location, please let me know if you need any further plan sets. Currently there is not a set Lett date for this project.

KDOT will plan to inspect any bridges prior to work to make sure no NLEB are using the bridge for roosting.

There are no other Federal T&E listed species that have any potential to be impacted by this project.

Nearly all of the tree removal for this project is within 100 foot of cleared right of way which is not within 0.25 mile of any known occupied hibernacula or known occupied maternity roost trees. Minimal trees will be removed beyond 100' of existing right of way (less than one acre). Because of these conditions this project meets the interim 4d rule and it is KDOT’s opinion that this project is not likely to adversely affect (NLAA) the NLEB. Please let us know if you concur with our assessment which will allow summer tree clearing and KDOT can meet current Let dates.

Please copy KDOT Environmental Permits email with you response at the following email address: environmentalpermits@ksdot.org

Please let us know if there is any information we can get you to assist in your review.

Thank you,

Cliff Ehrlich
Environmental Services Section
Natural Environment/Permits Unit
Kansas Department of Transportation
(785) 296 - 8415
August 17, 2015

Jordon Hofmeier, Ecologist
Ecological Services
Kansas Department of Wildlife, Parks & Tourism
512 SE 25th Avenue
Pratt, Kansas 67124-8174

Dear Mr. Hofmeier:

Subject: 70-89 KA-1266-02, Shawnee County
In Shawnee County.

The field check plans dated 7/30/2015, the environmental data in our files, and the U.S.G.S. 71/2’
topographical map of the area have been reviewed. We have made the following observations as a result
of this review:

1. This project has no critical habitat for Threatened and Endangered Species present in the project
area.
2. Plans indicate work within the channel.
3. Grading and surfacing, bridges, seeding and signing are planned for this project.
4. This project is located in Sec. 25-T11S-R15E to Sec. 5-T12-R16E in Shawnee County.
5. Plans and description are attached.
6. Please expedite your response.

Unless you wish additional consultation on this project, we propose to clear it with appropriate
environmental control comments. Please submit any additional comments you might have at this time.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

Cliff Ehrlich
For
Michael Fletcher, Chief
Environmental Services Section

Attachment
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August 5, 2015

Robin Dushane, Tribal Historic Preservation Officer
Eastern Shawnee Tribe of Oklahoma
P.O. Box 350
Seneca, MO 64865

Dear Ms. Dushane:

Subject: 70-89 KA-1266-02
          NHPP-0705(214)
          Shawnee County

In accordance with the National Historic Preservation Act we are contacting your tribe to identify any potential impacts the referenced project may have on properties that have religious and cultural significance. This project will also be reviewed by professional archeologists and by the Kansas State Historic Preservation Office. You will be notified if any sites of potential interest are identified during their review.

Attached is a map showing the location of the project. A general description of the project is as follows: Preliminary engineering for Plan Development of I-70 Polk/Quincy Viaduct and approach roadway in Topeka, Kansas.

If you have any questions I can be reached by phone at (785) 296-8414 or my Email address is culturalresources@ksdot.org.

Please send any comments on this project to me using either the address shown above or my Email address, if preferred, within 60 days of the date of this letter.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

[Signature]

T.D. Blackwell
for
Michael Fletcher, Chief
Environmental Services Section

Encl
August 5, 2015

Kelli Mosteller, Tribal Historic Preservation Officer
Citizen Potawatomi Nation
Business Committee
1601 S. Gordon Cooper Dr.
Shawnee, OK 74801

Dear Ms. Mosteller:

Subject: 70-89 KA-1266-02
NHPP-0705(214)
Shawnee County

In accordance with the National Historic Preservation Act we are contacting your tribe to identify any potential impacts the referenced project may have on properties that have religious and cultural significance. This project will also be reviewed by professional archeologists and by the Kansas State Historic Preservation Office. You will be notified if any sites of potential interest are identified during their review.

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Please send any comments on this project to me using either the address shown above or my Email address, if preferred, within 60 days of the date of this letter.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

[Signature]

T.D. Blackwell
for
Michael Fletcher, Chief
Environmental Services Section

Encl
August 5, 2015

Brice Obermeyer, NAGPRA Director
Delaware Tribe of Indians
1200 Commercial Street
Roosevelt Hall, Rm 212
Emporia State University
Emporia, KS 66801

Dear Dr. Obermeyer:

Subject: 70-89 KA-1266-02
        NHPP-0705(214)
        Shawnee County

In accordance with the National Historic Preservation Act we are contacting your tribe to identify any potential impacts the referenced project may have on properties that have religious and cultural significance. This project will also be reviewed by professional archeologists and by the Kansas State Historic Preservation Office. You will be notified if any sites of potential interest are identified during their review.

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Please send any comments on this project to me using either the address shown above or my Email address, if preferred, within 60 days of the date of this letter.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

T.D. Blackwell
for
Michael Fletcher, Chief
Environmental Services Section

Encl
August 5, 2015

Jackie Rodgers, Archaeologist I
Osage Nation of Oklahoma
627 Grandview
Pawhuska, OK 74056

Dear Dr. Rodgers:

Subject: 70-89 KA-1266-02
        NHPP-0705(214)
        Shawnee County

In accordance with the National Historic Preservation Act we are contacting your tribe to identify any potential impacts the referenced project may have on properties that have religious and cultural significance. This project will also be reviewed by professional archeologists and by the Kansas State Historic Preservation Office. You will be notified if any sites of potential interest are identified during their review.

Attached is a map showing the location of the project. A general description of the project is as follows: Preliminary engineering for Plan Development of I-70 Polk/Quincy Viaduct and approach roadway in Topeka, Kansas.

If you have any questions I can be reached by phone at (785) 296-8414 or my Email address is culturalresources@ksdot.org.

Please send any comments on this project to me using either the address shown above or my Email address, if preferred, within 60 days of the date of this letter.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

T.D. Blackwell
for
Michael Fletcher, Chief
Environmental Services Section

Encl
August 5, 2015

Liana Onnen, Tribal Chair
Prairie Band Potawatomi Nation
16281 Q Road
Mayetta, KS 66509

Dear Ms. Onnen:

Subject: 70-89 KA-1266-02
         NHPP-0705(214)
         Shawnee County

In accordance with the National Historic Preservation Act we are contacting your tribe to identify any potential impacts the referenced project may have on properties that have religious and cultural significance. This project will also be reviewed by professional archeologists and by the Kansas State Historic Preservation Office. You will be notified if any sites of potential interest are identified during their review.

Attached is a map showing the location of the project. A general description of the project is as follows: Preliminary engineering for Plan Development of I-70 Polk/Quincy Viaduct and approach roadway in Topeka, Kansas.

If you have any questions I can be reached by phone at (785) 296-8414 or my Email address is culturalresources@ksdot.org.

Please send any comments on this project to me using either the address shown above or my Email address, if preferred, within 60 days of the date of this letter.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

T.D. Blackwell
for
Michael Fletcher, Chief
Environmental Services Section

Encl
August 5, 2015

Terri Parton, President
Wichita and Affiliated Tribes
P.O. Box 729
Anadarko, OK 73005

Dear Ms. Parton:

Subject: 70-89 KA-1266-02
          NHPP-0705(214)
          Shawnee County

In accordance with the National Historic Preservation Act we are contacting your tribe to identify any potential impacts the referenced project may have on properties that have religious and cultural significance. This project will also be reviewed by professional archeologists and by the Kansas State Historic Preservation Office. You will be notified if any sites of potential interest are identified during their review.

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Please send any comments on this project to me using either the address shown above or my Email address, if preferred, within 60 days of the date of this letter.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

T.D. Blackwell
for
Michael Fletcher, Chief
Environmental Services Section

Encl
August 5, 2015

Elaine Huch, Chair
Kaw Nation of Oklahoma
PO Box 50
Kaw City, OK 74641

Dear Ms. Huch:

Subject: 70-89 KA-1266-02
          NHPP-0705(214)
          Shawnee County

In accordance with the National Historic Preservation Act we are contacting your tribe to identify any potential impacts the referenced project may have on properties that have religious and cultural significance. This project will also be reviewed by professional archeologists and by the Kansas State Historic Preservation Office. You will be notified if any sites of potential interest are identified during their review.

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Please send any comments on this project to me using either the address shown above or my Email address, if preferred, within 60 days of the date of this letter.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

\[signature\]

T.D. Blackwell
for
Michael Fletcher, Chief
Environmental Services Section

Encl
August 5, 2015

Joeseph Blanchard, Tribal Historic Preservation Officer
Absentee Shawnee Tribe of Oklahoma
2025 S Gordon Cooper Dr
Shawnee, OK 74801

Dear Mr. Blanchard:

Subject: 70-89 KA-1266-02
          NHPP-0705(214)
          Shawnee County

In accordance with the National Historic Preservation Act we are contacting your tribe to identify any potential impacts the referenced project may have on properties that have religious and cultural significance. This project will also be reviewed by professional archeologists and by the Kansas State Historic Preservation Office. You will be notified if any sites of potential interest are identified during their review.

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Please send any comments on this project to me using either the address shown above or my Email address, if preferred, within 60 days of the date of this letter.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

T.D. Blackwell
for
Michael Fletcher, Chief
Environmental Services Section

Encl
August 4, 2015

Patrick Zollner, Director
Cultural Resources Division
Kansas State Historical Society
6425 South West Sixth Avenue
Topeka, KS 66615-1099

Dear Mr. Zollner:

Subject: 70-89 KA-1266-02
         NHPP-0705(214)
         Shawnee County

The Kansas Department of Transportation requests the Kansas State Historical Society to proceed with Activity I review of the above referenced improvement. The project is defined on the attached project description and plans dated July 30, 2015.

A general description of the project is as follows: Preliminary engineering for Plan Development of I-70 Polk/Quincy Viaduct and approach roadway in Topeka, Kansas.

On July 23, 2015 a letter for determination of effect was sent to your office. Should your study find that subsequent activities of the agreement will need to be initiated, please submit a request to our office. If more information is needed, let me know.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

[Signature]

for
Michael Fletcher, Chief
Environmental Services Section

Encl
August 4, 2015

Tricia Waggoner
Kansas State Historical Society
6425 South West Sixth Avenue
Topeka, KS 66615-1099

Dear Ms. Waggoner:

Subject: 70-89 KA-1266-02
          NHPP-0705(214)
          Shawnee County

In accordance with the Cooperative Agreement for Highway Archeological Salvage, the Kansas Department of Transportation requests the Kansas State Historical Society to proceed with Phase I of the agreement for the referenced improvement. The project is defined on the attached project description and plans dated July 30, 2015.

A general description of the project is as follows: Preliminary engineering for Plan Development of I-70 Polk/Quincy Viaduct and approach roadway in Topeka, Kansas.

The Phase I investigation should be completed, and our office notified of the results, as soon as possible. Should your study find that Phase II investigation is needed, please inform our office by phone or e-mail and proceed with the Phase II fieldwork as soon as possible. The Phase II investigation should be completed within thirty (30) days, and our office notified immediately of the results and your recommendations. Please advise if further information is required.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

[Signature]

for
Michael Fletcher, Chief
Environmental Services Section

Encl
April 9, 2021

Mr. Cliff A. Ehrlich  
Chief, Environmental Service  
Kansas Department of Transportation  
700 SW Harrison  
Topeka, KS 66603

Ref: Proposed Programmatic Agreement to Investigate whether there are Historical/Cultural Resources underneath Pavements and Structures on I-70 Polk/Quincy Viaduct & Approach Roadway in Topeka, Shawnee County, Kansas  
State Project # 70-89 KA-1266-02; Federal Project # NHPP-0705(214)  
ACHP Project Number: 16626

Dear Mr. Ehrlich:

On April 5, 2021, the Advisory Council on Historic Preservation (ACHP) received a copy of the executed Section 106 agreement document (Agreement) for the referenced undertaking. In accordance with 36 CFR 800.6(b)(1)(iv) of the ACHP’s regulations, the ACHP acknowledges receipt of the Agreement. The filing of the Agreement and implementation of its terms fulfills the requirements of Section 106 of the National Historic Preservation Act and the ACHP’s regulations.

We appreciate receiving a copy of this Agreement for our records. Please ensure that all consulting parties are provided a copy of the executed Agreement in accordance with 36 CFR 800.6(c)(9). If you have any questions or require additional assistance, please contact Mandy Ranslow at (202) 517-0218 or by e-mail at mranslow@achp.gov and reference the ACHP Project Number above.

Sincerely,

LaShavio Johnson  
Historic Preservation Technician  
Office of Federal Agency Programs
KSR&C No. 21-02-063  
April 8, 2021

Cliff Ehrlich  
Chief, Environmental Services  
Kansas Department of Transportation 

Via Email

RE: Conditional Clearance: I-70 Polk-Quincy Reconstruction Project  
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05  
Federal Project Nos. NHPP-0705 (217) & NHPP-07055 (218)  
Shawnee County

Dear Mr. Ehrlich:

In accordance with 36 CFR 800, the Kansas State Historic Preservation Office acknowledges receipt of the fully executed Programmatic Agreement (PA) for the above-referenced project. The PA (between the Federal Highway Administration, the Kansas Department of Transportation, and the Kansas State Historic Preservation Officer) specifies a detailed series of steps to be followed in order to address any cultural resources encountered during construction. Providing that the terms of the PA are followed, we conclude that the project will have no adverse effect on historic properties as defined in 36 CFR 800. Our office therefore has no objection to implementation of the project.

We look forward to working with you on this project and will await further correspondence as it progresses. If you have questions or need additional information regarding these comments, please contact Tim Weston at 785-272-8681 (ext. 214) or Lauren Jones at 785-272-8681 (ext. 225).

Sincerely,

Jennie Chinn, Executive Director and  
State Historic Preservation Officer

[Signature]

Patrick Zollner  
Deputy SHPO
From: Cliff Ehrlich [KDOT]
Sent: Monday, April 5, 2021 12:19 PM
To: e106@achp.gov
Cc: Mandy Ranslow
Subject: Executed Agreement for ACHP Project Number: 16626

ACHP,
Please find the requested Executed Agreement attached.
Please let me know if anything else is needed.
Thank you,

Cliff A. Ehrlich | Chief - Environmental Services
O: 785.296.8415 | F: 785.296.6946
Cliff.Ehrlich@ks.gov

Kansas Department of Transportation
Eisenhower State Office Building
Topeka, KS 66603-3745
March 19, 2021

Mr. Cliff A. Ehrlich
Chief, Environmental Service
Kansas Department of Transportation
700 SW Harrison
Topeka, KS 66603

Ref: Proposed Programmatic Agreement to Investigate whether there are Historical/Cultural Resources underneath Pavements and Structures on I-70 Polk/Quincy Viaduct & Approach Roadway in Topeka, Shawnee County, Kansas
State Project # 70-89 KA-1266-02; Federal Project # NHPP-0705(214)
ACHP Project Number: 16626

Dear Mr. Ehrlich:

On March 4, 2021, the Advisory Council on Historic Preservation (ACHP) received your notification and supporting documentation regarding the potential adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information you provided, we have concluded that Appendix A, Criteria for Council Involvement in Reviewing Individual Section 106 Cases, of our regulations, “Protection of Historic Properties” (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act, does not apply to this undertaking. Accordingly, we do not believe our participation in the consultation to resolve adverse effects is needed.

However, if we receive a request for participation from the State Historic Preservation Officer, Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Should the undertaking’s circumstances change, consulting parties cannot come to consensus, or you need further advisory assistance to conclude the consultation process, please contact us.

Pursuant to Section 800.6(b)(1)(iv), you will need to file the final Section 106 agreement document (Agreement), developed in consultation with the Kansas State Historic Preservation Office and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the Agreement and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with your notification of adverse effect. If you have questions or require our further assistance, please contact Mandy Ranslow at (202) 517-0218 or by e-mail at mranslow@achp.gov and reference the ACHP Project Number above.

Sincerely,

LaShavio Johnson
Historic Preservation Technician
Office of Federal Agency Programs
I. Basic information

1. **Name of federal agency** (If multiple agencies, state them all and indicate whether one is the lead agency):

   Kansas Department of Transportation (KDOT) is the lead agency (on behalf of FHWA) and the Kansas State Historic Preservation Office.

2. **Name of undertaking/project** (Include project/permit/application number if applicable):

   State Project # 70-89 KA-1266-02 Federal Project # NHPP-0705(214).

3. **Location of undertaking** (Indicate city(s), county(s), state(s), land ownership, and whether it would occur on or affect historic properties located on tribal lands):

   I-70 Polk/Quincy Viaduct & Approach Roadway, Topeka, Shawnee County, Kansas. The land is or will be owned by the State of Kansas. This Project does not occur on or affect historic properties located on tribal lands.

4. **Name and title of federal agency official and contact person for this undertaking**, including email address and phone number:

   Cliff A. Ehrlich  Cliff.Ehrlich@ks.gov Kansas Department of Transportation (on behalf of FHWA) 700 SW Harrison Topeka, KS 66603 Phone (785) 296-8415.

5. **Purpose of notification.** Indicate whether this documentation is to:

   - notify the ACHP of a finding that an undertaking may adversely affect a historic property, and/or
   - invite the ACHP to participate in a Section 106 consultation.
II. Information on the Undertaking*

6. **Describe the undertaking and nature of federal involvement** (if multiple federal agencies are involved, specify involvement of each):

   This project involves a Programmatic Agreement (PA) to Investigate whether there are Historic/cultural resources underneath pavements and structures. The FHWA is a signatory of the PA and is involved through Federal Funding.

7. **Describe the Area of Potential Effects:**

   Areas from Topeka Boulevard to Fourth Street which are shown in map with the attached PA.

8. **Describe steps taken to identify historic properties:**

   The attached PA is to determine and identify properties underneath pavements and structures if found.

9. **Describe the historic property** (or properties) and any National Historic Landmarks within the APE (or attach documentation or provide specific link to this information):

   The attached PA is to determine and identify properties underneath pavements and structures if found. All structures above pavements were evaluated and determined not to be eligible for Historic Register or Avoided. Please see attached letter from the State Historic Preservation Office (SHPO).

10. **Describe the undertaking’s effects on historic properties:**

    Any archeological components found will immediately be evaluated for NRHP eligibility by the KSHS in consultation with the SHPO and the KDOT.

11. **Explain how this undertaking would adversely affect historic properties** (include information on any conditions or future actions known to date to avoid, minimize, or mitigate adverse effects):

    Archeological materials from the survey and any subsequent excavations will be curated by the Kansas State Historical Society (KSHS). The KSHS will produce an initial summary finding report sufficient for the SHPO to evaluate and recommend whether the project should continue.

12. **Provide copies or summaries of the views provided to date by any consulting parties, Indian tribes or Native Hawaiian organizations, or the public,** including any correspondence from the SHPO and/or THPO.

    The latest correspondence with the SHPO is attached for both Architecture and Archeology. All Indian Tribes listed for Shawnee County were consulted with and had no concerns, although some have requested to see the reports from the finding of the cultural resource survey.

* see *Instructions for Completing the ACHP e106 Form*
III. Optional Information

13. Please indicate the status of any consultation that has occurred to date. Are there any consulting parties involved other than the SHPO/THPO? Are there any outstanding or unresolved concerns or issues that the ACHP should know about in deciding whether to participate in consultation?

The City of Topeka has also been involved with the project and we will continue to keep them apprised of all findings.

14. Does your agency have a website or website link where the interested public can find out about this project and/or provide comments? Please provide relevant links:

Yes: I-70 Polk-Quincy Project

15. Is this undertaking considered a “major” or “covered” project listed on the Federal Infrastructure Projects Permitting Dashboard or other federal interagency project tracking system? If so, please provide the link or reference number:

N/A

The following are attached to this form (check all that apply):

- [X] Section 106 consultation correspondence
- [X] Maps, photographs, drawings, and/or plans
- [X] Additional historic property information
  ___ Other:
ACHP,
The Kansas Department of Transportation invites the ACHP to consult on the undertaking of Project KA-1266-02 in Shawnee County, Kansas.

Thank You,

Cliff A. Ehrlich | Chief - Environmental Services
O: 785.296.8415 | F: 785.296.6946
Cliff.Ehrlich@ks.gov

Kansas Department of Transportation
Eisenhower State Office Building
Topeka, KS 66603-3745
Ok, that make sense. Make sure and put her response in the project file.

Thanks

From: Terry Blackwell
Sent: Wednesday, October 21, 2015 10:51 AM
To: Michael Fletcher
Cc: Scott Shields
Subject: FW: 70-89 KA-1266-02 Shawnee Co.

Mike,
Sarah's response, makes it sound like they are clear and agree with our determination for the historic side of things, but they are also speaking to the archeological side as well.

Terry

From: Sarah Hunter [mailto:shunter@kshs.org]
Sent: Wednesday, October 21, 2015 10:39 AM
To: Terry Blackwell
Subject: Re: 70-89 KA-1266-02 Shawnee Co.

We had concurred with your determination in a letter on August 24, 2015. We responded with the language below because we understand that archaeological investigations are being reviewed.

I'm out of office today, but will be back tomorrow if we need to chat!

Sarah

On Oct 21, 2015, at 10:34 AM, Terry Blackwell <Blackwell@ksdot.org> wrote:

Sarah,

Have we received your offices' determination on effect? Mike and I thought that we had, so we are curious as to what is meant by "let us know once a final determination of effect has been made"?

Thanks,

Terry

Environmental Services Section
Cultural Resources and Highway Noise Analysis
Ph. (785) 296-8414
Email: blackwell@ksdot.org
Terry,

Thank you for providing us with an extension on this project. After reviewing the F/C plans, we have determined that our office does not require any additional activities at this time, however, we do request to be notified if plans should alter. Please let us know once a final determination of effect has been made.

Thanks,

Sarah

Sarah Hunter, MSHP
Review and Compliance Coordinator
Kansas Historical Society
6425 SW 6th Avenue
Topeka, KS 66615-1099
785-272-8681 x 225
785-272-8682 fax

On 8/4/2015 1:01 PM, Terry Blackwell wrote:

Sarah,

Find attached the letter for the above noted project. The plan sheets for the above noted project have been sent via the ftp site due to the size of the file. A hard copy of the plans will be sent in the mail. If you need additional information please let me know.

Terry D. Blackwell
Environmental Services Section
Cultural Resources and Highway Noise Analysis
Ph. (785) 296-8414
Email: blackwell@ksdot.org
Terry Blackwell

From: Tricia Waggoner <twaggoner@kshs.org>
Sent: Tuesday, September 29, 2015 12:55 PM
To: Terry Blackwell; culturalresources; Robert Hoard; Tim Weston
Subject: Re: 70-89 KA-1266-02 Shawnee Co.
Attachments: viaduct phase 1.pdf; B5852.pdf

Terry:

Phase II Recommended: 70-89 KA-1266-02
Shawnee County
KA-1266-RCNS-02
Tricia Waggoner
9/29/2015

Tricia Waggoner
Archeologist II (Highway Archeologist)
Kansas State Historical Society
5425 SW 6th Avenue
Topeka, KS 66615-1099
785-272-8681 x267
785-272-8682 fax
twaggoner@kshs.org

On 8/4/2015 1:01 PM, Terry Blackwell wrote:

Tricia,

Find attached the letter for the above noted project. The plan sheets for the above noted project have been sent via the ftp site due to the size of the file. A hard copy of the plans will be sent in the mail. If you need additional information please let me know.

Terry D. Blackwell
Environmental Services Section
Cultural Resources and Highway Noise Analysis
Ph. (785) 296-8414
Email: blackwell@ksdot.org
Phase I Review

Kansas State Historical Society
Contract Archeology Program

<table>
<thead>
<tr>
<th>KSHS Database Number</th>
<th>KDOT Project Number</th>
<th>Phase I request date</th>
<th>Received</th>
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<td>Shawnee</td>
<td>Sec. 25, T11S, R16E; Sec. 30, 31, &amp; 32, T11S, R16E; Sec. 5 &amp; 6, T12S, R16E</td>
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Review Resources

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<tr>
<th>Project Plans</th>
<th>County Map</th>
<th>County Atlases</th>
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<td>Provided</td>
<td>Shawnee</td>
<td>Beers, F.W. 1873; Geo. A. Ogle &amp; Co. 1898</td>
</tr>
<tr>
<td>USGS topo</td>
<td>Map of Historic Trails</td>
<td>GLO</td>
</tr>
</tbody>
</table>

Any recommendation made here is with the understanding that due to the nature of archeological manifestations, it is always possible that cultural deposits could be encountered during the course of the project. If that occurs, the remains should be left in place and the State Archeologist contacted immediately so that the appropriate mitigative measures can be carried out as soon as possible. Thank you for your cooperation in helping to preserve the State's archeological resources.

Phase I Clearance

Background Research has been conducted by consulting resources listed above. The results indicate that there are no recorded prehistoric or historic archeological sites in the project area and that there is a low potential for the occurrence of sites eligible for listing on the National Register of Historic Places. We therefore see no need for further archeological investigations.

Phase II Recommended

Background research has been conducted by consulting resources listed above. Results indicate either the presence of recorded sites or a high potential for the occurrence of sites eligible for listing on the National Register of Historic Places. We therefore recommend a phase II investigation of all or parts of the project area.

[Signatures and dates provided]
August 4, 2015

Tricia Waggoner  
Kansas State Historical Society  
6425 South West Sixth Avenue  
Topeka, KS 66615-1099

Dear Ms. Waggoner:

Subject: 70-89 KA-1266-02  
NHPP-0705(214)  
Shawnee County

In accordance with the Cooperative Agreement for Highway Archeological Salvage, the Kansas Department of Transportation requests the Kansas State Historical Society to proceed with Phase I of the agreement for the referenced improvement. The project is defined on the attached project description and plans dated July 30, 2015.

A general description of the project is as follows: Preliminary engineering for Plan Development of I-70 Polk/Quincy Viaduct and approach roadway in Topeka, Kansas.

The Phase I investigation should be completed, and our office notified of the results, as soon as possible. Should your study find that Phase II investigation is needed, please inform our office by phone or e-mail and proceed with the Phase II fieldwork as soon as possible. The Phase II investigation should be completed within thirty (30) days, and our office notified immediately of the results and your recommendations. Please advise if further information is required.

Sincerely,

Robert A. Stork, Chief
Bureau of Right of Way

[Signature]

for
Michael Fletcher, Chief
Environmental Services Section

Enc.
From: Waggoner, Tricia [KSHS]
Sent: Tuesday, October 15, 2019 8:55 AM
To: Terry Blackwell [KDOT]; Cliff Ehrlich [KDOT]
Cc: Skov, Eric [KSHS]
Subject: Outstanding projects

Terry and Cliff,
I am checking on some of the outstanding projects that we have on the board.

Project # 69-106 K-7290-03 in Crawford County has an outstanding Phase IV recommendation. Do you have let dates for this project yet? Do we need to be working up a MOA anytime soon?

Project #70-89 KA-1266-02 in Shawnee County right now has an outstanding Phase II but it is one where we are waiting until the concrete and asphalt are removed before survey. Do you have let dates for it?

Project #400-11 KA-1005-03 in Cherokee County has an outstanding Phase III recommendation. Would you like us to plan the Phase III soon? We would need to complete the Phase III while leaving enough time to complete a Phase IV before the scheduled let date for this project.

Thanks,
Tricia

Tricia Waggoner
Archeologist II
Kansas Historical Society
6425 SW 6th Avenue
Topeka KS 66615-1099
785-272-8681 x267
785-272-8682 fax
Tricia.Waggoner@ks.gov

Your Stories | Our History
Appendix J

2011 Polk Quincy Viaduct Study
I-70 Polk-Quincy Viaduct
Design Concept Study

Kansas Department of Transportation
City of Topeka
Metropolitan Topeka Planning Organization

August 2011
Acknowledgements

Study Sponsors:
Kansas Department of Transportation
City of Topeka
Metropolitan Topeka Planning Organization (MTPO)

Core Team:
Bob Hirt, Project Manager KDOT
Brad Rognlie  KDOT
Thomas Dow  KDOT
Shawn Bruns  City of Topeka
David Thurbon  City of Topeka/MTPO
Jim Tobaben  Parsons Brinckerhoff
Jim Brewer  KDOT
Kim Qualls  KDOT
Becky Pepper  KDOT
Linda Voss  City of Topeka
Carlton Scroggins  City of Topeka/MTPO
Rod Lacy  KDOT
Curt Niehaus  KDOT
Sara Peters  KDOT
John Knowles  FHWA

Project Advisory Committee:
Karen Hiller  City Council District 1
Christy Caldwell  Chamber of Commerce
William Beteta  Heartland Visioning
Fred Patton  North Topeka Business Alliance
Shelly Buhler  SN County Commission/MTPO
Michelle Hoferer  City Planning Commission
Chad Lamer  Friends of the Kaw
Jim Moyer  East Topeka North NIA
Mike Hayden  Riverfront Authority
Susan Mahoney  Downtown Topeka, Inc.
John Lauer  Citizens Advisory Council
Miriam Krehbiel  United Way of Greater Topeka
Lonnie Martin  City Landmark Commission
Tom Whitaker  Kansas Motor Carriers Assoc.

Consultants:
Parsons Brinckerhoff in association with:
Shockey Consulting Services, LLC
Poe and Associates
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Executive Summary

Introduction

The I-70 Polk-Quincy Viaduct Concept Design Study was initiated by the Kansas Department of Transportation, the City of Topeka, and the Metropolitan Topeka Planning Organization to address transportation and community issues related to I-70 in and near Downtown Topeka. The study evaluated the need for, as well as the impacts, benefits, and costs of, transportation improvement options. The study provided the basis upon which a recommended alternative was selected.

In Kansas, I-70 is a major trade and travel corridor that stretches 424 miles from Colorado to Missouri. Near Downtown Topeka, I-70 currently carries approximately 40,000 vehicles per day with roughly 12 percent trucks. In addition to serving through traffic, I-70 is a commuter route for the majority of the Downtown’s 30,000 to 35,000 employees. I-70 serves four areas of potential development in and near Downtown.

Project History

The I-70 Polk-Quincy Viaduct and the segment of I-70 serving Downtown was designed and built in the late 1950s/early 1960s. At a length of almost 3,400 feet, the I-70 Polk-Quincy Viaduct spans from Polk Street on the west to Quincy Street on the east. After 50 years, the condition of the bridge has deteriorated, traffic volumes have increased, highway design criteria have changed, and the area around the viaduct is undergoing new development and redevelopment.

Study Area Description

The study area for the proposed improvement of I-70 extends from the MacVicar Avenue interchange (on the west) to the Adams Street/Branner Trafficway interchange (on the east), a length of approximately 3.8 miles.
Purpose and Need Summary

The purpose of the proposed actions to I-70 is to meet current roadway/bridge design criteria, improve safety, increase roadway traffic capacity, balance accessibility, and to support economic development in and near the Downtown area.

Specifically, the project addresses the following needs:

- **Design:** While appropriate for its time, the geometric features of I-70 do not meet current highway design criteria.

- **Safety:** The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

- **Roadway Capacity:** Designed in the 1950’s, segments of the highway experience congestion during peak traffic flow periods.

- **Accessibility:** There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area, and Downtown Topeka.

- **Economic Development:** Improvements to I-70 and its connections to city streets will support the current development/redevelopment efforts in Downtown Topeka and North Topeka as well as support proposed developments in the Entertainment District and the Riverfront area.

![I-70 Polk-Quincy Viaduct in Topeka, KS looking south](image-url)
Development of Project Goals and Evaluation Criteria

Project goals and evaluation criteria were developed prior to developing potential improvement alternatives for I-70. These goals and criteria were used in screening a full range of alternatives to determine three that would be carried forward for detailed analysis.

**Project Goals:** Based upon the input from the public and stakeholders, the Core Team and the Project Advisory Committee developed goals for the highway design and the community connections between I-70 and adjacent land use. The goals are to:

1. Maintain safe, efficient operation and capacity for interstate trips.
2. Maintain safe, efficient operation and capacity for local trips.
3. Meet current geometric design criteria for design speed, shoulder width, ramp lengths, and interchange spacing.
4. Meet current bridge design criteria.
5. Consider facility maintenance issues/costs in the design of new highways, streets, and bridges.
6. Provide logical/reasonable connections to downtown Topeka, North Topeka, and the Riverfront area.
7. Consider the needs for modes of transportation other than automobiles and commercial trucks to cross or access I-70.
8. Consider urban design elements as part of future I-70 corridor design, including aesthetics, potential land use, public areas, and the overall connections between land use, city streets, and I-70.
9. Enhance economic development opportunities in areas near I-70.
10. Stage/phase construction to minimize disruption of traffic flow and to maximize financial feasibility.

Public/Stakeholder Outreach Summary

A significant public and stakeholder outreach effort was a key part of the I-70 Polk-Quincy Viaduct Concept Design Study. Outreach efforts included stakeholder interviews, public meetings, a website, focus group meetings, presentations to stakeholder groups, and media releases.

Guidance for the study was provided by two groups, the Core Team and the Project Advisory Committee. The Core Team included members from the Kansas Department of Transportation, the City of Topeka, the Metropolitan Topeka Planning Organization, and the Federal Highway Administration. The project advisory committee (PAC) was an informed group of stakeholders representing a wide range of community organizations. The PAC was established to provide input and feedback during the concept design study.
Development of Alternatives

An iterative process was used to identify and narrow the potential improvement alternatives for I-70 and the Polk-Quincy Viaduct. Two components were analyzed: the alternatives for the horizontal alignment and the options for the vertical profile.

Alternatives for Horizontal Alignment: Initial definitions for a range of alternatives were developed and are shown below. Seventeen preliminary alternatives were identified based upon the initial definitions. The Core Team and Project Advisory Committee developed a set of evaluation criteria that were used to narrow the potential alternatives to three that were carried forward for more detailed analysis.

The three alternatives were presented to the public and stakeholders for comment. Based upon the comments received, each of the alternatives was revised to include access to and from 6th Avenue. The three revised alternatives were further analyzed and a preferred alternative was recommended.

Initial Definitions of Concept Alternatives

- **No Build Alternative** – develop a continued maintenance program for the I-70 Polk-Quincy Viaduct and adjacent segments of I-70. This alternative should include ITS applications to enhance safety at the 3rd Street Curve.
- **Replace “In Kind”** – reconstruct the viaduct on its current alignment with no widening for shoulders and minimal changes to other geometric features. Relocating the 3rd Street ramps to 4th Street would be considered. This alternative should include ITS applications to enhance safety at the 3rd Street Curve.
- **Reconstruct I-70** on its existing alignment including capacity and other roadway geometric improvements. This alternative should include ITS applications to enhance safety at the 3rd Street Curve.
- **Re-align I-70** and include increased capacity for traffic flow, roadway geometric improvements including the 3rd Street curve, and access improvements. Both a new viaduct and below-grade options should be explored for the section between Topeka Boulevard and Kansas Avenue.

Revised Alternatives: Each of the three alternatives was revised to include a connection to 6th Avenue.

**Alternative #1 Revised** provides three interchanges that serve the Downtown area. The first interchange serves the north side of the Downtown area, with ramps that connect I-70 to Topeka Boulevard and Kansas Avenue. The second services the northeast side of Downtown.
with ramps that connect I-70 to Madison and Monroe Streets at 4th Street and 6th Avenue. An existing partial interchange serves 10th Avenue to access Downtown Topeka from I-70 to the east.

**Alternative #2 Revised** provides three interchanges that serve the Downtown area. The first interchange serves the north side of the Downtown area, with ramps that connect I-70 to Topeka Boulevard and Kansas Avenue. The second services the northeast side of Downtown with ramps that connect I-70 to Madison and Monroe Streets at 4th Street and 6th Avenue. An existing partial interchange serves 10th Avenue to access Downtown Topeka from I-70 to the east.

Alternative #2 differs from Alternative #1 in that it provides a pair of one-way collector-distributor roads that parallel I-70 from Topeka Boulevard to 10th Avenue.

**Alternative #3 Revised** provides three interchanges that serve the Downtown area. Full interchanges would be located at Topeka Boulevard and 6th Avenue with a partial interchange at 10th Avenue. The possibility of also providing a pair of ramps at 4th Street serving I-70 to and from the west was analyzed.

**Vertical Profile between Topeka Boulevard and Kansas Avenue**

The second major question raised by some stakeholders was whether the I-70 Polk-Quincy Viaduct should be replaced with a new viaduct or be reconstructed as a below-grade roadway similar to the section of I-70 between 10th Avenue and 6th Avenue. Visualizations are shown below of a new viaduct and below-grade options for I-70 between Topeka Boulevard and Kansas Avenue. The master plan for the Riverfront redevelopment area (also depicted in the figures) recommends a below-grade option for I-70.
The strengths and weaknesses of three different vertical profile options were studied for the section of I-70 from west of Topeka Boulevard to east of Kansas Avenue. They are:

- **Fully Below-Grade Option** – I-70 would be lowered approximately 25 feet below ground level to allow city streets to remain at current elevations. New bridges over I-70 would be provided at Topeka Boulevard, Van Buren Street, and Kansas Avenue.
- **Partially Below-Grade Option** – I-70 would be lowered approximately 10 feet and city streets would be raised approximately 15 feet to pass over I-70. New bridges over I-70 would be provided at Topeka Boulevard, Van Buren Street, and Kansas Avenue.
- **Above-Grade Option** – a new viaduct would be constructed to carry I-70 traffic over existing city streets. Harrison Street would likely be closed between 1st and 2nd Streets.

**Socioeconomic and Environmental Considerations**

The purpose of the environmental screening includes: 1) identifying potential significant adverse social, economic, or environmental impacts for each alternative, 2) determining whether mitigation measures are possible to reduce or to avoid any identified impacts, and 3) determining whether all environmental regulations and requirements can be satisfied during subsequent environmental studies.

Based upon this environmental screening, none of the three alternatives would result in significant adverse social, economic, or environmental impact.

**Right-of-Way:** Forty-five properties may be impacted by the relocation of I-70 depending upon the final design. Nine of those properties are residences. Right-of-way limits will be determined during preliminary design, the next phase of the project.

**Construction Cost Estimate**

The construction costs for improvements to I-70 from the MacVicar Avenue interchange to the Adams Street/Branner Trafficway interchange are estimated to be:

- Alternative #1 Revised – $ 197,900,000
- Alternative #2 Revised – $ 200,500,000
- Alternative #3 Revised – $ 191,700,000

Construction costs are in year 2010 dollars.
Preferred Alternative

The strengths and weaknesses of the three alternatives for horizontal alignment and the three options for vertical profile were compiled and presented to the public and stakeholders. As shown in the table below, the overall concept of an above-grade (new viaduct) option for Alternative #1 Revised is the preferred alternative for the improvements to I-70 near Downtown Topeka.

<table>
<thead>
<tr>
<th>Group</th>
<th>Above-Grade or Below-Grade</th>
<th>Access Alternative Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Team</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>Project Advisory Committee</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised) (7 for Alt #1, 5 for Alt #3)</td>
</tr>
<tr>
<td>Greater Topeka Chamber of Commerce</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised) - Investigate 3rd EB I-70 exit</td>
</tr>
<tr>
<td>Downtown Topeka, Inc.</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised) - Investigate 3rd EB I-70 exit</td>
</tr>
<tr>
<td>Community Focus Groups</td>
<td>Above-Grade</td>
<td>All Alternatives are Acceptable</td>
</tr>
<tr>
<td>Metropolitan Topeka Planning Organization</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>Riverfront Authority</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>North Topeka Business Alliance</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>City Council</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised) - Investigate 3rd EB I-70 exit</td>
</tr>
</tbody>
</table>
The preferred alternative shown below creates an access system with two “split diamond” interchanges, one serving the north side of the Downtown area and one serving the east side. Six lanes are provided where needed on I-70.

On the north side, the existing 1st Street ramps are relocated so that they connect directly with Topeka Boulevard. These ramps serve traffic traveling to and from the west on I-70. A complementary set of ramps connect to Kansas Avenue and serve traffic traveling to and from the east on I-70. These ramps are joined by a pair of one-way connector roads to form a system that will provide access to Downtown from the north, the proposed Riverfront area, and North Topeka.

A similar system of ramps and connector roads will serve the east side of the Downtown area. The existing 3rd Street ramps will be relocated to 4th Street and will serve traffic traveling to and from the west on I-70. The existing 10th Avenue ramps will remain and be widened and new 6th Avenue ramps will be constructed, serving traffic traveling to and from the east on I-70. The 4th Street, 6th Avenue, and 10th Avenue ramps will be connected by the one-way, connector road pair of Madison and Monroe Streets. Other ramps between 10th Avenue and 4th Street will be removed.
**Executive Summary**

**Future Design Consideration:** The City Council, supported by the Greater Topeka Chamber of Commerce and Downtown Topeka, Inc., has requested that a “Future Design Consideration” be investigated as the project moves into preliminary design. The Preferred Alternative (Alternative #1 Revised), has three westbound exits from I-70 and two eastbound exits.

The **Future Design Consideration** would explore a third eastbound exit from I-70 by eliminating the eastbound entrance from 6th Avenue and adding an eastbound exit for 10th Avenue.

KDOT has agreed to analyze this modification of the preferred alternative during the next phase of the project.

**Environmental Documentation**

The Kansas Department of Transportation and Federal Highway Administration reviewed the impacts of the proposed I-70 improvements on historic properties, parks, and communities of concern, as well as comments from the public and other stakeholders. They concluded that a “documented categorical exclusion” was the appropriate environmental document for the project as it moves forward into the design phase.
Section 1: Introduction to the I-70 Polk-Quincy Viaduct Design Study

Introduction

From a national perspective, I-70 is a major east-west transportation corridor connecting Interstate Highway I-15 near Cove Fort, Utah with Baltimore, Maryland. In Kansas, I-70 is a major trade and travel corridor that stretches 424 miles from Colorado to Missouri.

Near Downtown Topeka, I-70 currently carries approximately 40,000 vehicles per day with roughly 12 percent trucks. In addition to serving through traffic, I-70 is a commuter route for the majority of the Downtown’s 30,000 to 35,000 employees. I-70 serves four areas of potential development. The first is the proposed Riverfront Development area which lies on the north side of I-70 between Topeka Boulevard and Kansas Avenue. The second is a proposed entertainment district that is located on the west side of I-70 and south of 10th Avenue. The third is Downtown itself, which is undergoing redevelopment, with much of the activity focused on Kansas Avenue. The fourth is the North Topeka Arts District located on North Kansas Avenue.

Project History

The I-70 Polk-Quincy Viaduct and the segment of I-70 serving Downtown was designed and built in the late 1950s/early 1960s. At a length of almost 3,400 feet, the I-70 Polk-Quincy Viaduct spans from Polk Street on the west to Quincy Street on the east. After 50 years, the condition of the
bridge has deteriorated, traffic volumes have increased, highway design criteria have changed, and the area around the viaduct is undergoing new development and redevelopment.

**Long Range Plans**

The Kansas Department of Transportation’s (KDOT) current Long Range Transportation Plan estimates that nearly 2,000 miles of highways statewide could be at or near congested levels by 2030, including I-70 through Topeka. The Plan documents the state’s many transportation needs, examines trends which will impact transportation for the next 20 years, and makes policy recommendations to address those needs and trends.

The Metropolitan Topeka Planning Organization’s 2034 Long Range Transportation Plan is a guide for transportation decisions made for Topeka and a surrounding portion of Shawnee County. Comments were received from the public regarding their concerns for safety and growing traffic congestion at various highway interchanges. Specific comments were received regarding the need for additional lanes on I-70 and concerns about narrow shoulders and short ramp acceleration lanes on the I-70 Polk-Quincy Viaduct. Improvements to the I-70 Polk-Quincy Viaduct and a new interchange connecting I-70 to Topeka Boulevard were included on an “illustrative list” of transportation needs. This “illustrative list” identified transportation projects that were a priority, but were not financially affordable given the assumptions that were in place for transportation funding.
Introduction

Purpose of the Study

The I-70 Polk-Quincy Viaduct Concept Design Study was initiated by the Kansas Department of Transportation, the City of Topeka, and the Metropolitan Topeka Planning Organization to address transportation and community issues related to I-70 in and near Downtown Topeka. The study evaluated the need for, as well as the impacts, benefits, and costs of, transportation improvement options. The study provided the basis upon which a recommended alternative was selected.

Participation by affected jurisdictions and other parties was accomplished through a Core Team including the Kansas Department of Transportation, the City of Topeka, the Metropolitan Topeka Planning Organization, and the Federal Highway Administration as well as a Project Advisory Committee with representatives from fourteen community organizations. Public participation was accomplished through a public and stakeholder outreach plan that was developed for the study and is documented in Section 3.

The study was initiated to determine the future of the 3,373-foot long Polk-Quincy Viaduct and adjacent sections of I-70. Possible options were to:

1. Rebuild the I-70 Polk-Quincy Viaduct in its current configuration.
2. Realign and widen I-70.
3. Reposition the entrance and exit ramps to provide better access to Topeka Boulevard and Kansas Avenue, which link Downtown, the proposed Riverfront Development and North Topeka.
4. Use other measures to improve traffic flow and safety.

The study reviewed the number of lanes on I-70; existing and projected future traffic volumes along I-70 as well as on the local transportation system that parallels I-70; the spacing, location and lengths of the entrance and exit ramps; the need for wider roadway shoulders; the design speed of the curve near 3rd Street; and access to Downtown Topeka and other areas. In addition to traffic on I-70 mainline, the study also considered other modes of transportation that use or cross I-70, including public transit, bicycles, and pedestrians.

Purpose of the Report

The primary purpose of the report is to document the work and products prepared during the course of the I-70 Polk-Quincy Viaduct Concept Design Study. A second purpose is to summarize in a single document, the major elements and analysis of the I-70 Polk-Quincy Viaduct Study in support of a recommended alternative which will be included in subsequent transportation plans for the region. The report documents existing and future transportation system characteristics and performance along I-70 from the MacVicar Avenue interchange through Downtown to the Adams Street/Branner Trafficway interchange.
Study Area Description

The study area for the proposed improvement of I-70 extends from the MacVicar Avenue interchange (on the west) to the Adams Street/Branner Trafficway interchange (on the east), a length of approximately 3.8 miles. This section of I-70 includes the Polk-Quincy Viaduct which spans from Polk Street (on the west) to Quincy Street (on the east).

As shown in Figure 1.1, the study analyzed 1) the I-70 Polk-Quincy Viaduct; 2) the conditions, alignment, and performance of I-70 from the MacVicar Avenue interchange through the Adams Street/Branner Trafficway interchange; and 3) the access to I-70 from Downtown, the proposed Riverfront area, North Topeka, and East Topeka.

Figure 1.1  General Study Area
Logical Termini

Federal guidelines for logical termini require project limits that have independent transportation utility. They must be of sufficient size to consider all environmental impacts that will result from the proposed improvement. This requires the termini of the study to have logical end points in the highway network and project limits that are of sufficient length and width that common environmental and social concerns can be addressed in a meaningful way. The logical termini for this project are rational end points for the transportation improvement and rational limits for the review of the environmental impacts resulting from the implementation of the improvement.

The logical termini for the project are:

- the I-70 and MacVicar Avenue interchange (west terminus) and
- the I-70 and Adams Street/Branner Trafficway interchange (east terminus)

These locations were selected as the logical termini for the project because they are existing interchanges that serve as points of access to major city streets. These are the first interchanges outside of the area where potential changes to ramp locations are being considered. A recommended improvement to this section of I-70 will not affect other projects.

Current Conditions

Polk-Quincy Viaduct: The existing structure was built in 1963 and is composed of multi spans of Reinforced Concrete box girders and steel plate girders supported by concrete columns on spread footing at the piers and HP piles at the abutments. The viaduct consists of 12 separate units with 9 RC box girder units and 3 steel plate girder units. The 9 concrete units consist of 34 spans and the 3 steel units consist of 10 spans. The overall Sufficiency rating of the structure is rated at 80.9 and the ADT is 35,300 VPD with 13% trucks. The overall deck condition is fair and rated at 6 based on the latest SI&A sheet.

The inspection report states that the deck has been patched and cleaned many times every year since 1996. Deck sealer and expansion joints repairs were also performed as shown in the maintenance history of the inspection report.

The deck geometry has been rated at 4 which is functionally obsolete due to the sharp curvature and the narrow shoulders. Fatigue cracks at diaphragms are developing and the columns started to show some deterioration. The structure is 2 years away from the 50 year life mark that it was intended for.

The existing drains and joints have been problematic for KDOT maintenance staff due the undersized pipes and slopes. The new system shall provide much better system than the existing by
using bigger drainage pipes such as 10” or 12” in diameter and connecting them to the storm water system.

**Traffic Flow:** Reoccurring congestion on I-70 has been observed during the morning and evening peak periods. Locations that were identified during the study include:

- **Morning Peak Period**
  - Eastbound I-70 between the MacVicar Avenue entrance ramp and the 1st Street exit
  - The 1st Street exit ramp from eastbound I-70 (traffic often queues to mainline I-70)
  - Westbound I-70 between the California Avenue entrance ramp and the Adams Street exit ramp
  - On the 10th Avenue and the 8th Avenue exit ramps from westbound I-70 (the queue on the 8th Avenue exit has been observed to approach mainline I-70)

- **Evening Peak Period**
  - On northbound Topeka Boulevard for drivers accessing westbound I-70
  - Entering westbound I-70 from the 1st Street ramp.

**Safety:** Several locations along I-70 experience a significantly higher than average crash rate. These include the areas near the 1st Street ramps, the curve near 3rd Street, and the curve near 10th Avenue.

**Access:** Currently, the connections between I-70 and Downtown Topeka are primarily on the east side of the Downtown area. No direct connections are provided with Topeka Boulevard or Kansas Avenue, the two major streets that connect North Topeka, the Riverfront Area, and Downtown.
Section 2: Purpose and Need to Consider Transportation Improvements

The I-70 Polk-Quincy Viaduct is a critical component of Interstate Highway 70 through Downtown Topeka. Its historical past, location, safety characteristics, design characteristics, and lack of connections to major north-south city streets, present both transportation and community challenges and opportunities.

Purpose and Need of the Proposed Action

The purpose of the proposed actions to I-70 is to meet current roadway/bridge design criteria, improve safety, increase roadway traffic capacity, balance accessibility, and support economic development in and near the Downtown area.

The I-70 Polk-Quincy Viaduct was originally designed to accommodate approximately 13,200 vehicles per day (vpd). It is now carrying close to 40,000 vpd on four lanes resulting in increased congestion, infrastructure deterioration, increased bridge maintenance, and significant crash experience. Forecasted traffic volumes for this section of I-70 will exceed 80,000 vpd by the year 2040. The existing design lacks direct connections to the two major north-south streets (Topeka Boulevard and Kansas Avenue) that serve Downtown, North Topeka, and the Riverfront area.

Roadway/Bridge Design: While appropriate for the time of its construction, the I-70 Polk-Quincy Viaduct and adjacent roadway sections of I-70 do not meet current highway geometric design criteria. The existing geometric characteristics within the project limits constrain traffic operations and impact safety. These include:

**Roadway Issues**
- **Design speed** of the I-70 curve near 3rd Street (40 mph) is less than current minimum Interstate highway criteria (50 mph)
- **Shoulder width** on the viaduct (2 feet) is less than current criteria (10 feet minimum) and creates a potential safety issue when incidents or maintenance activities occur on the bridge and require a lane closure narrowing I-70 to one lane
- **Acceleration/deceleration lanes** limited length create traffic operation and safety issues
- **Interchange ramp spacing** (5 interchanges in 1.6 miles) does not comply with current design criteria (1.0 mile distance between intersecting streets that have ramps) and creates conflicts on mainline I-70 resulting in traffic flow and safety concerns

**Bridge Issues**
- **Deterioration of bridge elements** due to de-icing treatments and increased traffic volumes (bridge deck is in poor condition)
- **Deterioration of bridge joints** result in ongoing maintenance actions
- **Bridge deck drainage** is a significant maintenance issue
- **Bridge maintenance** is an ongoing issue requiring significant resources
- **Horizontal clearance** issues with adjacent buildings (less than the 15 to 20 feet minimum)
The interaction of design elements within this corridor has a profound effect on capacity, mobility, safety, and incident management. Operational characteristics include a wide spectrum of engineering issues within the I-70 Corridor.

**3rd Street Curve:** The curve near 3rd Street is the roadway safety need most recognized by the public and stakeholders. The existing curve has a 40 mph design speed based upon the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on the Geometric Design of Highways and Streets* (the “Green Book”). Current design criteria for interstate highways calls for a minimum 50 mph design speed. KDOT’s current practice is to design for a 0.06 superelevation using the 0.08 superelevation table in the Green Book. The curve has a posted advisory speed of 45 mph. Warning signs with flashing beacons are posted on both the eastbound and westbound approaches to the curve. The 3rd Street curve has the lowest operating speed of any four-lane section of I-70 in Kansas.

**Interchange Spacing:** Operations along I-70 are also affected by the type, location, and spacing of interchanges and ramps. The large number of interchanges in the relatively short project area and the configuration of existing interchanges along the project corridor cause further congestion and operational difficulties. AASHTO design criteria for interstate highways in urban areas call for a spacing of one mile between interchanges (distance between intersecting streets with ramps). Interchange spacing along I-70 in Downtown Topeka does not meet this criterion, having five full or partial interchanges located within approximately 1.6 miles. Half-diamond interchanges are located at 1st Street, 3rd Street, 4th Street, and 10th Avenue. Half diamond interchanges are not normally a preferred design because they do not meet drivers’ expectations to be able to exit and enter the interstate highway at the same location. A full diamond interchange is located at 8th Avenue. The high number of interchanges within a relatively short stretch of interstate results in an excessive number of vehicle maneuvers in the flow of traffic. Increased traffic volume in the future will further worsen the level of service (LOS) for the freeway operations.
**Ramp Design:** Ramp entrances and exits to and from I-70 also impact roadway operations. Short acceleration lanes (some 500 to 600 feet long) are less than the current typical design criteria of 1200 feet. This length requires vehicles to enter the freeway at less than normal highway speed. Short deceleration lanes require vehicles to slow down in a highway travel lane before exiting. These added frictions in the traffic stream adversely impact operational capacity and safety.

Ramp connections to the parallel frontage roads near 4th Street and 8th Avenue result in conflicts due to the proximity of the ramp/frontage road merge with the cross streets. Congestion and traffic back-ups occur on some of the exit ramps due to limited length for vehicle storage and the general layout of the ramps.

**Roadway Shoulders:** Cross-sectional elements of a freeway affect the overall safe and efficient operation of traffic. Narrow shoulders not only adversely affect the safety of a freeway but also adversely affect capacity as the minimal lateral distance to roadside features such as a median barrier or bridge rail creates “friction” in the flow of traffic. In addition, the narrow, 2-foot wide shoulders on the Polk-Quincy Viaduct are significantly less than the current minimum criteria of 10 feet. This can have a significant adverse impact on freeway operations as a vehicle disabled or involved in a crash cannot leave the travel lanes and thereby blocks through traffic. Maintenance vehicles or emergency response vehicles must also block a lane anytime they stop on the viaduct. Shoulders also provide vital functions as a recovery area along highway segments, allowing vehicles maneuvering room to leave and return to a travel lane, as well as a storage area for snow removal. In proximity to interchange on-ramps where a vehicle may be unable to merge due to congested mainline conditions, the shoulder can be used to avoid a collision.
**Purpose and Need**

**Safety:** Roadway geometric characteristics and constrained traffic operation contribute to the number of crashes that occur along this section of I-70. Crash data, from 2004 through 2008, shows 224 crashes occurring on I-70 between the MacVicar Avenue interchange and the Adams Street/Branner Trafficway interchange. (See Appendix C for the complete safety analysis.)

High crash segments are locations where the frequency of crashes is higher than a calculated critical crash rate for similar roads. In the case of I-70, the calculated critical crash rate is significantly higher than the average statewide crash rate for urban freeways. Shown in Figure 2.1 below, the red shaded sections of I-70 have crash rates equal to or greater than the critical crash rate.

![Figure 2.1 Critical Crash Rate Locations for I-70](image)

Three areas where the occurrence of crashes is high are:

**Eastbound I-70 near MacVicar Avenue:** The majority of crashes in this area occur on the exit ramp near the stop sign. This area was recently reconstructed and this crash pattern may no longer exist.
**Purpose and Need**

**Eastbound and Westbound I-70 near 3rd Street:** The design speed of the 3rd Street curve and the short acceleration lane to enter westbound I-70 from Madison Street/3rd Street may be contributing factors in the crashes occurring in this section of I-70. Sixty-one crashes occurred in the area of the curve. Crash types were primarily collisions with the median barrier or bridge rails, rear-end collisions, or side-swipe passing collisions.

**Westbound I-70 near 10th Avenue:** The majority of the thirteen crashes that occurred in this area involved a vehicle colliding with the median barrier or a wall. Drivers traveling too fast for conditions were noted in eight of the crashes.

**Roadway Capacity and Traffic Flow:** Traffic analyses completed for the conceptual alternatives determined that approximately 40,000 vehicles per day currently use the I-70 Polk-Quincy Viaduct and that traffic volumes are projected to increase to approximately 80,000 vehicles per day in the year 2040. A major cause of traffic congestion is the inability of the interstate facility to handle current and future travel demand. If capacity improvements are not made to the I-70 corridor, the existing congestion will only worsen resulting in increased travel time delays, transportation costs, and reduced safety for motorists traveling the corridor. The complete traffic analysis is located in Appendix A.

The capacity, or maximum traffic flow, of a freeway section can be measured by its operating speed, density (number of cars per mile per lane), and flow rate (number of cars per hour per lane). These variables can be quantified and graded on a letter scale of “A” (free-flowing traffic) to “F” (severe congestion with traffic demand exceeding the facility’s capacity), called the level-of-service (LOS). Currently the most congested traffic flows on I-70 are on the approaches to Downtown, west from the 1st Street ramps and east from the 10th Avenue ramps. The levels of service in these areas range from LOS C to D currently and will decline to LOS E to F in the year 2040.

KDOT practice specifies a LOS “D” as an acceptable minimum LOS for design year (future) traffic conditions for urban freeway reconstruction projects. This provides for reasonable traffic flow in the design year, while keeping construction costs at a practical level.

Table 2.1 shows the current level of service for eastbound I-70. The only area of congestion is during the morning peak period on and near the 1st Street off-ramp.

Table 2.2 shows the current level of service for westbound I-70. Areas of congestion occur during the morning peak period between the California Street on-ramp and the Adams Street off-ramp; also during the evening peak period from the 1st Street entrance ramp to the MacVicar Avenue exit.
### Table 2.1 Level of Service for Eastbound I-70 in the Year 2010

<table>
<thead>
<tr>
<th>Segment</th>
<th>From</th>
<th>To</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-70</td>
<td></td>
<td></td>
<td>LOS</td>
<td>Density (pc/mi/ln)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOS</td>
</tr>
<tr>
<td>EB</td>
<td>MacVicar On-Ramp (Merge)</td>
<td>--</td>
<td>C</td>
<td>23.4</td>
</tr>
<tr>
<td>EB</td>
<td>MacVicar Avenue (Merge)</td>
<td>1st Street (Diverge)</td>
<td>C</td>
<td>24.7</td>
</tr>
<tr>
<td>EB</td>
<td>1st Street Off-Ramp (Diverge)</td>
<td>--</td>
<td>D</td>
<td>32.7</td>
</tr>
<tr>
<td>EB</td>
<td>1st Street (Diverge)</td>
<td>3rd Street (Diverge)</td>
<td>C</td>
<td>18.6</td>
</tr>
<tr>
<td>EB</td>
<td>3rd Street Off-Ramp (Diverge)</td>
<td>--</td>
<td>C</td>
<td>21.3</td>
</tr>
<tr>
<td>EB</td>
<td>3rd Street (Diverge)</td>
<td>4th Street (Merge)</td>
<td>B</td>
<td>14.5</td>
</tr>
<tr>
<td>EB</td>
<td>4th Street (Merge)</td>
<td>Weave 8th Avenue (Diverge)</td>
<td>A</td>
<td>8.7</td>
</tr>
<tr>
<td>EB</td>
<td>8th Avenue (Diverge)</td>
<td>8th Avenue (Merge)</td>
<td>A</td>
<td>5.3</td>
</tr>
<tr>
<td>EB</td>
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<td>A</td>
<td>9.5</td>
</tr>
<tr>
<td>EB</td>
<td>10th Avenue (Merge)</td>
<td>Weave Adams Street (Diverge)</td>
<td>A</td>
<td>5.9</td>
</tr>
<tr>
<td>EB</td>
<td>Adams Street (Diverge)</td>
<td>Adams Street (Merge)</td>
<td>A</td>
<td>4.8</td>
</tr>
<tr>
<td>EB</td>
<td>Adams Street (Merge)</td>
<td>Weave California Avenue (Diverge)</td>
<td>A</td>
<td>6.8</td>
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</table>

### Table 2.2 Level of Service for Westbound I-70 in the Year 2010

<table>
<thead>
<tr>
<th>Segment</th>
<th>From</th>
<th>To</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-70</td>
<td></td>
<td></td>
<td>LOS</td>
<td>Density (pc/mi/ln)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOS</td>
</tr>
<tr>
<td>WB</td>
<td>California On-Ramp</td>
<td>--</td>
<td>C</td>
<td>26.2</td>
</tr>
<tr>
<td>WB</td>
<td>Adams Off-Ramp</td>
<td>--</td>
<td>D</td>
<td>30.2</td>
</tr>
<tr>
<td>WB</td>
<td>Adams Off-Ramp</td>
<td>Adams On-Ramp (Merge)</td>
<td>C</td>
<td>22.7</td>
</tr>
<tr>
<td>WB</td>
<td>Adams St. On-Ramp (Weave)</td>
<td>10th Avenue Off-Ramp</td>
<td>D</td>
<td>32.4</td>
</tr>
<tr>
<td>WB</td>
<td>8th Avenue Off-Ramp</td>
<td>--</td>
<td>B</td>
<td>13.5</td>
</tr>
<tr>
<td>WB</td>
<td>8th Avenue Off-Ramp</td>
<td>8th Avenue On-Ramp</td>
<td>A</td>
<td>7.9</td>
</tr>
<tr>
<td>WB</td>
<td>8th Avenue On-Ramp</td>
<td>4th Street Off-Ramp</td>
<td>A</td>
<td>8.2</td>
</tr>
<tr>
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<td>4th Street Off-Ramp</td>
<td>3rd Street On-Ramp</td>
<td>B</td>
<td>11.3</td>
</tr>
<tr>
<td>WB</td>
<td>3rd Street On-Ramp</td>
<td>--</td>
<td>B</td>
<td>11.9</td>
</tr>
<tr>
<td>WB</td>
<td>3rd Street On-Ramp</td>
<td>1st Street On-Ramp</td>
<td>B</td>
<td>12.5</td>
</tr>
<tr>
<td>WB</td>
<td>1st Street On-Ramp</td>
<td>--</td>
<td>B</td>
<td>14.7</td>
</tr>
<tr>
<td>WB</td>
<td>1st Street On-Ramp</td>
<td>MacVicar Avenue Off-Ramp</td>
<td>B</td>
<td>14.7</td>
</tr>
<tr>
<td>WB</td>
<td>MacVicar Avenue Off-Ramp</td>
<td>--</td>
<td>B</td>
<td>15.0</td>
</tr>
</tbody>
</table>
Table 2.3 shows the expected level of service for eastbound I-70 in the year 2040. During the morning peak period, the area between the MacVicar Avenue interchange and the 1st Street exit ramp is very congested; the highway is at capacity. During the evening peak period, the area between the 10th Avenue entrance ramp and the Adams Street exit ramp is becoming more congested.

Table 2.3 Level of Service for Eastbound I-70 in the Year 2040 (No Build Condition)

<table>
<thead>
<tr>
<th>Segment</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
<td>To</td>
<td>Density (pc/mi/ln)</td>
</tr>
<tr>
<td><strong>EB</strong> MacVicar On-Ramp (Merge)</td>
<td>--</td>
<td>E 36.4</td>
</tr>
<tr>
<td><strong>EB</strong> MacVicar Avenue (Merge)</td>
<td>1st Street (Diverge)</td>
<td>E 40.0</td>
</tr>
<tr>
<td><strong>EB</strong> 1st Street Off-Ramp (Diverge)</td>
<td>--</td>
<td>E 38.4</td>
</tr>
<tr>
<td><strong>EB</strong> 1st Street (Diverge)</td>
<td>3rd Street (Diverge)</td>
<td>C 24.5</td>
</tr>
<tr>
<td><strong>EB</strong> 3rd Street Off-Ramp (Diverge)</td>
<td>--</td>
<td>C 27.6</td>
</tr>
<tr>
<td><strong>EB</strong> 3rd Street (Diverge)</td>
<td>4th Street (Merge)</td>
<td>B 14.8</td>
</tr>
<tr>
<td><strong>EB</strong> 4th Street (Merge) Weave</td>
<td>8th Avenue (Diverge)</td>
<td>B 14.5</td>
</tr>
<tr>
<td><strong>EB</strong> 8th Avenue (Diverge)</td>
<td>8th Avenue (Merge)</td>
<td>A 7.8</td>
</tr>
<tr>
<td><strong>EB</strong> 8th Avenue On-Ramp (Merge)</td>
<td>--</td>
<td>B 11.8</td>
</tr>
<tr>
<td><strong>EB</strong> 10th Avenue (Merge) Weave</td>
<td>Adams Street (Diverge)</td>
<td>A 9.8</td>
</tr>
<tr>
<td><strong>EB</strong> Adams Street (Diverge)</td>
<td>Adams Street (Merge)</td>
<td>A 8.2</td>
</tr>
<tr>
<td><strong>EB</strong> Adams Street (Merge) Weave</td>
<td>California Avenue (Diverge)</td>
<td>A 9.9</td>
</tr>
</tbody>
</table>

Table 2.4 shows the expected level of service for westbound I-70 in the year 2040. During the morning peak period, traffic demand on I-70 exceeds the highway’s capacity between the entrance ramp from California Avenue and the Adams Street exit ramp. The segment of I-70 from Adams Street to 10th Avenue is also congested. During the evening peak period, I-70 operates at capacity or LOS E on the Polk-Quincy Viaduct, then traffic demand exceeds capacity between the 1st Street entrance ramp and the MacVicar Avenue exit ramp.
Table 2.4 Level of Service for Westbound I-70 in the Year 2040 (No Build Condition)

<table>
<thead>
<tr>
<th>Segment</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOS</td>
<td>Density (pc/mi/ln)</td>
</tr>
<tr>
<td>I-70 From To</td>
<td>Density</td>
<td>Over Capacity</td>
</tr>
<tr>
<td>WB California On-Ramp --</td>
<td>F</td>
<td>27.5</td>
</tr>
<tr>
<td>WB Adams Off-Ramp --</td>
<td>F</td>
<td>31.7</td>
</tr>
<tr>
<td>WB Adams Off-Ramp Adams On-Ramp (Merge)</td>
<td>E</td>
<td>42.2</td>
</tr>
<tr>
<td>WB Adams St. On-Ramp (Weave) 10th Avenue Off-Ramp</td>
<td>D</td>
<td>29.8</td>
</tr>
<tr>
<td>WB 8th Avenue Off-Ramp --</td>
<td>C</td>
<td>21.8</td>
</tr>
<tr>
<td>WB 8th Avenue Off-Ramp 8th Avenue On-Ramp</td>
<td>B</td>
<td>16.4</td>
</tr>
<tr>
<td>WB 8th Avenue Off-Ramp 4th Street On-Ramp</td>
<td>C</td>
<td>22.9</td>
</tr>
<tr>
<td>WB 4th Street Off-Ramp 3rd Street On-Ramp</td>
<td>B</td>
<td>30.4</td>
</tr>
<tr>
<td>WB 3rd Street Off-Ramp --</td>
<td>C</td>
<td>35.7</td>
</tr>
<tr>
<td>WB 3rd Street On-Ramp 1st Street On-Ramp</td>
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<td>36.1</td>
</tr>
<tr>
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<td>C</td>
<td>22.4</td>
</tr>
<tr>
<td>WB 1st Street On-Ramp MacVicar Avenue Off-Ramp</td>
<td>C</td>
<td>24.8</td>
</tr>
<tr>
<td>WB MacVicar Avenue Off-Ramp --</td>
<td>C</td>
<td>18.4</td>
</tr>
</tbody>
</table>

Accessibility: Connections to I-70 lack balance, with the majority occurring on the east side of the Downtown area and with minimal access on the north side of Downtown. This results in poor access being provided to North Topeka and to the proposed Riverfront redevelopment area.

The I-70 corridor is and will remain a successfully integrated multi-modal corridor for both people and goods. I-70 is a primary route for the movement of freight both locally and throughout Kansas. I-70 serves a significant number of local drivers, who live, work, and shop in and near Downtown Topeka. The Topeka Metropolitan Transit Authority makes significant use of I-70 as do the buses operated by School District 501. Pedestrians and bicyclists cross over or under I-70 at numerous locations.

Community Issues – I-70 provides a vital link between Downtown Topeka, the community, the state, and the Midwest. I-70 is a dominant feature of Downtown Topeka. Specific issues relating to the community that were identified by the public and stakeholders are:

Community Issues
- Minimal access between I-70 and the north side of Downtown Topeka, the Riverfront area, and North Topeka
- Visual barrier between Downtown and the Riverfront area is created by the present configuration of the I-70 Polk-Quincy Viaduct
- Transit, bicycle, and pedestrian needs should be considered when designing improvements to I-70
- Access to I-70 for emergency services should be considered during design
Urban Design Issues

- Aesthetics of proposed improvements should reflect positively on the community
- Public areas should be considered as part of future improvements
- Land use/potential development should be supported by future improvements
- Excess right-of-way should be addressed
- Transit, bicycle, and pedestrian crossings over/under future I-70 improvements are important
- Connection locations between I-70 and the city street system should be logical

Improvements to I-70 need to provide balanced access to serve the north end of Downtown, the proposed Riverfront redevelopment area, East Topeka, and North Topeka as well as the heart of the Downtown area.

Support Economic Development: I-70 is the primary route to bring local and regional trips to areas in and near Downtown Topeka. However, I-70 currently provides convenient access to only two of four redevelopment areas. Existing ramps provide connections to city streets primarily on the east side of the Downtown area. No direct connections serve the proposed Riverfront redevelopment area or North Topeka.

Downtown: A resurgence of development is beginning to take hold in Downtown Topeka. The rehabilitation of buildings along Kansas Avenue and 8th Avenue, a proposed redesign of Kansas Avenue, and potential Entertainment District development south of 10th Avenue are breathing new life into the area. This redevelopment activity has prompted the local leaders to take a long-range view of the Downtown transportation network and look for opportunities to improve mobility to better support this growth. I-70 plays a major role in supporting development in the Downtown area.

Riverfront Redevelopment Area: A master plan has been developed for the proposed redevelopment of the area north of I-70 between Topeka Boulevard and Kansas Avenue. The master plan calls for a mixed-use development on both banks of the Kansas River including residential, commerce, and public spaces.

North Topeka: North Topeka is experiencing redevelopment on North Kansas Avenue. A number of new businesses are opening centered on the creation of the North Topeka Arts District. The historic Great Overland Station, a restored UP railroad station, is also located in the area containing a railroad museum and facilities for community events.
Purpose and Need Summary

The purpose of the proposed actions to I-70 is to meet current roadway/bridge design criteria, improve safety, increase roadway traffic capacity, balance accessibility, and support economic development in and near the Downtown area.

Specifically, the project addresses the following needs:

- **Design:** While appropriate for its time, the geometric features of I-70 do not meet current highway design criteria.
- **Safety:** The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.
- **Roadway Capacity:** Designed in the 1950’s, segments of the highway experience congestion during peak traffic flow periods.
- **Accessibility:** There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the current transportation infrastructure. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area, and Downtown Topeka.
- **Economic Development:** Improvements to I-70 and its connections to city streets will support the current development/redevelopment efforts in Downtown Topeka and North Topeka as well as support planned developments in the Entertainment District and the Riverfront Area.
Section 3: Public/Stakeholder Outreach Summary

A significant public and stakeholder outreach effort was a key part of the I-70 Polk-Quincy Viaduct Concept Design Study. The following is a summary of: 1) the study oversight structure; 2) the public and stakeholder outreach efforts; 3) the community issues identified through the outreach; 4) the project goals and evaluation criteria that were developed; and, 5) the revised alternatives, preferred alternative, future design consideration, and resulting public/stakeholder input.

Study Oversight

The study and public/stakeholder outreach was guided by two groups: the Core Team and the Project Advisory Committee.

Core Team: The Core Team members noted in Table 3.1 guided the study process and served as the decision making entity.

Table 3.1 Core Team Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob Hirt, Project Manager</td>
<td>KDOT Road Design</td>
</tr>
<tr>
<td>Jim Brewer</td>
<td>KDOT Road Design</td>
</tr>
<tr>
<td>Rod Lacy</td>
<td>KDOT Road Design</td>
</tr>
<tr>
<td>Brad Rognlie</td>
<td>KDOT Bridge Design</td>
</tr>
<tr>
<td>Kim Qualls</td>
<td>KDOT Public Involvement</td>
</tr>
<tr>
<td>Curt Niehaus</td>
<td>KDOT Topeka Metro Office</td>
</tr>
<tr>
<td>Thomas Dow</td>
<td>KDOT Planning</td>
</tr>
<tr>
<td>Becky Pepper</td>
<td>KDOT Planning</td>
</tr>
<tr>
<td>Sara Peters</td>
<td>KDOT Transportation Safety and Technology</td>
</tr>
<tr>
<td>David Thurbon</td>
<td>City of Topeka Planning/MTPO</td>
</tr>
<tr>
<td>Carlton Scroggins</td>
<td>City of Topeka Planning/MTPO</td>
</tr>
<tr>
<td>Shawn Bruns</td>
<td>City of Topeka Engineering</td>
</tr>
<tr>
<td>Linda Voss</td>
<td>City of Topeka Traffic Engineering</td>
</tr>
<tr>
<td>John Knowles</td>
<td>FHWA</td>
</tr>
<tr>
<td>Jim Tobaben</td>
<td>PB Americas, Inc. – Consultant Team</td>
</tr>
</tbody>
</table>
**Project Advisory Committee:** The project advisory committee (PAC), noted in Table 3.2, was an informed group of stakeholders representing a wide range of community organizations. The PAC was established to provide input and feedback during the concept design study.

The PAC was guided by agreed upon principles, which include:

- Gaining an understanding of long-term transportation requirements
- Creating goals (page 28) and helping to define evaluation criteria (page 29)
- Integrating community needs and values in the deliberations
- Providing input into improvement concepts and selection of concepts to carry forward

**Table 3.2 Project Advisory Committee Members**

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karen Hiller, Council Member</td>
<td>City Council Representative, District 1</td>
</tr>
<tr>
<td>John Moyer, East Topeka North NIA</td>
<td>Neighborhood Association Representative</td>
</tr>
<tr>
<td>Christy Caldwell, Vice President Government Relations</td>
<td>Chamber of Commerce</td>
</tr>
<tr>
<td>Mike Hayden, Chairman of the Topeka/Shawnee County Riverfront Authority and Secretary of the Kansas Department of Wildlife and Parks</td>
<td>Riverfront Authority</td>
</tr>
<tr>
<td>William Beteta, Executive Director</td>
<td>Heartland Visioning</td>
</tr>
<tr>
<td>Susan Mahoney, Executive Director</td>
<td>Downtown Topeka, Inc.</td>
</tr>
<tr>
<td>Fred Patton, President of the Board of Directors</td>
<td>North Topeka Business Alliance</td>
</tr>
<tr>
<td>John Lauer, Ward Meade NIA</td>
<td>Citizens Advisory Council</td>
</tr>
<tr>
<td>Shelly Buhler, Vice Chair, SN County Commission</td>
<td>Chairperson of the MPO</td>
</tr>
<tr>
<td>Miriam Krehbiel, President/CEO</td>
<td>United Way of Greater Topeka</td>
</tr>
<tr>
<td>Tom Whitaker, Executive Director</td>
<td>Kansas Motor Carriers Association</td>
</tr>
<tr>
<td>Lonnie Martin, Member</td>
<td>City Landmark Commission</td>
</tr>
<tr>
<td>Chad Lamer, President</td>
<td>Friends of the Kaw</td>
</tr>
<tr>
<td>Michelle Hoferer, Commissioner</td>
<td>City Planning Commission</td>
</tr>
</tbody>
</table>
The PAC provided a community perspective throughout the study process. They were involved in establishing the project goals and developing the criteria by which potential improvement alternatives were evaluated. Both the PAC and Core Team were involved in narrowing the potential alternatives from 17 to 3. Both were involved in subsequent revisions to the three alternatives. In addition, the Core Team and PAC have been involved in the discussion regarding whether I-70 should be constructed as a new viaduct or a below-grade facility.

PAC meetings:

- September 29, 2009: Introduction to Study, Study Process, Stakeholder Outreach Results, Discuss Issues, Discuss Goals, Develop Evaluation Criteria
- February 5, 2010: Discuss the Results of “Weighting” the Evaluation Criteria, Discuss Potential Improvement Alternatives and Reduced to 3 Alternatives for Detailed Analysis
- April 26, 2010: Discuss Details of Three Alternatives, Discuss Above-Grade and Below-Grade Options, Urban Design Forms
- July 6, 2010: Discuss Community Input, Discuss Findings for the 3 Alternatives, Discuss Recommendations for Above-Grade Option, Discuss Technical Recommendation for Preferred Alternative
- October 5, 2010: Discuss Revised Alternatives
- December 10, 2010: Discuss Stakeholder Input Regarding the Revised Alternatives

Outreach Efforts

As the technical work on this project proceeded, so did the community engagement.

Summary of Public and Stakeholder Outreach: The following is a list of the outreach efforts for the I-70 Polk-Quincy Viaduct Project. Additional detail is provided for many of these items in the pages that follow.

- 27 stakeholder interviews
- Between 1,400 and 1,500 postcards directly mailed to property and business owners in the study area
- One “storefront” stakeholder day
- Four open house public meetings
- One on-line “virtual” public meeting
- A project specific web site
- Three fact sheets
- Three press releases
- Seven Project Advisory Committee meetings
- Three presentations to the Topeka City Council
- One briefing to the Topeka mayor
Table 3.3 shows the initial outreach efforts from introducing the study to developing goals and evaluation criteria to identifying and presenting the original three alternatives for public and stakeholder input.

**Table 3.3 Timeline of Initial Stakeholder and Public Participation Efforts**

<table>
<thead>
<tr>
<th>Date</th>
<th>Outreach Effort</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 15, 2009</td>
<td>Metro Topeka Planning Organization</td>
<td>Introduction to Study</td>
</tr>
<tr>
<td>Aug. 2009 to Present</td>
<td>Website</td>
<td>Information on Study</td>
</tr>
<tr>
<td>July-Sept. 2009</td>
<td>27 Stakeholder Interviews</td>
<td>Businesses &amp; Organizations</td>
</tr>
<tr>
<td>July 22, 2009</td>
<td>City Council Work Session</td>
<td>Introduction to Study</td>
</tr>
<tr>
<td>September 29, 2009</td>
<td>Project Advisory Committee Meeting</td>
<td>Introduction to Study, Issues, Goals</td>
</tr>
<tr>
<td>October 1, 2009</td>
<td>Stakeholder “Open House”</td>
<td>750 postcard invitations sent</td>
</tr>
<tr>
<td>October 13, 2009</td>
<td>Public Meeting #1</td>
<td>Introduction, Issues, Goals</td>
</tr>
<tr>
<td>February 5, 2010</td>
<td>Project Advisory Committee Meeting</td>
<td>Discuss Alternatives</td>
</tr>
<tr>
<td>February 9, 2010</td>
<td>City Council Work Session</td>
<td>Discuss Alternatives, Next Steps</td>
</tr>
<tr>
<td>February 11, 2010</td>
<td>Downtown Planning Team Meeting</td>
<td>Discuss Alternatives, Issues</td>
</tr>
<tr>
<td>February 15, 2010</td>
<td>Planning Commission Meeting</td>
<td>Discuss Alternatives</td>
</tr>
<tr>
<td>February 17, 2010</td>
<td>Metro Topeka Planning Organization</td>
<td>Discuss Alternatives</td>
</tr>
<tr>
<td>February 22, 2010</td>
<td>Riverfront Authority Meeting</td>
<td>Discuss Alternatives</td>
</tr>
<tr>
<td>February 25, 2010</td>
<td>Heartland Visioning Meeting</td>
<td>Discuss Alternatives</td>
</tr>
<tr>
<td>March 8, 2010</td>
<td>City Parks &amp; Rec. Meeting</td>
<td>Discuss Alternatives, Issues</td>
</tr>
<tr>
<td>April 19, 2010</td>
<td>County Commission Meetings</td>
<td>Discuss Alternatives, Issues</td>
</tr>
<tr>
<td>April 23, 2010</td>
<td>Meeting with Mayor Bunten</td>
<td>Discuss Alternatives</td>
</tr>
<tr>
<td>April 26, 2010</td>
<td>Project Advisory Committee</td>
<td>Discuss Alternatives, Urban Design</td>
</tr>
<tr>
<td>April 28, 2010</td>
<td>Public Meeting #2</td>
<td>Present Alternatives</td>
</tr>
<tr>
<td>April 28, 2010</td>
<td>Virtual Meetings</td>
<td>Web-based Presentation of Alt’s.</td>
</tr>
<tr>
<td>May 11, 2010</td>
<td>Chamber of Commerce Meeting</td>
<td>Discuss Alternatives, Above/Below</td>
</tr>
<tr>
<td>July 6, 2010</td>
<td>Project Advisory Committee Meeting</td>
<td>Project Status</td>
</tr>
<tr>
<td>July 30, 2010</td>
<td>Meeting with Jim Rinner</td>
<td>Project Concepts</td>
</tr>
<tr>
<td>August 13, 2010</td>
<td>Presentation – Downtown Optimists</td>
<td>Project Issues, Alternatives</td>
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<tr>
<td>August 13, 2010</td>
<td>Meeting with Jim Ogle</td>
<td>Project Concepts, Media</td>
</tr>
<tr>
<td>August 31, 2010</td>
<td>Downtown Topeka, Inc. Meeting</td>
<td>Discuss Alternatives</td>
</tr>
<tr>
<td>August 31, 2010</td>
<td>Focus Group Meetings</td>
<td>Discuss Issues, Alternatives</td>
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<tr>
<td>September 8, 2010</td>
<td>Meeting with Council Member Hiller</td>
<td>Discuss Study Status</td>
</tr>
<tr>
<td>September 9, 2010</td>
<td>1st Street Neighborhood Associations</td>
<td>Discuss 1st Street Connections</td>
</tr>
<tr>
<td>September 10, 2010</td>
<td>Meeting with Jim Ogle</td>
<td>Discuss Prime Time Special</td>
</tr>
</tbody>
</table>
Table 3.4 shows the outreach efforts beginning with the revised alternatives and continuing through the determination of the preferred alternative.

**Table 3.4  Timeline of Stakeholder and Public Participation Efforts – Revised Alternatives**

<table>
<thead>
<tr>
<th>Date</th>
<th>Outreach Effort</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 28, 2010</td>
<td>Public Information Meeting #3</td>
<td>Discuss Revised Alternatives</td>
</tr>
<tr>
<td>October 5, 2010</td>
<td>Project Advisory Committee</td>
<td>Discuss Revised Alternatives</td>
</tr>
<tr>
<td>November 2, 2010</td>
<td>Meeting with Mr. Rinner, Ogle, Parrish</td>
<td>Discuss Revised Alternatives</td>
</tr>
<tr>
<td>November 15, 2010</td>
<td>1st Street Neighborhood Associations</td>
<td>Discuss Options for 1st Street</td>
</tr>
<tr>
<td>November 16, 2010</td>
<td>Chamber of Commerce/DTD Meeting</td>
<td>Discuss Revised Alternatives</td>
</tr>
<tr>
<td>November 17, 2010</td>
<td>Metro Topeka Planning Organization</td>
<td>Discuss Revised Alternatives</td>
</tr>
<tr>
<td>December 2, 2010</td>
<td>Meeting with Topeka Transit Staff</td>
<td>Discuss Revised Alternatives</td>
</tr>
<tr>
<td>December 10, 2010</td>
<td>Project Advisory Committee</td>
<td>Rev. Alternatives Recommendation</td>
</tr>
<tr>
<td>December 20, 2010</td>
<td>Metro Topeka Planning Organization</td>
<td>Rev. Alternatives Recommendation</td>
</tr>
<tr>
<td>December 20, 2010</td>
<td>Topeka Metropolitan Transit Authority</td>
<td>Discuss Revised Alternatives</td>
</tr>
<tr>
<td>January 5, 2011</td>
<td>Riverfront Authority</td>
<td>Discuss Revised Alternatives</td>
</tr>
<tr>
<td>January 11, 2011</td>
<td>City Council Work Session</td>
<td>Discuss Revised Alternatives</td>
</tr>
<tr>
<td>January 25, 2011</td>
<td>North Topeka Business Alliance</td>
<td>Discuss Revised Alternatives</td>
</tr>
<tr>
<td>May 3, 2011</td>
<td>Public Meeting #4</td>
<td>Present Preferred Alternative</td>
</tr>
</tbody>
</table>

**Website:** An interactive project website [http://i70polkquincy.ksdot.org/](http://i70polkquincy.ksdot.org/) was developed to provide information about the study, community issues, and potential changes to I-70 as well as an opportunity to provide comments. The web site included:

- Information regarding corridor transportation needs
- The video presentation made during the virtual meeting and 2nd public meeting
- An opportunity to comment on the three alternatives under consideration.
- Traffic simulations for each of the three alternatives

The web site continued to be updated over the course of the study.
Media Coverage: In addition to the website, staff and the consulting team reached out to community media outlets through press releases. The stakeholder open houses and the public meetings were covered by the local print and electronic news media.

Stakeholder Interviews: Stakeholder interviews were one-on-one or small group discussions with facilitated questions regarding I-70 and how it is used. Twenty-seven stakeholder interviews were conducted with the following organizations.

- Amtrak
- BNSF
- Corps of Engineers
- Downtown Topeka Inc.
- Goodyear
- Great Overland Station
- Greyhound Bus
- Hallmark Cards
- Hills Pet Products
- Kansas Highway Patrol
- Kansas Motor Carriers
- Kansas Department of Wildlife & Parks
- Kaw Valley Bicycle Club
- Let’s Help
- North Topeka Business Alliance
- Parrish Hotels
- Riverfront Authority
- Shawnee County Sherriff
- Topeka Capital-Journal
- Topeka Fire Department
- Topeka Independent Business Association
- Topeka Metropolitan Transit Authority
- Topeka Parks Department
- Topeka Police Department
- UPS
- US Foodservices
- USD 501

A summary of the issues identified during these meetings and subsequent public and stakeholder input can be found beginning on page 25.

Storefront Stakeholder Open House: From 11 a.m. to 7 p.m. October 1, 2009, area property owners, business owners, residents, and other stakeholders had a chance to learn about the project as well as provide input. Between 700 and 800 postcards were sent to properties in the study area; about 60 people attended.

The format of the meeting was four separate stations or activities.

- Stakeholder Survey – Attendees were asked to complete the survey that day or take it with them and return it by e-mail, fax or U.S. mail.
- Interactive Map Exercise – This provided an opportunity for stakeholders to put thoughts and ideas directly on a map of the study area.
Project Displays – Several maps showing different views of the study area were on display. Team members were available to talk with stakeholders.

Individual/Small-Group Discussions – For those who live, work or own a business in the study area, this was an opportunity to speak more in-depth with a team member about any thoughts or concerns about the project.

Public Open Houses: Four public open house meetings were held during the course of the study.

October 13, 2009
The first open house public meeting was conducted on October 13, 2009. It was publicized on the web site and through a media release. Sixteen interested people attended the event.

The format was generally the same as the stakeholder open house. However, the survey was changed to act as a guiding document for the event, with the questions corresponding to the display boards. Additionally, some of the display boards were updated and attendees had the opportunity to attend one of two presentations about the project. Project team members were available to answer questions and discuss the study.

A press release was issued to let stakeholders know that the information from the open house and survey document was posted on the project website and that there was still opportunity to provide input.

April 28, 2010
A second open house public meeting was conducted on April 28, 2010. This session gave the public and stakeholders an opportunity to review issues regarding the current viaduct, the goals for the project, and the three alternatives selected by the Core Team and Project Advisory Committee for further review. Participants were also able to provide their input regarding the advantages and disadvantages of each of the three alternatives.

Again, nearly 700 postcards were sent to residents and businesses in the study area. It was publicized on the web site and through a media release. Twenty-two people attended. The meeting was covered by a local television station and the Topeka Capital Journal.

September 28, 2010
A public information meeting was held on September 28, 2010 to present the revised alternatives and seek public input regarding those changes. Traffic impacts and proposed changes in access to I-70 were discussed.
May 3, 2011

The final open house public meeting was held on May 3, 2011. The preferred alternative was presented to the public for their information, review, and comment.

**Virtual Meeting:** To reach out to additional stakeholders, KDOT and the consulting team conducted a virtual meeting on the afternoon of the April 28, 2010 open house. This allowed anyone who wanted to use his or her computer to view the presentation and submit questions and comments. Participants had to register in advance and must have had access to a computer and internet connection. Participants saw the same presentation as if they were at a live public meeting but with the convenience of viewing it on their own computer.

**Focus Group Meetings:** The ETC Institute conducted three focus groups with residents living in Topeka, Kansas. The purpose of the focus groups was to gather input from residents who have traveled on I-70 near downtown Topeka, including the almost 3400-foot long Polk-Quincy Viaduct. Input from the focus groups helped assess the desirability of transportation improvements that were being considered in the area. The focus groups were conducted on August 31, 2010 with a randomly selected group of residents. A total of 28 residents, 9-10 participants per group, attended the focus groups. The sessions were 90 minutes long and were moderated by a representative from the ETC Institute. The overall results of these group meetings were statistically valid. A report summarizing the results of the focus group meetings is found in Appendix I.

The sections of I-70 that participants felt had the most travel issues were near the ramps for 3rd Street, 4th Street, 8th Avenue, and 10th Avenue. When asked why these areas were a concern, the frequently mentioned reason was because of safety issues associated with merging on/off the highway. Other concerns participants expressed for these sections of highway included the sharpness of the curve near 3rd Street, the narrowness of the shoulders on the viaduct, and the speed of traffic.

The focus group moderator provided a brief overview of the elevated and the below-grade options for I-70 from west of Topeka Boulevard to east of Kansas Avenue. After explaining each option individually, the moderator asked participants which option they favored. Most participants liked the elevated option (82%), 11% disliked the elevated option, and 7% were neutral.

During each session, the moderator provided an overview of each of the three design alternatives being considered for the study area. After explaining each alternative, the moderator asked the participants whether they liked that option and why. Generally, participants thought that all three alternatives were acceptable; however, after explaining the advantages and disadvantages of each option, Alternative #1 was more preferred.
Community Issues

Through the outreach efforts including stakeholder interviews, public meetings, and comments received through the website, a wide variety of issues, concerns, and desired outcomes were brought to the attention of the Core Team and Project Advisory Committee.

Summary of Stakeholder and Public Input: The following is a listing of the issues, concerns, and desired improvements that have been identified by the community:

Safety Issues on I-70

- 3rd Street curve – design speed is too low
- 3rd Street westbound on-ramp – length of acceleration lane is too short
- 3rd Street eastbound off-ramp – traffic control at 3rd Street is unusual in that 3rd Street stops for the ramp causing confusion for unfamiliar drivers
- City emergency personnel no longer use 3rd Street on-ramp to westbound I-70 due to its geometric characteristics and safety concerns
- Westbound I-70, 8th Avenue on-ramp to 4th Street off-ramp – minimal weave distance
- Minimal width shoulders on viaduct – no room to pull out of the travel lanes
- Incidents or crashes on the viaduct or curve often result in secondary crashes as traffic becomes congested and backs up from the initial site
- An incident on the viaduct as simple as a flat tire requires 3 to 4 patrol cars to control traffic
- Officer safety is a concern when working an incident on the viaduct as there is no escape route and no room for error
- Wet weather increases crashes
- Snow when pushed to side of road can become an icing issue as snow melts, runs across roadway, and freezes
- Better communication with drivers needed to warn of incidents
- Concerns for sight distance along I-70
- Too many ramps (confusing drivers)

Access Issues

- Connect I-70 to Topeka Boulevard or Kansas Avenue or both – this access is very important to continued development in Downtown, North Topeka, and the proposed Riverfront area
- Street connections across I-70, either under or over, are very important
- Too many ramps on the east side of downtown
- Need for adequate number of access points to serve the downtown area
- Relocating 3rd and 4th street ramps not a concern to most stakeholders that have been interviewed
Travelers to/from North Topeka are currently more likely to use the Oakland Expressway or Highway 75 in order to access I-70

Traffic Issues
- BNSF deliveries are primarily from the east on I-70 and use the 4th Street exit ramp, difficulties are experienced in crossing Madison Street to turn right on 4th, some trucks use the 3rd Street exit
- Most BNSF employees use the 8th Avenue interchange
- Closure of the 4th Street exit ramp will put more traffic on Madison from 8th or 10th Streets
- 8th Avenue and 10th Avenue are gateways to downtown
- Ramada Inn customers mainly use the 8th Avenue interchange
- Hallmark Cards – most deliveries come from the east on I-70 and use the exit ramp at 4th Street – loading docks are on the north side of the building, difficulties in crossing left turn lanes in order to go north on Madison Street
- Trucks have a difficult time getting back to eastbound I-70 from Hallmark
- Hallmark has 600 employees, with most coming to work from the north and west – they use the 3rd Street exit ramp
- How would I-70 changes impact parking lots along I-70
- USD 501 (40 school buses a day use I-70 and need better access to Topeka Boulevard and or Kansas Avenue
- Heavy concentration of large trucks and buses north of I-70
- UPS uses 3rd and 4th Street ramps

Transit Issues
- 3 transit routes (2 buses per hour to and from Quincy Street station) use I-70
- Now use 1st Street exit and entrance as it provides a safer route than 3rd Street
- Paratransit service to medical facilities use I-70 with 50-60 passengers per day to the Cotton O’Neil clinic near 29th & Croco and many more trips to Tallgrass, St. Francis, and Stormont medical centers
- More direct connection to and from Topeka Blvd. and Kansas Avenue would benefit bus route structure

Bicycle Issues
- Current city streets under I-70 don’t have the width to accommodate bicycles
- A bicycle route that parallels I-70 is a desirable transportation facility
- The Shunga Trail should be connected to the proposed Riverfront Area
- If a “below grade” option for I-70 were to be selected, bicycle and pedestrian crossings are a key issue
Design of drainage facilities and storm grates are safety issues for bicycles
Visibility of bicyclists is an important consideration with planning landscaping
Design of connections to bicycle trails is critical – no right angle turns
Bicycle trails are proposed using the levees

Social Issues
- Rescue Mission to Let’s Help – pedestrian traffic during lunchtime – up to 500 people
- School bus from Rescue Mission to various schools
- Paratransit service from low income areas to medical facilities
- Large bus-dependent and bicycle-dependent population east of Adams Street

US Army Corps of Engineers Issues
- Levee Critical Zone – 500’
- Levee improvements are planned (replace concrete flood wall and reduce seepage under berm)
- I-70 embankment is the levee for a distance east of MacVicar Avenue
- Pump station tied to storm sewers

Aesthetic Issues and Preferences
- Aesthetics of the I-70 improvements are important
- The below grade options was initially preferred by many stakeholders
- View from downtown toward the Riverfront is important
- View of Downtown and Riverfront from I-70 is important
- Need to include green/open space
- View of the river could be important

Business/Economic Development
- I-70 is extremely important to businesses as a route for customers
- Impacts of construction on businesses must be considered
- Ramada Inn – 256 sleeping rooms, 58 apartments, 2 floors office/commercial space, and 33,000 sq. ft. of banquet space
- Potential riverfront development would have a tremendous impact on Topeka
- Watertower area development is a possibility – primarily one owner, therefore a development project could move forward quickly
- Ice Rink will be developed near 8th Avenue and Madison Street
- Most employees for major businesses drive to work, a few use transit or ride bicycles
• 501 School District is planning new facilities on the former State Hospital grounds on MacVicar Avenue that could add 600-1100, possibly up to 1500 people going to and from this location daily

Miscellaneous

• BNSF has track along 1st Street east of Madison that is used for switching operations to serve the mill
• Other sections of I-70 near US-75 and I-470 also experience traffic problems.
• Considerable fuel deliveries along Crane Street
• I-70 is an important route for people visiting Hummer Sports Park
• Build on an offset alignment to minimize traffic disruption during construction.
• Ward Meade and Auburndale Parks near I-70.

Desired Improvements

• Improve the design speed of the 3rd Street curve
• Provide 3 through lanes in each direction on I-70
• Provide shoulders on viaduct
• Provide longer ramp acceleration and deceleration lanes
• Provide connections between I-70 and Topeka Blvd. or Kansas Av.
• Provide better highway lighting

Development of Project Goals and Evaluation Criteria

Prior to developing potential improvement alternatives for I-70, project goals and evaluation criteria were developed to be used in screening a full range of alternatives to determine three that would be carried forward for detailed analysis.

Project Goals: Based upon the input from the public and stakeholders, the Core Team and the Project Advisory Committee developed goals for the highway design and the community connections between I-70 and adjacent land use. The goals are to:

1. Maintain safe, efficient operation and capacity for interstate trips.
2. Maintain safe, efficient operation and capacity for local trips.
3. Meet current geometric design criteria for design speed, shoulder width, ramp lengths, and interchange spacing.
4. Meet current bridge design criteria.
5. Consider facility maintenance issues/costs in the design of new highways, streets, and bridges.
6. Provide logical/reasonable connections to downtown Topeka, North Topeka, and the Riverfront area.
7. Consider the needs for modes of transportation other than automobiles and commercial trucks to cross or access I-70.
8. Consider urban design elements as part of future I-70 corridor design, including aesthetics, potential land use, public areas, and the overall connections between land use, city streets, and I-70.
9. Enhance economic development opportunities in areas near I-70.
10. Stage/phase construction to minimize disruption of traffic flow and to maximize financial feasibility.

**Evaluation Criteria:** A series of nine criteria was established by the Core Team and the Project Advisory Committee to evaluate alternatives for improving I-70. These criteria address the project goals for the I-70 corridor.

1. **Roadway Design:** addresses the design speed of the 3rd Street curve; concerns about acceleration/deceleration lane lengths; narrow shoulders on viaduct; inadequate spacing between ramps; flexibility for future expansion of I-70 and local streets; and adequate drainage.
2. **Safety:** addresses reducing the number of crashes along I-70, including the high crash areas along I-70 and crossing I-70 on the local street system.
3. **Traffic Mobility and Circulation:** provides for the movement of through traffic on I-70 and for the logical circulation of traffic on the city street system.
4. **Access and Connectivity:** provides access from I-70 to Topeka Boulevard and/or Kansas Avenue as well as logical and reasonable access to I-70 from the local streets; interchanges provide full traffic movements to and from I-70.
5. **Economic Goals:** ensures that future development/redevelopment goals are considered and promotes community connectivity.
6. **Construction and Maintenance:** considers project and maintenance costs; traffic issues during construction; phased construction; and highway maintenance.
7. **Environmental Issues:** minimize impacts on historic properties, the environment, and adjacent properties. Also considers environmental justice.
8. **Aesthetics**: enhances view shed between downtown and the river; recognizes the importance of the roadway and bridge and considers the view from I-70.

9. **Multimodal Considerations**: addresses transit, bicycle and pedestrian needs.

These criteria were utilized to narrow 17 potential improvement scenarios to three that were analyzed in greater detail. The three alternatives were presented to the public for comment. Similar criteria were used to determine a locally preferred alternative.

**Revised Alternatives**

Public and stakeholder input regarding the original three alternatives included a desire for an additional connection between I-70 and the local street system in downtown. It was determined that 6th Avenue was the recommended location for this additional connection. The three alternatives were revised and additional public and stakeholder outreach was conducted to provide information regarding the revised alternatives and to continue the opportunity for community input.

**Public Information Meeting**: A public information meeting was held on September 28, 2010 to present the revised alternatives and seek public input regarding those changes. Traffic impacts and proposed changes in access to I-70 were discussed.
Stakeholder Meetings: Stakeholder meetings were conducted with a number of groups and individuals to discuss the revised alternatives. A listing of these meetings is found on page 21. Through these discussions consensus was reached to pursue an elevated alignment (new viaduct) from west of Topeka Boulevard to east of Kansas Avenue. Most of the stakeholder groups preferred Alternative #1 Revised, with the downtown stakeholder groups preferring Alternative #3 Revised. Preferences are noted in Table 3.5.

Table 3.5 Stakeholder Group Preferences for a Preferred Alternative

<table>
<thead>
<tr>
<th>Group</th>
<th>Above-Grade or Below-Grade</th>
<th>Access Alternative Preference</th>
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<tbody>
<tr>
<td>Core Team</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>Project Advisory Committee</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(7 for Alt #1, 5 for Alt #3)</td>
</tr>
<tr>
<td>Greater Topeka Chamber of Commerce</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Investigate 3rd EB I-70 exit</td>
</tr>
<tr>
<td>Downtown Topeka, Inc.</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Investigate 3rd EB I-70 exit</td>
</tr>
<tr>
<td>Community Focus Groups</td>
<td>Above-Grade</td>
<td>All Alternatives are Acceptable</td>
</tr>
<tr>
<td>Metropolitan Topeka Planning Organization</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>Riverfront Authority</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>North Topeka Business Alliance</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>City Council</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Investigate 3rd EB I-70 exit</td>
</tr>
</tbody>
</table>

Final Public Open House: The final public open house for the Concept Study was conducted on May 3, 2011. This session provided the public and stakeholders the opportunity to view and discuss the Preferred Alternative as well as the City Council’s request for a “Future Design Consideration” that would eliminate an eastbound on-ramp and add a third eastbound off-ramp. KDOT has agreed to further investigate this option as the project moves into preliminary design.

Fifty participants attended the meeting and had the opportunity to view a video presentation and talk with staff from KDOT, the City of Topeka, and the consultant team. Verbal comments were mixed with many supporting the Preferred Alternative and many desiring the third eastbound exit shown in the “Future Design Consideration”. Sixteen written comments were received supporting the Future Design Consideration.
The information presented at the meeting was posted on the project website the following day for those who were unable to attend the meeting.

The final public open house was advertised in a number of ways. Nearly 700 postcards were sent to residents and businesses in the study area. It was publicized on the web site and through a media release. The meeting was covered by a local television station and the Topeka Capital Journal.
Section 4: Development of Alternatives

Introduction

An iterative process was used to identify and narrow the potential improvement alternatives for I-70 and the Polk-Quincy Viaduct. Project goals were developed by the Core Team of study sponsors and the Project Advisory Committee, which represented community organizations. Initial definitions for a range of alternatives were developed. Seventeen preliminary alternatives were identified based upon the initial definitions. The Core Team and Project Advisory Committee developed a set of evaluation criteria that were used to narrow the potential alternatives to three that were carried forward for more detailed analysis. The three alternatives were presented to the public and stakeholders for comment. Based upon the comments received, each of the alternatives was revised to include access to and from 6th Avenue. The three revised alternatives were further analyzed and a preferred alternative was recommended. In addition, vertical profiles for a new viaduct, a partially below-grade alignment, and a fully below-grade alignment were investigated.

Initial Definitions of Concept Alternatives

- **No Build Alternative** – develop a continued maintenance program for the I-70 Polk-Quincy Viaduct and adjacent segments of I-70. This alternative should include ITS applications to enhance safety at the 3rd Street Curve.
- **Replace “In Kind”** – reconstruct the viaduct on its current alignment with no widening for shoulders and minimal changes to other geometric features. Relocating the 3rd Street ramps to 4th Street would be considered. This alternative should include ITS applications to enhance safety at the 3rd Street Curve.
- **Reconstruct I-70** on its existing alignment including capacity and other roadway geometric improvements. This alternative should include ITS applications to enhance safety at the 3rd Street Curve.
- **Re-align I-70** and include increased capacity for traffic flow, roadway geometric improvements including the 3rd Street curve, and access improvements. Both a new viaduct and below-grade options will be explored for the section between Topeka Boulevard and Kansas Avenue.

Project Goals

Ten initial goals were identified to address the corridor’s needs for improving the highway design and the community’s connections between I-70 and the adjacent land use.

The initial project goals for the I-70 Polk-Quincy Viaduct are:

1. Maintain safe, efficient operation, and capacity for interstate trips.
2. Maintain safe, efficient operation, and capacity for local trips.
3. Meet current roadway geometric design criteria for design speed, shoulder width, ramp lengths, and interchange spacing.

4. Meet current bridge design criteria.

5. Consider facility maintenance issues/costs in the design of new highways, streets, and bridges.

6. Provide logical/reasonable connections to Downtown Topeka, North Topeka, and the Riverfront area.

7. Consider the needs for modes of transportation other than automobiles and commercial trucks to cross or access I-70.

8. Consider urban design elements as part of future I-70 corridor design, including: aesthetics, potential land use, public areas, and the overall connections between land use, city streets, and I-70.

9. Enhance economic development opportunities in areas near I-70.

10. Stage/phase construction to minimize disruption of traffic flow and to maximize financial feasibility.

**Preliminary Alternatives**

Seventeen preliminary alternatives were developed for consideration:

- **Alternative 1**: Continued maintenance program for the I-70 Polk-Quincy Viaduct and adjacent sections of I-70. Includes ITS applications to enhance safety at the 3rd Street Curve.

- **Alternative 2**: Remove I-70’s designation as an interstate highway and convert to an arterial street.

- **Alternative 3**: Replace the existing facility “In Kind” – reconstruct I-70 on its existing alignment with minimal geometric changes.

- **Alternative 4**: Reconstruct I-70 on the existing alignment and widen to six lanes.

- **Alternative 5**: Reconstruct I-70 on the existing alignment, widen to six lanes, and move the 3rd Street ramps to 4th Street to create a full diamond interchange.
- **Alternative 6:** Realign I-70 to the inside of the 3rd Street curve and move the 3rd Street ramps to 4th Street.

- **Alternative 7:** Realign I-70 to the inside of the 3rd Street curve and construct a split diamond interchange connecting I-70 to 1st Street and Kansas Avenue.

- **Alternative 8:** Realign I-70 and create a split diamond interchange connecting I-70 to Topeka Boulevard and Kansas Avenue. Connector roads parallel to I-70 are continuous from Topeka Boulevard to 10th Avenue.

- **Alternative 9:** Realign I-70 and create a split diamond interchange connecting I-70 to Topeka Boulevard and Kansas Avenue. Connector roads parallel to I-70 connect the ramp intersections.
Alternative 10: Realign I-70 and create a split diamond interchange connecting I-70 to 1st Street and Kansas Avenue. Two-way connector roads are used with roundabouts at the ramp intersections.

Alternative 11: Realign I-70 and create a split diamond interchange connecting 1st Street and Kansas Avenue with a roundabout at 1st and Kansas.

Alternative 12: Realign I-70 and create a split diamond interchange connecting 1st Street west of Topeka Boulevard and 1st Street east of Kansas Avenue.

Alternative 13: Realign I-70 and create a diamond interchange at Topeka Boulevard and possibly a half-diamond interchange at Kansas Avenue.
o **Alternative 14:** Realign I-70 and create a diamond interchange at Topeka Boulevard with 1st Street closed and, possibly, a half-diamond interchange at Kansas Avenue.

o **Alternative 15:** Realign I-70 and create a diamond interchange at Topeka Boulevard with a ramp intersection at 2nd Street and possibly a half-diamond interchange at Kansas Avenue.

o **Alternative 16:** Realign I-70 and create a single-point diamond interchange at Topeka Boulevard and with diamond interchanges at 4th Street and 10th Avenue.

o **Alternative 17:** Realign I-70 and create a diamond interchange at Kansas Avenue.
Evaluation Criteria

A series of nine criteria was established by the Core Team and the Project Advisory Committee to evaluate alternatives for improving I-70. These criteria address the project goals for the I-70 corridor.

1. **Roadway Design**: addresses the design speed of the 3rd Street curve; concerns about acceleration/deceleration lane lengths; narrow shoulders on viaduct; inadequate spacing between ramps; flexibility for future expansion of I-70 and local streets; and adequate drainage.

2. **Safety**: addresses reducing the number of crashes along I-70, including the high crash areas along I-70 and crossing I-70 on the local street system.

3. **Traffic Mobility and Circulation**: provides for the movement of through traffic on I-70 and for the logical circulation of traffic on the city street system.

4. **Access and Connectivity**: provides access from I-70 to Topeka Boulevard and/or Kansas Avenue as well as logical and reasonable access to I-70 from the local streets; interchanges provide full traffic movements to and from I-70.

5. **Economic Goals**: ensures that future development/redevelopment goals are considered and promotes community connectivity.

6. **Construction and Maintenance**: considers project and maintenance costs; traffic issues during construction; phased construction; and highway maintenance.

7. **Environmental Issues**: minimize impacts on historic properties, the environment and adjacent properties. Also considers environmental justice.

8. **Aesthetics**: enhances view shed between Downtown and the river; recognizes the importance of the roadway and bridge and considers the view from I-70.

9. **Multimodal Considerations**: addresses transit, bicycle, and pedestrian needs.

**Initial Screening**

These criteria were utilized to narrow 17 potential improvement scenarios to three that were analyzed in greater detail. Table 4.1 describes the initial set of alternatives, comments regarding their strengths and weaknesses, and whether they were recommended for more detailed analysis (shaded in blue).
## Table 4.1 Initial Screening of Alternatives

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Comments</th>
<th>Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Continued Maintenance + ITS</td>
<td>Lowest scores for: Roadway Design, Safety &amp; Multimodal Considerations</td>
<td>Dropped from Consideration</td>
</tr>
<tr>
<td>2. Convert I-70 to City Street</td>
<td>Lowest scores for: Access/Connectivity, Support Economic Goals, Aesthetics</td>
<td></td>
</tr>
<tr>
<td>3. Replace I-70 “In Kind” + ITS</td>
<td>Transportation needs are not addressed</td>
<td></td>
</tr>
<tr>
<td>4. Reconstruct on Existing Alignment &amp; Widen to 6 Lanes</td>
<td>40 mph Design Speed for 3rd Street Curve is not improved</td>
<td>Dropped from Consideration</td>
</tr>
<tr>
<td>5. Reconstruct on Existing Alignment, Widen to 6 Lanes, &amp; Move 3rd Street Ramps to 4th Street</td>
<td>Doesn’t Address Ramp Spacing</td>
<td></td>
</tr>
<tr>
<td>6. Realign I-70 to Inside 3rd Street Curve, Move 3rd Street Ramps to 4th Street</td>
<td>Addresses Some Design Issues</td>
<td>Dropped from Consideration</td>
</tr>
<tr>
<td>7. Realign I-70 to Inside 3rd Street Curve, Split Diamond Interchange</td>
<td>Alternative #7 – Split is too Great</td>
<td></td>
</tr>
<tr>
<td>1st Street/Kansas Avenue</td>
<td>Doesn’t Address Access/Connectivity Issues</td>
<td></td>
</tr>
<tr>
<td>8. Realign I-70, Split Diamond Interchange Topeka Boulevard/Kansas Avenue, Connector Roads Topeka Boulevard to 10th Avenue</td>
<td>3rd Highest Ranked Alternative</td>
<td>Continue with Detailed Analysis</td>
</tr>
<tr>
<td>9. Realign I-70, Split Diamond Interchange Topeka Boulevard/Kansas Avenue, Connector Roads Topeka Boulevard to Kansas Avenue</td>
<td>Highest Ranked Alternative</td>
<td>Continue with Detailed Analysis</td>
</tr>
<tr>
<td>10. Realign I-70, Split Diamond Interchange 1st Street/Kansas Avenue, Two-Way Connector Roads Topeka Boulevard to Kansas Avenue</td>
<td>Tied for 4th Highest Ranked Alternative</td>
<td>Dropped from Consideration</td>
</tr>
<tr>
<td>11. Realign I-70, Split Diamond Interchange 1st Street/Kansas Avenue, Two-Way Connector Roads Topeka Boulevard to Kansas Avenue with Roundabouts</td>
<td>Addresses Design and Safety Issues</td>
<td>Dropped from Consideration</td>
</tr>
<tr>
<td>12. Realign I-70, Ramp Connections to 1st Street west of Topeka Boulevard and 1st Street east of Kansas Avenue</td>
<td>Addresses Design and Safety Issues</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.1 continued

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Comments</th>
<th>Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Realign I-70, Diamond Interchange with Roundabouts at Topeka Boulevard and Possible Half-Diamond Interchange at Kansas Avenue</td>
<td>• Tied for 4th Highest Ranked Alternative</td>
<td>Dropped from Consideration</td>
</tr>
<tr>
<td></td>
<td>• Some Similarities to Alternative #16</td>
<td></td>
</tr>
<tr>
<td>14. Realign I-70, Diamond Interchange at Topeka Boulevard (1st Street Closed) and Possible Half-Diamond Interchange at Kansas Avenue</td>
<td>• Addresses Design and Safety Issues</td>
<td>Dropped from Consideration</td>
</tr>
<tr>
<td></td>
<td>• Some Similarities to Alternative #16</td>
<td></td>
</tr>
<tr>
<td>15. Realign I-70, Interchange at Topeka Boulevard with Ramps Intersecting at 2nd Street</td>
<td>• Addresses Design and Safety Issues</td>
<td>Dropped from Consideration</td>
</tr>
<tr>
<td>16. Realign I-70, Diamond Interchanges at Topeka Boulevard, 4th Street, and 10th Avenue</td>
<td>• Addresses Design and Safety Issues</td>
<td>Continue with Detailed Analysis</td>
</tr>
<tr>
<td></td>
<td>• Addresses Access/Connectivity Issues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Second Highest Ranked Alternative</td>
<td></td>
</tr>
<tr>
<td>17. Realign I-70, Diamond Interchange at Kansas Avenue</td>
<td>• Addresses Design and Safety Issues</td>
<td>Dropped from Consideration</td>
</tr>
<tr>
<td></td>
<td>• Addresses Access/Connectivity Issues</td>
<td></td>
</tr>
</tbody>
</table>

Alternatives for Detailed Analysis

Three of the Preliminary Alternatives were selected for a more detailed level of analysis. These Alternatives were redesignated as follows:

- Preliminary Alternative #9 became Alternative #1
- Preliminary Alternative #8 became Alternative #2
- Preliminary Alternative #16 became Alternative #3

Planning level traffic forecasts were developed for the year 2040. Traffic analyses and VISSIM (traffic simulation) modeling were conducted for the no-build condition AM and PM peak periods as well as the AM and PM peak periods for each of the three alternatives. More information regarding this work can be found in Appendix A.

The potential application of Intelligent Transportation Systems (ITS) devices was reviewed with a primary focus on improving safety at the I-70 curve near 3rd Street. More information can be found in Appendix B.

Concept geometric design layouts were developed for each of the three Alternatives. This work included the development of preliminary horizontal alignment, profiles, and cross sections at critical locations. More information can be found in Appendix E.
Alternative #1 shown in Figure 4.1 provides two interchanges that serve the Downtown area. The first interchange serves the east side of Downtown with ramps that connect I-70 to Madison and Monroe Streets at 10th Avenue and at 4th Street. The second interchange serves the north side of the Downtown area, with ramps that connect I-70 to Topeka Boulevard and Kansas Avenue.

**Figure 4.1 Alternative #1 Concept and Impacts**

| Westbound Exits / Entrances | Exit I-70 at 10th Avenue and Kansas Avenue  
Enter I-70 from 4th Street and Topeka Boulevard |
|----------------------------|------------------------------------------------|
| Eastbound Exits / Entrances | Exit I-70 at Topeka Boulevard and 4th Street  
Enter I-70 from Kansas Avenue and 10th Avenue |
| Estimated Construction Cost | $180 million, the lowest of the three original alternatives |
| Safety                     | Highway geometric changes improve safety. Changes include: larger 3rd Street Curve, wider shoulders, longer ramp acceleration lanes, better ramp connections with city streets and greater spacing between ramps. |
| Traffic Flow               | Additional lanes are provided where needed on I-70 to reduce congestion. The increased lengths of entrance and exit ramps will smooth traffic flow. |
| Access                     | Access is improved for the north end of Downtown, the proposed Riverfront Development and North Topeka. Access is maintained to 4th Street, 6th Avenue, 8th Avenue and 10th Avenue on the east side of Downtown. |
| Support Development        | Supports potential development in the Riverfront area, along Kansas Avenue and the south end of Downtown. |
| Aesthetics                 | Aesthetic treatments will be considered along I-70, collector-distributor roads such as Madison and Monroe Streets and below the I-70 bridge. |
**Alternative #2** shown in Figure 4.2 is similar to Alternative #1, as it provides two interchanges that serve the Downtown area. It differs from Alternative #1 in that a pair of one-way collector-distributor roads parallel I-70 from Topeka Boulevard to 10th Avenue.

**Figure 4.2 Alternative #2 Concept and Impacts**

| Westbound Exits /Entrances         | Exit I-70 at 10th Avenue and Kansas Avenue  
|                                 | Enter I-70 from 4th Street and Topeka Boulevard |
| Eastbound Exits /Entrances        | Exit I-70 at Topeka Boulevard and 4th Street  
|                                 | Enter I-70 from Kansas Avenue and 10th Avenue |
| Estimated Construction Cost       | $241.5 million, the highest of the three original alternatives |
| Safety                            | Highway geometric changes improve safety. Changes include: larger 3rd Street Curve, wider shoulders, longer ramp acceleration lanes, better ramp connections with city streets and greater spacing between ramps. |
| Traffic Flow                      | Additional lanes are provided where needed on I-70 to reduce congestion. The increased lengths of entrance and exit ramps will smooth traffic flow. One-way collector-distributor roads parallel I-70 from Topeka Boulevard to 10th Avenue |
| Access                            | Access is improved for the north end of Downtown, the proposed Riverfront Development and North Topeka. Access is maintained to 4th St., 6th Ave., 8th Ave. and 10th Ave. on the east side of Downtown. |
| Support Development               | Supports potential development in the Riverfront area, along Kansas Ave. and the south end of Downtown. |
| Aesthetics                        | Aesthetic treatments will be considered along I-70, collector-distributor roads such as Madison and Monroe Streets and below the I-70 bridge. |
Alternative #3 shown in Figure 4.3 provides three diamond interchanges that serve the Downtown area. Interchanges would be located at Topeka Boulevard, 4th Street and 10th Avenue.

Figure 4.3 Alternative #3 Concept and Impacts

<table>
<thead>
<tr>
<th>Westbound Exits /Entrances</th>
<th>Exit I-70 at 10th Avenue, 4th Street and Topeka Boulevard Enter I-70 from 10th Avenue, 4th Street, and Topeka Boulevard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastbound Exits /Entrances</td>
<td>Exit I-70 at Topeka Boulevard, 4th Street and 10th Avenue Enter I-70 from Topeka Boulevard, 4th Street and 10th Avenue</td>
</tr>
<tr>
<td>Estimated Construction Cost</td>
<td>$231.5 million, the middle of the three original alternatives</td>
</tr>
<tr>
<td>Safety</td>
<td>Highway geometric changes improve safety. Changes include: larger 3rd Street curve, wider shoulders, longer ramp acceleration lanes, better ramp connections with city streets and greater spacing between ramps.</td>
</tr>
<tr>
<td>Traffic Flow</td>
<td>Additional lanes are provided where needed on I-70 to reduce congestion. The increased lengths of entrance and exit ramps will smooth traffic flow. The weaving distance between Topeka Boulevard and 4th St. is less than desirable.</td>
</tr>
<tr>
<td>Access</td>
<td>Access is improved to Topeka Boulevard Indirect access is provided for the north end of Downtown, the proposed Riverfront Development and North Topeka. Access is maintained to 4th Street, 6th Avenue, 8th Avenue, and 10th Avenue on the east side of Downtown.</td>
</tr>
<tr>
<td>Support Development</td>
<td>Indirect access to the potential development in the Riverfront area and along Kansas Avenue to North Topeka. Access supports potential development the south end of Downtown.</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>Aesthetic treatments will be considered along I-70 and below the I-70 bridge.</td>
</tr>
</tbody>
</table>
Public/Stakeholder Input: The three alternatives were presented at a public meeting, various stakeholder group meetings, and to focus groups of randomly selected citizens. While the focus groups found all of the alternatives to be acceptable, stakeholder groups and a number of attendees at the public meeting expressed the desire for an additional connection between I-70 and city streets on the east side of the Downtown area. The most often mentioned location was 6th Avenue. This arterial street crosses the City of Topeka and provides the best connection to I-70 for East Topeka.

Stakeholders also requested that the vertical alignment of a new I-70 between Topeka Boulevard and Kansas Avenue be studied to determine if a new viaduct (above-grade option) or a depressed roadway (below-grade option) would be most appropriate. The master plan for the Riverfront Redevelopment Area recommends a below-grade option.

Both issues are discussed on the following pages, with the discussion of the vertical alignment beginning on page 53.

Revised Alternatives

Each of the three alternatives was revised to include a connection to 6th Avenue.

**Alternative #1 Revised** shown in Figure 4.4, provides three interchanges that serve the Downtown area. The first interchange serves the north side of the Downtown area, with ramps that connect I-70 to Topeka Boulevard and Kansas Avenue. The second services the northeast side of Downtown with ramps that connect I-70 to Madison and Monroe Streets at 4th Street and 6th Avenue. An existing partial interchange serves 10th Avenue to access Downtown Topeka from I-70 to the east.

**Alternative #2 Revised** shown in Figure 4.5, provides three interchanges that serve the Downtown area. The first interchange serves the north side of the Downtown area, with ramps that connect I-70 to Topeka Boulevard and Kansas Avenue. The second services the northeast side of Downtown with ramps that connect I-70 to Madison and Monroe Streets at 4th Street and 6th Avenue. An existing partial interchange serves 10th Avenue to access Downtown Topeka from I-70 to the east.

Alternative #2 differs from Alternative #1 in that it provides a pair of one-way collector-distributor roads that parallel I-70 from Topeka Boulevard to 10th Avenue.

**Alternative #3 Revised** as shown in Figure 4.6, provides three interchanges that serve the Downtown area. Interchanges would be located at Topeka Boulevard, 6th Avenue and 10th Avenue. The possibility of also providing a pair of ramps at 4th Street serving I-70 to and from the west was analyzed.
**Figure 4.4 Alternative #1 Revised Concept and Impacts**

Alternative #1 Revised provides three interchanges that serve the Downtown area. The first interchange serves the north side of the Downtown area, with ramps that connect I-70 to Topeka Boulevard and Kansas Avenue. The second services the northeast side of Downtown with ramps that connect I-70 to Madison and Monroe Streets at 4th Street and 6th Avenue. An existing partial interchange serves 10th Avenue to access Downtown Topeka from I-70 to the east.

<table>
<thead>
<tr>
<th>Westbound Exits / Entrances</th>
<th>Exit I-70 at 10th Avenue, 6th Avenue and Kansas Avenue. Enter I-70 from 4th Street and Topeka Boulevard.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastbound Exits / Entrances</td>
<td>Exit I-70 at Topeka Boulevard and 4th Street. Enter I-70 from Kansas Avenue, 6th Avenue and 10th Avenue.</td>
</tr>
<tr>
<td>Estimated Construction Cost</td>
<td>$180 million</td>
</tr>
<tr>
<td>Safety</td>
<td>Highway geometric changes improve safety. Changes include: larger 3rd Street curve, wider shoulders, longer ramp acceleration lanes, better ramp connections with city streets and greater spacing between ramps.</td>
</tr>
<tr>
<td>Traffic Flow</td>
<td>Additional lanes are provided where needed on I-70 to reduce congestion. The increased lengths of entrance and exit ramps will smooth traffic flow.</td>
</tr>
<tr>
<td>Access</td>
<td>Access is improved for the north end of Downtown, the proposed Riverfront Development and North Topeka. Access is maintained to 4th Street, 6th Avenue, 8th Avenue, and 10th Avenue on the east side of Downtown.</td>
</tr>
<tr>
<td>Support Development</td>
<td>Supports potential development in the Riverfront area, along Kansas Avenue and the south end of Downtown.</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>Aesthetic treatments will be considered along I-70, collector-distributor roads such as Madison and Monroe Streets and below the I-70 bridge.</td>
</tr>
</tbody>
</table>
Alternative #2 Revised provides three interchanges that serve the downtown area. The first interchange serves the north side of the downtown area, with ramps that connect I-70 to Topeka Boulevard and Kansas Avenue. The second serves the northeast side of downtown with ramps that connect I-70 to Madison and Monroe Streets at 4th Street and 6th Avenue. An existing partial interchange serves 10th Avenue to access downtown Topeka from I-70 to the east.

Alternative #2 differs from Alternative #1 in that it provides a pair of one-way collector-distributor roads that parallel I-70 from Topeka Boulevard to 10th Avenue.

<table>
<thead>
<tr>
<th>Westbound Exits /Entrances</th>
<th>Exit I-70 at 10th Avenue, 6th Avenue and Kansas Avenue. Enter I-70 from 4th Street and Topeka Boulevard.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastbound Exits /Entrances</td>
<td>Exit I-70 at Topeka Boulevard and 4th Street. Enter I-70 from Kansas Avenue, 6th Avenue and 10th Avenue.</td>
</tr>
<tr>
<td>Estimated Construction Cost</td>
<td>$220 million</td>
</tr>
<tr>
<td>Safety</td>
<td>Highway geometric changes improve safety. Changes include: larger 3rd Street curve, wider shoulders, longer ramp acceleration lanes, better ramp connections with city streets and greater spacing between ramps.</td>
</tr>
<tr>
<td>Traffic Flow</td>
<td>Additional lanes are provided where needed on I-70 to reduce congestion. The increased lengths of entrance and exit ramps will smooth traffic flow. A one-way pair of collector-distributor roads parallel I-70 from Topeka Boulevard to 10th Avenue.</td>
</tr>
<tr>
<td>Access</td>
<td>Access is improved for the north end of Downtown, the proposed Riverfront Development and North Topeka. Access is maintained to 4th Street, 6th Avenue, 8th Avenue, and 10th Avenue on the east side of Downtown.</td>
</tr>
<tr>
<td>Support Development</td>
<td>Supports potential development in the Riverfront area, along Kansas Avenue and the south end of Downtown.</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>Aesthetic treatments will be considered along I-70, collector-distributor roads such as Madison and Monroe Streets and below the I-70 bridge.</td>
</tr>
</tbody>
</table>
Figure 4.6 Alternative #3 Revised Concept and Impacts

Alternative #3 Revised provides three interchanges that serve the Downtown area. Interchanges would be located at Topeka Boulevard, 6th Avenue and 10th Avenue. The possibility of also providing a pair of ramps at 4th Street serving I-70 to and from the west was analyzed.

<table>
<thead>
<tr>
<th>Westbound Exits /Entrances</th>
<th>Exit I-70 at 10th Avenue, 6th Avenue, Topeka Boulevard and possibly 4th Street. Enter I-70 from 6th Avenue, Topeka Boulevard, and possibly 4th Street.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastbound Exits /Entrances</td>
<td>Exit I-70 at Topeka Boulevard, 6th Avenue, and possibly 4th Street. Enter I-70 from Topeka Boulevard, 6th Avenue, and 10th Avenue.</td>
</tr>
<tr>
<td>Estimated Construction Cost</td>
<td>$210 million</td>
</tr>
<tr>
<td>Safety</td>
<td>Highway geometric changes improve safety. Changes include: larger 3rd Street curve, wider shoulders, longer ramp acceleration lanes, better ramp connections with city streets and greater spacing between ramps.</td>
</tr>
<tr>
<td>Traffic Flow</td>
<td>Additional lanes are provided where needed on I-70 to reduce congestion. The increased lengths of entrance and exit ramps will smooth traffic flow.</td>
</tr>
<tr>
<td>Access</td>
<td>Access is improved to Topeka Boulevard Indirect access is provided for the north end of Downtown, the proposed Riverfront Development and North Topeka. Access is maintained to 4th Street, 6th Avenue, 8th Avenue, and 10th Avenue on the east side of Downtown.</td>
</tr>
<tr>
<td>Support Development</td>
<td>Indirect access to the potential development in the Riverfront area and along Kansas Avenue to North Topeka. Access supports potential development the south end of Downtown.</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>Aesthetic treatments will be considered along I-70 and below the I-70 bridge.</td>
</tr>
</tbody>
</table>
Comparison of Alternatives

The strengths and weaknesses of each of the three alternatives were evaluated for seven categories that relate to the project goals and objectives. These strengths and weaknesses are discussed and shown in the following tables.

Roadway Design: As shown in Table 4.2, all three alternatives would meet current highway design criteria and improve the curve near 3rd Street, provide wider shoulders on the viaduct, increase ramp lengths, increase spacing between ramps, and provide additional lanes where needed. Alternative #1 Revised has the lowest estimated construction cost.

Table 4.2 Strengths and Weaknesses – Roadway Design

<table>
<thead>
<tr>
<th>Roadway Design</th>
<th>Alternative #1 Revised</th>
<th>Alternative #2 Revised</th>
<th>Alternative #3 Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Cost to Build</td>
<td>$198 million</td>
<td>$201 million</td>
<td>$192 million</td>
</tr>
</tbody>
</table>
| Strengths | • Meets current design criteria  
• 3rd Street curve improved  
• Wider shoulders  
• Longer ramps  
• Greater distance between ramps  
• Additional lanes where needed  
• Madison & Monroe Streets improved | • Meets current design criteria  
• 3rd Street curve improved  
• Wider shoulders  
• Longer ramps  
• Greater distance between ramps  
• Additional lanes where needed  
• Madison & Monroe Streets improved  
• Collector-Distributor roads connect Topeka Boulevard to 10th Avenue | • Meets current design criteria  
• 3rd Street curve improved  
• Wider shoulders  
• Longer ramps  
• Greater distance between ramps  
• Additional lanes where needed |
| Weaknesses | • One slip ramp  
• Weave distance between Adams and 10th Avenue is less than desirable | • Three slip ramps  
• Weave distance between Adams and 10th Avenue is less than desirable. | • Weave distance between the Topeka Boulevard and 4th Street ramps is less than the desirable distance for the expected traffic volumes.  
• Requires an additional lane on westbound I-70 from the 6th Avenue ramp west to MacVicar Avenue  
• Two slip ramps  
• Weave distance between Adams and 10th Avenue is less than desirable. |
**Safety:** As shown in Table 4.3, all three alternatives should experience a reduction in the number of crashes as the highway features are reconstructed to meet current design criteria. The highest crash locations are addressed. Alternative #2 Revised and Alternative #3 Revised both have weaving areas where vehicle-to-vehicle conflicts may occur.

**Table 4.3 Strengths and Weaknesses – Traveler Safety**

<table>
<thead>
<tr>
<th>Traveler Safety</th>
<th>Alternative #1 Revised</th>
<th>Alternative #2 Revised</th>
<th>Alternative #3 Revised</th>
</tr>
</thead>
</table>
| **Strengths**   | ● Updated highway characteristics will reduce number of crashes  
                  ● High crash locations are addressed | ● Updated highway characteristics will reduce number of crashes  
                  ● High crash locations are addressed | ● Updated highway characteristics will reduce number of crashes  
                  ● High crash locations are addressed |
| **Weaknesses**  | ● Two weaving areas on collector-distributor roads (between ramp connection and intersecting city street) are shorter than desirable and may result in vehicle conflicts. | ● Weaving areas on I-70 between Topeka Boulevard and 4th Street ramps is less than desirable and will likely result in conflicts between vehicles entering and exiting I-70.  
                  ● Weaving conflicts between traffic on the 6th Avenue off-ramp and traffic travelling southbound on Monroe Street | |

**Support Economic Development:** As shown in Table 4.4, all three alternatives support potential development and redevelopment in Downtown Topeka. Alternatives #1 Revised and #2 Revised also support development in the Riverfront area through their connections to I-70.

**Table 4.4 Strengths and Weaknesses – I-70 Improvements Support Economic Development**

<table>
<thead>
<tr>
<th>Support Economic Development</th>
<th>Alternative #1 Revised</th>
<th>Alternative #2 Revised</th>
<th>Alternative #3 Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>● Supports potential development in the Riverfront area, North Topeka, along Kansas Avenue, and the south end of Downtown.</td>
<td>● Supports potential development in the Riverfront area, North Topeka, along Kansas Avenue, and the south end of Downtown.</td>
<td>● Supports potential development along Kansas Avenue and the south end of Downtown.</td>
</tr>
<tr>
<td><strong>Weaknesses</strong></td>
<td></td>
<td></td>
<td>● Indirect access is provided to the proposed Riverfront Development and the north side of the river along Kansas Avenue.</td>
</tr>
</tbody>
</table>
Traffic Mobility and Circulation: As shown in Table 4.5, all three alternatives improve the flow of traffic on mainline I-70 and provide adequate capacity to carry future traffic volumes through at least the year 2040. Some areas of congestion will develop with Alternative #3 Revised due to the ramp connections with city streets and the spacing between some ramps is less than desirable. Madison Street is closed north of 4th Street with Alternative #2 Revised changing the flow of traffic into the industrial area. With all the alternatives, some short sections of city streets will be closed to accommodate the new alignment of I-70.

Table 4.5 Strengths and Weaknesses – Traffic Mobility and Circulation

<table>
<thead>
<tr>
<th>Traffic Mobility &amp; Circulation</th>
<th>Alternative #1 Revised</th>
<th>Alternative #2 Revised</th>
<th>Alternative #3 Revised</th>
</tr>
</thead>
</table>
| Strengths                     | ● Improved traffic flow for mainline I-70 and for drivers entering and exiting the highway.  
● Adequate capacity for future traffic on I-70 (year 2040).  
● Bicycle and pedestrian needs will be considered during design.  | ● Improved traffic flow for mainline I-70 and for drivers entering and exiting the highway.  
● Adequate capacity for future traffic on I-70 (year 2040).  
● Bicycle and pedestrian needs will be considered during design.  | ● Improved traffic flow for most of mainline I-70 and for most drivers entering and exiting the highway.  
● Adequate capacity for future traffic on I-70 (year 2040).  
● Bicycle and pedestrian needs will be considered during design.  |
| Weaknesses                    | ● Some sections of city streets are closed.  | ● Two weaving areas on collector-distributor and may result in congested traffic flow with future volumes.  
● Some sections of city streets are closed  
● Madison closed north of 4th Street – truck traffic exits collector—distributor road to 2nd Street.  | ● Distances between some on-ramps and off-ramps are less than desirable and may result in spot traffic congestion.  
● Requires an additional lane from 4th St. west to accommodate ramp traffic at an acceptable level of service.  
● Congestion occurs as vehicles exiting eastbound I-70 at 6th Avenue weave across Monroe traffic to turn west into Downtown. Potential to queue traffic on the off-ramp.  
● Some sections of city streets are closed.  |
Access/Connections between I-70 and City Streets: As shown in Table 4.6, all three alternatives improve access to North Topeka. Alternative #1 Revised and Alternative #2 Revised provide better access to the proposed Riverfront Development with ramps that connect to Topeka Boulevard and Kansas Avenue.

Table 4.6 Strengths and Weaknesses – Access/Connections between I-70 and City Streets

<table>
<thead>
<tr>
<th>Access / Connections to City Streets</th>
<th>Alternative #1 Revised</th>
<th>Alternative #2 Revised</th>
<th>Alternative #3 Revised</th>
</tr>
</thead>
</table>
| Strengths                           | • Access is provided to Topeka Boulevard, Van Buren Street, and Kansas Avenue serving the north end of Downtown, the proposed Riverfront Development, and North Topeka.  
• Access is maintained to 4th Street, 6th Avenue, 8th Avenue, and 10th Avenue on the east side of Downtown. | • Access is provided to Topeka Boulevard, Van Buren Street, and Kansas Avenue serving the north end of Downtown, the proposed Riverfront Development, and North Topeka.  
• Access is maintained to 4th Street, 6th Avenue, 8th Avenue, and 10th Avenue on the east side of Downtown. | • Access is provided at Topeka Boulevard serving the north side of Downtown and North Topeka  
• Access is maintained to 4th Street, 6th Avenue, 8th Avenue, and 10th Avenue on the east side of Downtown. |

| Weaknesses                          | • Indirect access is provided to businesses north of 1st Street, the proposed Riverfront Development, and the north side of the river along Kansas Avenue. |

Aesthetics/Community Desires: As shown in Table 4.7, all three alternatives will consider the aesthetics of new roadways and bridges.

Table 4.7 Strengths and Weaknesses – Aesthetics/Community Desires

<table>
<thead>
<tr>
<th>Aesthetics / Community Desires</th>
<th>Alternative #1 Revised</th>
<th>Alternative #2 Revised</th>
<th>Alternative #3 Revised</th>
</tr>
</thead>
</table>
| Strengths                      | • Madison & Monroe Streets landscaped  
• Viaduct (new bridge) - aesthetics will be considered | • Madison & Monroe Streets landscaped  
• Viaduct (new bridge) - aesthetics will be considered | • Madison & Monroe Streets landscaped  
• Viaduct (new bridge) - aesthetics will be considered |

| Weaknesses                     | | | |
|--------------------------------| | | |
**Traffic during Construction:** As shown in Table 4.8, a specific plan for handling traffic during construction will be developed with stakeholder input. Maintaining access to Downtown Topeka is a critical factor that will be considered.

### Table 4.8 Strengths and Weaknesses of Handling Traffic During Construction

<table>
<thead>
<tr>
<th>Traffic During Construction</th>
<th>Alternative #1 Revised</th>
<th>Alternative #2 Revised</th>
<th>Alternative #3 Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>● A plan for traffic flow during construction will be developed with stakeholder input</td>
<td>● A plan for traffic flow during construction will be developed with stakeholder input</td>
<td>● A plan for traffic flow during construction will be developed with stakeholder input</td>
</tr>
<tr>
<td></td>
<td>● Offset alignment from Topeka Boulevard to Kansas Avenue will allow existing I-70 to function as it currently does for the major portion of construction</td>
<td>● Offset alignment from Topeka Boulevard to Kansas Avenue will allow existing I-70 to function as it currently does for the major portion of construction</td>
<td>● Offset alignment from Topeka Boulevard to Kansas Avenue will allow existing I-70 to function as it currently does for the major portion of construction</td>
</tr>
<tr>
<td></td>
<td>● Connector Roads can be used to carry traffic during construction</td>
<td>● Connector Roads can be used to carry traffic during construction</td>
<td></td>
</tr>
<tr>
<td><strong>Weaknesses</strong></td>
<td>● Some traffic disruption</td>
<td>● Some traffic disruption</td>
<td>● Some traffic disruption</td>
</tr>
</tbody>
</table>
Vertical Alignment between Topeka Boulevard and Kansas Avenue

The second major question raised by some stakeholders was whether the I-70 Polk-Quincy Viaduct should be replaced with a new viaduct or be reconstructed as a below-grade roadway similar to the section of I-70 between 10th Avenue and 6th Avenue. Figure 4.7 shows a visualization of a new viaduct and below-grade options for I-70 between Topeka Boulevard and Kansas Avenue. The master plan for the Riverfront redevelopment area, also depicted in the figure, recommends a below-grade option.

Figure 4.7 Vertical Alignment Options

Vertical Alignment Options

The strengths and weaknesses of three different vertical alignment options were studied for the section of I-70 from west of Topeka Boulevard to east of Kansas Avenue. They are:

- **Fully Below-Grade Option** – I-70 would be lowered approximately 25 feet below ground level to allow city streets to remain at current elevations. New bridges over I-70 would be provided at Topeka Boulevard, Van Buren Street, and Kansas Avenue.

- **Partially Below-Grade Option** – I-70 would be lowered approximately 10 feet and city streets would be raised approximately 15 feet to pass over I-70. New bridges over I-70 would be provided at Topeka Boulevard, Van Buren Street, and Kansas Avenue.

- **Above-Grade Option** – a new viaduct would be constructed to carry I-70 traffic over existing city streets. Harrison Street would likely be closed between 1st and 2nd Streets.

Eleven factors were explored to determine the likely impacts of the three vertical alignment options. These are discussed on the following pages.
Roadway Design: As shown in Table 4.9, all of the options will provide a highway that can meet current design criteria. Both the fully below-grade and partially below-grade options require a wider cross-section for I-70 than a new viaduct. A viaduct can be designed to that it can be cost-effectively widened in the future, but either below-grade option will need to be wide enough to provide for any foreseeable number of lanes due to the expense of the retaining walls that will be required. For this reason and others, the estimated construction costs for the below-grade options are significantly higher than for a new viaduct.

Table 4.9 Strengths and Weaknesses – Roadway Design

<table>
<thead>
<tr>
<th></th>
<th>Fully Below-Grade (25’ below ground level)</th>
<th>Partially Below-Grade (10’ below ground level)</th>
<th>Above-Grade (New viaduct)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Construction Cost *</td>
<td>$290 million</td>
<td>$250 million</td>
<td>$200 million</td>
</tr>
<tr>
<td>Strengths</td>
<td>• Addresses Highway Geometric Issues</td>
<td>• Addresses Highway Geometric Issues</td>
<td>• Addresses Highway Geometric Issues</td>
</tr>
<tr>
<td></td>
<td>• Downgrade on-ramps help traffic entering I-70 accelerate. Upgrade off-ramps help traffic exiting I-70 decelerate.</td>
<td>• Downgrade on-ramps help traffic entering I-70 accelerate. Upgrade off-ramps help traffic exiting I-70 decelerate.</td>
<td>• Smootherest vertical profile for I-70</td>
</tr>
<tr>
<td></td>
<td>• Longer on-ramps and off-ramps are necessary due to ramps grades.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weaknesses</td>
<td>• Must build initially to accommodate 6-lane I-70 plus ramps' auxiliary lanes due to extreme expense to widen in future – results in additional initial construction cost</td>
<td>• Must build initially to accommodate 6-lane I-70 plus ramps' auxiliary lanes due to extreme expense to widen in future – results in additional initial construction cost</td>
<td>• Longer on-ramps and off-ramps are necessary due to ramps grades.</td>
</tr>
<tr>
<td></td>
<td>• Retaining walls require 30’ setback for large trees, sign structures, buildings, etc.</td>
<td>• Retaining walls require 30’ setback for large trees, sign structures, buildings, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Less desirable highway profile – (ups and downs of travel path)</td>
<td>• Less desirable highway profile – (ups and downs of travel path)</td>
<td></td>
</tr>
</tbody>
</table>

*Average of Alternative #1 Revised, Alternative #2 Revised, and Alternative #3 Revised
Safety: As shown in Table 4.10, there are no significant safety differences between the options.

**Table 4.10 Strengths and Weaknesses – Safety**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Fully Below-Grade (25’ below ground level)</th>
<th>Partially Below-Grade (10’ below ground level)</th>
<th>Above-Grade (New viaduct)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Improved highway design</td>
<td>• Improved highway design</td>
<td>• Improved highway design</td>
</tr>
<tr>
<td>Weaknesses</td>
<td>• Risk of falling objects</td>
<td>• Risk of falling objects</td>
<td>• Risk of falling objects</td>
</tr>
</tbody>
</table>

Risk of Flooding: As shown in Table 4.11, there is a significant risk of flooding with either of the below-grade options as I-70 is located in the Kansas River floodplain. As I-70 is a key transportation corridor for the City of Topeka and the State of Kansas, flood conditions would close the highway. The trend in precipitation for the Kansas River basin over the past century shows a 5% to 15% increase with a resulting increase in water flow in the river. The Kansas Department of Wildlife and Parks expects this trend to continue. A number of pump stations would be required to mitigate this risk, with an initial cost of approximately $2 million per installation plus annual operating and maintenance expenses.

**Table 4.11 Strengths and Weaknesses – Risk of Flooding**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Fully Below-Grade (25’ below ground level)</th>
<th>Partially Below-Grade (10’ below ground level)</th>
<th>Above-Grade (New viaduct)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Significant risk</td>
<td>• No risk</td>
<td>• No risk</td>
</tr>
<tr>
<td></td>
<td>• Several pump stations required ($2 million per station based upon US-54) plus underground storage and distribution</td>
<td>• Several pump stations required ($2 million per station based upon US-54) plus underground storage and distribution</td>
<td>• No pumping required</td>
</tr>
<tr>
<td>Weaknesses</td>
<td>• Kansas River flow increasing</td>
<td>• Kansas River flow increasing</td>
<td></td>
</tr>
</tbody>
</table>
**Ground Water:** As shown in Table 4.12, the ground water level impacts both of the below-grade options. With the fully below-grade option, the pavement for I-70 would be approximately 5 feet below the observed water table. While at a higher elevation, the pavement for the partially below-grade option is still lower than the high water table that occurs in wet conditions. Ground water creates uplift forces that impact a roadway’s pavement. A drainage system would be required to continuously remove the water from under the pavement. The above-grade option would avoid the issues associated with ground water.

**Table 4.12 Strengths and Weaknesses – Ground Water Issues**

<table>
<thead>
<tr>
<th></th>
<th>Fully Below-Grade (25’ below ground level)</th>
<th>Partially Below-Grade (10’ below ground level)</th>
<th>Above-Grade (New viaduct)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>--</td>
<td>• 10’ above typical water table observed in test wells</td>
<td>• No groundwater issues • No pumping required</td>
</tr>
<tr>
<td><strong>Weaknesses</strong></td>
<td>• 5’ + below water table observed in test wells • Uplift forces from groundwater • Pump stations to handle seepage</td>
<td>• Below a “high water” water table • Uplift forces from groundwater • Pump stations to handle seepage</td>
<td>--</td>
</tr>
</tbody>
</table>

**Noise:** As shown in Table 4.13, the fully below-grade option provides the lowest noise impact on adjacent properties. The partially below-grade option may provide some benefits for reducing noise, while the above-grade option will have noise levels similar to the current situation.

**Table 4.13 Strengths and Weaknesses - Noise**

<table>
<thead>
<tr>
<th></th>
<th>Fully Below-Grade (25’ below ground level)</th>
<th>Partially Below-Grade (10’ below ground level)</th>
<th>Above-Grade (New viaduct)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>• Lowest impact on adjacent properties</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td><strong>Weaknesses</strong></td>
<td>--</td>
<td>• Some impact on adjacent properties</td>
<td>• Moderate impact (similar to existing)</td>
</tr>
</tbody>
</table>

**Bicycle/Pedestrian Considerations:** As shown in Table 4.14, pedestrians often have a greater perception of safety when crossing on a bridge over another roadway rather than when they are crossing under a bridge. The below-grade options would restrict crossing points for pedestrians and bicyclists to three streets: Topeka Boulevard, Van Buren Street, and Kansas Avenue. The above-grade option allows crossings under a new viaduct at almost any point.
### Table 4.14 Strengths and Weaknesses – Bicycle/Pedestrian Considerations

<table>
<thead>
<tr>
<th></th>
<th>Fully Below-Grade (25’ below ground level)</th>
<th>Partially Below-Grade (10’ below ground level)</th>
<th>Above-Grade (New viaduct)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>Perception of greater safety when crossings are made on bridge rather than under</td>
<td>Perception of greater safety when crossings are made on bridge rather than under</td>
<td>Cross under I-70 at almost any point, Opportunities for bicycle/pedestrian facilities under I-70</td>
</tr>
<tr>
<td><strong>Weaknesses</strong></td>
<td>I-70 crossing points are limited to 3 streets, Opportunities for bicycle/pedestrian facilities are limited</td>
<td>I-70 crossing points are limited to 3 streets, Opportunities for bicycle/pedestrian facilities are limited</td>
<td>Pedestrian perceived safety concerns for crossing under bridges</td>
</tr>
</tbody>
</table>

### Construction:
As shown in Table 4.15, the above-grade option has a number of advantages during construction. This option is less disruptive to the local street system, thereby minimizing the disruption of traffic circulation. The above-grade option can be built more quickly than the below-grade options.

### Table 4.15 Strengths and Weaknesses – Construction of Improvements

<table>
<thead>
<tr>
<th></th>
<th>Fully Below-Grade (25’ below ground level)</th>
<th>Partially Below-Grade (10’ below ground level)</th>
<th>Above-Grade (New viaduct)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>--</td>
<td>--</td>
<td>New viaduct can be built over existing streets and traffic, Shortest duration closure of I-70, Lowest cost, Shortest time to construct, Least risk for Contractor due to unknowns</td>
</tr>
<tr>
<td><strong>Weaknesses</strong></td>
<td>Longer closure of I-70, Longer time to construct (1 additional construction season), $24 to $60 million added costs due to groundwater issues, Potential stability issues with foundations of adjacent buildings, Greater risk for Contractor due to unknowns</td>
<td>Longer closure of I-70, Longer time to construct (1 additional construction season), Reconstruct portion of Topeka Blvd &amp; Kansas Av bridges, Loss of direct connection to Topeka Blvd, Van Buren &amp; Kansas Av for some properties, Greater risk for Contractor due to unknowns</td>
<td>--</td>
</tr>
</tbody>
</table>
Utility Impacts: As shown in Table 4.16, the fully below-grade option has major impacts to existing utilities, including storm sewers, sanitary sewers, and combined sewers. These sewers range in size from 12 inches to 96 inches in diameter. These and other utilities would need to lowered 20 to 25 feet below their current elevations so as to pass under I-70. Pump stations would likely be required for the storm and sanitary sewers. The partially below-grade option would have moderate impacts, requiring the lowering of a number of utilities. The above-grade option has minimal impacts.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Fully Below-Grade (25’ below ground level)</th>
<th>Partially Below-Grade (10’ below ground level)</th>
<th>Above-Grade (New viaduct)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
| Weaknesses| • Major utility impacts to storm sewers, sanitary sewers, and combined sewers  
• Lower utilities 20’ + to go under I-70  
• Pump stations required  
• Multi-million dollars to adjust utilities  
• Moderate and some major impacts to storm sewers, sanitary sewers, and combined sewers  
• Lower some utilities to go under I-70 | --                                            | --                      |

Traffic Circulation during Construction: As shown in Table 4.17, the above-grade option results in the least disrupt to local traffic during construction of the I-70 improvements. Both of the below-grade options will require the closure of Topeka Boulevard and Kansas Avenue (not concurrently).

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Fully Below-Grade (25’ below ground level)</th>
<th>Partially Below-Grade (10’ below ground level)</th>
<th>Above-Grade (New viaduct)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
| Weaknesses| • Topeka Boulevard and Kansas Avenue each closed/detoured for 9 to 12 months  
• Difficult access to properties north of 1st St  
• Most disruptive to local traffic  
• Topeka Boulevard and Kansas Avenue traffic detoured for 1 to 2 years | • Topeka Boulevard and Kansas Avenue each closed for 9 to 12 months | --                      |
**Maintenance:** As shown in Table 4.18, the below-grade options require ongoing operation and maintenance costs for pump stations as well as normal roadway and structure maintenance. An advantage of the above-grade option is that a bridge can be visually inspected, whereas the below-grade options have significant retaining walls which can only be inspected on one side.

<table>
<thead>
<tr>
<th>Table 4.18 Strengths and Weaknesses - Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Strengths</strong></td>
</tr>
<tr>
<td><strong>Weaknesses</strong></td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Aesthetics:** As shown in Table 4.19, some stakeholders perceive an advantage for the below-grade options in that the viaduct does not create a visual barrier between Downtown and the Riverfront area. Others believe that the view of Downtown from I-70 is more important and that the above-grade option provides this view.

<table>
<thead>
<tr>
<th>Table 4.19 Strengths and Weaknesses - Aesthetics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>Strengths</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Weaknesses</strong></td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Conclusion

From a technical standpoint, the above-grade (new viaduct) option provides the most advantages at a significantly lower cost. Three focus groups of randomly selected citizens from Topeka were asked their option regarding the vertical alignment options. Ninety-three percent of the focus group participants preferred the above-grade option shown in Figure 4.8.

Figure 4.8 Above-Grade (New Viaduct) Option
Preferred Alternative

The strengths and weaknesses of the three alternatives were compiled and presented to the public and stakeholders. As shown in Table 4.20, the overall concept of Alternative #1 Revised is the preferred alternative for the improvements to I-70 near Downtown Topeka.

Table 4.20 Preferences of Stakeholders

<table>
<thead>
<tr>
<th>Group</th>
<th>Above-Grade or Below-Grade</th>
<th>Access Alternative Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Team</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>Project Advisory Committee</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>Greater Topeka Chamber of Commerce</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>Downtown Topeka, Inc.</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>Community Focus Groups</td>
<td>Above-Grade</td>
<td>All Alternatives are Acceptable</td>
</tr>
<tr>
<td>Metropolitan Topeka Planning Organization</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>Riverfront Authority</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>North Topeka Business Alliance</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
<tr>
<td>City Council</td>
<td>Above-Grade</td>
<td>Alternative #1 (revised)</td>
</tr>
</tbody>
</table>

The preferred alternative shown in Figure 4.9 creates an access system with two “split diamond” interchanges, one serving the north side of the Downtown area and one serving the east side. Six lanes will be provided where needed to accommodate future (year 2040) traffic volumes.

On the north side, the existing 1st Street ramps are relocated so that they connect directly with Topeka Boulevard. These ramps serve traffic traveling to and from the west on I-70. A complementary set of ramps connect to Kansas Avenue and serve traffic traveling to and from the east on I-70. These ramps are joined by a pair of one-way connector roads to form a system that will provide access to Downtown from the north, the proposed Riverfront redevelopment area, and North Topeka.

A similar system of ramps and connector roads will serve the east side of the Downtown area. The existing 3rd Street ramps will be relocated to 4th Street and will serve traffic traveling to and from the west on I-70. The existing 10th Avenue ramps will remain and be widened, and new 6th Avenue ramps will be constructed, serving traffic traveling to and from the east on I-70. The 4th Street, 6th
Avenue, and 10th Avenue ramps will be connected by the one-way, connector road pair of Madison and Monroe Streets. Other ramps between 10th Avenue and 4th Street will be removed.

The preferred alternative provides good overall traffic flow for the forecasted year 2040 traffic volumes. The “level of service (LOS)” on mainline I-70 is primarily in the LOS B to LOS C range. Two sections will experience LOS D (acceptable) during the morning peak period and two during the evening peak period. During the morning peak period, LOS D occurs on eastbound I-70 between MacVicar Avenue and Topeka Boulevard and on westbound I-70 between Adams Street and 10th Avenue. During the evening peak period, LOS D occurs on eastbound I-70 between the 6th Avenue and 10th Avenue ramps and on westbound I-70 between Topeka Boulevard and MacVicar Avenue.
Figure 4.10 is a schematic of the lane arrangement with each red line indicating an eastbound lane on I-70 and its ramps, while each blue line represents a westbound lane or ramp. The green diamonds show intersections having traffic signals.

**Figure 4.10 I-70 Lane and Ramp Configuration**
Future Design Consideration

The City Council, supported by the Greater Topeka Chamber of Commerce and Downtown Topeka, Inc., has requested that a “Future Design Consideration” be investigated as the project moves into preliminary design. The Preferred Alternative (Alternative #1 Revised), shown in Figure 4.10, has three westbound exits from I-70 and two westbound entrances; there are two eastbound exits and three eastbound entrances. The Future Design Consideration, shown in Figure 4.11, would explore a third eastbound exit from I-70 by eliminating the eastbound entrance from 6th Avenue and adding an eastbound exit for 10th Avenue.

KDOT has agreed to analyze this modification of the preferred alternative during the next phase of the project.
Summary

Seventeen initial concepts and three revised alternatives were studied and reviewed by various stakeholder groups and the general public. Alternative #1 Revised was selected as the Preferred Alternative to carry forward into preliminary design. At that time, a Future Design Consideration requested by the City Council will be reviewed. A Break-in-Access report will then be prepared.

The Preferred Alternative provides three exits from westbound I-70 located at 10th Avenue, 6th Avenue, and Kansas Avenue, as well as two exits from eastbound I-70 located at Topeka Boulevard and 4th Street. Entrances to westbound I-70 will be provided at 4th Street and Topeka Boulevard. Entrances to eastbound I-70 will be provided at Kansas Avenue, 6th Avenue, and 10th Avenue.

During preliminary design a Future Design Consideration will investigate eliminating the eastbound entrance ramp from 6th Avenue and providing an eastbound exit at 10th Avenue.
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Section 5: Socioeconomic and Environmental Considerations

The purpose of the environmental screening includes: 1) identifying potential significant adverse social, economic, or environmental impacts for each alternative, 2) determining whether mitigation measures are possible to reduce or to avoid any identified impacts, and 3) determining whether all environmental regulations and requirements can be satisfied during subsequent environmental studies.

Development of alternatives at this stage consists of conceptual design layouts or “footprints”. Actual right-of-way requirements have not been established.

Based upon this environmental screening, none of the three alternatives would result in significant adverse social, economic, or environmental impact. No “fatal flaws” in terms of environmental impact were identified for any of the alternatives. Table 5.1 shows a comparison of the environmental screening for each alternative and the no build scenario.

<table>
<thead>
<tr>
<th>Table 5.1 Comparison of Alternatives for Environmental Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No Build</strong></td>
</tr>
<tr>
<td>Right-of-Way Required</td>
</tr>
<tr>
<td>Displacement of Residences</td>
</tr>
<tr>
<td>Parks</td>
</tr>
<tr>
<td>Historic Properties</td>
</tr>
<tr>
<td>Economic Development</td>
</tr>
<tr>
<td>Floodplain</td>
</tr>
<tr>
<td>Other Land Use Impacts</td>
</tr>
<tr>
<td>Communities of Concern</td>
</tr>
</tbody>
</table>
Table 5.1 (continued) Comparison of Alternatives for Environmental Screening

<table>
<thead>
<tr>
<th></th>
<th>No Build</th>
<th>Alternative #1 Revised</th>
<th>Alternative #2 Revised</th>
<th>Alternative #3 Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual and Aesthetics</td>
<td>None</td>
<td>Potential to improve the aesthetics of I-70</td>
<td>Potential to improve the aesthetics of I-70</td>
<td>Potential to improve the aesthetics of I-70</td>
</tr>
<tr>
<td>Pedestrian Patterns</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Transit Patterns</td>
<td>None</td>
<td>Improved connections to I-70</td>
<td>Improved connections to I-70</td>
<td>Less direct access to transit center from I-70</td>
</tr>
<tr>
<td>Construction Impacts</td>
<td>None</td>
<td>Maintenance of traffic plan will be developed for the preferred alternative.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mitigation</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Right-of-Way

Forty-five properties shown in the shaded area of Figure 5.1 may be impacted by the relocation of I-70 depending upon the final design. Nine of those properties are residences. Right-of-way limits will be determined during preliminary design, the next phase of the project.

Figure 5.1 Potential Right-of-Way Impacts

Source: Shawnee County Property Data
Parks

Figure 5.2 shows the parks located along the I-70 corridor. Improvements to I-70 would have no significant impacts upon these parks.

- **Auburndale Park**, located south of I-70 at 2400 SW Perry, is primarily “green space”. East of the waterway that feeds into the Kansas River is an area that provides drainage retention during periods when the elevation of the river is significantly above normal.

  I-70 would not require widening along the park area. If widening were required it would have no impact of the function of the park.

- **Ward-Meade Park** is located at 124 NW Fillmore Street on the south side of I-70. This park is the site of Old Prairie Town, a six-acre park with an 1800’s town square of vintage buildings and a small botanical garden.

  Retaining walls may be required along I-70 to avoid encroaching on the park area.

- **W. Giles Park** is located on the south side of I-70 at the intersection of 1st Street and SW Taylor Street. The park provides playground and picnic facilities.

  The proposed eastbound I-70 off-ramp to Topeka Boulevard would pass along the northeast side of the park in the same manner as the current 1st Street ramp. No right-of-way will be required.
Historic Buildings

A review of the potential historic properties does not indicate any conflicts with the proposed relocation of I-70. Figure 5.3 shows the locations of potential historic properties in the area that are recommended for Activity II analysis. These properties are located north of 1st Street and south of 2nd Street. The proposed alignment for I-70 is between 1st Street and 2nd Street.

Figure 5.3 Potential Historic Buildings
Economic Development

I-70 serves four areas of potential development shown in Figure 5.4. The first is the proposed Riverfront Development area which lies on the north side of I-70 between Topeka Boulevard and Kansas Avenue. A master plan has been developed for the Riverfront area which includes both the north and south sides of the Kansas River, see Figure 5.5. The second is a proposed entertainment district that is located on the west side of I-70 and south of 10th Avenue. The third area is Downtown itself which is undergoing redevelopment, with much of the activity focused on Kansas Avenue. The fourth is the North Topeka Arts District located on North Kansas Avenue.

The alternatives for improvement to I-70 have been developed to support these areas of potential economic development.

Figure 5.4 Economic Development Areas

Legend

- Proposed Riverfront Development
- Proposed Entertainment District
- Downtown Development
- North Topeka Arts District

Source: Google Earth for aerial photography

Figure 5.5 Riverfront Master Plan

Source: Google Earth for aerial photography
Floodplain

The Kansas River passes just to the north of I-70. The floodplain in this area is shown in Figure 5.6. The study area is protected by a levee system. The embankment for I-70 is the levee from the MacVicar Avenue interchange east for approximately one-half mile. As the improvement concept moves forward into design, coordination with the Corps of Engineers will be required.

Figure 5.6 Floodplain Map

Communities of Concern

Federal Environmental Justice guidance is to ensure that communities of concern, defined by minority populations and low-income populations, are included in the transportation planning process, and to ensure that they may benefit equally from the transportation system without shouldering a disproportionate share of its burdens.

There are three fundamental environmental justice principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.
The Metropolitan Topeka Planning Organization’s (MTPO) 2034 Long Range Transportation Plan (LRTP) has identified communities of concern (e.g. environmental justice populations).

**Minority Population**

According to the 2000 US Census, 18 percent of the MTPO region’s residents are considered to be minorities. For purposes of environmental justice analysis, the blocks where the share of minority population is at least one and one-half times greater than that of the overall MTPO area were considered to be communities of concern. Those individual blocks are shown in Figure 5.7. The proposed realignment of I-70 in this area will not impact a community of concern.

**Figure 5.7 High Minority Census Blocks**

![High Minority Census Blocks](Source: 2034 Metropolitan Topeka Long Range Transportation Plan)
Low Income Population
In the 2000 US Census, nearly 10 percent of the population of the MTPO planning area reported incomes below the federal poverty level (referred to as “low income” in this analysis). For purposes of environmental justice analysis, the blocks where the share of low income population is one and one-half times greater than that of the overall MTPO area were considered to be communities of concern. Those areas are shown in dark green in Figure 5.8. The proposed realignment of I-70 for all three alternatives will be within a low income area. The area is primarily commercial with a few residences. To provide the safety and traffic operation benefits that are goals of the study, this impact is unavoidable.

Figure 5.8 Low Income Populations
Bikeway Master Plan

The current Regional Trails Plan has two bicycle trails, shown in Figure 5.9, that cross I-70 near Downtown Topeka. The existing Shuga Trail, shown by a pink line, crosses under I-70 between Adams Street and 10th Avenue. It then continues north to its current ending point at 10th Avenue. Future plans call for the Shunga Trail to be extended north and east. A proposed trail, shown by a dotted blue line, will be located a couple of blocks east of the “north-south” segment of I-70. This trail would extend north to the Kansas River levee and then turn west and extend along the levee. A new Bikeways Master Plan is being developed and will need to be reviewed during preliminary design.

Figure 5.9 Bicycle Trails

Source: Shawnee County Trails Map

Transit and School Buses

Both the Topeka Metropolitan Transit Authority (TMTA) and Unified School District (U.S.D.) 501 operate buses on I-70. Based upon responses from their stakeholder interviews, safe access to I-70 is an important issue to both. At the time of the interview, TMTA had three routes using I-70, each with two buses per hour as well as the companion paratransit service. Paratransit service provides 50 to 60 rides per day on I-70 going to the Cotton-O’Neil medical clinic near 29th Street and Croco
Road. Likewise, many paratransit trips use I-70 to go to the Tallgrass medical facility near 10th Avenue and Wanamaker Road. TMTA makes use of the 1st Street entrance-ramp instead of the 3rd Street ramp when going west on I-70 due to safety concerns. Numerous bus routes are shown in Figure 5.10 that cross I-70 on 6th Avenue, 8th Avenue, 10th Avenue, Topeka Boulevard, and Kansas Avenue.

**Figure 5.10  TMTA Bus Routes**

![TMTA Bus Routes](image)

*Source: Topeka Metropolitan Transit Authority*

U.S.D. 501 operates 40 buses a day on I-70. In addition, the District’s Hummer Sports Park is located near I-70 and MacVicar Avenue. The District has purchased the former State Hospital grounds, also located in this area. As this site develops, it is expected to draw 600 to 1100 people per day.
Environmental Documentation

The Kansas Department of Transportation and Federal Highway Administration reviewed the impacts of the proposed I-70 improvements on historic properties, parks, and communities of concern, as well as comments from the public and other stakeholders. They concluded that a “documented categorical exclusion” was the appropriate environmental document for the project as it moves forward into the design phase.
Appendix A:

Traffic Simulation and Analysis
Appendix A: Traffic Simulation and Analysis

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1 Existing Conditions

This chapter documents the evaluation of the current 2010 traffic conditions along with the methodology and measures of operational performance used in the evaluation. The existing condition analysis represents current traffic conditions with no operational changes to the study area roadway network.

1.1 Existing Traffic Operations

An evaluation of existing traffic operations for the Polk-Quincy Corridor and intersecting streets and ramps was conducted using VISSIM, a traffic modeling simulation program. The following sections present the methodology used to complete the analysis and the existing traffic operations results.

1.1.1 Data Collection

Traffic volume counts, travel times along the mainline and queuing observations were collected in order to capture a complete picture of hourly and daily traffic operations in the study area.

1.1.1.1 Traffic Counts

The I-70 mainline count provided hourly volumes between the MacVicar Avenue and 1st Street interchanges and was conducted in August 2009. On- and Off-ramp volumes were counted near the same time as I-70 mainline in August 2009. The ramp volumes were collected in 15-minute periods. Using the eastbound and westbound mainline counts between MacVicar Avenue and 1st Street as well as the ramp counts, the remaining mainline volumes east of this location were then calculated.

Turning-movement counts for local street intersections were conducted between November 2009 and January 2010 and avoided the holiday season weeks in December and early January. Turning-movement counts were conducted at the following intersections on Tuesday s through Thursdays in 15-minute periods:

- 10th & Monroe
- 10th & Madison
- 8th & Monroe
- 8th & Madison
- 4th & Monroe
- 4th & Madison
- 3rd & Monroe
- 3rd & Madison
- 2nd & Madison
- 1st & Topeka
- 1st & Kansas

Some adjustments were required to balance peak hour traffic volumes within the study area due to minor traffic fluctuations from count data being collected on different days. The following assumptions were used in balancing volumes:
• Ramp volumes were deemed the most accurate as they provided peak hour counts in 15-minute periods and were generally averaged over five Tuesdays through Thursdays.
• Turning-movement counts were deemed the second most accurate count type and were counted in 15-minute periods.
• Mainline volumes were deemed the least accurate because of when the peak hours occurred and the distance away from the heart of the study area. The volume was averaged for Tuesday through Thursday counts. Mainline counts were adjusted higher to resolve an issue of limited traffic making it all the way to the far end of the mainline because of high off-ramp volumes.
• Small imbalances in the manual turning-movement counts between intersections were adjusted to the higher of the two counts.
• As no turning-movement counts were taken on 6th Avenue, this street was used to balance volumes between consecutive intersections north and south.

1.1.1.2 Travel Time Runs and Queuing Observations
Travel times from the MacVicar Avenue interchange to the Adams Street interchange were taken during both the AM and PM in both directions to calibrate the VISSIM model. Intersections that had substantial queuing were observed during both the AM and PM peak hours and maximum queue lengths were recorded.

Travel times were recorded using the floating car method with five runs in each direction of I-70 for both AM and PM peak periods over multiple days. The travel time runs started and ended near the Adams Street and MacVicar Avenue interchanges. VISSIM was then calibrated to be within 10% of the actual average travel time.

Queuing was observed and recorded at intersections with heavy movements in the AM and PM peak periods. The movement along with the number of cars in the queue was recorded for the following intersections or areas.

• I-70 EB at 1st Street off-ramp (AM peak)
• I-70 EB at 3rd Street off-ramp (AM peak)
• I-70 EB at 8th Avenue off-ramp to the 8th and Monroe intersection (AM peak)
• I-70 EB at 10th Avenue on-ramp (PM Peak)
• I-70 WB at 10th Avenue off-ramp (AM Peak)
• I-70 WB at 8th Avenue off-ramp (AM Peak)
• Topeka Blvd and 1st Street intersection (PM Peak)

1.1.2 Traffic Analysis Methodology
Traditional methods of traffic analysis are analytical in nature, involving a number of formulas and input values to estimate measures of system performance. However, analytic methods are limited in their ability to account for variables outside of the limited analysis area. For instance, if queuing were to occur due to a downstream bottleneck, in reality it may result in congestion on an upstream segment of
roadway. An analytic analysis, however, would not account for such a condition and may indicate acceptable performance for the same segment.

VISSIM 5.2 was used for the I-70 Polk-Quincy Corridor evaluation. VISSIM is a microsimulation model, meaning that traffic movements are explicitly modeled based on geometric parameters, traffic volumes, vehicle types, intersection control, and driver behavior. VISSIM assesses the roadway network in a dynamic fashion, instead of analyzing each intersection or each roadway segment in isolation. Unlike analytical analysis, which can be calculated manually, simulation models function only as a computer analysis tool. Average performance statistics, such as vehicle delay, volume served, flow density, and travel time, are measured during the simulation. Furthermore, as a stochastic model, a random number seed guides the assignment of vehicle headways. By varying the random number seed, the model results can also vary with identical inputs. This allows the user to test a number of iterations with the same input values to determine average performance.

The model for the Topeka Polk-Quincy study is a one-hour period of time in the AM peak hour and again in the PM peak hour for each alternative. It is important to note that because it is a one hour model that the traffic volumes that occur within the peak hour are spread nearly evenly over the course of the hour. Peak hour factors (PHFs) which may be used during a signal optimization study are not accounted for in this model. Actual conditions during a specific time frame (ex. 15 minutes) may operate worse than the model displays.

VISSIM can provide Measures of Effectiveness (MOE’s) such as vehicle delay, travel time, queuing and fuel consumption on a network-wide basis, so that the effects of improvements at a single location may be measured throughout the network. This ability makes VISSIM an ideal tool for testing and comparing alternatives to determine the most effective combination of elements in facilitating traffic flow. In addition, the sensitivity of the VISSIM model allows the user to test more subtle changes to the roadway system, such as adjustments in traffic signalization, addition or removal of driveways and access points, changes in bus operations, and others.

The simulation component of VISSIM is a powerful feature, as it provides a graphical, intuitive representation of traffic flow throughout the corridor that is simple to visualize and interpret, making it an ideal tool for presentation to non-technical parties.

In order to obtain accurate results from the VISSIM traffic simulation model, the user must make a series of adjustments to various driver behavior parameters, as well as other parameters, in order to calibrate the model to real-world conditions. Because driver behavior varies significantly based on location, weather, roadway condition, geometry, and other factors, these parameters must be adjusted in VISSIM in order to accurately replicate existing conditions. Once adjustments are made, model results must be validated by comparing them to real-world measures of operational performance, such as volume served, travel time, queuing and delay, until a certain level of accuracy is reached.

For this study, model results were validated based on a combination of volume served, field conducted travel time runs, and field queuing observations. While volume served is a useful comparison measure for use in model validation, it does not always reflect actual demand. For
instance, in real-world conditions, when the demand on a particular segment of roadway exceeds its capacity, the unserved demand results in queuing, while a volume count on the segment may remain constant or potentially decreases as congestion builds. This relationship is illustrated in Figure 1.

**Figure 1: Volume Served/Demand Relationship**

As illustrated in

Figure 1, once demand exceeds capacity, a breakdown of flow occurs, and volume served begins to decrease as demand increases. For this reason, volume served is not an adequate validation measure alone, as it does not include a measure of unserved demand.

Based on the volume data obtained, field travel time runs, and field observations of queuing conditions, a number of calibration runs were conducted until the volumes served as reported by the model were within the greater of 10-percent or 20 vehicles of the actual recorded volumes. In addition, simulation travel times were modeled to within 10-percent of observed travel times from end to end of the corridor. Modeled queuing conditions were also checked against the field observed conditions for verification.

Minor adjustments from the default VISSIM parameters were necessary to obtain calibrated Existing Conditions models. Parameters that were adjusted include:

- Desired vehicle speed increased where appropriate
- Lane Change distance increased where appropriate (this is the distance at which vehicles begin positioning for a downstream maneuver (off-ramp or turning-movement, e.g.)
- Coded 1st Street EB Off-ramp as a rolling stop to simulate existing conditions and replicate volume served
• Adjusted vehicle fleet model for passenger cars and heavy vehicles (trucks) due to the VISSIM default being based on a European vehicle fleet which contains vehicles of smaller size when compared to the typical North American vehicle fleet

1.1.3 Measures of Operational Performance
The freeway and intersection operations within the study area were evaluated as part of the VISSIM modeling effort. The 2000 Highway Capacity Manual (HCM) defines ranges that correspond to performance indicators known as Level of Service (LOS) for freeway and intersection operations. The concept of LOS provides a general scale of operating conditions in a letter scale format from A to F, with LOS A equating to unimpeded flow for freeways and little to no control delay for intersection, and LOS F equating to traffic demand exceeding a roadway’s capacity, conditions where queuing extends into the segment in question for freeways and excessive control delay for intersections. The LOS ranges for freeways are based on density, while the LOS ranges for intersections are based on control delay. Figure 2 visually illustrates depictions of levels of service for freeways.
Table 1 and Table 2 illustrate the LOS thresholds for intersections, while Table 3 illustrates the LOS thresholds for freeway segments (basic segment, ramp merge/diverge areas, and weave areas).

Figure 2: Visual Depictions of Levels of Service
### Table 1: Level of Service Definitions for Signalized Intersections

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Description</th>
<th>Average Control Delay Per Vehicle (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Operations with very low control delay occurring with favorable progression and/or short cycle lengths.</td>
<td>( \leq 10.0 )</td>
</tr>
<tr>
<td>B</td>
<td>Operations with low control delay occurring with good progression and/or short cycle lengths.</td>
<td>( &gt; 10.0 ) and ( \leq 20.0 )</td>
</tr>
<tr>
<td>C</td>
<td>Operations with average control delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.</td>
<td>( &gt; 20.0 ) and ( \leq 35.0 )</td>
</tr>
<tr>
<td>D</td>
<td>Operations with longer control delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.</td>
<td>( &gt; 35.0 ) and ( \leq 55.0 )</td>
</tr>
<tr>
<td>E</td>
<td>Operations with high control delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.</td>
<td>( &gt; 55.0 ) and ( \leq 80.0 )</td>
</tr>
<tr>
<td>F</td>
<td>Operation with control delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.</td>
<td>( &gt; 80.0 )</td>
</tr>
</tbody>
</table>


### Table 2: Level of Service Definitions for Unsignalized Intersections

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Description</th>
<th>Average Control Delay Per Vehicle (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Little or no delay.</td>
<td>( \leq 10.0 )</td>
</tr>
<tr>
<td>B</td>
<td>Short traffic delays.</td>
<td>( &gt; 10.0 ) and ( \leq 15.0 )</td>
</tr>
<tr>
<td>C</td>
<td>Average traffic delays.</td>
<td>( &gt; 15.0 ) and ( \leq 25.0 )</td>
</tr>
<tr>
<td>D</td>
<td>Long traffic delays.</td>
<td>( &gt; 25.0 ) and ( \leq 35.0 )</td>
</tr>
<tr>
<td>E</td>
<td>Very long traffic delays.</td>
<td>( &gt; 35.0 ) and ( \leq 50.0 )</td>
</tr>
<tr>
<td>F</td>
<td>Demand exceeds capacity resulting in extreme delays.</td>
<td>( &gt; 50.0 )</td>
</tr>
</tbody>
</table>


### Table 3: Level of Service Criteria for Freeway Operations

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Basic Freeway Density (pc/mi/ln)</th>
<th>Ramp Junction Density (pc/mi/ln)</th>
<th>Freeway Weaving Density (pc/mi/ln)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>( \leq 11.0 )</td>
<td>( \leq 10.0 )</td>
<td>( \leq 10.0 )</td>
</tr>
<tr>
<td>B</td>
<td>( &gt; 10.0 ) and ( \leq 18.0 )</td>
<td>( &gt; 10.0 ) and ( \leq 20.0 )</td>
<td>( &gt; 10.0 ) and ( \leq 20.0 )</td>
</tr>
<tr>
<td>C</td>
<td>( &gt; 18.0 ) and ( \leq 26.0 )</td>
<td>( &gt; 20.0 ) and ( \leq 28.0 )</td>
<td>( &gt; 20.0 ) and ( \leq 28.0 )</td>
</tr>
<tr>
<td>D</td>
<td>( &gt; 26.0 ) and ( \leq 35.0 )</td>
<td>( &gt; 28.0 ) and ( \leq 35.0 )</td>
<td>( &gt; 28.0 ) and ( \leq 35.0 )</td>
</tr>
<tr>
<td>E</td>
<td>( &gt; 35.0 ) and ( \leq 45.0 )</td>
<td>( &gt; 35.0 )</td>
<td>( &gt; 35.0 ) and ( \leq 43.0 )</td>
</tr>
<tr>
<td>F</td>
<td>( &gt; 45.0 )</td>
<td>Demand exceeds capacity</td>
<td>( &gt; 43.0 )</td>
</tr>
</tbody>
</table>

1.1.4 Existing Traffic Conditions Analysis

The existing traffic conditions were modeled in VISSIM. Table 4 presents the analysis results for existing AM and PM signalized intersection peak hour conditions and

Table 5 presents the analysis results for existing AM and PM unsignalized intersection peak hour conditions.
Table 6 presents the maximum queuing for existing AM and PM intersections and

Table 7, Table 8, Table 9, and Table 10 present the level of service for I-70 mainline.

Table 4: Existing (2010) Signalized Intersection Performance by Approach

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour</th>
<th></th>
<th>PM Peak Hour</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay (seconds/vehicle) and LOS</td>
<td></td>
<td>Delay (seconds/vehicle) and LOS</td>
</tr>
<tr>
<td></td>
<td>NB</td>
<td>SB</td>
<td>EB</td>
<td>WB</td>
</tr>
<tr>
<td>10th &amp; Monroe</td>
<td>24.6</td>
<td>C</td>
<td>3.0</td>
<td>9.9</td>
</tr>
<tr>
<td>10th &amp; Madison</td>
<td>35.4</td>
<td>D</td>
<td>14.9</td>
<td>21.6</td>
</tr>
<tr>
<td>8th &amp; Monroe</td>
<td>31.9</td>
<td>C</td>
<td>29.9</td>
<td>6.8</td>
</tr>
<tr>
<td>8th &amp; Madison</td>
<td>9.3</td>
<td>A</td>
<td>14.4</td>
<td>12.4</td>
</tr>
<tr>
<td>6th &amp; Monroe*</td>
<td>22.3</td>
<td>C</td>
<td>12.9</td>
<td>15.1</td>
</tr>
<tr>
<td>6th &amp; Madison*</td>
<td>13.6</td>
<td>B</td>
<td>6.2</td>
<td>15.5</td>
</tr>
<tr>
<td>4th &amp; Monroe</td>
<td>30.5</td>
<td>C</td>
<td>4.1</td>
<td>5.0</td>
</tr>
<tr>
<td>4th &amp; Madison</td>
<td>8.4</td>
<td>A</td>
<td>7.3</td>
<td>5.9</td>
</tr>
<tr>
<td>1st &amp; Topeka</td>
<td>14.8</td>
<td>B</td>
<td>20.3</td>
<td>12.4</td>
</tr>
</tbody>
</table>

* 6th Street intersections were not counted and were used to balance volumes. Delay shown is from the balanced volumes north and south.

Table 5: Existing (2010) Unsignalized Intersection Performance by Approach

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour</th>
<th></th>
<th>PM Peak Hour</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay (seconds/vehicle) and LOS</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>NB</td>
<td>SB</td>
<td>EB</td>
</tr>
<tr>
<td>10th &amp; Monroe*</td>
<td>24.6</td>
<td>C</td>
<td>3.0</td>
<td>9.9</td>
</tr>
<tr>
<td>10th &amp; Madison*</td>
<td>35.4</td>
<td>D</td>
<td>14.9</td>
<td>21.6</td>
</tr>
<tr>
<td>8th &amp; Monroe*</td>
<td>31.9</td>
<td>C</td>
<td>29.9</td>
<td>6.8</td>
</tr>
<tr>
<td>8th &amp; Madison*</td>
<td>9.3</td>
<td>A</td>
<td>14.4</td>
<td>12.4</td>
</tr>
<tr>
<td>6th &amp; Monroe*</td>
<td>22.3</td>
<td>C</td>
<td>12.9</td>
<td>15.1</td>
</tr>
<tr>
<td>6th &amp; Madison*</td>
<td>13.6</td>
<td>B</td>
<td>6.2</td>
<td>15.5</td>
</tr>
<tr>
<td>4th &amp; Monroe*</td>
<td>30.5</td>
<td>C</td>
<td>4.1</td>
<td>5.0</td>
</tr>
<tr>
<td>4th &amp; Madison*</td>
<td>8.4</td>
<td>A</td>
<td>7.3</td>
<td>5.9</td>
</tr>
<tr>
<td>1st &amp; Topeka*</td>
<td>14.8</td>
<td>B</td>
<td>20.3</td>
<td>12.4</td>
</tr>
</tbody>
</table>

* 6th Street intersections were not counted and were used to balance volumes. Delay shown is from the balanced volumes north and south.
I-70 Polk-Quincy Viaduct Concept Design Study
70-89 KA-1266-01

Appendix A: Traffic Analysis

Table 6: Existing (2010) Maximum Queue Length by Approach

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour Queue Length (ft)</th>
<th>NB</th>
<th>SB</th>
<th>EB</th>
<th>WB</th>
<th>PM Peak Hour Queue Length (ft)</th>
<th>NB</th>
<th>SB</th>
<th>EB</th>
<th>WB</th>
</tr>
</thead>
<tbody>
<tr>
<td>10th &amp; Monroe</td>
<td>-</td>
<td>160</td>
<td>57</td>
<td>210</td>
<td>-</td>
<td>-</td>
<td>223</td>
<td>263</td>
<td>-</td>
<td>111</td>
</tr>
<tr>
<td>10th &amp; Madison</td>
<td>701</td>
<td>-</td>
<td>114</td>
<td>86</td>
<td>136</td>
<td>-</td>
<td>252</td>
<td>74</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8th &amp; Monroe</td>
<td>-</td>
<td>254</td>
<td>108</td>
<td>162</td>
<td>-</td>
<td>-</td>
<td>264</td>
<td>596</td>
<td>65</td>
<td>-</td>
</tr>
<tr>
<td>8th &amp; Madison</td>
<td>274</td>
<td>-</td>
<td>101</td>
<td>59</td>
<td>133</td>
<td>-</td>
<td>404</td>
<td>75</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6th &amp; Monroe*</td>
<td>-</td>
<td>152</td>
<td>63</td>
<td>116</td>
<td>-</td>
<td>-</td>
<td>98</td>
<td>197</td>
<td>23</td>
<td>-</td>
</tr>
<tr>
<td>6th &amp; Madison*</td>
<td>148</td>
<td>-</td>
<td>77</td>
<td>42</td>
<td>65</td>
<td>-</td>
<td>118</td>
<td>59</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4th &amp; Monroe</td>
<td>181</td>
<td>-</td>
<td>95</td>
<td>70</td>
<td>121</td>
<td>-</td>
<td>176</td>
<td>124</td>
<td>64</td>
<td>-</td>
</tr>
<tr>
<td>4th &amp; Madison</td>
<td>-</td>
<td>198</td>
<td>80</td>
<td>135</td>
<td>-</td>
<td>-</td>
<td>176</td>
<td>124</td>
<td>64</td>
<td>-</td>
</tr>
<tr>
<td>1st &amp; I-70 EB Off-ramp</td>
<td>-</td>
<td>1167</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>135</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1st &amp; Topeka</td>
<td>150</td>
<td>377</td>
<td>153</td>
<td>119</td>
<td>528</td>
<td>361</td>
<td>203</td>
<td>234</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1st &amp; Kansas</td>
<td>39</td>
<td>10</td>
<td>69</td>
<td>42</td>
<td>48</td>
<td>0</td>
<td>70</td>
<td>55</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3rd &amp; Monroe</td>
<td>-</td>
<td>252</td>
<td>22</td>
<td>77</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>60</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3rd &amp; Madison</td>
<td>18</td>
<td>-</td>
<td>87</td>
<td>-</td>
<td>0</td>
<td>-</td>
<td>93</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* 6th Street intersections were not counted and were used to balance volumes. Queue shown is from the balanced volumes north and south.

Table 7: Existing (2010) I-70 Eastbound Mainline AM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between MacVicar Off-ramp and MacVicar On-ramp</td>
<td>22.8</td>
<td>61.1</td>
<td>C</td>
</tr>
<tr>
<td>MacVicar Onramp</td>
<td>23.4</td>
<td>62.0</td>
<td>-</td>
</tr>
<tr>
<td>Between MacVicar &amp; 1st St Off-ramp</td>
<td>24.7</td>
<td>60.2</td>
<td>C</td>
</tr>
<tr>
<td>1st St Off-ramp</td>
<td>32.7</td>
<td>52.1</td>
<td>-</td>
</tr>
<tr>
<td>Between 1st St Off-ramp &amp; 3rd St Off-ramp</td>
<td>18.6</td>
<td>60.4</td>
<td>C</td>
</tr>
<tr>
<td>3rd St Off-ramp</td>
<td>21.3</td>
<td>56.7</td>
<td>-</td>
</tr>
<tr>
<td>Between 3rd St Off-ramp</td>
<td>14.5</td>
<td>52.4</td>
<td>B</td>
</tr>
<tr>
<td>Section</td>
<td>Density (veh/mi/ln)</td>
<td>Speed (mph)</td>
<td>Basic Freeway</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>---------------------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Between Adams Off-ramp &amp; Adams Onramp</td>
<td>22.7</td>
<td>60.0</td>
<td>C</td>
</tr>
<tr>
<td>Between Adams On-ramp &amp; 10th Street Off-ramp</td>
<td>32.4</td>
<td>56.5</td>
<td>-</td>
</tr>
<tr>
<td>8th St Off-ramp</td>
<td>13.5</td>
<td>58.8</td>
<td>-</td>
</tr>
<tr>
<td>Between 8th St Off-ramp and 8th St On-ramp</td>
<td>7.9</td>
<td>62.1</td>
<td>A</td>
</tr>
<tr>
<td>Between 8th St On-ramp and 4th St Off-ramp</td>
<td>8.2</td>
<td>61.3</td>
<td>-</td>
</tr>
<tr>
<td>Between 4th St Off-ramp &amp; 3rd St On-ramp</td>
<td>11.3</td>
<td>54.7</td>
<td>B</td>
</tr>
<tr>
<td>3rd St On-ramp</td>
<td>11.9</td>
<td>53.1</td>
<td>-</td>
</tr>
<tr>
<td>Between 3rd St On-ramp &amp; 1st St On-ramp</td>
<td>12.5</td>
<td>62.2</td>
<td>B</td>
</tr>
<tr>
<td>1st St On-ramp</td>
<td>14.7</td>
<td>63.3</td>
<td>-</td>
</tr>
<tr>
<td>Between 1st St Off-ramp &amp; MacVicar Off-ramp</td>
<td>14.7</td>
<td>63.3</td>
<td>B</td>
</tr>
<tr>
<td>MacVicar Off-ramp</td>
<td>15.0</td>
<td>63.1</td>
<td>-</td>
</tr>
<tr>
<td>Between MacVicar Off-ramp and MacVicar On-ramp</td>
<td>13.2</td>
<td>63.3</td>
<td>B</td>
</tr>
</tbody>
</table>

Table 9: Existing (2010) I-70 Eastbound Mainline PM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Basic Freeway</th>
<th>Ramp Junction</th>
<th>Weaving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between MacVicar Off-ramp and MacVicar On-ramp</td>
<td>13.7</td>
<td>63.4</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MacVicar On-ramp</td>
<td>15.2</td>
<td>63.1</td>
<td>-</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td>Between MacVicar &amp; 1st St Off-ramp</td>
<td>15.5</td>
<td>63.1</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1st St Off-ramp</td>
<td>16.2</td>
<td>62.0</td>
<td>-</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td>Between 1st St Off-ramp &amp; 3rd St Off-ramp</td>
<td>13.0</td>
<td>62.0</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3rd St Off-ramp</td>
<td>13.4</td>
<td>61.3</td>
<td>-</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td>Between 3rd St Off-ramp &amp; 4th St On-ramp</td>
<td>12.1</td>
<td>53.3</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 10: Existing (2010) I-70 Westbound Mainline PM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Basic Freeway</th>
<th>Ramp Junction</th>
<th>Weaving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Adams Off-ramp &amp; Adams On-ramp</td>
<td>16.0</td>
<td>62.0</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Between Adams On-ramp &amp; 10th Street Off-ramp</td>
<td>24.4</td>
<td>61.7</td>
<td>-</td>
<td>-</td>
<td>C</td>
</tr>
<tr>
<td>8th St Off-ramp</td>
<td>12.0</td>
<td>62.0</td>
<td>-</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td>Between 8th St Off-ramp and 8th St On-ramp</td>
<td>11.9</td>
<td>62.2</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Between 8th St On-ramp and 4th St Off-ramp</td>
<td>13.8</td>
<td>56.1</td>
<td>-</td>
<td>-</td>
<td>B</td>
</tr>
<tr>
<td>Between 4th St Off-ramp &amp; Adams Off-ramp</td>
<td>15.7</td>
<td>60.9</td>
<td>-</td>
<td>-</td>
<td>B</td>
</tr>
<tr>
<td>Between Adams Off-ramp &amp; Adams On-ramp</td>
<td>13.8</td>
<td>62.0</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3rd St On-ramp</td>
<td>25.4</td>
<td>46.8</td>
<td>-</td>
<td>C</td>
<td>-</td>
</tr>
<tr>
<td>Between 3rd St On-ramp &amp; 1st St On-ramp</td>
<td>22.1</td>
<td>60.5</td>
<td>C</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1st St On-ramp</td>
<td>29.3</td>
<td>55.9</td>
<td>-</td>
<td>D</td>
<td>-</td>
</tr>
<tr>
<td>Between 1st St On-ramp &amp; MacVicar Off-ramp</td>
<td>29.2</td>
<td>60.1</td>
<td>D</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MacVicar Off-ramp</td>
<td>29.0</td>
<td>60.6</td>
<td>-</td>
<td>D</td>
<td>-</td>
</tr>
<tr>
<td>Between MacVicar Off-ramp and MacVicar On-ramp</td>
<td>27.3</td>
<td>61.5</td>
<td>D</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 11: Existing (2010) I-70 Mainline Travel Time in Seconds

<table>
<thead>
<tr>
<th></th>
<th>Westbound</th>
<th>Eastbound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
</tr>
<tr>
<td>Real-World</td>
<td>219</td>
<td>215</td>
</tr>
<tr>
<td>VISSIM</td>
<td>223</td>
<td>230</td>
</tr>
</tbody>
</table>

Toward the end of the project after the VISSIM analysis was complete there was a request for further traffic operations analysis east of Adams Street on I-70 to California Avenue. The volumes on the ramp were taken directly from the regional model without use of a synthetic matrix which would assist with determining the peak hour volumes from the daily volumes provided in the regional model. The regional model volumes were grown at 2% for 6 years since the current regional model is 2004. The regional model does not include hourly volumes so assumptions were made based on knowledge of vehicle operations during peak hours on other ramps within the project. It was assumed that in the peak direction of travel the ramps would be assigned 14% of the ADT, while in the off-peak direction the ramps would be assigned 8% of the ADT. The analysts are aware that this assumption may not hold true.
for every ramp in this area as the land use surrounding California Avenue is different from the land use surrounding the majority of the project. The vehicle volumes at the east end of I-70 near Adams Street were used in conjunction with the regional model ramp volumes to add and subtract vehicles to mainline east of Adams Street. The following I-70 mainline analysis from Adams Street to California Avenue was conducted using the Highway Capacity Software version 5.5 which follows the Highway Capacity Manual 2000 methodology. The lane drop which occurs on I-70 eastbound at the California Avenue off-ramp is analyzed as a freeway section to meet the guidance provided in the HCM 2000 on page 25-16.
### Table 12 - Existing I-70 Westbound from California Ave. to Adams St. HCS Analysis AM & PM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Basic Freeway</th>
<th>Ramp Junction</th>
<th>Weaving</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM California Off-ramp to California On-ramp</td>
<td>18.7</td>
<td>62.2</td>
<td>C</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AM California On-ramp</td>
<td>26.2</td>
<td>56.4</td>
<td>-</td>
<td>C</td>
<td>-</td>
</tr>
<tr>
<td>AM Adams Off-ramp</td>
<td>30.2</td>
<td>54.4</td>
<td>-</td>
<td>D</td>
<td>-</td>
</tr>
<tr>
<td>PM California Off-ramp to California On-ramp</td>
<td>15.3</td>
<td>62.2</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PM California On-ramp</td>
<td>19.9</td>
<td>57.7</td>
<td>-</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td>PM Adams Off-ramp</td>
<td>23.0</td>
<td>54.7</td>
<td>-</td>
<td>C</td>
<td>-</td>
</tr>
</tbody>
</table>

### Table 13 - Existing I-70 Eastbound from Adams St. to California Ave. HCS Analysis AM & PM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Basic Freeway</th>
<th>Ramp Junction</th>
<th>Weaving</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM Adams On-ramp</td>
<td>5.0</td>
<td>60.9</td>
<td>-</td>
<td>A</td>
<td>-</td>
</tr>
<tr>
<td>AM Adams On to California Off</td>
<td>6.8</td>
<td>58.7</td>
<td>A</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AM California Off to California On</td>
<td>3.4</td>
<td>58.7</td>
<td>A</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PM Adams On-ramp</td>
<td>15.1</td>
<td>60.0</td>
<td>-</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td>PM Adams On to California Off</td>
<td>18.3</td>
<td>58.7</td>
<td>C</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PM California Off to California On</td>
<td>12.4</td>
<td>58.7</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Several operational issues were identified along the Polk-Quincy Corridor through field observations and the VISSIM model. The following list is a description of these existing issues.

- **1st Street & I-70 EB Off-ramp** – During the AM peak period the off-ramp traffic queue can become very lengthy backing up nearly to the mainline off-ramp gore. It was noted in the field that once the queue becomes very long drivers start to use the single off-ramp lane as two lanes. Since most of the drivers want to turn left at the end of the off-ramp the “second lane” becomes a right turn lane for drivers to quickly skip the queue, turn right, and then make their way back to Topeka Blvd. through the local street system.

Figure 3 - Queuing at 1st Street
Table 14- Queuing at 1st Street

<table>
<thead>
<tr>
<th>Time</th>
<th>Single Lane Off-Ramp (Length of Queue on Exit Ramp)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 am</td>
<td>1/3 Length of ramp</td>
<td></td>
</tr>
<tr>
<td>7:35 am</td>
<td>1/2 Length of ramp</td>
<td>Steady flow on ramp</td>
</tr>
<tr>
<td>7:38 am</td>
<td>1/2 Length of ramp</td>
<td>Could be further back</td>
</tr>
<tr>
<td>7:40 am</td>
<td>1/2 Length of ramp</td>
<td>Could be further back</td>
</tr>
<tr>
<td>7:43 am</td>
<td>1/2 Length of ramp</td>
<td>Could be further back</td>
</tr>
<tr>
<td>7:45 am</td>
<td>1/2.66 Length of ramp</td>
<td></td>
</tr>
<tr>
<td>7:47 am</td>
<td>1/3 Length of ramp</td>
<td>Steady flow</td>
</tr>
<tr>
<td>7:48 am</td>
<td>1/2 Length of ramp</td>
<td>Could be further back</td>
</tr>
<tr>
<td>7:50 am</td>
<td>1/2 Length of ramp</td>
<td>Could be further back</td>
</tr>
<tr>
<td>7:54 am</td>
<td>1/2.66 Length of ramp</td>
<td></td>
</tr>
<tr>
<td>7:55 am</td>
<td>1/2.66 Length of ramp</td>
<td></td>
</tr>
<tr>
<td>7:57 am</td>
<td>1/3 Length of ramp</td>
<td></td>
</tr>
<tr>
<td>7:58 am</td>
<td>1/4 Length of ramp</td>
<td></td>
</tr>
<tr>
<td>8:00 am</td>
<td>1/4 Length of ramp</td>
<td></td>
</tr>
<tr>
<td>8:01 am</td>
<td>1/8 Length of ramp</td>
<td>Free flow</td>
</tr>
</tbody>
</table>

- **3rd Street & I-70 WB On-ramp** – During the PM peak period the on-ramp traffic can queue at the top of the on-ramp because of the high volume of traffic along mainline combined with the very short on-ramp length. Once a vehicle commits to merging with mainline from the on-ramp mainline traffic must sometimes slow down to allow the merging vehicle some space. When mainline volume is heavy enough this creates an upstream shockwave of vehicles slowing down while traveling mainline through the sharp curve.

**Figure 4 - 3rd Street WB On-ramp**
• **I-70 WB Weave between 8th Avenue On-ramp and 4th St Off-ramp** – The weaving area for I-70 WB mainline between the 8th Avenue on-ramp and the 4th Street off-ramp is very short. The primary reason it still functions operationally is that only one of the ramps has significant volume in each peak hour. In the AM peak hour the 4th Street off-ramp has large volumes, while the 8th Avenue on-ramp does not. It is the reverse in the PM peak hour with the 8th Avenue on-ramp having large volumes while the 4th Street off-ramp does not.

![Figure 5 - I-70 WB 4th Street to 8th Avenue Weave](image)

• **Monroe Street between 8th Avenue Off-ramp and 8th Avenue** – Many of the vehicles in the AM peak period travelling along I-70 EB that take the 8th Avenue off-ramp are trying to get to their downtown offices and want to turn right on 8th Avenue. The 8th Avenue off-ramp places vehicles in the left most lane of 4 lanes. The vehicles have to merge across 3 lanes to the outside lane to turn right on 8th Avenue in the space of approximately 325 ft. Sometimes the vehicles are unable to change lanes three times and wait in their lane until the lane to their right opens up so they can turn right at 8th Avenue.
Figure 6 - Monroe between 8th Avenue Off-ramp and 8th Avenue

Table 15 - Queuing on Monroe Street between 8th Avenue Off-ramp and 8th Avenue

<table>
<thead>
<tr>
<th>Time</th>
<th>Inside Lane (Left Only)</th>
<th>Middle Lane #1 (Through and EB I-70 Access)</th>
<th>Middle Lane #2 (Through)</th>
<th>Outside Lane (Through Right)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:33 am</td>
<td>1 veh</td>
<td>1 veh</td>
<td>4 veh</td>
<td>6 veh</td>
</tr>
<tr>
<td>7:35 am</td>
<td>1 veh</td>
<td>3 veh</td>
<td>3 veh</td>
<td>7 veh</td>
</tr>
<tr>
<td>7:40 am</td>
<td>0 veh</td>
<td>2 veh</td>
<td>9 veh</td>
<td>11 veh</td>
</tr>
<tr>
<td>7:43 am</td>
<td>1 veh</td>
<td>1 veh</td>
<td>6 veh</td>
<td>6 veh</td>
</tr>
<tr>
<td>7:45 am</td>
<td>1 veh</td>
<td>2 veh</td>
<td>4 veh</td>
<td>11 veh</td>
</tr>
<tr>
<td>7:50 am</td>
<td>3 veh</td>
<td>2 veh</td>
<td>5 veh</td>
<td>12 veh</td>
</tr>
<tr>
<td>7:52 am</td>
<td>1 veh</td>
<td>1 veh</td>
<td>4 veh</td>
<td>13 veh</td>
</tr>
<tr>
<td>7:55 am</td>
<td>1 veh</td>
<td>1 veh</td>
<td>3 veh</td>
<td>10 veh</td>
</tr>
<tr>
<td>7:57 am</td>
<td>1 veh</td>
<td>4 veh</td>
<td>5 veh</td>
<td>8 veh</td>
</tr>
<tr>
<td>8:00 am</td>
<td>2 veh</td>
<td>2 veh</td>
<td>4 veh</td>
<td>12 veh</td>
</tr>
<tr>
<td>8:02 am</td>
<td>1 veh</td>
<td>2 veh</td>
<td>2 veh</td>
<td>8 veh</td>
</tr>
<tr>
<td>8:03 am</td>
<td>1 veh</td>
<td>1 veh</td>
<td>3 veh</td>
<td>8 veh</td>
</tr>
</tbody>
</table>
- **1st Street & Topeka Boulevard** – This intersection is a new intersection which was constructed as a result of the replacement of the Topeka Boulevard Bridge over the Kansas River. During the PM peak period the NB left-turns create a long queue of vehicles waiting to access the WB I-70 on-ramp to the west of the 1st Street and Topeka Boulevard intersection. Long NB left-turn queues start affecting NB thru traffic when vehicles have to queue in the inside through lane once the left turn bay is full thereby hampering NB thru movement.

**Figure 7 - 1st Street and Topeka Boulevard Queue**
### Table 16 - 1st St and Topeka Blvd Queue

<table>
<thead>
<tr>
<th>Time</th>
<th>NB Topeka Boulevard Left-Turn Queue (veh)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:40 pm</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>4:43 pm</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>4:45 pm</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>4:47 pm</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>4:50 pm</td>
<td>10</td>
<td>Trouble turning Lt on permitted phase.</td>
</tr>
<tr>
<td>4:53 pm</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>4:55 pm</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>4:57 pm</td>
<td>5</td>
<td>Very little traffic</td>
</tr>
<tr>
<td>5:00 pm</td>
<td>5</td>
<td>Very little traffic</td>
</tr>
<tr>
<td>5:02 pm</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>5:05 pm</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>5:08 pm</td>
<td>23</td>
<td>Seven vehicles past the end of the Lt-turn lane</td>
</tr>
<tr>
<td>5:10 pm</td>
<td>26</td>
<td>Ten vehicles past “ “</td>
</tr>
<tr>
<td>5:12 pm</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>5:15 pm</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>5:17 pm</td>
<td>24</td>
<td>Affecting through traffic on NB Topeka Blvd.</td>
</tr>
<tr>
<td>5:19 pm</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>5:20 pm</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>5:22 pm</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>5:25 pm</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>5:27 pm</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>5:28 pm</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>5:30 pm</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

## 2 Future Baseline Traffic Conditions

This chapter documents the evaluation of the 2040 baseline traffic conditions. The “baseline” condition represents traffic conditions with limited operational changes to the study area roadway network. The geometric changes are located along 1st Street at the Topeka Boulevard and Van Buren Street intersections to account for the proposed development.

### 2.1 Travel Demand Forecasting

The Topeka regional travel demand model (the regional model) was used to generate forecast year daily volumes for each of the preferred alternatives. The regional model is a TransCAD model, which has the capability of creating subarea Origin-Destination (OD) Trip Tables using the regional assignment results. The regional model is a daily model, so the trip tables from the subarea extraction needed to be converted into corresponding AM and PM peak hour volumes.

Figure 8 shows where the subarea is located within the regional model. Not all the existing roadways in the study area are present in the regional model. The subarea can be divided into four smaller regions; the eastern endpoint, western endpoints, northern Downtown Topeka, and southern Downtown Topeka. These regions are highlighted in the figure.
Figure 8: Study Area in the Regional Model
2.1.1 Existing Data

The available data included the regional traffic volumes from the base year (2004) regional model, the horizon year 2034 No-build model, and from the three preferred alternatives. Other data included the existing (2010) peak hour traffic counts and turning movement counts, KDOT ADT traffic counts, as well as projected trip generation for the Riverfront and Entertainment District redevelopment sites.

The Riverfront and Entertainment District developments are assumed to be fully built. Since both of these sites are still being conceptualized, we assumed that they would complement each other in such a way as to not serve entirely the same purpose. One example of overlap in the concepts is both show an alternative that includes a baseball stadium. We allocated the ballpark to the Entertainment District.

The Entertainment District also includes an ice rink and mixed use buildings which contain residential, retail, restaurant, and office spaces. The Riverfront development was assumed to include a waterfront public park, an office tower, mixed use buildings, and an amphitheater.

To use trip generation rates and equations, some allocation of the land into blocks was assumed. For the Riverfront development, the land use was assumed to be: 211,000 Sq. Ft. of retail, 1,511,000 Sq. Ft. of office space, 479,000 Sq. Ft. of residential, 56,000 Sq. Ft. of restaurants, a 44 Acre park, and a 3000 seat amphitheater. This yields ~16,000 daily weekday trips in and out of the development. The Entertainment District was assumed to have: 175,000 Sq. Ft. of office space, 75,000 Sq. Ft. of restaurants, a 90 room hotel, a large ice skating rink, and a 4500 seat minor league ballpark. This site has about 5,600 weekday trips. Trips going into and out of these developments are considered constant in all the alternatives.

2.1.2 Peak Hour Factors

Several steps were taken to get from daily modeled volumes to peak hour volumes. The first step was creating a synthetic OD table for the existing (2010) conditions, using the turning count data collected as a part of this study. Inputs into the synthetic OD table are: an existing trip table and a turning movement count table. Our 2010 existing turning count data was used here. We processed the counts to ensure that they balanced prior to putting them into the model. Counts were rounded up where necessary.

Next, we used the existing 2004 Daily subarea trip table, and divided each entry by 10 to get a peak hour approximation. This OD table acts as an initial seed matrix. This process was done for both the AM and PM peak hour turning movements. The results of the OD estimation were AM and PM peak hour trip tables. When these tables were assigned to the 2010 subarea, the result was volumes that matched the AM and PM turning counts almost exactly. Illustration below represents the initial trip table data and the synthetic OD table data.
Regional Model Output:  Synthetic OD Tables:

We then developed a process of comparing station-to-station growth in the subarea, between the 2004 base year subarea and the 2034 No-build subarea. These changes gave us a set of 30-year growth factors to apply to each Origin-Destination (OD) pair. The 2010 peak hour volumes were multiplied by the 30 year growth factors to get approximate 2040 AM and PM peak hour baseline trip tables. Finally, we divide the AM and PM peak hour tables by the 2034 No-Build table to get peak hour factors.

This process is shown below as steps 1 through 6.

*Note that for simplicity and ease of reading, the process is show using generalized “peak hour” trip tables. In practice, step 2 and the following steps were done separately for each peak hour.*

**2.1.3 Process 1, Peak Hour Trip Table Calculations:**

1. \[ \frac{2034 \text{ No-Build (Daily)}}{2004 \text{ Base Year (Daily)}} = \text{30 Year Growth Factors} \]
2. \[ \frac{30 \text{ Year Growth Factors}}{2010 \text{ Peak Hour (AM/PM)}} = \text{2040 Peak Hour (AM/PM)} \]
3. \[ \frac{2040 \text{ Peak Hour (AM/PM)}}{2034 \text{ No-Build (Daily)}} = \text{2040 (AM/PM) Peak Factors} \]

Ultimately, these peak hour factors were used as multipliers for each daily alternative trip table. In the alternatives, there is additional station-to-station connectivity. To address this added connectivity, minimum and maximum functions were used to offset movements that would be over or under...
represented just by applying peak hour growth factors. These factors impose an upper bound of 30% of daily trips, and a lower bound of 5% of daily trips. This insured that all new movements would at least be represented, despite the lack of growth factor, as may be the case in some station-to-station movements.

Steps 4 through 6, below, show the actual calculations:

$$
\text{Alt. } 1 \quad \text{Alt. } 1 \quad \text{Alt. } 1 \\
\text{Alt. } 2 \quad \text{Alt. } 2 \quad \text{Alt. } 2 \\
\text{Alt. } 3 \quad \text{Alt. } 3 \quad \text{Alt. } 3 \\
$$

In each alternative, the Riverfront and Entertainment District developments are assumed to be fully built. Trips going into and out of these stations are considered constant in all the alternatives.

Through trips along I-70 are also fixed for all the alternatives. We assumed 1.25% annual growth for these trips (from 2010 observed values to 2040).

The result of process 1 was a set of peak hour trip tables for all three build alternatives; however, the traffic generated was lower than expected in the study area.

Further inspection showed that the additional level of station-to-station connectivity in the alternatives was not adequately addressed in the above steps. Using the peak hour trip tables from process 1, above, we addressed the increased connectivity of the subareas in the alternatives using process 2, below. By
considering the subarea as 4 distinct geographic Sub-regions, we were able to address specific under-represented vehicle movements.

In the illustration below, we identify AM and PM peak direction movements, as well as through trips, and in some cases, movements between the North sub-region and the South sub-region. The Eastern end of the study area includes I-70 and Adams Street, while the western end includes I-70 and MacVicar Avenue.

**2.1.4 Process 2, Geographic Sub-Region trips evaluated:**

To better evaluate the peak hour traffic, we compute, by Sub-Region, expected Peak Hour Ramp Volumes, in two ways:

- # of Trip trips entering/exiting Sub-Region, assuming 30 years of 1% growth (2010 to 2040)
- # of Trip trips entering/exiting Sub-Region, using existing ramp peak hour volumes as a % of daily

These two computations make use of the 2010 existing conditions data. Assuming fixed 1% growth would not be unreasonable for the study area. The second method of calculation was to divide 2010 daily volumes by 2010 peak hour ramp volumes to compute peak hour percentages on the ramps in the primary peak directions (Into Downtown North and South sections in the AM; Out of Downtown in the PM).

Interestingly, while the two methods of computing future traffic differed, the results were generally consistent across alternatives and time periods; with the 1% growth method being about 20% lower than the method of computing ramp volumes as a percentage of daily volumes.
Because of the consistency, the following calculation was done to compare the peak directional movement from Process 1 with the updated projections. (Averaging the two methods of ramp growth.)

\[
\text{Sub-Region Trips to add} = \left( \frac{\text{# Trips} \times \text{% of Ramp Volume}}{2} + \frac{\text{# Trips} \times (1\% \text{ annual growth})}{2} \right) - \text{Original Sub-Region Trips}
\]

The movements that needed more trips were increased using a uniform adjustment factor to preserve the original Sub-Regional station-to-station distribution:

\[
\text{Sub-Region Adjustment Factor} = \frac{\text{Sub-Region Trips to add} + \text{Original Sub-Region Trips}}{\text{Original Sub-Region Trips}}
\]

This approach yielded peak hour trip tables for each alternative that provides a good estimate of peak hour traffic. Trip tables are then exported from TransCAD into VISSIM.

### 2.2 Future Baseline Traffic Operations

Excessive gridlock and delays are anticipated if no improvements are made to the roadway network during both the AM and PM peak periods. Areas with poor operational conditions identified in the Existing Conditions analysis are only expected to worsen with the forecasted increase in traffic added to the network in 2040.

#### 2.2.1 VISSIM Analysis

In the AM peak period vehicles that would enter the local road network using I-70 EB are unable to enter the network because they are stuck in traffic due to the 1st Street off-ramp queue. This queue extends past MacVicar Avenue to the end of the network. This throttles the demand in the rest of the network and analysis of the rest of the network would be invalid. In a similar manner, in the PM peak period vehicles attempting to merge on to I-70 WB at 1st Street are unable to due to congestion on I-70 and the queue eventually spills back through multiple intersections and back up the I-70 EB off-ramp. At this point both directions of I-70 near Topeka Boulevard are queued and the rest of the model slowly congests as the queue builds. Since large numbers of vehicles in both time periods were unable to enter the network due to congestion no summary tables are provided from VISSIM analysis as the data would be invalid.
2.2.2 HCM & HCS Analysis

In order to provide any type of analysis of the 2040 NoBuild conditions the Highway Capacity Software was used to analyze the NoBuild conditions. It is important to note that the Highway Capacity Manual states “Certain freeway traffic conditions cannot easily be analyzed by the [freeway] methodology. Multiple overlapping bottlenecks are an example. Therefore, other tools may be more appropriate for specific applications beyond the capabilities of the methodology” (Page 22-1). The HCM then refers analysis to the simulation section of the manual. The HCM then adds “The freeway facility methodology is limited to the extent that it can accommodate demand in excess of capacity. The procedures address only local oversaturated flow situations, not systemwide oversaturated flow conditions” (Page 22-1).

Only the I-70 freeway traffic conditions were analyzed in HCS and are shown below.

Table 17: NoBuild (2040) I-70 Eastbound Mainline AM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>MacVicar Off to MacVicar On</td>
<td>37.2</td>
<td>56.2</td>
<td>E</td>
</tr>
<tr>
<td>MacVicar On-ramp</td>
<td>36.4</td>
<td>53.3</td>
<td>-</td>
</tr>
<tr>
<td>MacVicar On to 1st Off</td>
<td>40.0</td>
<td>54.6</td>
<td>E</td>
</tr>
<tr>
<td>1st Off-ramp</td>
<td>38.4</td>
<td>52.2</td>
<td>-</td>
</tr>
<tr>
<td>1st Off to 3rd Off</td>
<td>24.5</td>
<td>60.5</td>
<td>C</td>
</tr>
<tr>
<td>3rd Off-ramp</td>
<td>27.6</td>
<td>52.7</td>
<td>-</td>
</tr>
<tr>
<td>3rd Off to 4th On</td>
<td>14.8</td>
<td>60.5</td>
<td>B</td>
</tr>
<tr>
<td>4th On to 8th Off</td>
<td>14.5</td>
<td>48.7</td>
<td>-</td>
</tr>
<tr>
<td>8th Off to 8th On</td>
<td>7.8</td>
<td>62.0</td>
<td>A</td>
</tr>
<tr>
<td>8th On-ramp</td>
<td>11.8</td>
<td>60.1</td>
<td>-</td>
</tr>
<tr>
<td>10th On to Adams Off</td>
<td>9.8</td>
<td>61.9</td>
<td>-</td>
</tr>
<tr>
<td>Adams Off to Adams On</td>
<td>8.2</td>
<td>62.0</td>
<td>A</td>
</tr>
</tbody>
</table>

Table 18: NoBuild (2040) I-70 Westbound Mainline AM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams Off-ramp to Adams On-ramp</td>
<td>42.2</td>
<td>53.2</td>
<td>E</td>
</tr>
<tr>
<td>Adams On to 10th Off</td>
<td>29.8</td>
<td>54.1</td>
<td>-</td>
</tr>
<tr>
<td>8th Off-ramp</td>
<td>27.1</td>
<td>56.5</td>
<td>-</td>
</tr>
<tr>
<td>8th Off to 8th On</td>
<td>14.0</td>
<td>62.0</td>
<td>B</td>
</tr>
<tr>
<td>8th On to 4th Off</td>
<td>22.5</td>
<td>43.2</td>
<td>-</td>
</tr>
<tr>
<td>4th Off to 3rd On</td>
<td>15.7</td>
<td>60.5</td>
<td>B</td>
</tr>
<tr>
<td>3rd On-ramp</td>
<td>20.9</td>
<td>57.2</td>
<td>C</td>
</tr>
<tr>
<td>3rd On to 1st On</td>
<td>18.4</td>
<td>60.5</td>
<td>C</td>
</tr>
<tr>
<td>1st On-ramp</td>
<td>22.4</td>
<td>57.3</td>
<td>-</td>
</tr>
<tr>
<td>1st On to MacVicar Off</td>
<td>23.0</td>
<td>60.5</td>
<td>C</td>
</tr>
<tr>
<td>MacVicar Off-ramp</td>
<td>24.8</td>
<td>57.1</td>
<td>-</td>
</tr>
<tr>
<td>MacVicar Off to MacVicar On</td>
<td>20.4</td>
<td>59.7</td>
<td>C</td>
</tr>
</tbody>
</table>
Table 19: NoBuild (2040) I-70 Eastbound Mainline PM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>MacVicar Off to MacVicar On</td>
<td>21.2</td>
<td>59.7</td>
<td>C</td>
</tr>
<tr>
<td>MacVicar On-ramp</td>
<td>24.1</td>
<td>60.2</td>
<td>-</td>
</tr>
<tr>
<td>MacVicar On to 1st Off</td>
<td>23.3</td>
<td>60.5</td>
<td>C</td>
</tr>
<tr>
<td>1st Off-ramp</td>
<td>24.9</td>
<td>54.1</td>
<td>-</td>
</tr>
<tr>
<td>1st Off to 3rd Off</td>
<td>18.9</td>
<td>60.5</td>
<td>C</td>
</tr>
<tr>
<td>3rd Off-ramp</td>
<td>21.8</td>
<td>54.6</td>
<td>-</td>
</tr>
<tr>
<td>3rd Off to 4th On</td>
<td>16.8</td>
<td>60.5</td>
<td>B</td>
</tr>
<tr>
<td>4th On to 8th Off</td>
<td>21.5</td>
<td>44.9</td>
<td>-</td>
</tr>
<tr>
<td>8th Off to 8th On</td>
<td>13.0</td>
<td>62.0</td>
<td>B</td>
</tr>
<tr>
<td>8th On-ramp</td>
<td>22.9</td>
<td>58.6</td>
<td>-</td>
</tr>
<tr>
<td>10th On to Adams Off</td>
<td>33.2</td>
<td>48.0</td>
<td>-</td>
</tr>
<tr>
<td>Adams Off to Adams On</td>
<td>24.0</td>
<td>62.0</td>
<td>C</td>
</tr>
</tbody>
</table>

*Overcapacity

Table 20: NoBuild (2040) I-70 Westbound Mainline PM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams Off-ramp to Adams On-ramp</td>
<td>17.4</td>
<td>62.0</td>
<td>B</td>
</tr>
<tr>
<td>Adams On to 10th Off</td>
<td>18.5</td>
<td>62.3</td>
<td>-</td>
</tr>
<tr>
<td>8th Off-ramp</td>
<td>21.8</td>
<td>59.1</td>
<td>-</td>
</tr>
<tr>
<td>8th Off to 8th On</td>
<td>16.4</td>
<td>62.0</td>
<td>B</td>
</tr>
<tr>
<td>8th On to 4th Off</td>
<td>22.9</td>
<td>53.8</td>
<td>-</td>
</tr>
<tr>
<td>4th Off to 3rd On</td>
<td>30.4</td>
<td>60.0</td>
<td>D</td>
</tr>
<tr>
<td>3rd Off to 1st On</td>
<td>35.7</td>
<td>52.5</td>
<td>-</td>
</tr>
<tr>
<td>1st Off-ramp</td>
<td>44.9</td>
<td>31.6</td>
<td>-</td>
</tr>
<tr>
<td>1st On to MacVicar Off</td>
<td>n/a*</td>
<td>n/a*</td>
<td>F</td>
</tr>
<tr>
<td>MacVicar Off-ramp</td>
<td>50.3</td>
<td>57.4</td>
<td>-</td>
</tr>
<tr>
<td>MacVicar Off to MacVicar On</td>
<td>n/a*</td>
<td>n/a*</td>
<td>F</td>
</tr>
</tbody>
</table>

*Toward the end of the project after the VISSIM analysis was complete there was a request for further traffic operations analysis east of Adams St. on I-70 to California Avenue. The volumes on the ramp were taken directly from the regional model without use of a synthetic matrix which would assist with determining the peak hour volumes from the daily volumes provided in the regional model. The regional model volumes were grown at 2% for 6 years since the current regional model is 2034. The regional model does not include hourly volumes so assumptions were made based on knowledge of vehicle operations during peak hours on other ramps within the project. It was assumed that in the peak direction of travel the ramps would be assigned 14% of the ADT, while in the off-peak direction the ramps would be assigned 8% of the ADT. The analysts are aware that this assumption may not hold true*
for every ramp in this area as the land use surrounding California Ave. is different from the land use surrounding the majority of the project. The vehicle volumes at the east end of I-70 near Adams St. were used in conjunction with the regional model ramp volumes to add and subtract vehicles to mainline east of Adams Street. The following I-70 mainline analysis from Adams St. to California Ave. was conducted using the Highway Capacity Software version 5.5 which follows the Highway Capacity Manual 2000 methodology. The lane drop which occurs on I-70 eastbound at the California Ave. off-ramp is analyzed as a freeway section to meet the guidance provided in the HCM 2000 on page 25-16.

Table 21 - NoBuild I-70 Westbound from California Ave. to Adams St. HCS Analysis AM & PM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM California Off-ramp to California On-ramp</td>
<td>31.3</td>
<td>60.8</td>
<td>D</td>
</tr>
<tr>
<td>AM California On-ramp</td>
<td>38.4</td>
<td>47.1</td>
<td>F</td>
</tr>
<tr>
<td>AM Adams Off-ramp</td>
<td>44.1</td>
<td>54.3</td>
<td>F</td>
</tr>
<tr>
<td>PM California Off-ramp to California On-ramp</td>
<td>22.7</td>
<td>62.3</td>
<td>C</td>
</tr>
<tr>
<td>PM California On-ramp</td>
<td>27.5</td>
<td>56.0</td>
<td>C</td>
</tr>
<tr>
<td>PM Adams Off-ramp</td>
<td>31.7</td>
<td>54.7</td>
<td>D</td>
</tr>
</tbody>
</table>

Table 22 - NoBuild I-70 Eastbound from Adams St. to California Ave. HCS Analysis AM & PM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM Adams On-ramp</td>
<td>8.9</td>
<td>60.7</td>
<td>A</td>
</tr>
<tr>
<td>AM Adams On to California Off</td>
<td>9.9</td>
<td>63.8</td>
<td>A</td>
</tr>
<tr>
<td>AM California Off to California On</td>
<td>10.2</td>
<td>62.3</td>
<td>A</td>
</tr>
<tr>
<td>PM Adams On-ramp</td>
<td>25.8</td>
<td>57.7</td>
<td>C</td>
</tr>
<tr>
<td>PM Adams On to California Off</td>
<td>27.8</td>
<td>63.2</td>
<td>D</td>
</tr>
<tr>
<td>PM California Off to California On</td>
<td>35.8</td>
<td>58.2</td>
<td>E</td>
</tr>
</tbody>
</table>

3 Roadway Alternatives Traffic Conditions

This chapter presents the VISSIM microsimulation evaluation results for the three alternative roadway alignments that were considered as part of this study. The levels of service for signalized intersections and corresponding queue are provided for each alternative. The level of service for I-70 mainline and the travel time along I-70 mainline is also provided for each alternative.

Driver behaviors for all three models in areas that contain weaving sections were slightly adjusted. The lane change characteristic “safety distance” was reduced from 0.6 to 0.4. The lane change characteristic Maximum deceleration for cooperative breaking was increased from -9.84 ft/sec² to -13.1 ft/sec². These two changes were made to increases to cooperation of drivers making weaving movements and
allowing drivers to make slightly more aggressive movements. This change decreased the number of vehicles removed from the simulation after 60 seconds if they were unable to make the lane change they desired as well.

The lane configuration as part of the traffic conditions model also includes three lanes on I-70 into and out of the study area near MacVicar Avenue. While the proposed construction does not have three lanes, the model does due to congestion which would otherwise occur. The added and removed third lanes at MacVicar Avenue would need to be included further west as part of a future, project.

### 3.1 Alternative #1 Revised Non-Continuous Connector Road

Alternative #1 Revised includes several improvements including eliminating short weaving areas and increasing the number of lanes at on- and off-ramp locations. This alternative also keeps a connector road that runs one-way from 10th St to Topeka and back along I-70 with the exception of a segment between 4th Street and Kansas Avenue.

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour (Delay (seconds/vehicle) and LOS)</th>
<th>PM Peak Hour (Delay (seconds/vehicle) and LOS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NB</td>
<td>SB</td>
</tr>
<tr>
<td>10th &amp; Monroe</td>
<td>17.1</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>12.5</td>
<td>-</td>
</tr>
<tr>
<td>6th &amp; Madison</td>
<td>12.2</td>
<td>B</td>
</tr>
<tr>
<td>4th &amp; Madison</td>
<td>14.5</td>
<td>B</td>
</tr>
<tr>
<td>5th &amp; Monroe</td>
<td>5.6</td>
<td>A</td>
</tr>
<tr>
<td>4th &amp; Madison</td>
<td>4.7</td>
<td>A</td>
</tr>
<tr>
<td>VanBuren &amp; CRS</td>
<td>31.6</td>
<td>C</td>
</tr>
<tr>
<td>Kansas &amp; CR</td>
<td>27.4</td>
<td>C</td>
</tr>
<tr>
<td>Kansas &amp; 1st</td>
<td>3.4</td>
<td>A</td>
</tr>
</tbody>
</table>

Table 23: Alternative #1 Revised (2040) Signalized Intersection Performance by Approach
### Table 24: Alternative #1 Revised (2040) Maximum Queue Length by Approach

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Queue Length (ft)</td>
<td>Queue Length (ft)</td>
<td>Queue Length (ft)</td>
<td>Queue Length (ft)</td>
</tr>
<tr>
<td>NB</td>
<td>SB</td>
<td>EB</td>
<td>WB</td>
<td>NB</td>
</tr>
<tr>
<td>10th &amp; Monroe</td>
<td>235</td>
<td>217</td>
<td>419</td>
<td>-</td>
</tr>
<tr>
<td>10th &amp; Madison</td>
<td>653</td>
<td>-</td>
<td>152</td>
<td>111</td>
</tr>
<tr>
<td>8th &amp; Monroe</td>
<td>-</td>
<td>109</td>
<td>153</td>
<td>44</td>
</tr>
<tr>
<td>8th &amp; Madison</td>
<td>228</td>
<td>-</td>
<td>134</td>
<td>n/a</td>
</tr>
<tr>
<td>6th &amp; Monroe</td>
<td>-</td>
<td>261</td>
<td>174</td>
<td>225</td>
</tr>
<tr>
<td>6th &amp; Madison</td>
<td>363</td>
<td>-</td>
<td>240</td>
<td>214</td>
</tr>
<tr>
<td>4th &amp; Monroe</td>
<td>-</td>
<td>755</td>
<td>180</td>
<td>371</td>
</tr>
<tr>
<td>4th &amp; Madison</td>
<td>275</td>
<td>-</td>
<td>126</td>
<td>117</td>
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<tr>
<td>Topeka &amp; CRN</td>
<td>192</td>
<td>298</td>
<td>-</td>
<td>282</td>
</tr>
<tr>
<td>Topeka &amp; CRS</td>
<td>347</td>
<td>312</td>
<td>654</td>
<td>-</td>
</tr>
<tr>
<td>VanBuren &amp; CRN</td>
<td>238</td>
<td>133</td>
<td>-</td>
<td>309</td>
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<tr>
<td>VanBuren &amp; CRS</td>
<td>184</td>
<td>285</td>
<td>344</td>
<td>-</td>
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<td>Kansas &amp; CR</td>
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<td>200</td>
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<td>Kansas &amp; 1st</td>
<td>193</td>
<td>163</td>
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<td>203</td>
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</table>

### Table 25: Alternative #1 Revised (2040) I-70 Eastbound Mainline AM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between MacVicar Ramps</td>
<td>22.4</td>
<td>61.2</td>
<td>C</td>
</tr>
<tr>
<td>MacVicar On-ramp</td>
<td>26.5</td>
<td>61.0</td>
<td>-</td>
</tr>
<tr>
<td>Between MacVicar and Topeka</td>
<td>26.9</td>
<td>61.3</td>
<td>D</td>
</tr>
<tr>
<td>Topeka Off-ramp</td>
<td>26.3</td>
<td>59.7</td>
<td>C</td>
</tr>
<tr>
<td>Between Topeka Off and 4th Off</td>
<td>16.1</td>
<td>61.3</td>
<td>B</td>
</tr>
<tr>
<td>4th Off-ramp</td>
<td>17.1</td>
<td>60.4</td>
<td>B</td>
</tr>
<tr>
<td>Between 4th Off and Kansas On</td>
<td>9.2</td>
<td>62.0</td>
<td>A</td>
</tr>
<tr>
<td>Kansas On-ramp</td>
<td>11.6</td>
<td>61.8</td>
<td>-</td>
</tr>
<tr>
<td>Between Kansas On and 6th On</td>
<td>12.1</td>
<td>61.8</td>
<td>B</td>
</tr>
<tr>
<td>6th On-ramp</td>
<td>14.4</td>
<td>61.6</td>
<td>-</td>
</tr>
<tr>
<td>Between 6th On and 10th On</td>
<td>14.7</td>
<td>61.3</td>
<td>B</td>
</tr>
<tr>
<td>Between 10th On and Adams Off</td>
<td>10.3</td>
<td>62.0</td>
<td>-</td>
</tr>
<tr>
<td>Between Adams Off and Adams On</td>
<td>10.6</td>
<td>62.2</td>
<td>A</td>
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</tbody>
</table>
### Table 26: Alternative #1 Revised (2040) I-70 Westbound Mainline AM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Adams Off and Adams On</td>
<td>27.5</td>
<td>55.3</td>
<td>D</td>
</tr>
<tr>
<td>Between Adams On and 10th Off</td>
<td>29.4</td>
<td>51.3</td>
<td>-</td>
</tr>
<tr>
<td>Between 10th Off and 6th Off</td>
<td>18.4</td>
<td>56.4</td>
<td>C</td>
</tr>
<tr>
<td>6th Off-ramp</td>
<td>14.4</td>
<td>59.4</td>
<td>B</td>
</tr>
<tr>
<td>Kansas Off-ramp</td>
<td>13.7</td>
<td>61.4</td>
<td>B</td>
</tr>
<tr>
<td>Between Kansas Off and 4th On</td>
<td>13.4</td>
<td>61.7</td>
<td>B</td>
</tr>
<tr>
<td>4th On-ramp</td>
<td>11.6</td>
<td>62.0</td>
<td>B</td>
</tr>
<tr>
<td>Between 4th On and Topeka On</td>
<td>11.1</td>
<td>62.1</td>
<td>B</td>
</tr>
<tr>
<td>Topeka On-ramp</td>
<td>15.5</td>
<td>61.8</td>
<td>B</td>
</tr>
<tr>
<td>Between Topeka On and MacVicar Off</td>
<td>15.3</td>
<td>63.0</td>
<td>B</td>
</tr>
<tr>
<td>MacVicar Off-ramp</td>
<td>14.1</td>
<td>62.8</td>
<td>B</td>
</tr>
<tr>
<td>Between MacVicar Off and MacVicar On</td>
<td>12.9</td>
<td>63.1</td>
<td>B</td>
</tr>
</tbody>
</table>

### Table 27: Alternative #1 Revised (2040) I-70 Eastbound Mainline PM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between MacVicar Ramps</td>
<td>15.2</td>
<td>63.1</td>
<td>B</td>
</tr>
<tr>
<td>MacVicar On-ramp</td>
<td>20.6</td>
<td>61.7</td>
<td>C</td>
</tr>
<tr>
<td>Between MacVicar and Topeka</td>
<td>21.4</td>
<td>62.2</td>
<td>C</td>
</tr>
<tr>
<td>Topeka Off-ramp</td>
<td>20.0</td>
<td>60.9</td>
<td>C</td>
</tr>
<tr>
<td>Between Topeka Off and 4th Off</td>
<td>13.0</td>
<td>61.8</td>
<td>B</td>
</tr>
<tr>
<td>4th Off-ramp</td>
<td>13.4</td>
<td>61.4</td>
<td>B</td>
</tr>
<tr>
<td>Between 4th Off and Kansas On</td>
<td>12.2</td>
<td>61.8</td>
<td>B</td>
</tr>
<tr>
<td>Kansas On-ramp</td>
<td>17.6</td>
<td>60.9</td>
<td>B</td>
</tr>
<tr>
<td>Between Kansas On and 6th On</td>
<td>18.4</td>
<td>61.2</td>
<td>C</td>
</tr>
<tr>
<td>6th On-ramp</td>
<td>27.5</td>
<td>59.5</td>
<td>C</td>
</tr>
<tr>
<td>Between 6th On and 10th On</td>
<td>30.6</td>
<td>56.3</td>
<td>D</td>
</tr>
<tr>
<td>Between 10th On and Adams Off</td>
<td>25.0</td>
<td>56.0</td>
<td>-</td>
</tr>
<tr>
<td>Between Adams Off and Adams On</td>
<td>24.7</td>
<td>58.5</td>
<td>C</td>
</tr>
</tbody>
</table>
### Table 28: Alternative #1 Revised (2040) I-70 Westbound Mainline PM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Adams Off and Adams On</td>
<td>18.1</td>
<td>61.2</td>
<td>C</td>
</tr>
<tr>
<td>Between Adams On and 10th Off</td>
<td>18.6</td>
<td>61.1</td>
<td>-</td>
</tr>
<tr>
<td>Between 10th Off and 6th Off</td>
<td>17.3</td>
<td>61.5</td>
<td>B</td>
</tr>
<tr>
<td>6th Off-ramp</td>
<td>19.3</td>
<td>60.5</td>
<td>-</td>
</tr>
<tr>
<td>Kansas Off-ramp</td>
<td>21.4</td>
<td>60.8</td>
<td>C</td>
</tr>
<tr>
<td>Between Kansas Off and 4th On</td>
<td>21.8</td>
<td>60.7</td>
<td>-</td>
</tr>
<tr>
<td>4th On-ramp</td>
<td>19.0</td>
<td>61.3</td>
<td>B</td>
</tr>
<tr>
<td>Between 4th On and Topeka On</td>
<td>18.6</td>
<td>61.4</td>
<td>C</td>
</tr>
<tr>
<td>Topeka On-ramp</td>
<td>29.5</td>
<td>59.8</td>
<td>-</td>
</tr>
<tr>
<td>Between Topeka On and MacVicar Off</td>
<td>27.9</td>
<td>61.7</td>
<td>D</td>
</tr>
<tr>
<td>MacVicar Off-ramp</td>
<td>26.9</td>
<td>61.6</td>
<td>-</td>
</tr>
<tr>
<td>Between MacVicar Off and MacVicar On</td>
<td>25.8</td>
<td>62.0</td>
<td>C</td>
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</tbody>
</table>

### Table 29: Alternative #1 Revised (2040) I-70 Mainline Travel Time in Seconds

<table>
<thead>
<tr>
<th></th>
<th>Westbound AM Peak</th>
<th>Westbound PM Peak</th>
<th>Eastbound AM Peak</th>
<th>Eastbound PM Peak</th>
</tr>
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<tbody>
<tr>
<td>Alternative #1 Revised</td>
<td>216</td>
<td>217</td>
<td>212</td>
<td>214</td>
</tr>
</tbody>
</table>
3.2 Alternative #2 Revised Continuous Connector Road

Alternative #2 Revised includes several improvements including eliminating short weaving areas and increasing the number of lanes at on- and off-ramp locations. This alternative also keeps a connector road that runs one-way from 10th Street to Topeka Boulevard and back along I-70 including a segment between 4th Street and Kansas Avenue. It was noted in the analysis that very few vehicles use the continuous aspect of the connector road because in nearly every case there exists a better or more obvious route that does not use the segment between 4th Street and Kansas Avenue.

### Table 30: Alternative #2 Revised (2040) Signalized Intersection Performance by Approach

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour</th>
<th></th>
<th></th>
<th></th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay (seconds/vehicle) and LOS</td>
<td>Delay (seconds/vehicle) and LOS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NB</td>
<td>SB</td>
<td>EB</td>
<td>WB</td>
<td>Overall</td>
</tr>
<tr>
<td>10th &amp; Monroe</td>
<td>-</td>
<td>20.0</td>
<td>C</td>
<td>18.4</td>
<td>B</td>
</tr>
<tr>
<td>10th &amp; Madison</td>
<td>15.6</td>
<td>-</td>
<td>34.8</td>
<td>C</td>
<td>35.1</td>
</tr>
<tr>
<td>8th &amp; Monroe</td>
<td>-</td>
<td>3.6</td>
<td>A</td>
<td>33.3</td>
<td>C</td>
</tr>
<tr>
<td>8th &amp; Madison</td>
<td>2.3</td>
<td>-</td>
<td>38.2</td>
<td>D</td>
<td>n/a</td>
</tr>
<tr>
<td>6th &amp; Monroe</td>
<td>-</td>
<td>25.1</td>
<td>C</td>
<td>23.8</td>
<td>C</td>
</tr>
<tr>
<td>6th &amp; Madison</td>
<td>13.7</td>
<td>-</td>
<td>29.0</td>
<td>C</td>
<td>28.9</td>
</tr>
<tr>
<td>4th &amp; Monroe</td>
<td>-</td>
<td>13.7</td>
<td>B</td>
<td>13.9</td>
<td>B</td>
</tr>
<tr>
<td>4th &amp; Madison</td>
<td>14.1</td>
<td>-</td>
<td>31.5</td>
<td>C</td>
<td>19.8</td>
</tr>
<tr>
<td>Topeka &amp; CRN</td>
<td>5.1</td>
<td>11.6</td>
<td>B</td>
<td>-</td>
<td>49.5</td>
</tr>
<tr>
<td>Topeka &amp; CRS</td>
<td>21.0</td>
<td>12.6</td>
<td>B</td>
<td>24.7</td>
<td>C</td>
</tr>
<tr>
<td>VanBuren &amp; CRN</td>
<td>5.6</td>
<td>8.0</td>
<td>A</td>
<td>-</td>
<td>42.6</td>
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<tr>
<td>VanBuren &amp; CRS</td>
<td>33.7</td>
<td>35.8</td>
<td>C</td>
<td>12.9</td>
<td>B</td>
</tr>
<tr>
<td>Kansas &amp; CR</td>
<td>27.9</td>
<td>26.8</td>
<td>C</td>
<td>31.6</td>
<td>C</td>
</tr>
<tr>
<td>Kansas &amp; 1st</td>
<td>5.6</td>
<td>5.2</td>
<td>A</td>
<td>29.7</td>
<td>C</td>
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</table>
### Table 31: Alternative #2 Revised (2040) Maximum Queue Length by Approach

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour</th>
<th></th>
<th></th>
<th></th>
<th>PM Peak Hour</th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
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<td>EB</td>
<td>WB</td>
<td>NB</td>
<td>SB</td>
<td>EB</td>
<td>WB</td>
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<td>-</td>
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### Table 32: Alternative #2 Revised (2040) I-70 Eastbound Mainline AM LOS

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<th>Level of Service</th>
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<td></td>
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<td>C</td>
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<td>MacVicar On-ramp</td>
<td>26.6</td>
<td>61.2</td>
<td>-</td>
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<td>Between MacVicar and Topeka</td>
<td>26.9</td>
<td>61.2</td>
<td>D</td>
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<td>Topeka Off-ramp</td>
<td>24.5</td>
<td>59.6</td>
<td>C</td>
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<tr>
<td>Topeka Off to 4th Off</td>
<td>16.6</td>
<td>60.3</td>
<td>B</td>
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<td>4th Off</td>
<td>17.9</td>
<td>60.8</td>
<td>-</td>
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<td>4th Off to Kansas On</td>
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<td>A</td>
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<td>10th On to Adams Off</td>
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<td>62.0</td>
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**Table 33: Alternative #2 Revised (2040) I-70 Westbound Mainline AM LOS**

<table>
<thead>
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<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
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<td>Between Adams and 10th Weave</td>
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<td>-</td>
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<td>18.3</td>
<td>56.0</td>
<td>C</td>
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<td>18.4</td>
<td>59.9</td>
<td>-</td>
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<td>Kansas Off-ramp</td>
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<td>61.0</td>
<td>-</td>
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<td>13.2</td>
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<td>4th On-ramp</td>
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<td>-</td>
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<td>4th On to Topeka On</td>
<td>11.1</td>
<td>62.2</td>
<td>B</td>
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<td>Topeka On-ramp</td>
<td>15.3</td>
<td>61.8</td>
<td>-</td>
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<tr>
<td>Topeka On to MacVicar Off</td>
<td>16.9</td>
<td>63.0</td>
<td>B</td>
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<td>MacVicar Off-ramp</td>
<td>16.2</td>
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<td>-</td>
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**Table 34: Alternative #2 Revised (2040) I-70 Eastbound Mainline PM LOS**

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<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Level of Service</th>
</tr>
</thead>
<tbody>
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<td>MacVicar On-ramp</td>
<td>19.3</td>
<td>62.2</td>
<td>-</td>
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<td>Between MacVicar and Topeka</td>
<td>19.8</td>
<td>62.4</td>
<td>C</td>
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<td>Topeka Off-ramp</td>
<td>18.2</td>
<td>61.4</td>
<td>-</td>
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<tr>
<td>Topeka Off to 4th Off</td>
<td>14.0</td>
<td>61.6</td>
<td>B</td>
</tr>
<tr>
<td>4th Off-ramp</td>
<td>15.3</td>
<td>61.1</td>
<td>-</td>
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<tr>
<td>4th Off to Kansas On</td>
<td>10.6</td>
<td>61.9</td>
<td>A</td>
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<tr>
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<td>61.1</td>
<td>-</td>
</tr>
<tr>
<td>Kansas On to 6th On</td>
<td>16.4</td>
<td>61.4</td>
<td>B</td>
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<tr>
<td>6th On-ramp</td>
<td>24.2</td>
<td>59.3</td>
<td>-</td>
</tr>
<tr>
<td>6th On to 10th On</td>
<td>25.7</td>
<td>59.0</td>
<td>C</td>
</tr>
<tr>
<td>10th On to Adams Off</td>
<td>21.7</td>
<td>57.8</td>
<td>-</td>
</tr>
<tr>
<td>Adams Off to Adams On</td>
<td>21.8</td>
<td>59.1</td>
<td>C</td>
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### Table 35: Alternative #2 Revised (2040) I-70 Westbound Mainline PM LOS

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<th>Speed (mph)</th>
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<th>Ramp Junction</th>
<th>Weaving</th>
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<tr>
<td>Between Adams and 10th Weave</td>
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<td>C</td>
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<td>62.1</td>
<td>D</td>
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### Table 36: Alternative #2 Revised (2040) I-70 Mainline Travel Time in Seconds

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<th>Eastbound PM Peak</th>
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3.3 Alternative #3 Revised Diamond Interchanges

Alternative 3 includes an additional ramp in each direction of travel by adding a third interchange in the study area. This third interchange however returns some of the same safety issues that the existing conditions exhibits. There are multiple short weaving segments on I-70 mainline where the only reason it functions operationally is because of the distribution of trips skewed toward one ramp in the AM and the other ramp in the PM. This alternative also recreates the current issue for I-70 EB traffic exiting at 8th Avenue and needing to cross 3+ lanes of traffic to get into downtown and shifts this maneuver to the 10th Avenue interchange.

<table>
<thead>
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<th>PM Peak Hour</th>
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<td>Delay (seconds/vehicle) and LOS</td>
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<tr>
<td></td>
<td>NB</td>
<td>SB</td>
</tr>
<tr>
<td>10th &amp; Monroe</td>
<td>-</td>
<td>30.6</td>
</tr>
<tr>
<td>10th &amp; Madison</td>
<td>15.5</td>
<td>B</td>
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<tr>
<td>8th &amp; Monroe</td>
<td>-</td>
<td>7.1</td>
</tr>
<tr>
<td>8th &amp; Madison</td>
<td>10.0</td>
<td>A</td>
</tr>
<tr>
<td>6th &amp; Monroe</td>
<td>-</td>
<td>59.9</td>
</tr>
<tr>
<td>6th &amp; Madison</td>
<td>13.4</td>
<td>B</td>
</tr>
<tr>
<td>4th &amp; Monroe</td>
<td>-</td>
<td>62.4</td>
</tr>
<tr>
<td>4th &amp; Madison</td>
<td>7.5</td>
<td>A</td>
</tr>
<tr>
<td>Topeka &amp; I-70 N</td>
<td>6.8</td>
<td>A</td>
</tr>
<tr>
<td>Topeka &amp; I-70 S</td>
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Table 38: Alternative #3 Revised (2040) Maximum Queue Length by Approach

<table>
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<td>660</td>
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</tr>
<tr>
<td>8th &amp; Monroe</td>
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<td>290</td>
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<td>8th &amp; Madison</td>
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<td>-</td>
</tr>
<tr>
<td>6th &amp; Monroe</td>
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<td>318</td>
<td>-</td>
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<td>4th &amp; Monroe</td>
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<td>1532</td>
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<td>4th &amp; Madison</td>
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<td>Topeka &amp; I-70 N</td>
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Table 39: Alternative #3 Revised (2040) I-70 Eastbound Mainline AM LOS

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<th>Density (veh/mi/ln)</th>
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<td>Topeka Off-ramp</td>
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<td>Topeka Off to Topeka On</td>
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<td>B</td>
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<td>6th On-ramp</td>
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<td>6th On to 10th On</td>
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<td>61.7</td>
<td>B</td>
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### Table 40: Alternative #3 Revised (2040) I-70 Westbound Mainline AM LOS

<table>
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<th>Section</th>
<th>Density (veh/mi/ln)</th>
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<th>Ramp Junction</th>
<th>Weaving</th>
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<td>-</td>
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<tr>
<td>Adams On to 10th Off</td>
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<td>50.3</td>
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<td>C</td>
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<td>10th Off to 6th Off</td>
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<td>C</td>
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<tr>
<td>6th Off-ramp</td>
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<td>Topeka Off to Topeka On</td>
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<td>63.3</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Table 41: Alternative #3 Revised (2040) I-70 Eastbound Mainline PM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Basic Freeway</th>
<th>Ramp Junction</th>
<th>Weaving</th>
</tr>
</thead>
<tbody>
<tr>
<td>MacVicar Off to MacVicar On</td>
<td>14.8</td>
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<td>B</td>
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</tr>
<tr>
<td>MacVicar On-ramp</td>
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<td>-</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td>MacVicar On to Topeka Off</td>
<td>18.0</td>
<td>62.6</td>
<td>C</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Topeka Off-ramp</td>
<td>22.9</td>
<td>59.1</td>
<td>-</td>
<td>C</td>
<td>-</td>
</tr>
<tr>
<td>Topeka Off to Topeka On</td>
<td>19.2</td>
<td>60.9</td>
<td>C</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Topeka On to 4th Off</td>
<td>18.2</td>
<td>57.9</td>
<td>-</td>
<td>-</td>
<td>B</td>
</tr>
<tr>
<td>6th Off-ramp</td>
<td>16.3</td>
<td>61.1</td>
<td>-</td>
<td>B</td>
<td>-</td>
</tr>
<tr>
<td>6th Off to 6th On</td>
<td>15.4</td>
<td>61.5</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6th On-ramp</td>
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<td>59.0</td>
<td>-</td>
<td>C</td>
<td>-</td>
</tr>
<tr>
<td>6th On to 10th On</td>
<td>24.2</td>
<td>59.9</td>
<td>C</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10th On to Adams Off</td>
<td>20.7</td>
<td>58.8</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Adams Off to Adams On</td>
<td>20.9</td>
<td>59.9</td>
<td>C</td>
<td>-</td>
<td>-</td>
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</table>
Table 42: Alternative #3 Revised (2040) I-70 Westbound Mainline PM LOS

<table>
<thead>
<tr>
<th>Section</th>
<th>Density (veh/mi/ln)</th>
<th>Speed (mph)</th>
<th>Basic Freeway</th>
<th>Ramp Junction</th>
<th>Weaving</th>
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</thead>
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<td>-</td>
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<td>Adams On to 10th Off</td>
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<td>61.1</td>
<td>-</td>
<td>-</td>
<td>B</td>
</tr>
<tr>
<td>10th Off to 6th Off</td>
<td>23.1</td>
<td>60.2</td>
<td>C</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6th Off-ramp</td>
<td>23.4</td>
<td>58.1</td>
<td>-</td>
<td>C</td>
<td>-</td>
</tr>
<tr>
<td>6th Off to 6th On</td>
<td>23.9</td>
<td>60.4</td>
<td>C</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6th On to 4th On</td>
<td>22.3</td>
<td>61.2</td>
<td>-</td>
<td>C</td>
<td>-</td>
</tr>
<tr>
<td>4th On to Topeka Off</td>
<td>22.4</td>
<td>59.6</td>
<td>-</td>
<td>-</td>
<td>C</td>
</tr>
<tr>
<td>Topeka Off to Topeka On</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
</tr>
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<td>MacVicar Off-ramp</td>
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<td>58.6</td>
<td>-</td>
<td>D</td>
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<td>28.7</td>
<td>61.3</td>
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<td>-</td>
</tr>
</tbody>
</table>

Table 43: Alternative #3 Revised (2040) I-70 Mainline Travel Time in Seconds

<table>
<thead>
<tr>
<th></th>
<th>Westbound</th>
<th>Eastbound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
</tr>
<tr>
<td>Alternative #3</td>
<td>218</td>
<td>218</td>
</tr>
<tr>
<td>Revised</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.4 Alternatives Comparison

This section will compare the alternatives above by commenting on the operational information from above. As can be seen in Table 44 there is little difference in travel time between Alternative #1 Revised, Alternative #2 Revised, and Alternative #3 Revised.

| Table 44: Alternatives (2040) I-70 Mainline Travel Time in Seconds Comparison |
|----------------------------------------------------------|------------------|------------------|------------------|------------------|
|                                                          | Westbound        | Eastbound        |
|                                                          | AM Peak | PM Peak | AM Peak | PM Peak |
| NoBuild                                                  | n/a      | n/a      | n/a      | n/a      |
| Alternative #1 Revised                                   | 216      | 217      | 212      | 214      |
| Alternative #2 Revised                                   | 215      | 216      | 235      | 232      |
| Alternative #3 Revised                                   | 218      | 218      | 232      | 214      |

Any comparison of individual LOS movements would be premature as this project is not a signal optimization project. If intersection LOS must be compared the intersection LOS should be used. Existing signal timings were provided by the City of Topeka which was used for the existing and NoBuild scenarios. Where intersections were reconfigured the signals were retimed using a cycle length of 90 plus or minus two seconds in keeping with the existing cycle lengths in the area. Conducting a signal optimization project after I-70 is rebuilt should only improve the intersection level of service observed in each alternative.

Alternative #3 Revised functions poorly operationally. Alternative #3 Revised contains short weaving sections that operate marginally, but it would remain to be seen if humans in the same traffic conditions would respond as well as the simulation. Alternative #3 Revised contains an operationally degrading choke point on Monroe Street north of 6th Avenue due to the ramp configuration. This choke point affects Monroe Street from 6th Avenue to 4th Street. The intersections at 6th Avenue are congested due to numerous on and off-ramps that connect into the street as opposed to the other alternatives where the directional ramps are generally more spread out.

Alternative #2 Revised functions well in most areas operationally. Alternative #2 Revised contains continuous connector roads that receive very little vehicular volume between 4th St and Kansas Avenue. Alternative #2 Revised will also be much more challenging to sign in order to meet driver expectancy at the Kansas & Connector Road intersection because of the continuous connector road. This intersection is currently suggested to be a Single Point Urban Interchange (SPUI) but rather than 4 legs, it will have 5 legs because of the continuous connector road that will run from Kansas down to 4th St. The lack of a dual southbound left at Kansas to the I-70 EB on-ramp may cause queues to extend north of 1st St. on Kansas Avenue.

Alternative #1 Revised functions adequately operationally. Alternative #1 Revised spreads out the incoming and outbound travel paths in the morning and evening peak periods and also does not contain the little used continuous connector road. The removal of the continuous connector road will improve signage and operations with little cost to mobility due to the numerous alternative routes which follow the standard street grid and may also be more intuitive to understand.
4 Summary and Recommendations
This chapter presents a brief summary of the findings of the traffic operations section of this project and recommendations for the alternative roadway configurations.

4.1 Summary
Three alternatives were analyzed for the future traffic operations given various configurations of the ramps on the Polk-Quincy Viaduct. Alternative #1 Revised traffic operations were the most satisfactory of the three alternatives and did not contain any glaring deficiencies. Alternative #2 Revised operated similar to Alternative #1 Revised, however it includes a continuous connector road which traffic modeling predicted was unnecessary due to the low traffic volumes. This continuous connector road also slightly negatively impacted the intersections it connected to and from on each end and may have been less intuitive to drivers due to the curve on the otherwise well gridded Topeka streets. Alternative #3 Revised operated poorly due to the numerous ramps, weaving areas, and choke points which were required due to the number of ramps and their alignments with the local road system. Alternative #3 Revised would be expected to experience the most congestion of the three alternatives as most of the vehicular traffic is funneled on to certain local streets to access either direction of I-70.

4.2 Recommendations
It is recommended that Alternative #1 Revised be chosen for the design of the Polk-Quincy Viaduct from an operational standpoint. Alternative #1 Revised provides ramps to and from I-70 which are spread throughout the city thereby distributing the traffic and not funneling vehicles into a choke point while also not containing extra roads and pavement as Alternative #2 Revised does. Alternative #1 Revised should operate acceptably given the assumptions contained within this document in the year 2040.
Appendix B:

Intelligent Transportation Systems Application
TOPEKA I-70 POLK QUINCY VIADUCT
ITS REPORT

Prepared by:

Parsons Brinckerhoff Michigan, Inc.
October 2009
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    - 5.1.1 Myrtle Creek, Oregon Curve Warning System
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1.0 Introduction

1.1 Purpose and Need

The growing population and various methods of transportation in conjunction with rapid advancements in technology have led the United States Government and other agencies abroad to commence the research and deployment of Intelligent Transportation Systems (ITS). These solutions and technologies are being implemented for the purpose of improving safety and incident response, monitoring roadway and vehicle conditions, and improving quality of life for motorists. In cities such as Topeka, where large curves exist on Interstate freeways, an innovative solution is needed to help motorists safely make their way in their everyday routines. ITS is thought to be a cost effective alternative for improving safety and can be applied to any transportation system using the clearly defined steps outlined in the system engineering process.

1.2 Report Contents

The purpose of this report is to outline ITS for the audience and discuss several applications and design steps that can be used to address the Topeka I-70 Polk-Quincy Viaduct curve. Following this chapter, the report contains the following sections:

2.0 Topeka I-70 Polk-Quincy Viaduct Overview
3.0 Exiting ITS Infrastructure
4.0 Benefits of Implementing ITS
5.0 Curve and Speed Warning Systems Review
6.0 Implementing an ITS Solution

2.0 Topeka I-70 Polk-Quincy Viaduct

The Topeka I-70 Polk-Quincy Viaduct located in Topeka, Kansas was built in the early 1960’s and spans from Polk Street on the west to Quincy Street on the east. Figure 2-1 below outlays the current alignment of the I-70 corridor and highlights the various sections of the downtown area that are being evaluated as part of the Polk-Quincy Viaduct study. More than half a century later, bridge conditions continue to deteriorate, traffic volumes through the viaduct have increased, and highway design criteria has changed. The Kansas Department of Transportation (KDOT), City of Topeka, and Metropolitan Topeka Planning Organization have partnered together on the study to improve and support safe and efficient movement along I-70 and between the highway and local streets.

One focus of safety is the curve near 3rd Street. This curve has a design speed of 40 mph and it currently has 45 mph advanced warning signs with flashing yellow beacons that operate 24/7/365. The warning signs ask drivers to slow down prior to the curve. A yellow retro-reflective material has also been placed on the side of the concrete barrier for EB I-70 traffic through the curve to try and slow traffic as well. Crashes continue to occur within this curve; many resulting in truck rollovers, rear-end collisions and fixed object crashes. Truck rollovers can cause major backups on the Viaduct, citing a need to improve safety of motorists traveling through the curve.
2.1 System and User Needs

The problem area identified at the viaduct on I-70 has prompted stakeholders to begin to evaluate some initial system and user needs for an ITS solution. These needs are geared to address the issue of truck rollovers, rear-end, and fixed object crashes.

The City of Topeka is looking for a system that will:

- Provide advanced notification multiple times before the curve at 3rd street. Ideally this would be done with a Dynamic Message Sign (DMS)
- Have the capability of detecting trucks versus smaller vehicles approaching the curve. This information can be used to disseminate alternate warning messages based on vehicle classification
- Support a De-Icing System – Use of environmental sensors to determine icy conditions can be used to activate a de-icing system in the corridor. This solution provides a quick response to hazardous weather conditions and provides additional resources to minimize traffic accidents.
- Have the capability of being controlled and monitored from a “virtual” traffic management center (TMC).
• Provide incident response in the event of a traffic accident that is causing long backups. This function would use Dynamic Message Signs to disseminate detour routes through the local road system. This feature can also provide how motorists can get back on route.
• Provide Infrastructure to Vehicle Communications with the use of CB radios commonly used by trucks to broadcast messages regarding up-stream traffic and road conditions.
• Warn out-of-state / out of area drivers of the viaduct by using a license plate detection system.

The preceding needs are not a representative of definite requirements and a full concept of operations would need to be completed in order to properly evaluate their viability. However, the needs list above provide some measure of value to motorists traveling through the viaduct and can be considered a good starting point for exploration. Some of these features may be supplementary to other solutions (e.g., geometric realignment), as the department seeks to enhance the movement of traffic through the selected I-70 corridor, relieve congestion and reduce accidents.

Section 5.0 discusses how other agencies across the nation have implemented a curve/speed warning system.

3.0 Existing ITS Infrastructure

As described above, stakeholder needs to address a problem can be turned in to a working solution with the correct definition and concept of operations to ensure the viability of each need. Additionally, it is equally important to leverage existing systems and devices whenever possible. The State of Kansas and the City of Topeka have implemented several ITS components within the core of the city to monitor the roadways and react more efficiently to incidents as shown below in Figure 3-1 and Figure 3-2. These ITS elements should be leveraged to address the needs, reduce costs and complexity when implementing an ITS solution for the Topeka I-70 Polk-Quincy Viaduct.

A thorough analysis of the existing ITS systems, devices and infrastructure was not performed for the purpose of this report. In addition, the statewide initiatives outlined in the Statewide and City of Topeka ITS Architecture Plans were also not thoroughly evaluated and can be found at the following website:

Figure 3-1: Rural ITS Infrastructure in Kansas – Statewide ITS Devices
Figure 3-2: Rural ITS Infrastructure in Kansas– City of Topeka ITS Devices
4.0 Benefits of Implementing ITS

Intelligent Transportation Systems (ITS) can be utilized in new roadway construction as well as retrofitted to existing networks to address concerns with outdated highway designs, or in situations like the Topeka I-70 Polk-Quincy Viaduct where reconstruction is a major undertaking and the agencies seek some improvements immediately.

It is important to note that several other construction methods and new roadway plans are being evaluated in other chapters of this report. These include:

- Rebuild and improve the viaduct in its current configuration
- Realign and widen I-70
- Reposition on and off ramps to provide better access to Topeka Boulevard and Kansas Avenue which link downtown, the proposed Riverfront development and North Topeka.

These identified options are mid/long-term fixes to the viaduct problem and will take years to complete - which also means years before the agency can start realizing the benefits to motorist safety. But these are options that can have a significant long-term impact and therefore should still be pursued.

The intent of this report is to suggest that an immediately deployable, less complex and generally more cost effective solution should also be considered, to improve driver awareness, traffic flow, incident response and safety in the viaduct. ITS solutions use information technology to improve the efficiency and safety of the transportation network, including determining real-time site conditions (motorists and roadway). ITS uses technology such as traffic signals, CCTV cameras, dynamic message signs (DMS), vehicle detection, roadway environmental sensors and weigh-in-motion systems.

ITS solutions are typically not meant as a replacement for adding capacity or realigning the geometry of a roadway, instead they are often recommended as a supplement. Their low-cost and low-complexity can mean immediate improvements and safety benefits while an agency undergoes the often lengthy process of rebuilding a roadway. When used in conjunction with new roadways, they can enhance the efficiency, safety and capacity of the new roadway. Reduced fatalities, improved travel time reliability, and reduced impact on the environment are just a few of the more notable benefits that can be derived from introducing technology into the transportation network.

The following sections in this report discuss various curve and speed warning systems that have similar attributes to those of the Topeka I-70 Polk-Quincy Viaduct. These systems are presented here to identify curve/speed warning concepts and lessons learned.

Additional benefits of ITS systems and operations including newer initiatives for improving safety and changes to the transportation industry are outlined in Appendix 1.
5.0 Curve and Speed Warning Systems Review

Speed warning systems have the potential to reduce crashes and increase safety where the geometry of the roadway has proven to be challenging to motorists. Advanced systems have been deployed in recent years that include a range of sensors that ultimately provide information to motorists as they approach specific curves or interchanges. This section reviews four key implementations of Curve/Speed Warning Systems to briefly understand how and why these systems were developed and deployed, and identifies high-level lessons learned from ITS deployments. These particular cases will demonstrate how a curve warning system approach can result in increased safety and reduced speeds at these locations.

5.1 National Applications

Several states have embarked on the design of a Curve and/or Speed Warning System to prevent crashes and deploy a safety system. This safety system is used to identify hazardous conditions and provide useful notification to motorists to avoid vehicle crashes. Curves along freeways produce significantly higher crash rates than the rest of the state highway system. Road Geometry warning systems can be used to notify motorists of upcoming ramps, tight curves / turns, upcoming road conditions and downhill speed warning. Commercial vehicles and other larger vehicles are typically susceptible to these conditions. Depending on the geometry of the roadway, all vehicles may require proper notification to help prevent motorists from a rollover or crash. This type of system typically involves sensors to monitor vehicle speed, determine vehicle classification, real-time traffic conditions, and monitor environmental conditions such as pavement conditions. These sensors can be used in a combination with notification devices such as Dynamic Message Sign's, which can enhance the effectiveness of static warning devices.

5.1.1 Myrtle Creek, Oregon Curve Warning System

In April 2004, The Oregon Department of Transportation deployed an advanced curve warning system (ACWS) along side a hazardous curve on Interstate 5 in Myrtle Creek, Oregon. The curve is constrained by an embankment on one side and the South Umpqua River on the other. The advisory speed for the curve is 45 MPH for all vehicles. Oregon DOT reported 33 crashes in a 4 year period prior to the construction of the system. As with other curve warning systems, the intention on I-5 was to improve truck safety for long downgrades or reducing rollover potential on the curve. 24% of the crashes were related to over-turned vehicles and 45% of the crashes were with fixed-objects. Several ITS components were deployed on the roadside, including radar units for speed measurement and a dynamic message sign (DMS) that displayed the speed of the vehicles as they approached the curve. The curve warning system also consisted of a controller unit and software centrally located to manage speed inputs and locally updates the DMS. The I-5 interstate road geometry required that a system be installed on the northbound and southbound approach as shown in Figure 5-1-1. Due to budget limitations, the radar unit only provided speed classification and was not able to distinguish classification of type of vehicle (e.g. truck or car).
A report evaluating the optimum countermeasures for speed related crashes for the Active Curve Speed Warning System (ACSWS) was created by Portland State University for the Oregon Department of Transportation in June 2006. The report presents a quantitative and qualitative approach before and after the evaluation of the advanced curve warning system. The quantitative analysis includes a survey that was completed with motorists at a rest stop north and south of the curve.

The survey indicated:

- 76% of the drivers slowed down in response to the dynamic message signs that display their speed on each approach. Approximately 50% of the motorists surveyed who did not slow down indicated that they were already traveling below the advised speed.
- 84% of the drivers thought the sign information aided in the safe navigation of the curves.

The qualitative analysis was completed by performing speed measurement tests for vehicles and trucks before and after the installation of the curve warning system. All data points before and after were taken at the same location to eliminate any discrepancies.

The data indicated:

- The ACWS was effective in reducing the mean speeds of passenger cars and trucks by approximately three mi/h for the southbound direction and two mi/h for the northbound direction.
- The distribution of vehicle speeds was statistically different with a lower number of vehicles in the higher speed bins.

The evaluation by the Civil Engineering Department of Portland State University concluded that the advanced curve warning system on I-5 in Myrtle Creek, Oregon is effective at reducing the speeds of the majority of vehicles entering the curve area.
5.1.2 Metro Detroit Curve/Speed Warning System

In May 2009, the Michigan Department of Transportation embarked upon the design of an Active Speed Advisory Warning System (ASAWS). Curves of critical intersections along I-94, I-96, I-375, and M-5 in Metro Detroit (See Figure 5-1-2) have been identified as high crash areas due to the large amounts of overturned vehicles, fixed object crashes, vehicle side swipes, rear-end crashes and crashes due to inclement weather. To improve monitoring capabilities, effectively notify motorists and improve safety, the ASAWS system was designed by Parsons Brinckerhoff Michigan for the Michigan DOT. Although the system has not been constructed, the implementation of active speed advisory signs at strategic locations prior to interchange on/off-ramps will establish an integrated ITS system which will provide useful information to motorists about roadway geometry, their traveling speed, upstream traffic and present weather conditions.

Over 410 crashes occurred along the curves of critical intersections of I-94, I-96, I-375, and M-5 over a six year period. The variation of crashes experienced at each of the locations, allowed specific functional requirements to be formulated at each location. At the I-375 curve, due to the geometry of the roadway and normal traffic patterns, there were a higher number of rear-end collisions and single vehicle accidents. Vehicles were approaching the curve with excessive speeds under normal and adverse weather conditions and/or were not able to visualize the queuing of vehicles on the exit ramps. At the I-94 and I-96 interchange, a higher number of fixed vehicle accidents were realized due to vehicles approaching the curve with excessive speeds under normal and adverse weather conditions. On the M-5 section of the roadway, motorists were not faced with a curve, but rather poor visibility of an upcoming signalized intersection and traffic queuing, combined with motorist departing the freeway at speeds in excess of 70 MPH.

![Figure 5-1-2: Metro Detroit Curve/Speed Advisory Locations](image)
The curve warning system deployed along Michigan’s freeways and exit ramps, included several ITS components that addressed the requirements as defined per the crash and traffic analysis. At each location the following components were used:

- Dynamic message sign (DMS): displays messages from the local logic processor, serves as a notification for drivers.
- Vehicle detector(s): microwave vehicle detection system used to determine vehicle speed and occupancy up/down-stream from the Dynamic Message Sign. The up-stream detector is used to determine vehicle queuing (occupancy) and the down-stream detector is used to determine the speed of vehicles approaching the curve or interchange.
- Environmental sensor(s): determines basic weather and road surface conditions.
- Local logic processor: processes inputs from field devices such as vehicle detectors and environmental sensors, outputs appropriate pre-defined messages to other field devices such as a DMS. For example:
  
  ![Snowy Conditions Curve Ahead Reduce Speed]

- Closed circuit TV (CCTV) camera: provides real-time viewing of roadways for traffic management centers to monitor.

The curve warning system is fully-automated and locally controlled, requiring no user intervention. In addition to notifying motorists on the road-way of upcoming road geometry and traffic and weather conditions, the curve warning system was designed to be integrated in to the Michigan DOT Statewide Advanced Traffic Management System (ATMS), allowing the Operator override capabilities when required or desired (for example when posting AMBER alerts statewide). The ATMS provides data to the TMC operators and key personal at Michigan DOT so they can better manage Michigan roadway activities and devices. The Statewide ATMS will support ITS devices such as CCTV, DMS, vehicle detectors, and environmental sensors.
5.1.3 Northern California Advanced Curve Warning System

In 1999, the California Department of Transportation (Caltrans) installed five speed-based curve warning systems along mountainous sections of Interstate-5 near the Sacramento River Canyon in Shasta County. The Sacramento River Canyon was selected for the Curve Warning System because of the high traffic volumes, mountainous terrain and number of crashes involving trucks. Truck rollover or truck related accidents can cause the freeway to be shutdown for several hours at a time causing lengthy backups. The five sites include (See Figure 5-1-3):

![Sacramento River Canyon Curve Warning System Location](image)

In the five years prior to the installation of the curve warning system, the locations mentioned above experienced a total of 78 crashes. There were 40 crashes that were specifically related to vehicles exceeding the posted speed and 33 of the 78 crashes were truck related.

The Curve Warning System utilized several ITS components at each site including, dynamic message sign (DMS), a radar speed-measuring device, two cameras, video detection software for one of the cameras, and control/communications equipment. The video systems operate as a stand-alone unit, but have the capability of being controlled and monitored by the Caltrans local office or remotely via a laptop computer. The DMS
placement at each of the locations did vary based on the geometry of the roadway, for example at the Sidehill Viaduct the DMS was mounted on the left side of the highway due to the steep slope on the right. The radar speed measuring device was mounted on the CMS at each location, and it sent the speed of the vehicles to the controller to determine which message to present on the DMS.

At each location, two CCTV cameras were used, one to cover each direction. A Video Vehicle Detection System was used for one of the cameras to detect vehicles approaching the curve, and measure their speeds. The detection was used to provide incident warning to the Caltrans office in Redding, for example if five or more vehicles were traveling less than 35 MPH, a warning message would be presented to the Caltrans personnel. The second camera provided the Caltrans office with capabilities to view downstream traffic conditions, monitor the roadway, and view present weather conditions.

An evaluation study was performed by the Western Transportation Institute at Montana State University in July 2001, which measured and evaluated the effectiveness of the curve warning system. For the five curves, speed data and surveys were completed 2 months and 10 months after the installation and integration of the system. Additional speed data was collected 9 months prior to the system installation. The following were the results:

- Among respondents, 72%, 82%, and 92% of drivers of commercial vehicle, passenger car, and recreational vehicle drivers, respectively, felt the speed information given by the curve warning system was useful.
- For three of the five curves, the reduction in the speed of trucks was statistically significant for one of the data collection periods. Two curves that had a significant reduction in truck speeds, had steep downgrades of more than 5%.
- Passenger vehicles significantly reduced speeds at two of the five curves.
- The speed reductions were smaller for the later visits of the data collection periods, indicating motorists were becoming accustomed to the signs and paying less attention.
- Due to sight distance at some of the locations, some motorists were unable to properly read all the panels on the DMS. All of the respondents who didn't think the positions were suitable felt the DMS was too close to the curve.
- 83% and 96% of the survey participants gave positive feedback on visibility and sign placement.
- Caltrans maintenance personnel identified a problem using the radar units chosen for the design. The radar units could not distinguish direction of travel which could cause some confusion to motorists at some of the locations where opposite travel lanes are rather close to each other. A later modification to the orientation of the radar units rectified the problem for these trouble locations.
- The survey did not access the impact of the sign on travelers who were traveling below the posted limits and may skew indicated results on the survey.

The evaluation of the Sacramento River Canyon curve warning system presented findings that successfully reduced the number of accidents involving trucks. The system appears to be effective in lowering the speed of vehicles and trucks in areas of steep downgrades.
5.1.5 Colorado Speed Warning System

Speed warning systems can be used for mountainous sections of the roadway, in which commercial vehicles would need to reduce the speed more than passenger vehicles. In 1996, a downhill truck speed warning system was installed in Glenwood Canyon, Colorado to reduce runaway truck accidents on a curved section of I-70. The Federal Highway Association (FHWA) noted this system uses a relatively low-tech approach was used to address mountainous terrain and high speed trucks. The Downhill Truck Speed Warning System uses radar detection to determine the speed of trucks approaching the curve. Based on the speed data, a DMS would be activated that would provide a corresponding message in regards to the truck speed, for example. “You are speeding at [XX] mph, 45 mph curve ahead.” Speed studies conducted before and after the installation of the system, indicated the warning system reduced trucks speed by 27% after the installation, from 66 MPH to 48 MPH.

In 1998, an additional downhill warning system was deployed outside of Denver, Colorado. The intention of this system was to dramatically reduce vehicle speeds and influence driver behavior as trucks began a 10-mile downgrade (5-7%) after the Eisenhower Tunnel. Two truck runaway ramps are located on the downgrade within 2 miles of the tunnel. It was found that over a five year period, truck runaway ramps were used 106 times, equating to almost twice per month. In addition, 125 truck related accidents were recorded over a nine-year period before the installation of the system.

Weigh-in-Motion sensors were used in conjunction with inductive loop detectors and computer hardware/software to monitor truck speed, weight and axel configurations. An algorithm in the software, determined a safe descent speed for each type of vehicle over 40,000 pounds. This speed and a recommended warning message were presented to trucks before they began their descent at the end of the tunnel. See figure 5-1-4.

Figure 5-1-4: Speed Warning Message in Eisenhower Tunnel
To validate the effectiveness of the new system, the civil engineering department at The University of Colorado in Denver wanted to evaluate the speed of trucks on the decent of the hill with the system on and off. The data collection plan was originally designed to compare truck speeds with the warning message presented based on weight class, however could not be done for two reasons. Firstly, the weigh-in-motion sensor had a range of errors that prevents the reliable identification of the truck based on their weight at the Dumont weight station. Secondly the warning system did not log the messages reported to each truck.

Several methods were tried to evaluate the effectiveness of the system, and finally the Analysis of Covariance (ANCOVA) method was used. Truck weight at the Dumont weight station was recorded, to perform an overall assessment of whether the speed warning sign had a significant effect on speeds of trucks descending the hill, taking in account the weight of the trucks. Using speed data for specific trucks from inside the tunnel, they would match truck speeds that complied with the advised speed with the trucks weight from the Dumont Weight Station.

The following results were realized as part of the evaluation:

- On the days with the system off, more trucks traveled faster than 45 MPH, but more vehicles were below the 40,000 lb vehicle weight.
- ANCOVA revealed the mean truck speed with the sign off was found to be 7.6 MPH greater than with the sign on, with 2.4 MPH attribute to lighter weight trucks.
- A survey was conducted at the weigh station, which concluded out of the 40 motorists that were surveyed, 22 read the sign. 21 out of 22 mentioned that the system would help them descent at a safer speed.
- 18 out of the 22 truckers that were surveyed mentioned the speed shown on the sign was “about right”

The final recommendations by the University of Colorado were to lower the recommended speed and weight ranges for the Downhill warning system using the following ranges.

- 40,000 to 48,500 lbs. (advised speed = 35 mph)
- 48,500 to 55,00 lbs. (advised speed = 25 mph)
- 55,000 to 80,000 lbs (advised speed = 15 mph)
- Above 80,000 lbs (advised speed = 10 mph)

### 5.2 Lessons Learned

The above examples show that you can apply a curve/speed warning system design in different configuration, however each clearly improved travel and motorist safety while providing value to the respective agencies. Each application incorporated a handful of similar ITS devices to detect vehicle speeds and warn motorists about their speed entering the curve/interchange. Although each system reviewed is a little different, trends between each application and technologies used can be realized and applied to the Topeka I-70 Polk-Quincy Viaduct. The lessons learned shown below are examples provided for the Curve and Speed Warning Systems in section 4.0 and from the U.S DOT Federal Highway Administration.
Several of the more significant lessons learned which could be leveraged from these previous applications are listed below (in no particular order):

- Divide large-scale projects into smaller, more manageable projects.
- Follow the system engineering process for ITS design to improve system quality.
- Develop a Concept of Operations (ConOps) to help project partners stay focused on the true needs.
- Recognize the value of other agencies’ experiences, thoroughly evaluate other curve/speed system deployments and engage DOT partners for input.
- Use of crash data analysis to determine areas of concern for specific segments of roadway, device selection and placement, and application needs.
- Consideration of roadway geometry to maximize the application’s effectiveness and overall optimal placement of ITS devices.
- Identify and engage all stakeholders early and often during the design process.
- Establishing minimum end-user (client) expectations for application features and functionalities.
- Head-end (TMC) connections, command and control should be defined with all stakeholders. More specifically a standard operating procedure (SOP) should be established upfront for determining user priorities.
- Minimize system complexity.
- Establish realistic and achievable requirements
- Utilize industry standards and proven technologies
6.0 Implementing an ITS Solution

With continual advancements in technology, the ability to manage and monitor the transportation network becomes a lot less cumbersome. As ITS encourages a more regional view of transportation, the industry has shifted to address life cycle operations and maintenance of these systems using a System Engineering Approach. The Federal Highway Administration (FHWA) created a policy that requires all ITS projects funded by the highway trust funds be based on the system engineering analysis.

The information discussed in the previous sections coupled with the System Engineering process described can be utilized as a guide to establish a baseline system. The next steps outlined in Section 6.2 are recommended to successfully create and implement a working ITS solution for the Topeka I-70 Polk-Quincy Viaduct.

6.1 System Engineering and Life Cycle Model for ITS

As defined by the International Council of System Engineers, system engineering is defined as an interdisciplinary approach and means to enable the realization of successful systems. It focuses on defining customer needs and required functionality early in the development cycle, documenting requirements and proceeding with design synthesis and system validation while considering the complete problem. System engineering promotes up-front planning and system definition prior to the deployment of technology solutions. Documenting stakeholder needs, expectations, the way the system is to operate (concept of operations), and the system requirements (what the system shall do) prior to implementation leads to improved system quality.

Stakeholder involvement throughout project development is another major component of system engineering. Up-front planning can help reduce the risk of costly rework and schedule slips during implementation. Project developments that use a system engineering approach will improve the documentation of the system (requirements, design, verification, development, and support documentation). Having such documentation will improve the long-term operations & maintenance, of the system. Good documentation will make it easier to upgrade and expand the system.

The "V" model shown in Figure 6-1 has been applied to many different industries in the last two decades. Wings were recently added to the "V" as part of its adaptation to ITS to show how the project development fits within the broader ITS project life cycle. The life cycle outlined in the "V" model formulates a consolidated sequence of activities required for a good system. These specific steps are discussed in Section 6.2 as they relate to the Topeka I-70 Polk-Quincy Viaduct.
The system engineering approach defines project requirements before technology choices are made and the system is implemented and integrated. The "V" starting from the left, progresses from a general user view of the system to a detailed specification of the system design. The main system is broken down into subsystems which get broken down to the component level. As the system is broken down, requirements also break down into specific requirements that correlate to the system components.

The symmetry of the "V" model correlates the steps on the left side with the ones on the right. The system definition on the left is ultimately used to verify the system on the right. The user needs and performance measures defined in the Concept of Operations are used as the basis for a system validation plan that is used to validate the system at the end of the project development stage. The system verification plan developed at the system requirements stage is used so that ITS professionals can consider how to verify each requirement as the requirements are developed. The arrows pointing across the "V" represent how the left side process drives the right side processes. Decision Gates are used in the "V" model to ensure stakeholders and project owners have visibility to the status of the project and helps determines when to move on to the next step.

6.2 Next Steps

The Curve Warning Systems, lessons learned and System Engineering “V” model discussed above, lay groundwork for department agencies to implement their own safety application. In Topeka, Kansas, the need to implement an ITS solution is clearly evident due to the overwhelming amount of truck rollovers, rear-ends collisions and fixed object crashes along the Topeka I-70 Polk-Quincy Viaduct. A well defined user and system need is always the best starting point to begin the process of implementing an ITS solution.

The following steps are defined in chronological order to advance this alternative from conception to implementation.

- **User Requirements** – Define a full list of user requirements. There should not be a limitation on what the user would like to see in the system – as these will be evaluated during future steps in the process. However, some features may or may not directly impact driver behavior and improve the condition for motorists through the viaduct such as the use of a license plate reader described in Section 2.1.

- **Concept of Operations** – Utilize user needs to identify alternative system concepts, assess their feasibility, and recommend the highest value alternative(s). This may result in some needs being eliminated for the specific project because the recommended need or feature will not address the core problem. Future projects may be spun off from the concept of operations to implement the lower value alternatives.

- **System Requirements** – Combine user needs and highest value alternative to define specific system requirements. This is the foundation for building Intelligent Transportation Systems (ITS). They determine WHAT the system must do and drive the system development. Several questions will help develop a minimum set of requirements;
  - WHAT is the system supposed to do? – Functional Requirement
  - Who should operate and maintain the system?
  - How well should the system do its functions? – Performance Requirement
  - Under what conditions (e.g. environmental, reliability, availability) does the system have to work and meet its performance goals? - Environmental and Non-Performance Requirement

- **Define Budget** – The budget of any system is almost always the limiting factor to complete a project. With any design of a system, a fundamental component of driving the requirements of the system is the construction budget. Create a well defined budget that will ensure that all critical requirements are met to impact traffic conditions along the viaduct and ensure stakeholder expectations are met.

- **System Design** – After the requirements and budget has been approved by the stakeholder, the system design process can begin. Two main design components are done at this stage, the High-Level Design and Component Level Design.
  - High Level Design - This defines the sub-systems to be built, internal and external interfaces to be deployed and interface standards identified. The high-level design is where the sub-system requirements are developed. This is the transitional stage between WHAT the system does and HOW the system will be implemented to meet the system requirements. The high-
level design of the system is used to create the sub-system verification plan shown in the “V” diagram in section 6.1

- Component Level Design – This is the build-to design of the hardware, software and selection of products. For hardware, this is the step where logic schematics, chip layout and artwork are prepared for fabrication. Alternatives of specific products are evaluated and a selection is made. This step will be used to define the Unit Verification Plan shown in the “V” diagram in section 6.1

- Implementation - This phase develops hardware and software of the system, integrates, verifies and deploys subsystems & system into its intended environment using Verification Test Plans, requirements, component and system level design documents.

- Operations & Maintenance (O&M) – With any system that is developed, a well defined design will also include HOW the system will be maintained and operated after the design and construction work is complete. This section can be heavily driven during the design stage by defining requirements of the design-builder or contractor in specifications. Existing resources and maintenance contracts may also exist for ITS solutions in the city of Topeka, these resources and procedures for who, how and when maintenance will be performed for the system.

Applying these steps for the Topeka I-70 Polk-Quincy Viaduct can ensure that a well defined system comes to fruition. All steps defined above utilize the System Engineering process and lessons learned from other ITS projects.
Appendix 1: Intelligent Transportation Systems Operations

Transportation System Operations

The Department of Transportation has begun to see a tremendous increase in the amount of motor vehicles on the national freeways, and local expressways. This increase is creating a need to better manage the existing infrastructure which the government has built. Managing the existing alignment of roadway is explored as an alternative and is a common practice in the field of ITS. By using new technology and implementing roadway and vehicle systems, the local and state transportation departments can improve safety, incident response, reduce congestion, monitor and track traffic patterns, and disseminate information to motorists and partner agencies.

Intelligent transportation systems vary in technologies applied, from basic management systems such as car navigation; traffic signal control systems; container management systems; variable message signs; automatic number plate recognition or speed cameras to monitoring applications, such as CCTV camera systems; and to more advanced applications that integrate live data and feedback from a number of other sources, such as parking guidance and information systems; road/weather information; bridge deicing systems; and the like. For the purposes of this report we’ll break it down into four categories and present a brief discussion on each: smarter roadways, smarter vehicles, improved response, and travel information.

Smarter Roadways

Intelligent highways equipped with wireless technology, fiber optics, sensors, cameras, coordinated traffic signals, and electronic signs have the potential to decrease traffic congestion, increase highway safety, improve incident response and reduce the environmental impact caused by traffic jams.

Sophisticated sensing technology (such as imbedded loops, roadside radar/sonar, or video detection systems) can help gather the “condition status” of the road network. Such information can then be utilized to help better manage the system by affecting the flow of vehicles. Common applications include ramp metering to manage the flow of vehicles onto a limited access roadway, or coordinated signal systems to better manage flow along an arterial road. These installations can be permanent, or can be “mobile” to be utilized in various work zone scenarios.

Listed below are examples of ITS deployments and a measure of its benefits:

- A traffic signal coordination program in Texas reduced delay by 23%
- In North Carolina, a road weather sensor program yielded a 39% reduction in the annual crash rate
- A ramp metering evaluation in Minneapolis demonstrated a 15% reduction in traffic crashes
- In Washington DC an ITS work zone program decreased delay up to 90%

More advanced forms of transportation management applications are also becoming more commonplace, such as Active Traffic Management (ATM) which is focused on even more intense system monitoring and management of the network. Overhead gantries with individual lane signals can help direct traffic for lane
closures, but more importantly can facilitate speed harmonization - an application that slows down traffic in advance of a bottleneck to reduce/eliminate “the accordion effect” so commonly seen in congested situations.

The next federal authorization will also have an impact on the implementation of roadway sensors and management systems. While some transportation departments already recognize the value of improving operations and are beginning to focus more on “the customer,” the next federal transportation bill will most likely include a stronger emphasis, if not definitive guidelines and/or requirements, for monitoring the performance of the transportation network. In terms of today’s conventional thinking such measures might include throughput, travel time, delay, fatalities/crashes, and even incident response time tied to the distribution of federal funds. But the rapidly changing landscape might also bring light to new measures such as emissions and carbon footprint, mode shift, demand pricing, physical asset management, predictive roadway conditions, and commercial vehicle mobility; variables that by today’s standards we are still learning how to effectively measure. For instance Google is currently monitoring live traffic speeds on the Interstate System, with the goal of including major arterials, on their website so that drivers can see if they need to avoid an area of congestion due to a crash or other circumstances (see Figure 1-1).

![Figure 1-1: Traffic Speeds Being Monitored by Google](image)

The technology required to measure such performance objectives is the SAME technology that can help dramatically improve safety, mobility, and air quality - providing public sector agencies with a unique opportunity to act and improve conditions now, but also set themselves up for future success as the culture of operations continues to evolve.
Smarter Vehicles

Just as transportation agencies are implementing solutions to dramatically improve their awareness and management of the road networks, so too are the vehicles themselves getting “smarter.”

As automation technology has progressed, especially in the decades after the invention of the integrated circuit, more and more functions have been added to automobiles to improve convenience, but also to improve safety. Intelligence on the roadway can dramatically help reduce the likelihood of a crash, but dramatic increases in vehicle technology have brought us much closer to “cars that will not crash,” despite the actions of their operator.

Some of the currently available applications include:

- Adaptive cruise control
- Adaptive headlamps
- Advanced Automatic Collision Notification, such as OnStar
- Automatic Parking
- Automotive night vision with pedestrian detection
- Driver Monitoring System
- Intelligent speed adaptation
- Lane departure warning system
- Pre-crash braking system
- Pre-crash belt-tighteners

The next generation of advances is now being explored at the junction of smart roads and smart vehicles. If vehicles can communicate with each other and with the roadside, an entirely new set of potential applications known as IntelliDrive begin to take shape. IntelliiDrive™ is a suite of technologies and applications that use wireless communications to provide connectivity that can deliver transformational safety, mobility, and environmental improvements in surface transportation. IntelliDrive applications provide connectivity:

- with and among vehicles
- between vehicles and the roadway infrastructure
- among vehicles, infrastructure, and wireless devices (consumer electronics, such as cell phones and PDAs) that are carried by drivers, pedestrians, and bicyclists

The IntelliDrive vision is threefold:

**Safety** - IntelliDrive enables vehicles with 360-degree awareness to inform a driver of hazards and situations they can’t see. Ultimately, IntelliDrive may lead to crashless vehicles.

**Mobility** - In an information age, IntelliDrive can give complete multi-modal information about transportation network’s real-time performance to travelers and transportation managers.

**Environment** - IntelliDrive can help reduce the environmental impact of a trip by providing real-time information about traffic congestion and other travel conditions to help travelers make more informed decisions. Informed travelers may decide to avoid congestion by taking alternate routes or public transit, or by rescheduling their
trip—all of which can make their trip more fuel-efficient and eco-friendly. IntelliDrive applications also can help drivers maintain their vehicles for maximum energy efficiency.

For instance, Lexus has developed their "Lane Keep Assist" system (see Figure 1-2) for their new HS Hybrid as well as a pre-collision system, advance vision, dynamic radar cruise control and XM radio real time traffic and weather. The "Lane Keep Assist" system uses micro-cameras and radar to scan lane markings allowing the vehicle to assist you to stay in your lane.

![Figure 1-2: “Lane Keep Assist” System for the HS Hybrid by Lexus](image)

**Improved Response**

Integration of emergency service activities significantly assists transportation providers in delivering better mobility while also assisting emergency responders in minimizing the time it takes to access an emergency site and manage the emergency in an effective manner.

There are many ITS solutions that enhance the integration of emergency service and transportation information. Response management may include the tracking of emergency vehicle fleets using automated vehicle location (AVL) technology and two-way communications between emergency vehicles and dispatchers. Integration with traffic and transit management systems enables emergency information and traffic condition information to be shared among the public sector entities addressing the emergency and sharing pertinent information with the traveling public.

Getting emergency responders to a crash scene quickly can save lives - a benefit that is hard to quantify, but one that has been proven many times over in the past several decades. In addition to reducing roadway fatalities, a number of other studies have uncovered some terrific benefits:

- The delay reduction benefits of improved incident management in the Greater Houston area saved motorists approximately $8,440,000 annually.
Modeling indicated that emergency vehicle signal preemption at three intersections on a Virginia arterial route increased average travel time by 2.4% when priority was requested.

In 2002, the Maryland CHART highway incident management program reduced delay by about 30 million vehicle hours and saved about 5 million gallons of fuel.

In Albuquerque, New Mexico, an ambulance provider increased its efficiency by 10 to 15% using AVL/CAD to improve route guidance.

**Travel Information**

Collecting information, managing the roadway, integrating smart vehicles, and providing a more comprehensive response to problems collectively have improved the usability of our transportation networks over the past 15 years. But one of the oldest forms of ITS continues to evolve and maintains a direct customer relationship: travel information. What started as radio traffic reports 25 years ago has blossomed into a rather large element of every public agency’s transportation program - and continues to grow as a private sector business with the explosion of computing and communications technology.

Advanced Traveler Information Systems, more commonly referred to as ATIS, can play an important role in communicating essential information to the public during everyday commutes, on long trips, in times of disaster, or even for very localized situations. Transportation agencies typically use electronic message signs, 511 telephone systems, highway advisory radio, and websites as dissemination methods for much of that data they have collected for purposes of transportation management.

A small sample of the benefits includes:

- A simulation study found that drivers using traveler information arrived at their destination within 15 minutes of the target arrival time 79 percent of the time; this percentage drops to 42 without traveler information.
- An automated work zone information system deployed on a California interstate greatly reduced traffic demand through the work zone resulting in a maximum average peak delay that was 50 percent lower than expected.
- An evaluation of 511 services in Virginia indicated 90 percent of callers found the service useful and nearly half adjusted their travel plans based on the information provided.
- In the Washington DC metropolitan area, drivers who use route-specific travel time information instead of wide-area traffic advisories can improve on-time performance by 5 to 13 percent.

Radio and TV traffic reports continue to be an important staple of the news media, forming a solid “vertical tier” of information no less important than frequent news, sports, and weather reports. But the rapid expansion in consumer electronics and wireless technology has also opened the door to many private sector applications that provide traffic and transit information. In many instances these private applications rely on public sector data, or in some instances a hybrid of public data combined with privately collected information. Some companies have also taken the next step by integrating this real-time information with navigation systems, providing you with the quickest path between two points, not necessarily the shortest.

The advent of social networking on the Internet has also rapidly started to change the way we look at travel information. Many public agencies are now broadcasting their travel information on Twitter. Twitter is a free social networking and micro-blogging service that enables its users to send and read messages known as tweets. Tweets are text-based posts of up to 140 characters displayed on the author’s profile page and delivered to the author’s subscribers who are known as followers. Since Twitter is designed to send short message bursts they are most frequently being read on mobile devices.
Appendix 2: References

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Appendix C:

Crash Analysis
Crash Analysis for I-70

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1 Crash Analysis
This report covers the data acquisition and analysis of crashes on and near the I-70 Polk-Quincy Viaduct in Topeka, Kansas. The analysis was conducted as part of the concept design planning study to determine the best way to increase capacity and improve safety on the I-70 Polk-Quincy Viaduct corridor.

1.1 Data Source, Descriptions and Methodology
The crash data was obtained from the Kansas Department of Transportation’s Kansas Accident Records System (KARS). Five years of crash data was analyzed using data from 2004 through 2008. Since this database is not yet geo-referenced, the location of crashes was determined from descriptions within the data and written comments in the crash reports. Route/county reference point information, which is the distance along I-70 from the western edge of Shawnee County, was used for crashes without accessible crash reports. There are other possible methods of locating crashes, but this was deemed the most reliable and consistent.
The analysis begins at route/county reference point 13.1 which is approximately 0.25 miles west of the intersection of I-70 and MacVicar Avenue. The analysis ends at the start of route/county reference point 17.0 which is approximately 210 feet east of the I-70 and SE Adams Street interchange.

Each crash section is 0.10 miles in length and is analyzed in only one direction. As an example, the area shaded white in Figure 1 in the eastbound I-70 lanes is section 13.8 eastbound. The area shaded white in the westbound I-70 lanes is section 13.9 westbound. This was done to keep labels for opposite directions adjacent to each other. Further labeling was used to define eastbound and westbound. A ‘1’ in front of the section number (without decimals) was used for eastbound, while a ‘2’ in front of the section number was used for westbound. Using the same example as before, the eastbound I-70 area shaded white is section 1138. The westbound I-70 area shaded white is 2139.

Crashes were broken down into three time periods. The AM Peak is from 7:00am to 8:30am. The PM Peak is from 4:00pm to 5:30pm. The off-peak contains all remaining hours.

Critical crash locations are defined as locations where the frequency of crashes is significantly higher statistically than the expected value when compared to crash rates for similar roads and a statistical level of confidence. The crash rate for every segment is calculated using the frequency of crashes, length of road, and average daily traffic (ADT). If the ratio of the crash rate for a section over the critical crash rate is above 1.0 then that segment of road has a critical crash rate at a 99% level of confidence.

The following equation is used to compute the crash rate for segments:

\[ R_{SG} = \frac{A_{SG}}{M_{SG}} \]
Where:

R_{SG} = crash rate for a segment
A_{SG} = number of crashes in a segment
M_{SG} = vehicle exposure for the study period in millions of vehicle miles for the segment

Furthermore:

M_{SG} = ( \sum (AADT for each year * days of exposure) * L_{SG} ) * 10^{-6}

Where L_{SG} = length of the segment in miles

The following equation is based upon the Poisson distribution and is used to compute the critical crash rate for a given roadway segment:

\[ R_{CSG} = Ra + t_{SG} \sqrt{Ra \over M_{SG}} + {1 \over 2 * M_{SG}} \]

Where:

R_{CSG} = critical crash rate for segment
Ra = statewide average crash rate for the appropriate roadway classification
M_{SG} = vehicle exposure for the study period in million vehicle miles for the segment
t_{SG} = a constant used to determine the level of confidence in the calculated critical rate

The value for t_{SG} is as follows:

t_{SG} = 2.576 for a 1% chance of false detection of critical segments

The equation for Ra, which is provided by KDOT for each roadway classification, is:

\[ Ra = A_c / M_c \]

Where:

A_c = number of crashes by highway classification
M_c = millions of vehicle miles by highway classification

The following equation is used to compute the critical ranking:

\[ RANK_{SG} = \left( {R_{SG} - R_{CSG} \over R_{CSG}} \right) * 100 \]

The critical crash ratio equation is:

\[ CCR = R_{SG} / R_{CSG} \]
Critical crash locations have been analyzed in depth. Individual injuries and contributing circumstances are shown for each section of roadway within a critical crash location. It is important to note that there can be multiple injuries or contributing circumstances per vehicle, per crash. Therefore the total number of injuries or contributing circumstances may be greater than the number of crashes in that section.

1.2 Crash Rates for I-70 Mainline

Figure 2 shows the I-70 sections labeled for the entire analysis area. Figure 3 shows the average daily traffic along I-70.

Figure 4 and Figure 5 show the number of crashes and the critical crash rates along I-70 eastbound and westbound, respectively. Figure 6 and Figure 7 show the crash rate and critical crash rate for each section.
Figure 2 – I-70 Crash Sections, MacVicar Avenue to SE Adams Street
Figure 3 - 24 Hour Traffic Volumes (AADT)
Figure 4 - Eastbound Crashes by Section

Figure 5 - Westbound Crashes by Section
Eastbound Crash Rates

Figure 6 - Eastbound Crash Rates by Section
Westbound Crash Rates

Figure 7 - Westbound Crash Rates by Section
# Appendix C: Crash Analysis

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<td>Angle - Side impact</td>
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<td>Bridge rail</td>
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<td>Wall</td>
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# Appendix C: Crash Analysis

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<th>Type</th>
<th>Sub-Type</th>
<th>Frequency</th>
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<th>% of Analysis</th>
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<td>Disregarded traffic signs, signals markings</td>
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<td>Exceeded posted speed limit</td>
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<td>Too fast for conditions</td>
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<td>13 9 49</td>
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<td>Made improper turn</td>
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<td>Wrong side or wrong way</td>
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<td>Followed too closely</td>
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## Contributing Circumstances (continued)

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<th>Fell asleep</th>
<th>Inattention</th>
<th>Other distractions in or on vehicle</th>
<th>Avoidance or evasive action</th>
<th>Impeding or too slow for traffic</th>
<th>Ill or medical condition</th>
<th>Distraction - mobile (cell) phone</th>
<th>Aggressive / Antagonistic driving</th>
<th>Reckless / Careless driving</th>
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<td>1%</td>
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</tbody>
</table>

| Environment         | Fog, smoke, or smog   | 2                | 0          | 1           | 1%                                |                           |                               |                          |                              |                              |                        |       |         |
|                     | Sleet, hail, or freezing rain | 4             | 0          | 1          | 3%                                |                           |                               |                          |                              |                              |                        |       |         |
|                     | Blowing sand, soil, or dirt | 1           | 0          | 0          | 0%                                |                           |                               |                          |                              |                              |                        |       |         |
|                     | Rain, mist, or drizzle   | 5                | 1          | 1          | 3%                                |                           |                               |                          |                              |                              |                        |       |         |
|                     | Animal                  | 5                | 0          | 0          | 5%                                |                           |                               |                          |                              |                              |                        |       |         |
|                     | Vision Obstruction: building, vehicle, objects made by humans | 4             | 2          | 0          | 2%                                |                           |                               |                          |                              |                              |                        |       |         |
|                     | Vision Obstruction: glare from sun or headlights | 1             | 1          | 0          | 0%                                |                           |                               |                          |                              |                              |                        |       |         |
|                     | Falling snow            | 8                | 0          | 1          | 7%                                |                           |                               |                          |                              |                              |                        |       |         |

| Roadway            | Wet                    | 10               | 1          | 1          | 8%                                |                           |                               |                          |                              |                              |                        |       |         |
|                    | Icy or slushy           | 19               | 1          | 2          | 16%                               |                           |                               |                          |                              |                              |                        |       |         |
|                    | Debris or obstruction   | 3                | 0          | 0          | 3%                                |                           |                               |                          |                              |                              |                        |       |         |
|                    | Snowpacked              | 3                | 0          | 0          | 3%                                |                           |                               |                          |                              |                              |                        |       |         |
|                    | Other                   | 1                | 0          | 0          | 1%                                |                           |                               |                          |                              |                              |                        |       |         |

| Vehicle            | Brakes                 | 1                | 0          | 0          | 1%                                |                           |                               |                          |                              |                              |                        |       |         |
|                    | Tires                  | 4                | 0          | 0          | 4%                                |                           |                               |                          |                              |                              |                        |       |         |
|                    | Window or windshield: includes ice on windshield & designer window tinting, etc. | 2             | 1          | 1          | 0%                                |                           |                               |                          |                              |                              |                        |       |         |
|                    | Wheel(s)               | 3                | 0          | 0          | 3%                                |                           |                               |                          |                              |                              |                        |       |         |
|                    | Cargo                  | 1                | 0          | 0          | 1%                                |                           |                               |                          |                              |                              |                        |       |         |
|                    | Unknown                | 1                | 0          | 0          | 1%                                |                           |                               |                          |                              |                              |                        |       |         |
1.3 Critical Crash Section Details
This section will further analyze the sections that were identified as critical crash sections in the preceding analysis. This analysis will include the type of crash, road conditions, injuries, and contributing circumstances among other factors.

1.3.1 Section 1133 (Eastbound I-70 near the MacVicar Avenue Off-ramp)
This section is at the I-70 EB and MacVicar Avenue interchange and is primarily located to the west side of MacVicar Avenue. The majority of these crashes are not on mainline I-70 itself, but on the off-ramp near the stop sign. This area was recently reconstructed and this crash pattern may no longer exist. If the crashes on the off-ramp were removed from analysis this section would no longer be a critical section. The crashes in this section occurred when the roads were dry with no adverse weather conditions. With the exception of one crash where there was a tire issue every crash was contributed to drivers either being inattentive or following too closely.

Figure 8 - Section 1133 Image
### Table 1 - Section 1133 Crash Analysis

<table>
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<tr>
<th>Site Location</th>
<th>Analysis</th>
<th>Frequency</th>
<th>Type</th>
<th>Sub-Type</th>
<th>Frequency</th>
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</tr>
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Crash Rate = 3.788; Critical Crash Rate = 2.749.
1.3.2 Section 1156 (Eastbound I-70 within the 3rd Street Curve)
This section contains part of the I-70 EB curve within the 3rd Street curve. Most of the crashes occurred when the vehicles collided with the median barrier divider. This occurred more often when there was inclimate weather and the roads were not dry. The causes of these crashes resided primarily with drivers being inattentive or driving too fast for conditions. Two individuals suffered non-incapacitating injuries in this location.

Figure 9 - Section 1156 Image
## Table 2 - Section 1156 Crash Analysis

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### Appendix C: Crash Analysis

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Crash Rate = 2.869; Critical Crash Rate = 2.860.
1.3.3 Section 1157 (Eastbound I-70 within the 3rd Street Curve)

This section of I-70 EB also is located within the 3rd Street curve and contains similar crash statistics as the previous section. There were 12 crashes in this segment including two vehicles that overturned. Six of the vehicles collided with the median barrier divider. The road conditions during these collisions were evenly split between dry and different types of precipitation. Eight of the crashes occurred during no adverse conditions which seem to imply two of the crashes occurred after the weather system passed through but the roads were not yet dry. In five of the crashes drivers were recorded to be contributing factors when they were driving too fast for conditions. Three crashes were contributed to avoidance or evasive action. There were two non-incapacitating injuries as a result of these crashes.

Figure 10 - Section 1157 Image
## Table 3 - Section 1157 Crash Analysis

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### 1157

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  - Wet: 3
  - Snow/Slush: 1
  - Ice/Snowpacked: 2
- **Weather Conditions**
  - No Adverse Conditions: 8
  - Rain: 1
  - Snow/Slush: 1
  - Snow & Winds: 2
- **Crash Type - Other Vehicle**
  - Sideswipe, Same Direction: 2
  - Other: 1
- **Crash Type - Fixed Object**
  - Divider, Median Barrier: 6
  - Wall: 1
- **Crash Type - Overturned**: 2
- **Alcohol Involvement**: PDO: 6
- **Crash Severity**
  - PDO: 6
  - Injury: 6
  - Fatal: 0
- **Contributing Circumstances**: 16
  - Too fast for conditions: 5
  - Improper lane change: 1
  - Inattention: 1
  - Avoidance or evasive action: 3
  - Other: 2
- **Individuals**: 19
  - Injuries: Not Injured: 11
  - Possible Injury: 4
  - Non-Incapacitating: 2
  - Disabled: 0
  - Fatal: 0
  - Unknown: 2
- **Contributing Circumstances**: 16
  - Driver: Too fast for conditions: 5
  - Improper lane change: 1
  - Inattention: 1
  - Avoidance or evasive action: 3
  - Other: 2
<table>
<thead>
<tr>
<th>Environment</th>
<th>Sleet, hail or freezing rain</th>
<th>1</th>
<th>0</th>
<th>0</th>
<th>1</th>
<th>6%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision Obstruction: building, vehicle, objects made by humans</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Roadway</td>
<td>Icy or slushy</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>13%</td>
</tr>
</tbody>
</table>

Crash Rate = 3.443; Critical Crash Rate = 2.860.
1.3.4 **Section 2165 (Westbound I-70 within the 10th Avenue Curve)**

This section contains 13 crashes within the 10th Avenue curve for I-70 WB which includes the 10th Avenue off-ramp. Seven of the crashes occurred on dry pavement with no adverse conditions, but six of them occurred during inclimate weather with road conditions that were not dry. Seven of the vehicles struck the median barrier divider with two more hitting a wall. Three vehicles collided with sign posts in the area. Five people were injured in the crashes. Drivers travelling too fast for conditions are cited in eight of the crashes.

![Section 2165 Image](image_url)

*Figure 11 - Section 2165 Image*
### Table 4 - Section 2165 Crash Analysis

<table>
<thead>
<tr>
<th>Site Location</th>
<th>Analysis</th>
<th>Frequency</th>
<th>Type</th>
<th>Sub-Type</th>
<th>Frequency</th>
<th>Time of Day</th>
<th>% of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Road Conditions</td>
<td></td>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dry</td>
<td>7</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Snow/Slush</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ice/Snowpacked</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mud, dirt or Sand</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Weather Conditions</td>
<td>No Adverse Conditions</td>
<td>7</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sleet</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Snow/Slush</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Freezing Rain</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>Crash Type – Fixed Object</td>
<td>Divider, Median Barrier</td>
<td>7</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10</td>
<td>Crash Type – Overturned</td>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>Alcohol Involvement</td>
<td>PDO</td>
<td>8</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>Crash Severity</td>
<td>Injury</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td></td>
<td>Fatal</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>Individuals</td>
<td>Not Injured</td>
<td>8</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td></td>
<td>Possible Injury</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td></td>
<td>Non-Incapacitating</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td></td>
<td>Disabled</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td></td>
<td>Fatal</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td></td>
<td>Unknown</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>Individual Injuries</td>
<td>Failed to yield right of way</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td></td>
<td>Too fast for conditions</td>
<td>8</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td></td>
<td>Inattention</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>Contributing Circumstances</td>
<td>Environmental</td>
<td>Sleet, hail, or freezing rain</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td></td>
<td>Vehicle</td>
<td>Tires</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td></td>
<td>Roadway</td>
<td>Icy or slushy</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Crash Rate = 4.303; Critical Crash Rate = 2.860.
1.3.5 Section 2156 (Westbound I-70 within the 3rd Street Curve)

This section of I-70 WB within the 3rd Street curve had 24 crashes located in it. Eighteen of the crashes occurred on dry pavement and 19 of the crashes occurred while there were no adverse weather conditions. 16 of the crashes were rear ends with another three colliding with vehicles at an angle on the side or sideswiping them in the same direction. Three vehicles hit the median barrier divider or the wall. Two people suffered non-incapacitating injuries as a result of these crashes. There were 31 contributing factors in these crashes and 27 of them were attributed to drivers. Drivers being inattentive were cited 10 times, with both driving too fast for conditions and following too closely being cited six times each. Based on the descriptions and statements in the reports the tight curve radius and the on-ramp located just down steam of the section influence the high crash rate observed in this section. Increasing the curve radius and lengthening the 3rd Street on-ramp acceleration lane may help reduce the number of crashes observed in this area.

Figure 12 - Section 2156 Image
### Table 5 - Section 2156 Crash Analysis

<table>
<thead>
<tr>
<th>Site Location</th>
<th>Analysis</th>
<th>Frequency</th>
<th>Type</th>
<th>Sub-Type</th>
<th>Frequency</th>
<th>Time of Day</th>
<th>% of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>2156</td>
<td>Crashes</td>
<td>24</td>
<td>Road Conditions</td>
<td>Dry</td>
<td>18</td>
<td>AM: 1, PM: 3, Off: 14</td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wet</td>
<td>1</td>
<td>AM: 0, PM: 1, Off: 0</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Snow/Slush</td>
<td>2</td>
<td>AM: 0, PM: 0, Off: 2</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ice/Snowpacked</td>
<td>3</td>
<td>AM: 1, PM: 0, Off: 2</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Weather Conditions</td>
<td>No Adverse Conditions</td>
<td>19</td>
<td>AM: 2, PM: 3, Off: 14</td>
<td>79%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Rain</td>
<td>1</td>
<td>AM: 0, PM: 1, Off: 0</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Snow/Slush</td>
<td>3</td>
<td>AM: 0, PM: 0, Off: 3</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Strong Winds</td>
<td>1</td>
<td>AM: 0, PM: 0, Off: 1</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Crash Type – Other Vehicle</td>
<td>Head On</td>
<td>1</td>
<td>AM: 1, PM: 0, Off: 0</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Rear End</td>
<td>16</td>
<td>AM: 1, PM: 4, Off: 11</td>
<td>67%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Angle, Side Impact</td>
<td>1</td>
<td>AM: 0, PM: 0, Off: 1</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sideswipe, Same Direction</td>
<td>2</td>
<td>AM: 0, PM: 0, Off: 2</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Crash Type – Fixed Object</td>
<td>Divider, Median Barrier</td>
<td>1</td>
<td>AM: 0, PM: 0, Off: 1</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wall</td>
<td>2</td>
<td>AM: 0, PM: 0, Off: 2</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Crash Type – Animal</td>
<td>Deer</td>
<td>1</td>
<td>AM: 0, PM: 0, Off: 1</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Alcohol Involvement</td>
<td>PDO</td>
<td>18</td>
<td>AM: 2, PM: 3, Off: 13</td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Crash Severity</td>
<td>Injury</td>
<td>6</td>
<td>AM: 0, PM: 1, Off: 5</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fatal</td>
<td>0</td>
<td>AM: 0, PM: 0, Off: 0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Individuals</td>
<td>61</td>
<td>Individual Injuries</td>
<td>Not Injured</td>
<td>54</td>
<td>AM: 4, PM: 11, Off: 39</td>
<td>89%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Possible Injury</td>
<td>4</td>
<td>AM: 0, PM: 1, Off: 3</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Non-Incapacitating</td>
<td>2</td>
<td>AM: 0, PM: 0, Off: 2</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Disabled</td>
<td>0</td>
<td>AM: 0, PM: 0, Off: 0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fatal</td>
<td>0</td>
<td>AM: 0, PM: 0, Off: 0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unknown</td>
<td>1</td>
<td>AM: 0, PM: 0, Off: 1</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Contributing Circumstances</td>
<td>31</td>
<td>Driver</td>
<td>Failed to yield right of way</td>
<td>1</td>
<td>AM: 0, PM: 0, Off: 1</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Too fast for conditions</td>
<td>6</td>
<td>AM: 1, PM: 1, Off: 4</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Followed too closely</td>
<td>6</td>
<td>AM: 1, PM: 2, Off: 3</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Improper lane change</td>
<td>2</td>
<td>AM: 0, PM: 0, Off: 2</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Inattention</td>
<td>10</td>
<td>AM: 0, PM: 1, Off: 9</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Avoidance or evasive action</td>
<td>1</td>
<td>AM: 1, PM: 0, Off: 0</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Impeding or too slow for traffic</td>
<td>1</td>
<td>AM: 0, PM: 0, Off: 1</td>
<td>3%</td>
</tr>
</tbody>
</table>
### Appendix C: Crash Analysis

<table>
<thead>
<tr>
<th>Environmental</th>
<th>Animal</th>
<th>1</th>
<th>0</th>
<th>0</th>
<th>1</th>
<th>3%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadway</td>
<td>Wet</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Icy or slushy</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3%</td>
</tr>
</tbody>
</table>

Crash Rate = 6.885; Critical Crash Rate = 2.860.
1.3.6 Section 2155 (Westbound I-70 near the 3rd Street Curve)

There were 15 crashes located in section 2155 which is primarily located downstream of the I-70 WB curve at 3rd Street. Ten of the crashes occurred while the road was dry with 11 crashes occurring while there were no adverse weather conditions. Vehicles rear ended each other seven times and sideswiped other vehicles in the same direction five times. Another three vehicles hit either the bridge rail or the median barrier divider. The short acceleration lane from the 3rd Street on-ramp may have been a contributing factor in these crashes. Five people were injured in these crashes. Drivers were noted to have contributed to the crashes by driving too fast for conditions and being inattentive four times each.

Figure 13 - Section 2155 Image
## Appendix C: Crash Analysis

### Table 6 - Section 2155 Crash Analysis

<table>
<thead>
<tr>
<th>Site Location</th>
<th>Analysis</th>
<th>Frequency</th>
<th>Type</th>
<th>Sub-Type</th>
<th>Time of Day</th>
<th>% of Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2155</td>
<td>Crashes</td>
<td>15</td>
<td>Road Conditions</td>
<td>Dry</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wet</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ice/Snowpacked</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Weather Conditions</td>
<td>No Adverse Conditions</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Rain</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Freezing Rain</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Snow &amp; Winds</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Crash Type – Other Vehicle</td>
<td>Rear End</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Crash Type – Fixed Object</td>
<td>Bridge Rail</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Divider, Median Barrier</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Crash Severity</td>
<td>PDO</td>
<td>8</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Injury</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fatal</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Injured</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Possible Injury</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Non-Incapacitating</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Disabled</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fatal</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Unknown</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Failed to yield right of way</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Exceeded posted speed limit</td>
<td>1</td>
<td>0</td>
</tr>
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<td>Icy or slushy</td>
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Crash Rate = 4.304; Critical Crash Rate = 3.334.
1.4 Conclusions

Six crash segments on I-70 were identified as critical crash segments and were analyzed in greater detail. Of the six segments, five were located on curves, with the sixth being located next to an off-ramp. Four of the critical segments were located within the 3rd Street curve where one off-ramp and one on-ramp are also located. The final critical segment was on the curve just before the 10th Avenue overpass while traveling WB on I-70.

Increasing the radius of the curve near 3rd Street, lengthening the 3rd Street on-ramp acceleration lane and increasing the shoulder width should reduce the number of crashes observed in the area based on the analysis in this report. With increasing volumes over the next 30 years the number of crashes will only be exacerbated due to decreased headways and fewer gaps between vehicles with which to merge or avoid other vehicles.

The critical section near the MacVicar Avenue EB off-ramp may have been alleviated with the recent reconstruction of MacVicar Avenue and the intersection. With most of these crashes located off of mainline I-70 there is little to suggest that affects the I-70 Polk-Quincy analysis.

The sixth critical section was located on WB I-70 just before the 10th Avenue overpass in a curve. This section had a higher number of crashes occur during inclimate weather than the other sections and half the crashes have contributing circumstances linked to drivers travelling too fast for conditions.

There are other areas of concern that are not yet apparent in current crash analysis. The primary area is a section of I-70 WB between the 8th Avenue on-ramp and 4th Street off-ramp. The lane configuration in this area requires drivers merging onto I-70 to merge over two lanes in a distance of approximately 500 ft. It seems the only reason this area does not yet have a significant number of crashes is the distribution of traffic volumes in the AM and PM favor only one ramp with the other ramp receiving very low volumes. As the volumes increase on both ramps conflicts in the weaving area will increase. This conflict can be observed currently during non-peak hours.
Appendix D:

Polk-Quincy Viaduct Analysis
Appendix D: I-70 Polk-Quincy Viaduct

Existing Viaduct Condition

The existing structure was built in 1963 and is composed of multi spans of Reinforced Concrete (RC) box girders and steel plate girders supported by concrete columns on spread footing at the piers and HP piles at the abutments. The viaduct consists of 12 separate units with 9 RC box girder units and 3 steel plate girder units. The 9 concrete units consist of 34 spans and the 3 steel units consist of 10 spans. The overall Sufficiency rating of the structure is rated at 80.9 and the ADT is 35,300 VPD with 13% trucks. The overall deck condition is fair and rated at 6 based on the latest SI&A sheet.

The inspection report states that the deck has been patched and cleaned many times every year since 1996. Deck sealer and expansion joints repairs were also performed as shown in the maintenance history of the inspection report.

The deck geometry has been rated at 4 which is functionally obsolete due to the sharp curvature and the narrow shoulders. Fatigue cracks at diaphragms are developing and the columns started to show some deterioration. The structure is 2 years away from the 50 year life mark that it was intended for.

The existing drains and joints have been problematic for KDOT maintenance staff due the undersized pipes and slopes. The new system shall provide much better system than the existing by using bigger drainage pipes such as 10” or 12” in diameter and connect them to the storm water system.

Proposed Viaduct

The new viaduct will be built on an offset alignment as shown in Figure (D-1) in order to keep traffic on existing structure during construction. The proposed viaduct length will be about 2,000’ long vs. the 3,400’ long existing bridge. This in itself is a significant reduction of both the initial cost and long-term maintenance costs. The substructure will be evaluated at the next phase of the project depending on the geotechnical exploration and investigation. Figure (D-1) shows the proposed vertical profile of the viaduct based on 7’ overall superstructure depth with a vertical clearance (VC) of approximately 17’.

The proposed bridge section width for a single roadway concept would be in the range of 130-140’, this is too wide for deck concrete placement. It is recommended that the viaduct be reconstructed as twin bridges with a 10’ to 12’ separation provided between the structures for ease of bridge inspection and access. In addition with the anticipated 17’ VC, the single 130-140’ wide
superstructure may cause a ‘tunnel’ effect for the motorists under the viaduct on local streets and the separation of the bridges will facilitate ample natural light under the viaduct.

It is recommended to build a twin-single 2000’ long viaduct vs. multiple-bridge option with retained embankment between grade separations. A single viaduct is the preferred option since the distance between the segments will be short. It will also provide continuous visibility under the viaduct. The two end spans are expected to be in the 200’ range to cross Topeka and Kansas Avenues and the intermediate spans are expected to be in the 150’ range.

**Superstructure Type**

Several superstructure types can be selected for the viaduct such as: Steel Box Girders, Precast/Prestressed I-girders (K6) or NU section and Segmental Precast/PT option. Standard Steel I-Plate Girder system may be discouraged due to ‘birds nesting’ and excessive structure depth. Combinations of Steel Box for the 200’ end spans and Precast/Prestressed K6 or NU girders for interior 150’ spans is a viable option. All steel box girder system is also a viable option due to the curved portion of the viaduct. See Figure (D-2) for possible typical bridge section showing girder type.

Shallow bulb-T Precast/Prestressed can be used to reduce the superstructure depth and minimize raising the profile grade which will in turn reduce cost for the approach roadways and ramps.

The final selection a comparison of structure type options would be made in terms of cost, constructability, MOT, bridge inspection process, long-term maintenance and aesthetics. A basic structure type meeting the functional requirements would also be determined as the basis for the development cost comparisons of various options in structure types.

A simple and clean superstructure with aesthetic treatment focused on the substructure, especially piers should be considered. The aesthetics features of the new viaduct shall take into consideration the local history, culture, land-development issues and local icons in order to determine the appropriate structural elements of the project. Same process could be applied to the treatment of the outside rail surfaces and retaining walls and project aesthetics in general in a holistic and integrated manner.
Figure D-1 Proposed Viaduct Replacement
Figure D-2  Future I-70 Polk-Quincy Viaduct Typical Section
POLK-QUINCY VIADUCT TYPICAL SECTION
Steel Box Girder
Superelivated

POLK-QUINCY VIADUCT TYPICAL SECTION
Steel Box Girder
Normal Crown

POLK-QUINCY VIADUCT TYPICAL SECTION
NU Prestressed Girder
Normal Crown
Appendix E:

Design Concepts for Revised Alternatives
Alternative #1 Revised provides three interchanges that serve the Downtown area. The first interchange serves the north side of the Downtown area, with ramps that connect I-70 to Topeka Boulevard and Kansas Avenue. The second services the northeast side of Downtown with ramps that connect I-70 to Madison and Monroe Streets at 4th Street and 6th Avenue. An existing partial interchange serves 10th Avenue to access Downtown Topeka from I-70 to the east.
Alternative #2 Revised provides three interchanges that serve the Downtown area. The first interchange serves the north side of the Downtown area, with ramps that connect I-70 to Topeka Boulevard and Kansas Avenue. The second services the northeast side of Downtown with ramps that connect I-70 to Madison and Monroe Streets at 4th Street and 6th Avenue. An existing partial interchange serves 10th Avenue to access Downtown Topeka from I-70 to the east.

Alternative #2 differs from Alternative #1 in that it provides a pair of one-way collector-distributor roads that parallel I-70 from Topeka Boulevard to 10th Avenue.
Alternative #3 Revised provides three interchanges that serve the Downtown area. Full interchanges would be located at Topeka Boulevard and 6th Avenue with a partial interchange at 10th Avenue. The possibility of also providing a pair of ramps at 4th Street serving I-70 to and from the west was analyzed.
Appendix F: Construction Cost Estimates
## POLK-QUINCY VIADUCT
### Cost Summary of Alternatives
#### August 22, 2011
Based on 2015 Cost

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Unit of Measure</th>
<th>Alternative 1 Revised</th>
<th>Alternative 2 Revised</th>
<th>Alternative 3 Revised</th>
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| Sub-Total                   | $ 141,342,100   | $ 143,220,370          | $ 136,912,750          |
| Sub-Total                   | $ 197,879,940   | $ 200,508,510          | $ 191,677,850          |
| Inflation to 2015 Dollars   | 20% LS          | 1                     | $ 39,575,600           | 1                     | $ 40,101,700           | 1                     | $ 38,335,600            |
| Sub-Total                   | $ 237,454,740   | $ 240,610,210          | $ 230,013,450          |
| Preliminary Engineering     | 1% SF           | 1                     | $ 14,247,300           | 1                     | $ 14,436,600           | 1                     | $ 13,800,800            |
| Right-of-Way                | 1% SF           | 1                     | $ 10,000,000           | 1                     | $ 10,000,000           | 1                     | $ 10,000,000            |
| Utility Relocations         | 4% LS           | 1                     | $ 9,488,200            | 1                     | $ 9,624,400            | 1                     | $ 9,200,590             |
| Construction Engineering    | 6% LS           | 1                     | $ 14,247,300           | 1                     | $ 14,436,600           | 1                     | $ 13,800,800            |

| GRAND TOTAL                 | $ 285,447,540   | $ 289,107,810          | $ 278,815,550          |

8/30/2011 2:37 PM
Appendix G:

Preferred Alternative
Preferred Alternative

On the south side, the existing 4th Street ramp are replaced with new "Left-Drawn" medians, one serving the north side of the downtown area and each serving the east side.

On the north side, the existing 4th Street ramp are replaced with new "Left-Drawn" medians, one serving the north side of the downtown area and each serving the east side.

A new, single, one-way connector road will be formed on the north side of the downtown area. This new connector road will be replaced with new "Left-Drawn" medians, one serving the north side of the downtown area and each serving the east side.

The new connector road will be replaced with new "Left-Drawn" medians, one serving the north side of the downtown area and each serving the east side.

A new, single, one-way connector road will be formed on the north side of the downtown area. This new connector road will be replaced with new "Left-Drawn" medians, one serving the north side of the downtown area and each serving the east side.

The new connector road will be replaced with new "Left-Drawn" medians, one serving the north side of the downtown area and each serving the east side.

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The new connector road will be replaced with new "Left-Drawn" medians, one serving the north side of the downtown area and each serving the east side.
Section 1: MacVicar Avenue to west of Topeka Boulevard
Section 2: West of Topeka Boulevard to south of 4th Street
Section 3: South of 4th Street to east of 10th Avenue
Section 4: East of 10th Avenue to west of California Avenue
Appendix H: Stakeholder Interviews
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- KHP ........................................................................................................................
- KS Motor Carriers ............................................................................................... 
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- Riverfront Authority ...........................................................................................
- 5O1 School District ..............................................................................................
- Speaker, Thurbon, Hoover ................................................................................
- TMTA ...................................................................................................................
- Topeka Capital-Journal ....................................................................................... 
- UPS ........................................................................................................................ 
- US Foodservice ................................................................................................. 
- Wildlife Parks – City Parks and Rec ....................................................................
Stakeholder Interview Summary - Amtrak

Date: August 25, 2009
Location: Union Station, Kansas City, Missouri
Organization: Amtrak
  • Marc Magliari, Media Relations Manager, Amtrak
Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

• Jim Tobaben first provided an overview of the project.

• Mr. Magliari then provided information regarding the Amtrak operations in Topeka. Mr. Magliari said that that www.amtrak.com news and media section included statewide fact sheets as well as ridership for the last two years.
  o A review of the website showed Amtrak’s fiscal year 2008 had a total of 7554 boardings + alightings at the Topeka station, up from 6937 in fiscal year 2007

• Currently, the Southwest Chief serves Topeka with one eastbound train (1:09 AM) and one westbound train (5:20 AM) daily.

• Amtrak’s fiscal year begins on October 1. By October 1 of this year, Amtrak could provide what the ridership has been at the Topeka station during the latest fiscal year. The number of passengers per calendar year can also be determined.

• KDOT has contracted with Amtrak to consider adding service levels. The options being considered are:
  o Extend service from Oklahoma City to Newton, where passengers would change trains.
  o Provide service from Oklahoma City to Kansas City
• Mr. Magliari said Amtrak is not considering more than doubling the amount of trains at this time or providing long-distance commuter service. However, the current station is designed for more than two trains per day.

• Amtrak has only 2-5 employees in Topeka.

• In regards to the I-70 Polk-Quincy Viaduct study, Amtrak’s primary issue is passenger access to the station from I-70. The Topeka station is located between 4th and 6th Streets along the BNSF tracks and serves a region around the city. Most passengers use the 8th Street interchange with I-70.

• Amtrak itself probably wouldn’t be affected if the railroad alignment won’t change. The station is actually BNSF property. Amtrak is on the south side of the station and BNSF is on north side. Amtrak has no plans to move; it likes to be in a center city or near a large population base. Additionally, they wouldn’t mind co-locating with Greyhound as that would provide more business at the station during the day.

• Mr. Magliari said that if high-speed commuter trains were considered in the future, all new infrastructure would be need.
Stakeholder Interview Summary – Kaw Valley Bicycle Club

Date: August 4, 2009

Location:

Organization: Bike Club – Andy Phillips, Kristy Rezak (kristyr@ksdot.org), Jim Hoover, Bill Lucero, Allen Apel

www.kvbc.org

acphil16@yahoo.com

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. **How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?**
2. **What improvements would enhance the viaduct?**
3. **What concerns do you have about any possible alternatives?**
4. **What new developments or proposed developments will affect those who use the viaduct?**
5. **What socio-economic issues should we be aware of in relationship to the viaduct?**
6. **How do businesses receive deliveries? Where do clients come from? What access is important?**
7. **Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?**
8. **Can you suggest groups or individuals that we should involve in this study process?**
• Current city streets – under bridge, don’t have width for bike lane
• Would like to see bike route parallel to I-70
  o Hook to Shunga Trail
• If below grad – bike/ped crossing key
• Design of connections to trails are key
  o Turns a problem with no flares
• Width where bridge goes over
• Video or other detection at signals
  o For bikes
• Visibility of cyclists – landscaping etc., block view
• Signal push buttons – for cyclists
• Drainage facilities, storm grate
• KVBC – recommended bike routes
• Parallel route out to Auburn Rd.
Stakeholder Interview Summary - BNSF

Date: August 21, 2009

Location: BNSF Office

Organization: BNSF Railroad

- David Detjen
- Ed Thomas
- Jim Goff

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

9. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?

   There is quite a bit of truck traffic to the shops. Most trucks use the 4th street exit to Madison, then north to Crane and turn right to enter BNSF property. This is a difficult movement. As the ramp approaches Madison there’s a double white pavement marking – technically, traffic is not supposed to cross into the adjacent lane on Madison, but to get to facility, trucks do cross this line. Some trucks come from the west and use the 3rd Street exit.

   There is a considerable amount of truck traffic; no specific numbers available.

   Shop builds and delivers engines and wheels.

   Receive engine deliveries daily and have engines leaving as well.

   GE is also in the shop. They have deliveries as well.

   First mile of Santa Fee RR is near project area. Starts about Atchison Main, stops shy of 13th street.

   Discussion of a commuter train from OKC. Amtrak uses the line. Twice during the night. Midnight westbound, eastbound is 5 am.
The 4th street off ramp going westbound. Some come in from west and use 3rd Street ramp.

Many go under viaduct and use 4th Street ramp.

Majority of traffic is coming from East.

Employees in this building many live on west side. Believe they use the 8th street ramp, some might use third street ramp and follow Monroe down. Those that live east, 10th street is quick and easy.

A few employees at shop and at building, ride bikes. Some do ride busses.

10. What improvements would enhance the viaduct?

Getting on I-70 from BNSF shops would be good. Also, the vast majority of those using he viaduct to go on to I-70 assuming vast majority comes from east.

Lessening the curve is the primary desire.

11. What concerns do you have about any possible alternatives?

None reported.

12. What new developments or proposed developments will affect those who use the viaduct?

Expansion in development will not negatively affect BNSF operations or perspective. However, the company that rebuilds RR cars might expand and could be adversely affect.

13. What socio-economic issues should we be aware of in relationship to the viaduct?

None reported.

14. Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?

None reported.
Stakeholder Interview Summary – Corps of Engineers

Date: July 24, 2009

Location: Corps of Engineers Office, Kansas City, MO

Organization: Corps of Engineers

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes;

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. The responses follow.

- Study with City – re-evaluate levee
  - Adequate protection
  - Series of improvements
- Concrete flood wall
  - Replace
  - KS Avenue 2000’ E
- Under seepage berm
  
  Levee critical zone 500’ from line of protection of levee
- Ck MacVicar east – I70 embankment is the levee
- Could be FEMA issue
- Check with Corp if widen I70
  
  Behind concrete flood wall 2 of 3 pump stations tied storm sewer system

City is levee sponsor on S. side

- Shawn Bruns
  
  Check Corps website – they will email link

Protection 100 year levee

Floodplain Manager – contact

Corp – regulatory staff
Stakeholder Interview Summary – Goodyear

Date: September 24, 2009

Location: Goodyear Plant, Topeka, KS

Organization: Goodyear

Interviewers: Jim Tobaben and Patty Gentrup

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

Most trucking uses K-4 to access I-70

NB & SB – use US -75

1. *How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?*

2. *What improvements would enhance the viaduct?*

3. *What concerns do you have about any possible alternatives?*

4. *What new developments or proposed developments will affect those who use the viaduct?*

5. *What socio-economic issues should we be aware of in relationship to the viaduct?*

6. *How do businesses receive deliveries? Where do clients come from? What access is important?*

7. *Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?*

8. *Can you suggest groups or individuals that we should involve in this study process?*
Stakeholder Interview Summary – Greyhound Bus

Date: September 11, 2009

Location:

Organization: Greyhound Bus – Eric Thiry – District Manager

Interviewers: Jim Tobaben and Patty Gentrup

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

- Moved to Gas Station – 600 Quincy
- Daily Schedule – 6-7 buses 5 a.m. – midnight
  - Route 2 So. To Wichita
- Check schedule on Greyhound.com
- Long ramps are beneficial
- Need shoulders
- Coming from KC – use 8th
- Coming from west – use 3rd
- Longer deceleration/acceleration times
- Most bus drivers are familiar
- Need signing for bus station
- Next stop east is Lawrence
- Next stop west is Junction City
- Next stop north – no service
- Next stop south is Emporia
  - Ridership – large area

15. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?

16. What improvements would enhance the viaduct?

17. What concerns do you have about any possible alternatives?

18. What new developments or proposed developments will affect those who use the viaduct?

19. What socio-economic issues should we be aware of in relationship to the viaduct?

20. How to businesses receive deliveries? Where do clients come from? What access is important?

21. Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?

22. Can you suggest groups or individuals that we should involve in this study process?
Stakeholder Interview Summary – Hallmark Cards

Date: September 3, 2009

Location: Hallmark Cards Office, Topeka, KS

Organization: Hallmark

Interviewers: Jim Tobaben and Patty Gentrup

Interview Note:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?
   - Trucks exit at 4th use front to building
   - Trucks have a hard time to EB I70
   - Most trucks to & from east, some to west
   - Employees – 600 total – most from N & W
   - Osage Jackson Wabunsee
   - 2/3 in SN Co/Topeka
   - Most use 3rd St. ramps
   - Docks on NW corner – trucks go around N side
   - Work schedule misses peak periods
   - Below grade – less bridge maintenance
   - I70 is only artery thru town
   - Recognize need to do something even
   - Parking lot by I70

2. What improvements would enhance the viaduct?
   - Improve curve
   - 3 lanes each way to MacVicar
   - Other sections ie Westgate & I470 problems

3. What concerns do you have about any possible alternatives?
   - No place to go on viaduct if having problems
   - Sight distance along I70
Lighting is poor – especially curve
Trees block light at night
Safety of curve
Ice on bridge

4. **What new developments or proposed developments will affect those who use the viaduct?**
   Ice rink off 8th St. by jail
   Riverfront

5. **What socio-economic issues should we be aware of in relationship to the viaduct?**
   Almost all employees drive – couple bikes

6. **How to businesses receive deliveries? Where do clients come from? What access is important?**

7. **Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?**

8. **Can you suggest groups or individuals that we should involve in this study process?**
   No.
Stakeholder Interview Summary – Hills Pet Products

Date: September 24, 2009

Location: Hills Office, Topeka, KS

Organization: Hills Pet Products

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. *How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?*

   Trucks for E&W on I-70 70%/30% - WB/EB
   - 133 outbound per week dry van – 48'/53'
   - 55’65 inbound per week – bulk hopper & refrigerated semi

   Outbound
   - WB 1st St. 103 loads/year
   - EB Monroe to 4th St. 6240 loads/year

   Inbound
   - 4th St. from East

2. *What improvements would enhance the viaduct?*

   Acceleration lane lengths for trucks – even 1st St., could be longer
   SB Topeka Blvd at 1st need RT lane
   One-way st sys is confusing

3. *What concerns do you have about any possible alternatives?*

   Access for truck traffic is key
   Noise abatement
   Safety – for employees, trucks, public

4. *What new developments or proposed developments will affect those who use the viaduct?*

   Business stable – no expansion planned
5. What socio-economic issues should we be aware of in relationship to the viaduct?
6. How to businesses receive deliveries? Where do clients come from? What access is important?
7. Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?
8. Can you suggest groups or individuals that we should involve in this study process?
   St. Jo Church
   YMCA
   Ward-Meade
Stakeholder Interview Summary – Topeka Independent Business Association

Date: September 24, 2009

Location: Midway Wholesale Office

Organization: Topeka Independent Business Association

- Ken Daniels

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?
   - Uses 1st St. & 3rd St. trucks get on WB ramps
   - Construction businesses, medical, small businesses

2. What improvements would enhance the viaduct?
   - Flatten curve
   - Eliminate 3rd St. on-ramp – or move
   - Provide shoulders

3. What concerns do you have about any possible alternatives?
   - 8th St. on-ramp to WB
   - 3rd St. off – 3rd St. traffic doesn’t stop
   - Crashes on curve

4. What new developments or proposed developments will affect those who use the viaduct?
   - Do park development on N. side of River
   - Don’t tear down buildings on N. side of I70
   - On 6th St. – businesses being improved
   - Truck stop at I70 & Adams

5. What socio-economic issues should we be aware of in relationship to the viaduct?
6. How to businesses receive deliveries? Where do clients come from? What access is important?

7. Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?

8. Can you suggest groups or individuals that we should involve in this study process?
   KS Avenue to Topeka Blvd – levee area

   Former filling station at 1st St & I70 ramp
Stakeholder Interview Summary – Kansas Highway Patrol

Date: August 18, 2009

Location: KHP Office, Topeka, KS

Organization: KHP (Edna Butler (785) 207-0423

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes;

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?
2. What
3. What concerns do you have about any possible alternatives? improvements would enhance the viaduct?
   - Secondary Crashes!
   - Sharp exits
   - Entrance ramps too short
   - Almost impossible to do enforcement
   - Sight distance an issue
   - Flat tire – 3-4 patrol cars require
   - 3 lanes each way and shoulder
   - Safety
   - Wet weather accidents
   - Snow removal – when pushed to side – icy
   - 3rd St. WB – not good
   - KHP – Traffic Control for incidents – Topeka PD handles most crashes
   - Flashing lights in pavement – seen used at ped x-ings
     - Attention getting
   - Need better communication w/drivers regarding incidents
     - Check ITS DMS locations
   - Need to get from 45 mph – 60 mph
   - No escape route or room for error for officers on viaduct
   - Fence along barrier
   - Balance – serve thru traffic and local
   - Officer safety!

4. 
5. What new developments or proposed developments will affect those who use the viaduct?

6. What socio-economic issues should we be aware of in relationship to the viaduct?

7. How to businesses receive deliveries? Where do clients come from? What access is important?

8. Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?

9. Can you suggest groups or individuals that we should involve in this study process?
Stakeholder Interview Summary – Kansas Motor Carriers Association

Date: July 29, 2009

Location: KMC Office, Topeka, KS

Organization: KS Motor Carriers, Tom Whitaker

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. *How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?*
2. *What improvements would enhance the viaduct?*
3. *What concerns do you have about any possible alternatives?*
4. *What new developments or proposed developments will affect those who use the viaduct?*
5. *What socio-economic issues should we be aware of in relationship to the viaduct?*
6. *How to businesses receive deliveries? Where do clients come from? What access is important?*
7. *Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?*
8. *Can you suggest groups or individuals that we should involve in this study process?*

- Loss of truck parking – serious issue – KTA
  - Ck Rice Rd Parking Lot
- UPS used 3rd/4th Street
- Many trucks want to go N. on U75
- Sign I70 onto 470, - reverse
  - Additional $3.30 to get on KTA at S. Topeka
- KTA will raise tolls 5%
- Polk-Quincy – too narrow need shoulders
  - Limits ability for oversized loads
- Hills, UPS, use downtown ramps
- Goodyear, Del Monte – U75 US Foods
  - Ck Industrial Center on Lowe Silver Lake Rd
• Westar – Service Center
• Fedex – serving photo co.
• Wideloads
• Ck with Truck Services on permits routed on I70
• KTA – no taller than 14’ and no overweight
• KS allows 85,000 lbs
• Interstate allows 80,000 lbs – grain haulers don’t use I70
• Ck with Resers – Southern Cal Trans does their trucking
• Yellow’s terminal on Rice Rd.
• Intermodal traffic from KC freight yards
• Need interchange at Topeka Blvd.
• Need to consider frontage roads
• Parking under bridge
• Deliveries to Capital Journal
• KDOT – Sp. Permits for manufactured houses
  o KS Manufactured Housing Association
• Truck crashes – mainly “thru” trucks, unfamiliar drivers
• UPS thinks freight movement has bottomed out
  o Ck KTA volumes for large trucks
  o When # goes up – 6 months see recovery
• Pat Hubble – intermodal traffic for Topeka shippers
Stakeholder Interview Summary – North Topeka Business Alliance

Date: August 21, 2009

Location: North Topeka Business Alliance Office

Organization: North Topeka Business Alliance – Fred Patton

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. **How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?**

   Mr. Patton responded that people in North Topeka have not made much use of I-70 due to lack of good connections. The new Topeka Boulevard Bridge and intersection with 1st Street has provided better access to and from the west on I-70.

   He said those traveling to and from North Topeka are more likely to use the Oakland Expressway or Highway 75 to access I-70. Mr. Patton said it’s possible that industrial users might even completely avoid using I-70 to access North Topeka.

   Mr. Patton said that when he personally is downtown, he uses I-70 in that area, but does not use it to get home.

2. **What improvements would enhance the viaduct?**

   Mr. Patton said providing access to Kansas Avenue and Topeka Blvd would be significant enhancements. This would help with the growth of North Topeka. There is more growth at this time, but such improvements would just enhance that. Improvements would also help businesses that are striving to succeed in the area.

   While there are certainly safety issues, Mr. Patton thinks that what prohibits people from using I-70 is the confusion related to accessing it and or accessing downtown from it.

3. **What concerns do you have about any possible alternatives?**

   At first consideration, Mr. Patton doesn’t have concerns about any of the alternatives. A lot of the buildings are abandoned. You’re not affecting well established businesses that couldn’t go anywhere else. Someone will be affected, but it’s not enough to cause considerable problems.

4. **What new developments or proposed developments will affect those who use the viaduct?**
There is no question that we would like to see something that would help North Topeka businesses. But you can’t do redevelopment one building at a time. A comprehensive plan needs to be done.

No matter what is done to I-70, it will benefit what’s happening on Highway 24 if there is a good connection between city streets and the highway.

Mr. Patton believes that if downtown flourishes, then it will help North Topeka.

The alliance interacts with the greater chamber. There is a more cohesive effort among Visit Topeka and chamber and the alliance than there previously had been.

5. **What socio-economic issues should we be aware of in relationship to the viaduct?**

   Mr. Patton wasn’t aware of any other socio-economic issues.

6. **How do businesses receive deliveries? Where do clients come from? What access is important?**

   Deliveries come mainly from US-24.

   Clients are mainly from Topeka north of the Kansas River, from Jackson County, and from Jefferson County.

   Connecting downtown to North Topeka businesses and businesses along US-24 is important.

7. **Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?**

   None reported.

8. **Can you suggest groups or individuals that we should involve in this study process?**

   North Topeka on the Move Association should be included.


Mr. Patton indicated that the North Topeka Business Alliance would like a meeting presentation regarding this project. That alliance meets, first Tuesday of each month, noon at Great Overland Station.
Stakeholder Interview Summary – Great Overland Station

Date: July 30, 2009

Location: Great Overland Station

Organization: Overland Station, Bette Allen, Beth Fager

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

- View of Overland Station is important
  - Below grade may eliminate view
- Making it safer is key

1. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?
   - Main route to downtown
   - Topeka RR Festival August 2
     - I70 Main route
     - Check website for how drivers are directed on I70

2. What improvements would enhance the viaduct?
   - Signing for Overland Station
   - Access to KS Avenue & Topeka Blvd.
   - Make it user friendly
   - Connections to city streets
   - Safety improvements
   - Lack of view from viaduct
   - If below grade – need signing
   - Favor viaduct – Bette
   - HAR – city events?
   - 6 lanes

3. What concerns do you have about any possible alternatives?
   - An alignment on 1st St. – negatively impacts riverfront development
   - View is important
4. What new developments or proposed developments will affect those who use the viaduct?
   - Riverfront/Park development on N. side
   - S. side of Curtis to the river
   - Access for boats
   - Theme – Oregon Trail Crossing

Placemaking
   - Lure a corporate headquarter to that area (employment growth)

5. What socio-economic issues should we be aware of in relationship to the viaduct?
   Would Let’s Help need to move?

6. How to businesses receive deliveries? Where do clients come from? What access is important?

7. Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?
   - Ped Access on KS and Topeka Blvd.
   - Bike trails on levee

8. Can you suggest groups or individuals that we should involve in this study process?
   - N. side of river
   - Foundry on S. side
   - Water quality
   - Count weir

9.  

10. Heartland Visioning
   - Focus on downtown
Stakeholder Interview Summary – Emergency Response Agencies: Police, Sheriff, Fire

Date: 

Location: Topeka/Shawnee County Law Enforcement Center

Organization: Police, Fire, Sheriff

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. **How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?**
   
   Issues
   
   - Fire – safety concerns on 3rd St. curve  
     - Limited room to work
   - Police – 3rd St. curve – history of crashes  
     - 3rd St. curve on-ramp a problem – no acceleration  
     - Most officers use 1st St.
   - Riverfront Development – access
   - I-70 – national highway – low speed curve
   - Regular maintenance issue for KDOT
   - EB traffic hitting 3rd St. sharp ramp down to 3rd – but convenient to access Law Enforcement Center
   - No other fast way to get from one side of Topeka to the other
   - Numerous responses
   - Employees say they will not use 3rd on-ramp
   - ID parking structures

2. **What improvements would enhance the viaduct?**
   
   - Access to I70
   - Width of roadway
   - Incident management
   - 3 lanes narrow to 2 lanes  
     - Need to be 3 lanes
   - Appropriate shoulders
   - Improve curve
3. **What concerns do you have about any possible alternatives?**

   Relocating ramps would (police, sheriff) not cause concern
   
   3rd on-ramp not used
   
   3rd St. Off-Ramp –unfamiliar drivers don’t realize they don’t have to stop

4. **What new developments or proposed developments will affect those who use the viaduct?**

   Redevelop building on 3rd St.

5. **What socio-economic issues should we be aware of in relationship to the viaduct?**

6. **How to businesses receive deliveries? Where do clients come from? What access is important?**

7. **Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?**

8. **Can you suggest groups or individuals that we should involve in this study process?**

9.

10. Jim Parrish
Stakeholder Interview Summary – Ramada Inn

Date: September 14, 2009

Location: Ramada Inn, Downtown Topeka, KS

Organization: Ramada – Jim Parrish

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?
   - I70 extremely important to the Ramada
   - Ingress & Egress to hotel from I70
   - Topeka Blvd. – I70 should access
   - 3rd St. Ramp – unsafe
   - Not many businesses on E. side of I70
   - 6th Street could be an important artery thru downtown – already improved from Golden to Market
   - 8th St – gateway
   - Most clients probably take 8th St. exit
   - Clients must weave across frontage road
   - WB lane addition from Brammer/Adams adds to weaving issues - on curve
   - Access to and from downtown is very important
   - 256 sleeping rooms
   - 58 apartments
   - Tower – 2 floors of commercial/office space
     - Community Resource Council
   - 33,000 sq. ft banquet space
     - Largest in KS w/o adjacent convention center
   - I70 traffic - support businesses
   - MOT detours impact to businesses

2. What improvements would enhance the viaduct?
   Design to avoid Downtown – Downtown hard to see – curves focus drivers' attention on driving task
   New Design should be attractive
• Not be a bridge
• At grade or below grade
Access across or under I70 – important
Bridge – ugly barrier – barrier to development north of 6th St.
Riverfront Area is a huge possibility
Water Development (Frank Meade) – a possibility
  • One major property owner
  • Could go the quickest
Fed. Home Loan Bank – possible anchor for riverfront
Ice Rink 8th & Madison

3. What concerns do you have about any possible alternatives?
4. What new developments or proposed developments will affect those who use the viaduct?
5. What socio-economic issues should we be aware of in relationship to the viaduct?
6. How to businesses receive deliveries? Where do clients come from? What access is important?
7. Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?
8. Can you suggest groups or individuals that we should involve in this study process?

*Sent Jim the name of Downtown Inc. PAC member
Stakeholder Interview Summary – Riverfront Authority

Date: July 28, 2009

Location: Kansas Dept. of Wildlife and Parks Office, Topeka, KS

Organization: Riverfront Authority

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

Plan completed – October 2008

- Check City of other website
- Reconnect Topeka!
- Viaduct creates visual barrier

4th St. to river – prime for redevelopment

1. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?
   
   Expo Center – which exit to take
   
   Would be better to connect major N.S. streets

2. What improvements would enhance the viaduct?

   Access and visual to riverfront to KS Avenue and Topeka
   
   Aquifer is near surface
   
   TPAC access
   
   Water Tower district
   
   Way finding signing
   
   Access is key to developing Riverfront

3. What concerns do you have about any possible alternatives?

   No one seems “wed” to properties on N. of I70
   
   Want Riverfront & Water Tower to support downtown redevelopment
   
   8th St. Corridor streetscape improvements
4. What new developments or proposed developments will affect those who use the viaduct?

5. What socio-economic issues should we be aware of in relationship to the viaduct?

6. How to businesses receive deliveries? Where do clients come from? What access is important?

7. Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?

8. Can you suggest groups or individuals that we should involve in this study process?
   - Degengers Foundary – Superfund? Others
   - Small pockets to be investigated – KDHE
   - Old meat packing plants – Hills may purchase

9.

10. Heartland Visionary

   *N. Topeka on the move – add

   Topeka Independent Business Association

   Ken Daniel
Stakeholder Interview Summary – 501 School District

Date: 

Location: 21st & KS Bus Lot 

Organization: 501 School District 

Interviewers: Jim Tobaben and Patty Gentrup 

Interview Notes: 

Jim Tobaben first provided an overview of the project. 

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels? 

Very important. 

- Hummer Sports Park 
- WB Adams, Fairlawn 
- EB – 3rd St., Adams 
- 40 buses a day on I70 
- Use I70 for routes – Landon, French, then to N. Topeka 
- I-70 closed – impacts routes – 10 to 15 minute delay 
- One elementary school 
- District only owns buses for HS athletics 
  - All others are leased 
- Food operations – majority of meals are prepared at Topeka HS kitchen then delivered 
  - Use I70 

2. What improvements would enhance the viaduct? 

Any consideration to moving N-S section, east? 

- Shoulders, curves – safety issues 
  - Bus breakdowns on viaduct 
  - Other incidents impact bus schedules 
- Below grade option – would appear preferable 

3. What concerns do you have about any possible alternatives? 

No longer any school properties in the area 

- Build on off-set alignment to minimize impacts to current operation 
- Would be good to have access to Topeka Blvd – 1st choice
And/or possibly Kansas Avenue

- Reduce number of ramps on E. side of Downtown
- Look at I70 “at grade”

4. What new developments or proposed developments will affect those who use the viaduct?
   - SO1 purchased the rest of former State Hospital grounds
     - Could have 600-1100 people going to a facility on that site
       - Possibly up to 1500
     - Addition to auditorium – new pool
     - Will have MIAA bowl game Div 2A
     - May develop tennis courts
   - Parkdale Preschool & Sportsfield @ Chamber & 10th

5. What socio-economic issues should we be aware of in relationship to the viaduct?
   - Bus from Rescue Mission to east of Overland Station to schools
   - Let’s help
   - Same busing E-W
   - Division between N. & S. Topeka residents

6. How to businesses receive deliveries? Where do clients come from? What access is important?

7. Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?

8. Can you suggest groups or individuals that we should involve in this study process?
   - Noise is an issue
   - Dump areas along former Rock Island area
     - Where stone business is located

9. State Historical Society
   - Kansas Indians
   - Lardner Stone – been in business there for decades
     - Owner is a history buff
   - Deginger Foundry – active
     - Tim Teginger – has good contacts
   - Barry Felker – Rescue Mission
   - Miesr Family farm – along river
Stakeholder Interview Summary – City of Topeka

Date: September 9, 2009

Location: City Offices

Organization: Randy Speaker, David Thurbon, Bill Hoover

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?
   Heartland Visioning – 5000 people have been involved
   • Downtown is a focal point
   • Address needs of Young Professionals
   • Riverfront Development
   • I70
   *Provide Line-of-sight along Van Buren
   *Impacts on traffic noise – viaduct v. below grade

2. What improvements would enhance the viaduct?

3. What concerns do you have about any possible alternatives?

4. What new developments or proposed developments will affect those who use the viaduct?

5. What socio-economic issues should we be aware of in relationship to the viaduct?

6. How do businesses receive deliveries? Where do clients come from? What access is important?

7. Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?

8. Can you suggest groups or individuals that we should involve in this study process?
Stakeholder Interview Summary – Topeka Metropolitan Transit Authority

Date: July 29, 2009

Location: TMTA Office

Organization: TMTA

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?
2. What improvements would enhance the viaduct?
3. What concerns do you have about any possible alternatives?
4. What new developments or proposed developments will affect those who use the viaduct?
5. What socio-economic issues should we be aware of in relationship to the viaduct?
6. How to businesses receive deliveries? Where do clients come from? What access is important?
7. Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?
8. Can you suggest groups or individuals that we should involve in this study process?

- 3 Routes – buses and paratransit, beginning on west side of Topeka
  - Did use 3rd Street now 1st Street, due to safety
  - 2 buses per hour to Quincy Station
- Request for direct service to Manhattan & Lawrence
- Need wider lanes and shoulders - safety
- Need better lighting
- Concerns for icing – permanent solutions?
- More direct access to Topeka Blvd & Kansas Avenue would benefit route structure
- No real congestion issues except during incidents
- Could provide better access to Oakland area
  - May be an underserved area
• Bike connections to transit
• Large transit depend population East of Adams
  o Also bike dependent
• Need for Park and Ride
• Proximity to river – concern for any surface containment
• Considerable fuel delivery along Crane St. Corridor
• Check online for route map
• Heavy concentration of large trucks
  o Flemming, Hills, Lindey Spring, MTAA
• Crane St. – commuter route into Oakland
• Capitol City Oil fueling sta. – under Topeka Blvd. Br
• Paratransit to Tallgrass
  o Older citizens in N. Topeka to Tallgrass, etc. and other social services
• Fixed route downtown to Wannamaker
• Cotton O’Neil by Lake Shawnee – from N. Topeka E. of 29th & Croco, 50 – 60 passengers/day
• Transporting people to VA
• I70 to reach medical along MacVicar, Gage, Fairlawn
• Rescue Mission – lunch is served at Let’s Help
  o Generates pedestrian traffic
  o 500 people from N. side to Let’s Help
• TFI – family guidance at 4th & I70
• YMCA
• Scott’s Dry Cleaning under I70 – on 3rd St. curve
• Studio 414 – major retail traffic
  o Art, design – also have warehouses in area
• New apartments along KS Avenue
  o Area near old lighting store

*Send copy of “slides” to Janlyn*
Stakeholder Interview Summary – Topeka Capital-Journal

Date: December 17, 2009

Location: Topeka Capital-Journal Office

Organization: Topeka Capital-Journal – Gregg Ireland

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project. He then asked a series of questions. They and the responses follow.

1. How important is the I-70 Polk-Quincy Viaduct to the operations of the Topeka Capital Journal?

   Between 10 and 12 trucks a day deliver goods to the site. About half of them come from Kansas City, using 8th Street exit. They try to cross Madison Street through lanes to turn right onto 8th Street. If they can’t do so, they go north on Madison then turn right on 6th Street.

   The newspaper has 135 total employees. About 70 or 80 employees use I-70 from either the east or the west to come to work. Those that come from the west likely use 3rd Street exit and proceed south on Monroe. Employees from the east use the 8th street exit. The remainder of the employees use the city streets to come to work.

   The newspaper has about five delivery drivers (haulers); all use 8th Street interchange. Each night there is a truck that goes to the north post office. It uses the 3rd Street on-ramp to I-70 then west.

   About 25 Individual carriers would use I-70 at some times, using their personal vehicles.

2. What improvements would enhance the viaduct?

   Improvements would be welcome at 3rd/4th Street and at 8th Street interchanges, including:
   
   - Straightening the 3rd Street curve
   - Lengthen the 3rd Street on-ramp to westbound I-70
   - Address the westbound 8th Street to 4th Street weave on I-70 (lane drop for traffic entering from 8th Street)
   - Logical connections from local streets to I-70 are needed.
3. **What concerns do you have about any possible alternatives?**

   When there has been discussion about straightening the roadway (i.e. the 3rd Street Curve), there simply have been questions about how it will be done and where it will go.

   Newspaper employees would like to know: when the project is done, what exits will be available?

   How traffic will be handled during construction.

4. **What new developments or proposed developments will affect those who use the viaduct?**

   Mr. Ireland does not anticipate any changes at this location in the near horizon.
Stakeholder Interview Summary - UPS

Date: September 25, 2009

Location: UPS Lenexa, KS

Organization: UPS – Ernie Christie (Division Manager), Chuck Wurz (Topeka Manager cwurz@ups.com), Gerald Reeves, Steve Mitchell

Interviewers: Jim Tobaben

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?

There are approximately 27 trips in and out of the Topeka UPS office each day that use I-70. Approximately 28 trips from the Salina UPS office travel on I-70 through Topeka each day. Approximately 75% of trips use the 3rd Street ramps to and from I-70 and 25% of trips to and from the east on I-70 using the 4th Street ramps.

2. What improvements would enhance the viaduct?

A number of improvements were suggested:

- Straighten out the 3rd Street curve
- Build new I-70 on an off-set alignment
- Need longer acceleration lanes to allow trucks to more safely and easily enter I-70
- Need full-width shoulders on the viaduct
- Need good signing on how to get to I-70
- A new I-70 that is at-grade or below-grade would have less icing
- The distance between the 8th Street on-ramp and the 4th Street off-ramp needs to be lengthened. The lane drop is a problem for drivers entering from 8th Street.

3. What concerns do you have about any possible alternatives?

Access to and from I-70 needs to be maintained during construction.

4. What new developments or proposed developments will affect those who use the viaduct?

The growth in their business would be primarily in the number of through trucks on I-70. The Topeka operation is not expected to increase significantly.
Stakeholder Interview Summary – US Foodservice

Date:

Location: US Foodservice Office

Organization: US Foodservice

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?
2. What improvements would enhance the viaduct?
3. What concerns do you have about any possible alternatives?
4. What new developments or proposed developments will affect those who use the viaduct?
5. What socio-economic issues should we be aware of in relationship to the viaduct?
6. How do businesses receive deliveries? Where do clients come from? What access is important?
7. Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?
8. Can you suggest groups or individuals that we should involve in this study process?

- KC is major market 65%, rest in Topeka, for them
- I70 is key – doubles & triples
- Long trucks
- Speed on curves – cars “drifting” into truck’s lane
- Advise drivers to go slow
- No shoulders
- US Foodservice
  - Deliver to anywhere food is served
    - Schools, hospitals, restaurants
- Current major expansion underway
- Doubling size of freezer box
- Trucks drop empties at 6:30 p.m.
- 100 trucks in and out per day
- Evening 40 in and 40 out
- Within 5 to 7 years increase in trucks 50 – 70%
- Employees spread throughout Topeka area
  - 150+
- This section of I70 should be a top priority
- Some drivers use K4 & U24 to avoid I70 downtown
- Re-route I70 S. of downtown
- MOT important
- 3rd St. curve biggest issue
- Lack of shoulders
Stakeholder Interview Summary – KDW&P, City Parks & Recreation

Date: July 28, 2009

Location:

Organization: Wildlife & Parks, City Parks & Rec

Interviewers: Jim Tobaben and Patty Gentrup

Interview Notes:

Jim Tobaben first provided an overview of the project.

Mr. Tobaben then asked a series of questions. They and the responses follow.

1. How important is the I-70 Polk-Quincy Viaduct in your daily personal or professional travels?
   - Park office maintenance at Topeka Blvd (also Street Department) S. of River
   - Admin offices – Holiday Bldg.
   - Auburndale Park
   - Ward Meade Park
   - Maintain landscaping along I70 Ramps
   - Use I70 to get to parts of city
   - Regional office at Wanamaker off I70
   - Office at 1020 Kansas Ave.
   - Employees use I70 as well as patrons
   - Own Land along river E. of MacVicar

2. What improvements would enhance the viaduct?
   - Access to Topeka Blvd &/or KS Avenue
   - RR Corridor – part of future trail system
   - Trails planned along levees
   - Link Shuga Trail that stops at 10th
   - Trail on S. levee – get over/under I70
   - Park planned on N. side River – open up view to Capital
   - Trucks delivering to Park Dept. – directed to MacVicar and back to 1st St.
   - I70 isolates people from City and River
   - Removers visual barrier

3. What concerns do you have about any possible alternatives?
   - Concern during construction – access to facilities
   - Too many ramps
4. **What new developments or proposed developments will affect those who use the viaduct?**  
   Landscaping 10th – 4th St.  
   State property – would like to open for fishing access  
   Boat ramp at Great Overland St. Planned

5. **What socio-economic issues should we be aware of in relationship to the viaduct?**

6. **How to businesses receive deliveries? Where do clients come from? What access is important?**

7. **Are there environmentally sensitive or other important areas that should be protected from development and improvements to the viaduct?**

8. **Can you suggest groups or individuals that we should involve in this study process?**  
   - Not much green space – maintain or increase

Increase public space
Appendix I:

Focus Groups Summary Report

ETC Institute
Overview and Methodology

On behalf of the Kansas Department of Transportation (KDOT), the City of Topeka and the Metropolitan Topeka Planning Organization, ETC Institute conducted three focus groups with residents living in Topeka, Kansas. The purpose of the focus groups was to gather input from residents who had traveled on I-70 near downtown Topeka, including the 3,800-foot long Polk-Quincy Viaduct, during the past 30 days. Input from the focus groups will help assess the desirability of transportation improvements that are being considered in the area.

The focus groups were conducted August 31st, 2010 with a randomly selected group of residents living in Topeka, Kansas. A total of 28 residents, 9-10 participants per group, attended each focus group. The sessions were 90 minutes long and were moderated by a representative from ETC Institute. The overall results of the study were statistically valid.

Prior to each focus group session, residents were asked to complete a short pre-focus group participant survey. The survey was designed to gather general information about participants such as the frequency of travel in the study area, perceptions of existing conditions in the study area and suggestions for improvements to the area.

The focus group sessions were designed to gather detailed feedback about the following topics:
- Awareness of the Study
- Frequency of Travel in the Study Area
- Perceptions of Existing Conditions in the Study Area
- Perceptions of the Elevated and Below Grade Design Options
- Perceptions of the Three Design Alternatives

A brief summary of the major findings of the focus group sessions are provided on the following pages:
Awareness of the Study

Half (50%) of the focus group participants were aware that KDOT was studying improvements to the area prior to being contacted for the focus group. Of those residents who were aware of the study, most had heard about the study through the newspaper and/or the television. Some of the other ways residents mentioned they had heard about the study were word-of-mouth or at a City Council meeting.

Frequency of Travel in the Study Area

All of the participants had traveled through the study area within the past 30 days. Forty percent (40%) of the focus group participants traveled through the study area almost daily, 28% traveled through the study area a few times per week, 20% traveled it a few times per month and 12% traveled through it a few times per year. In addition, fifty-four percent (54%) of participants indicated that they regularly traveled through the study area during rush hour, 6am-9am or 4pm-6pm, and 46% did not.

Perceptions of Existing Conditions in the Study Area

Perceived Priority of Improving the Study Area Compared to Other Transportation Priorities in the Topeka Area

As the chart below shows, seventy-one percent (71%) of participants felt it was “much more important” or “more important” to improve this section of I-70 compared to other transportation priorities in the Topeka area; 14% felt it was equally important and 15% felt it was “much less important” or “less important.” The reasons for participants’ ratings are provided below and on the following pages:

![Percieved Importance of Improving the Study Area Compared to Other Transportation Priorities in the Topeka Area](chart.png)

Source: ETC Institute Survey (2010)
Reasons Participants Felt Improvements Were More Important:
- I travel the state a lot and this is the most poorly designed portion of I-70 in Kansas.
- This section of I-70 is really dangerous, especially for people passing through the area because they are not familiar with it and they drive too fast when the weather conditions are poor. For example, my mother is not familiar with the area and she flipped her car on ice.
- This section of highway is dangerous and it has a history of wrecks and deaths.
- This section of highway is really dangerous considering how fast people go around the curve.
- Improvements are needed primarily because of the curve and because the westbound ramp is not long enough, I never use it during rush hour. I have seen too many wrecks in this area.
- The 3rd street curve is extremely dangerous.
- Winter conditions make this area dangerous, especially with people speeding.
- Signage in this area is poor.
- This is an important area to fix because it is how we access downtown.
- This portion of the highway needs to be fixed because it gets really backed up and makes it difficult for emergency vehicles to get on and off the highway.

Reasons Participants Felt Improvements Were Equally Important:
- The entire stretch of I-70 in Topeka needs to be fixed, not just this area; they need to also focus on maintaining the highway.
- I live in another area of Topeka near I-470 and southwest gage blvd and there are some areas that are equally important to fix.
- Maintenance is another issue of equal importance.
- Improving this area is important but so is ensuring that the roads are cleared off in a timely manner.

Reasons Participants Felt Improvements Were Less Important:
- The maintenance of streets in the area is much more important.
- The issue with this area is not the design of the highway but the speed of people getting on the highway; if they reduce the speed of traffic this will resolve the issue.
- They need to fix and maintain the streets better in Topeka before they do anything else.
- It is more important to fund for entertainment in the City. I really don’t think this section of I-70 is horrible.
- I don’t think improving this area is really that big of an issue. It is similar to Sunday mass, mass is busy on Sundays but the rest of the time it is not. Much like Sunday mass, this section of I-70 is busy during peak hours but the rest of the time it is not and traffic flows smoothly.

Perceptions of Major Problems in the Study Area
The sections of highway that participants felt had the most problems were: 3rd Street, 8th Avenue, 10th Street and 4th Street. When asked why these sections of I-70 were problem areas, the most frequently mentioned reason was because of safety issues associated with merging on/off the highway. Other reasons participants felt these sections of highway had problems were because of the sharpness of curves, lack of shoulders, speed of traffic, lack of shoulders and width of lanes.
The specific comments from these issues are provided below and are organized by the major types of problems noted by participants:

**Merging On/Off the Highway**
- There is a safety issue with the number of people getting on and off the highway at 3rd street; there is not enough room for people to enter and exit the highway safely near this exit.
- It is dangerous trying to merge on or off the highway around the 8th avenue exit.
- There is a problem with people crossing back and forth across too many lanes when entering or exiting the highway near any of the access points.
- There are too many people getting on and off the highway at the same time, especially right around 10th and 17th street, which makes it really dangerous.
- There is not enough time or space to get on or off the highway right around 4th street.
- Merging is an issue, people don’t let you over and if people don’t let you over then you have to stop which backs up traffic.
- 8th avenue going east and 4th going west is dangerous; you have to cross over to get off on top of people getting on.
- Going westbound all on ramps is dangerous; the lanes to merge on are too short, especially on 8th avenue.
- The exit on 4th is dangerous, there are a lot of people who brake at the last minute when they are going too fast because the ramps too short.
- I get on from 10th street and people don’t want to let you on so it becomes dangerous.
- I drive this every day and the on and off ramps are dangerous, they need to lengthen them.
- The on/off ramps are too short; when you are getting off at 10th coming from the east you have to slow way down because the lane is so short on the interstate.
- The biggest issue is the speed differential between through traffic and people getting on/off the highway.
- I get off on Adams every day and merging is scary.
- The ramp at 10th to 8th going west are dangerous, when you are trying to merge they push you off into the exit ramp because there is not enough room.
- Topeka needs to improve all the access ramps on I-70 to make them safer.
- They should make ramps in this section of highway wider.

**Sharpness of Curves**
- The area near the 3rd street exit going west is a problem because of the curve.
- 3rd street going into the blind corner is the biggest safety issue.
- In the mornings the sun is dangerous especially when going around the 3rd street curve.
- The curve is too severe.
- The sunlight is blinding around the curve.
- People who pass though Topeka speed into the curve because they are not familiar with this section of highway.
- The weave area on 8th avenue is dangerous; there is not good visibility.
- The curve headed east is a major issue, you may know its coming and brake in a timely manner but others don’t and they have to hit their brakes hard.
Width of Lanes
- The lanes on I-70 should be wider; I had to pull over to fix a flat tire once and I did not feel safe because the traffic driving by was way too close; they should either make the lanes or shoulder wider.
- They need to widen the lanes on I-70.
- The roads and shoulders are not wide enough.
- The area near the 3rd street corner is an issue; there is not enough space.
- I will do anything to get away from semis near the curve, there is not enough room.

Speed of Traffic
- Speed enforcement is an issue, especially around the curve.
- The speed on I-70 is a problem; more people are in the left lane than any other.
- There needs to be better enforcement of speeding in this area because even in bad weather people are speeding and even the semis seem to go to fast.
- Speed is the biggest issue! The biggest priority must be to reduce the speed of traffic at the curve.

Lack of shoulders
- The narrowness of the highway is the biggest problem, there are no shoulders.
- The area near 3rd street is dangerous because of the lack of shoulders.

Intersections/Roads That Participants Felt Should Be Priorities for Access
The intersections/roads in the study area that participants felt should be the top priorities for access were: 10th Street (43%); 8th Avenue (29%), 3rd Street (25%) and 4th Street (21%). Some of the specific reasons participants felt these roads should be priorities for access are provided below:
- 10th should be a priority because it provides good access to Kansas avenue.
- 10th street should be a priority because of the Curtis Parking lot.
- 10th street is important because of the access to Adams.
- The 8th avenue exit should be a priority especially because of merging issues; most of the time you end up merging into the street. Also 10th street is an important access point and getting off seems very abrupt.
- 3rd street should be a priority because of the access to Hallmark.
- 3rd street (westbound) should be a priority; 10th street going eastbound getting off at Adams is also a priority for access.

Perceptions of Traffic Congestion During Rush Hour
Of those participants who indicated they regularly traveled through the study area during rush hour, twenty-nine percent (29%) of the participants felt traffic congestion during rush hour was a “major problem,” 54% felt it was a “minor problem” and 14% did not think it was a problem. The reasons participants felt traffic congestion was a problem during the rush hour are provided below and on the following page:
- Traffic congestion is a problem because of the speed of traffic during rush hour, people drive too fast.
• The speed of traffic and the length of on ramps for merging traffic are both factors that play into congestion in this area.
• There are simply not enough lanes to handle the amount of traffic in this area during rush hour.
• At peak times during the day this area becomes congested and exit/entrance areas are too small.
• It is very hard to get on the highway during rush hour.
• People don’t let you in to merge on the highway; we need longer lanes to allow people to merge.
• When exiting I-70, drivers must cross several lanes of traffic that are merging onto the highway. When entering from 4th street drivers usually have to stop and wait while other vehicles passing through are traveling 55-75 mph.
• Traffic congestion is a major problem during rush hour because there are tight turns that you have to make next to semis.
• The entrance going westbound near Hallmarks is a real problem during rush hour.
• The on ramps are too short and this section of highway becomes backed up.
• Traffic seems to get backed up from the highway 75 south exit back east towards the MacVicar exit.
• Once you are on the highway during the peak hours traffic flow is adequate; the major problem is being able to get on the highway during the peak times.

Perceptions of Safety
Four percent (4%) of participants felt “very safe” when driving through the study area; 58% felt “safe,” 33% felt “unsafe” and 5% felt “very unsafe.” The specific reasons participants felt unsafe are provided below:

• If feel it is unsafe because people drive too fast.
• I have seen many rear accidents in this area.
• It is unsafe because the on/off ramps are too short.
• People drive way too fast on this portion of I-70 and I do not feel safe getting on the highway.
• Getting on I-70 at 10th street is dangerous.
• This section of I-70 is a very tight area for travel.
• There are too many tight turns, limited visibility and limited merge ability.
• I feel this section of I-70 is safe but there is little room for error.
• This section of highway is unsafe because of the merging traffic mixing with the speed of through traffic which causes accidents.
• I am worried about the possibility of a semi tipping over.
• I generally feel safe except when I am traveling near semis.
• They need to lower the speed limit and straighten the curves.

Suggestions to Improve the Study Area
The most frequently mentioned way participants felt the study area could be improved was to improve on/off ramps. Other suggestions were to straighten curves, lower the speed limit, increase the width of shoulders and lengthen acceleration lanes. The specific comments are provided below and are organized by the major topics identified:
**Improve On/Off Ramps**
- They need more or longer entrance ramps and weave areas.
- On and off ramps need to be longer.
- The highway actually seems to be in good shape, however improving on/off ramps might help with congestion during rush area.
- Off ramps need to be improved.
- The on ramps going westbound are terrible. They also need to close the 3rd street westbound ramp, it is too dangerous.
- I am not sure what to but the biggest problem I have encountered is the westbound entrance near Hallmark. This area is even a problem during non peak hours.
- My major concern is with access ramps.
- They need to improve signage on entrance ramps because they can be confusing if you are not familiar with this section of highway in Topeka.
- Some suggestions for improvement are to extend exit/entrance ramps and increase the number of lanes.

**Straighten Curves**
- They need to straighten the curves.
- KDOT needs to straighten the curve at 3rd street and widen the roads on the viaduct.
- They need to straighten the curves on the highways so vehicles have less chance of tipping over.
- They need to straighten the curves.

**Lower the Speed Limit**
- They need to lower the speed limit on this section of I-70, especially at the 3rd street curve. They should have signage at least 1,000 feet before the curve that tells people they need to slow down.
- They should reduce the speed all together on the viaduct.

**Increase the Width of Shoulders**
- They need to increase the width of shoulders along the highway.
- KDOT should widen the highway and add more lanes in this entire section of Interstate 70.

**Lengthen Acceleration Lanes**
- We need longer merging lanes to allow for more merge time.
- KDOT should lengthen the merge area at the 3rd street on ramp.

**Other Suggested Improvements**
- They should have an exit on I-70 at Topeka Blvd.
- They need to add blinking lights on Madison to indicate traffic is exiting the highway for those traveling on side streets.
- When developing this area they need to make sure that emergency vehicles can quickly enter and exit the highway because Downtown Topeka is vital for emergency vehicles given the location of the hospital.
Perceptions of Elevated and Below Grade Design Options

The focus group moderator provided a brief overview of the elevated and the below grade options. After explaining each option individually, the moderator asked participants whether they liked the option and why. Participants were also asked to rate the importance of various factors in determining whether the highway should be an elevated or below grade and their preference between the two options. The results are provided on the following pages.

Elevated Option
Most participants (82%) liked the elevated option, 11% disliked the elevated option and 7% were neutral. The specific reasons participants liked or disliked the elevated option are provided below:

Reasons Participants Liked the Elevated Option
- I have lived in larger cities and I have seen the elevated design work.
- I have seen this structure and it seems to relieve congestion.
- I like the concept but I am worried about funding.
- The elevated looks nicer and you have a better view of the City. When you drive through Wichita you get a sense of the City just by driving on the elevated highways.
- I have seen this design in San Antonio and I like it because it allows you to see the City and what is out there for you to visit if you are a tourist.
- It is safer because you don’t have problems with pedestrian traffic.
- It looks like what we have now but I like that there are more lanes.
- I like it because it is what we have now but only now it seems safer with the addition of lanes and the widening of shoulders.
**Reasons Participants Disliked the Elevated Option**

- I don’t like it because it becomes an eyesore snaking through the City.
- The cost to maintain bridges is really high.
- The bridges are dangerous during the winter because of freezing.
- I don’t like the idea because if something is not broken then why fix it? There has to be an alternative way to fix the problem without having to do this much construction.
- I am worried about the safety with oversized trucks driving on a highway designed this way.
- I don’t like it because our curves are not meant for big trucks.
- What about bad weather? What would be put on the bridges to make sure they don’t freeze over during winter?
- I like this concept but ask my again when there are weather concerns.
- Is there a significant difference in cost? This would be my only concern with this design.

**Below Grade Option**

Sixty-one percent (61%) of participants indicated they liked the below-grade option, 32% disliked the below-grade option and 7% were neutral. The specific reasons participants liked or disliked the below-grade option are provided below:

**Reasons Participants Liked the Below Grade Option**

- I like this design as well because I really don’t care what it looks like as long as it fixes the problem.
- I like this design because when you are standing on the ground you can’t see highway traffic.
- I like that it eliminates the noise from traffic and the added safety elements because there is nothing to drive off of during the winter.
- I like the way Topeka blvd is build and to me this design is similar.
- I like that you don’t have to worry about what’s going on outside that wall.
- Wichita has both designs and what I liked about the below grade design was how they decorated the walls.
- I like this design but my vote depends on which design requires more long term maintenance.
- I drove through Ohio last year and I saw this design and like it a lot; the walls insulate noise.
- I like this design because you can see less of the bad parts of Town.
- This design looks cleaner and looks like it flows much better.
- I like that this design does not visually divide the City.
- The below grade design seems a lot cleaner.
- I like that this design has more noise control.

**Reasons Participants Disliked the Below Grade Option**

- This type of design will increase the crime rate. I used to live in Michigan and people would lurk under those bridges and carjack people who pull over to change a tire.
- I don’t understand how this will work with the River being so close. What about flooding?
- I have driven on this highway design and there is a bad echo when emergency vehicles drive by.
My main concern is flooding.
I like the alternative option because when you are above ground you can see what kind of neighborhood you are exiting off into and if you don’t like it you can keep going until you exit somewhere you feel safe; this is especially important for tourists.
Do the walls have to be so high?
This type of highway design gets dirty and trash collects into it.
This design seems dangerous, I read about a kid who fell into one of these once.
Flooding is the biggest concern I have.
I don’t like the closed in feeling of being below grade; it does not seem that you would have much time to react in the event of an accident.
What about flooding?
They have this design on the highways in the Wichita area and these designs have limited street access.

Importance of Various Factors in Determining Whether the Highway Design Should Be Elevated or Below Grade
On a scale from 1 to 5, where a rating of 5 meant “very important” and a rating of 1 meant “not important,” participants were asked to rate the importance of different factors in determining whether the design of the highway should be elevated or below grade. As the chart below shows, the issues that participants felt were most important in determining whether the highway design should be elevated or below grade were: the minimization of risk (82%) and cost (79%).

When asked to select one factor they felt was most important in determining whether the design of the highway should be elevated or below grade, sixty-four percent (64%) of participants felt the minimization of risk was most important, 18% felt the length of time it takes to build the design was most important, 14% felt cost was most important, 4% were not sure and none (0%) of the participants felt the appearance or the impact of the design on the surrounding community were most important.
Preference for the Elevated Versus the Below Grade Design Option
Generally both design options, the elevated and below grade, were acceptable to the majority of participants. After both design option was explained, sixty-eight percent (68%) of the focus group participants preferred the elevated design over the below grade design, 18% preferred the below grade option and 14% were neutral. However, once the moderator explained the advantages and disadvantages of each option, 93% of participants preferred the elevated design option over the below grade design option and 7% of the participants still preferred the below grade design.

Source: ETC Institute Survey (2010)
Perceptions of the Three Design Alternatives

During each session the moderator provided an overview of each of the three design alternatives being considered for the study area. After explaining each option individually, the moderator asked participants whether they liked the option and why. Generally participants felt all three alternatives were acceptable, however, after explaining the advantages and disadvantages of each option, alternative #1 was more preferred. The results from this discussion are provided on the following pages:

Alternative #1
When asked if they felt this design was an “acceptable” option, 64% of participants felt it was and 36% did not. The most frequently mentioned reasons participants did not like alternative #1 were related to their lack of knowledge about the design such as concerns with how this type of design would actually alleviate traffic congestion. Many participants also expressed concerns about the confusion that drivers may have with a design that incorporates collector-distributor roads.
The specific reasons participants liked/disliked alternative #1 are provided below:

**Reasons Participants Liked Alternative #1:**
- I like the flow of traffic in this design and that there are not as many access points as there are now.
- I like the design as long as it can actually fix congestion in this area.
- I have seen this type of system work in Detroit and there is a lot more traffic there compared to Topeka. I like that this type of design allows you to hit all of the major side streets from the frontage roads.
- I like that you won’t have to worry about safety issues caused by traffic getting on/off at 8th avenue with this design.
- The highways in Dallas are designed this way and traffic flows well there.
- I like this design as long as there is good signage about where to get off to use the frontage roads.
- In my opinion this design would be cheaper because we would be able to use existing roads.
- If they are going to beautify Madison and Monroe, then I really like this design!

**Reasons Participants Disliked Alternative #1:**
- I don’t think this alternative can handle the volume of traffic in Topeka, especially during peak hours of the day. The entire downtown Topeka workforce commutes at the same time and a collector road would become a parking lot. I like the design but it must accommodate the traffic volume in Topeka during rush hour.
- This design would not be able to handle peak hour traffic.
- My decision on whether or not I like this design depends on the number of lanes on the frontage roads?
- If there is an accident on one of these frontage roads what would happen? Would it not cause these roads to get congested much like traffic on the highway already does when there is an accident?
- How does this reduce rush hour traffic? What about emergency vehicle traffic? It seems to me if there is congestion on these roads emergency vehicles would have a hard time getting around it.
- To me the problem is NOT the design but a traffic control issue. The problem is speed enforcement on the highway.
- What about truck traffic? How does this alleviate truck traffic?
- When I travel on Kansas Ave I usually get stopped at every light so I hope they synchronize the lights better than that on these frontage roads.
- The only reason I would dislike this concept is if there were inadequate signage.
- This design is confusing and if you make a mistake you have to drive a long distance before you can get back on the highway or get to the next collector road.
- I need more information about this design before I make my decision.
- This type of design seems like it would take some time to figure out; I don’t see how people who live outside of Topeka will be able to figure out how to use it.
- I don’t quite understand how this type of alternative will alleviate traffic congestion.
- This seems confusing.
- This design would throw people off and the public would have to be retrained on how to use this new system.
- Given that so many people who drive through this section of I-70 to get to places outside Topeka, I am worried about tourists getting lost.
• It is hard to visualize how this design cuts traffic congestion.
• How does this design affect pedestrians? What about bike lanes?
• How does this affect parking?
• In my opinion this design is not as attractive as alternative #3.
• There is not enough traffic in Topeka for us to have this type of design.
• I am concerned that this design will require KDOT to tear down a number of homes and businesses.

**Alternative #2**
When asked if they felt alternative #2 was an “acceptable” option, 74% of participants felt it was and 26% did not. Given the similarities between alternative #1 and alternative #2, many participants again voiced concerns that were related to their lack of knowledge about the project such as whether this type of design would actually be able to accommodate rush hour traffic on I-70 and whether or not this type of design was necessary for Topeka given the size of the City.
The specific reasons participants liked/disliked alternative #2 are provided below:

**Reasons Participants Liked Alternative #2:**
- I like that the collector-distributor roads would run completely through the corridor.
- Much like the previous alternative I like this design, I also just noticed that this would straighten the 3rd Street curve which would really enhance safety.
- I really like this design but can we make sure to include something else besides cement underneath? Don’t forget about including green space and aesthetics into the design, especially around the frontage roads. Maybe even include a park or other developments.

**Reasons Participants Disliked Alternative #2:**
- Again, I have concerns with adequate signage.
- Are there going to be enough stop signs? Again how would these collector roads help alleviate traffic?
- It seems this design would be confusing for people who are not from Topeka.
- I feel as a Topeka resident alternative #3 would be much better because we are used to this kind of highway design.
- I like this design better than the first collector-distributor model.
- Do we really need a design like this? Is this really necessary given the size of Topeka? It does not seem that a City the size of Topeka really needs a system such as this. I know this works in big cities but for us I don’t think it’s a good fit.
- The basis for my opinion really depends on knowing if this design will be able to handle traffic in Topeka in the future. If this is the case then I am all for it. It might be confusing for us living in the City now but it may be what’s best for the future of Topeka.
- Building something like this is going to cost money and if the kids move away, much like I have seen, I don’t see Topeka’s population growing. It’s busy for an hour in the morning but then it’s a ghost town so I don’t think we should spend the money for something we don’t really need.
Alternative #3:
Participants were most familiar with alternative #3, the traditional diamond interchange, compared to the other alternatives. Most (81%) of the focus group thought alternative #3 was acceptable; 19% did not. The most frequently mentioned reason participants liked alternative #3 was because they felt it improved overall safety in the area; the major reason participants disliked alternative #3 was because it limited access when compared to the current design on I-70.

The specific reasons participants liked or disliked alternative #3 are provided below:

Reasons Participants Liked Alternative #3:
- I like that there is more space between exits which would improve safety.
- I like that this design would reduce congestion near access points and would provide for more equalization of speed.
- In the existing system there is not enough space to merge on/off the highway. I like that there is more room to do so in alternative #3.
- I like that the on/off ramps are wider, which would make the area safer.
- I like this design because it improves driver safety.
• I like the interchanges included in the design because these are usually the most congested and by spreading out the on/off ramps this would help alleviate congestion during rush hour.
• I like this design because it provides a central gateway to the City; it helps to establish us as the capital city.
• The design seems to provide for people who make mistakes because you can get right back on the highway if needed.
• I like that this design includes access to Topeka blvd.
• I like the fact there is less access which is the main reason the current design is so dangerous.
• I like the full east/west access.

Reasons Participants Disliked Alternative #3:
• I don’t like that you are eliminating access ramps. They need to put a closer westbound entrance ramp for people who live in Oakland.
• I don’t like this design because it restricts access.
• I don’t like that this design would eliminate the 8th avenue exit. I use underground parking on 8th avenue and the exit there makes it really convenient for me.
• I don’t think KDOT should eliminate the 8th avenue exit because there are so many venues there such as city hall, the performing arts building and etc.
• I am concerned with losing access to 3rd street which is what I use on a daily basis.
• I am not too sure if I like this system; the access ramps must be long enough like they are on Gage and Fairlawn.
• I am concerned that during rush hour this system will not be able to accommodate the traffic near 10th street. I think you will have backups in this area.

Final Comments

Prior to the end of the session, participants were given the opportunity to provide any additional comments. These comments are provided below:

• As long as people can access Topeka Blvd from the highway then the design of this area does not matter to me!
• The cost of the design is the number one factor. Which is cheaper?
• The most important issues when determining how to design this area are safety and traffic flow so that people who work downtown don’t have to worry about these issues during rush hour.
• The above/below option does not matter to me. The only thing that KDOT needs to fix is access/congestion at the Boulevard. We don’t need to fix something that is not broken.
• With regard to I-70 there is no other alternative but to slow down traffic way before the curve. It would also help to have an additional lane from 4th street to Topeka blvd. When determining the elevated/below grade option there is no other option but to go with the elevated design because of flooding.
• I like alternative #2 because I can stay on the service road and access side streets. I have seen collector roads work and I think it’s a great idea!
• I would like to see trees and lots of greenery added in this reconstruction of the study area.
• The large amount of truck traffic on the highway is a big issue which needs to be factored into the study.
• Is the access to the north for the Riverfront development? Or the arts center?
• I need to know how this has worked in other cities and how it would affect real estate and tearing down properties in the City. I need more information before I am completely sold on any of these designs.
• I think all of these designs would work but we need to make sure the money is spent on the best possible design.
• My main concern is how are they going to reroute traffic during the construction of this project?
• The like the idea of widening and separating traffic is good but most importantly they need to straighten the curve!
• The thought of three lanes is really exciting and needs to happen.
• Cost should be a top priority in determining how to fix and address the problems on I-70 near downtown.
Appendix K

Participating Agency Letters
February 9, 2021

Devon Frazier  
Tribal Historic Preservation Officer  
Absentee Shawnee Tribe of Oklahoma  
2025 South Gordon Cooper Drive  
Shawnee, Oklahoma 74801

Dear Ms. Frazier:

Subject: Environmental Assessment Agency Coordination  
for the I-70 Polk-Quincy Reconstruction Project  
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05  
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)  
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

The EA is the cumulation of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

An agency coordination process will continue to involve appropriate federal, state, and local agencies as well as stakeholders and the public. As part of the coordination process, we are inviting you to our next virtual public meeting. It is being held via Zoom from 5:00 p.m. to 6:30 p.m. on Wednesday, March 3, 2021. You may register at www.polkquincy.org to receive the log-in information by e-mail.

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schedule, we are requesting your reply to our invitation to be included on future correspondence beyond the public meeting within 30 days of date of this letter.

If you have any questions about this project, please contact Greg Gonzales, Road Design Leader at (785) 368-8293 or greg.gonzales@ks.gov.

Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County
August 2011

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- **Design**: While appropriate for its time, the geometric features of I-70 do not meet current highway design criteria.

- **Safety**: The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

- **Roadway Capacity**: Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

- **Accessibility**: There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area and Downtown Topeka.

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February 9, 2021

Kelli Mosteller
Tribal Historic Preservation Officer
Citizen Potawatomi Nation
1601 South Gordon Cooper Drive
Shawnee, Oklahoma  74801

Dear Ms. Mosteller:

Subject: Environmental Assessment Agency Coordination
 for the I-70 Polk-Quincy Reconstruction Project
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Bureau of Road Design

Debbie Tanking, P.E.
Assistant Chief

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Shawnee County
August 2011

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February 9, 2021

Brian Faust
Topeka City Engineer
620 Southeast Madison Street
Topeka, Kansas 66607

Dear Mr. Faust:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
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Debbie Tanking, P.E.
Assistant Chief

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70-89 KA-1266-01
Shawnee County

August 2011

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February 9, 2021

Dr. Brice Obermeyer
NAGPRA Director
Delaware Tribe of Indians
1200 Commercial Street
Roosevelt Hall, Room 212
Emporia State University
Emporia, Kansas 66801

Dear Dr. Obermeyer:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
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Dr. Brice Obermeyer  
February 9, 2021  
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Bureau of Road Design

[Signature]

Debbie Tanking, P.E.  
Assistant Chief

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Shawnee County
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February 9, 2021

Brett Barnes
Cultural Preservation Director
Eastern Shawnee Tribe of Oklahoma
P. O. Box 350
Seneca, Missouri 64865

Dear Mr. Barnes:

Subject: Environmental Assessment Agency Coordination
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February 9, 2021

Lynn Williams, Chair
Kaw Nation of Oklahoma
P. O. Box 50
Kaw City, Oklahoma 74641

Dear Ms. Williams:

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for the I-70 Polk-Quincy Reconstruction Project
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• **Economic Development:** Improvements to I-70 and its connections to city streets will support the current development/redevelopment efforts in Downtown Topeka and North Topeka as well as support proposed developments in the Entertainment District and the Riverfront Area.
February 9, 2021

J. Daren Riedle
Kansas Department of Wildlife, Parks & Tourism
512 Southeast 25th Avenue
Pratt, Kansas 67124

Dear Mr. Riedle:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

The EA is the culmination of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

An agency coordination process will continue to involve appropriate federal, state, and local agencies as well as stakeholders and the public. As part of the coordination process, we are inviting you to our next virtual public meeting. It is being held via Zoom from 5:00 p.m. to 6:30 p.m. on Wednesday, March 3, 2021. You may register at www.polkquincy.org to receive the log-in information by e-mail.

The enclosed project study area map and project description should help you understand the nature of the project and help you determine the location of the proposed improvements. A copy of the Purpose and Need Summary is also included for your information. To remain on
schedule, we are requesting your reply to our invitation to be included on future correspondence beyond the public meeting within 30 days of date of this letter.

If you have any questions about this project, please contact Greg Gonzales, Road Design Leader at (785) 368-8293 or greg.gonzales@ks.gov.

Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

 макс
Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

The purpose of the proposed actions to I-70 is to meet current roadway/bridge design criteria, improve safety, increase roadway traffic capacity, balance accessibility, and to support economic development in and near the Downtown area.

Specifically, the project addresses the following needs:

- **Design**: While appropriate for its time, the geometric features of I-70 do not meet current highway design criteria.

- **Safety**: The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

- **Roadway Capacity**: Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

- **Accessibility**: There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area and Downtown Topeka.

- **Economic Development**: Improvements to I-70 and its connections to city streets will support the current development/redevelopment efforts in Downtown Topeka and North Topeka as well as support proposed developments in the Entertainment District and the Riverfront Area.
Please see the attached letter. Mr. Riedle asked me to send this to you.

Judy Sprout
(785) 296-3901
KDOT Bureau of Road Design

Hi Judy,

Please send all environmental review related documents to Krystal Adelhardt at the environmental services address in the CC line above. I typically do not handle them.

Thanks,
Daren

J. Daren Riedle
Wildlife Diversity Coordinator
Kansas Dept of Wildlife, Parks, and Tourism
512 SE 25th Ave
Pratt, KS 67124
Office: (620) 672-0746
Cell: (620) 770-6628
Please see the attached letter regarding environmental assessment agency coordination for this project.

If you have any questions, please contact Greg Gonzales at (785) 368-8293 or greg.gonzales@ks.gov.
February 9, 2021

Leo Henning
Kansas Department of Health and Environment
1000 Southwest Jackson, Suite 400
Topeka, Kansas 66612

Dear Mr. Henning:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

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Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

[Signature]

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County
August 2011

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- **Roadway Capacity:** Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

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From: Leo Henning [KDHE]
Sent: Tuesday, February 9, 2021 1:38 PM
To: Judy Sprout [KDOT]
Cc: Debbie Tanking [KDOT]; Greg Gonzales [KDOT]
Subject: Re: 70-89 KA-1266-04 & 05 Coordination

I will assist with this.

Get Outlook for iOS

From: Judy Sprout [KDOT] <Judy.Sprout@ks.gov>
Sent: Tuesday, February 9, 2021 12:03:24 PM
To: Leo Henning [KDHE] <Leo.Henning@ks.gov>
Cc: Debbie Tanking [KDOT] <Debbie.Tanking@ks.gov>; Greg Gonzales [KDOT] <Greg.Gonzales@ks.gov>
Subject: 70-89 KA-1266-04 & 05 Coordination

Please see the attached letter regarding environmental assessment agency coordination for this project.

If you have any questions, please contact Greg Gonzales at (785) 368-8293 or greg.gonzales@ks.gov.

Judy Sprout | Sr. Administrative Assistant
O: 785.296.3901 | F: 785.296.6946
Judy.Sprout@ks.gov

Kansas Department of Transportation
Bureau of Road Design
700 S.W. Harrison, 11th Floor
Topeka, KS 66603-3754
February 9, 2021

Jennie Chinn  
Kansas State Historical Society  
6425 Southwest 6th Street  
Topeka, Kansas  66615

Dear Ms. Chinn:

Subject: Environmental Assessment Agency Coordination  
for the I-70 Polk-Quincy Reconstruction Project  
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05  
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)  
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

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Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

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- **Safety**: The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

- **Roadway Capacity**: Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

- **Accessibility**: There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area and Downtown Topeka.

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February 9, 2021

David Jacobson, P.E.
Director of Engineering
Kansas Turnpike Authority
9401 East Kellogg Drive
Wichita, Kansas 67207

Dear Mr. Jacobson:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the I-KE Transportation Program.

The EA is the culmination of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the I-KE Transportation Program.

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Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

The purpose of the proposed actions to I-70 is to meet current roadway/bridge design criteria, improve safety, increase roadway traffic capacity, balance accessibility, and to support economic development in and near the Downtown area.

Specifically, the project addresses the following needs:

- **Design:** While appropriate for its time, the geometric features of I-70 do not meet current highway design criteria.

- **Safety:** The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

- **Roadway Capacity:** Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

- **Accessibility:** There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area and Downtown Topeka.

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February 9, 2021

Deseray Helton  
Archeologist, MA, RPA  
Osage Nation of Oklahoma  
627 Grandview Avenue  
Pawhuska, Oklahoma 74056

Dear Ms. Helton:

Subject: Environmental Assessment Agency Coordination  
for the I-70 Polk-Quincy Reconstruction Project  
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05  
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)  
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

The EA is the culmination of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

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If you have any questions about this project, please contact Greg Gonzales, Road Design Leader at (785) 368-8293 or greg.gonzales@ks.gov.

Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

[Signature]

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

The purpose of the proposed actions to I-70 is to meet current roadway/bridge design criteria, improve safety, increase roadway traffic capacity, balance accessibility, and to support economic development in and near the Downtown area.

Specifically, the project addresses the following needs:

- **Design:** While appropriate for its time, the geometric features of I-70 do not meet current highway design criteria.

- **Safety:** The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

- **Roadway Capacity:** Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

- **Accessibility:** There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area and Downtown Topeka.

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February 9, 2021

Joseph Rupnick
Tribal Chair
Prairie Band Potawatomi Nation
16281 Q Road
Mayetta, Kansas 66509

Dear Mr. Rupnick:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

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The EA is the cumulation of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

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Scott W. King, P.E., Chief
Bureau of Road Design

[Signature]

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County
August 2011

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February 9, 2021

Curt Niehaus
Shawnee County Public Works
1515 Northwest Saline
Topeka, Kansas 66618

Dear Mr. Niehaus:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
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Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

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Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

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February 9, 2021

Brian Donahue  
U.S. Army Corps of Engineers  
Kansas City District  
635 Federal Building  
601 East 12th Street  
Kansas City, Missouri 64106

Dear Mr. Donahue:

Subject: Environmental Assessment Agency Coordination  
for the I-70 Polk-Quincy Reconstruction Project  
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05  
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Scott W. King, P.E., Chief
Bureau of Road Design

Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

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Purpose and Need Summary

70-89 KA-1266-01
Shawnee County
August 2011

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- **Design:** While appropriate for its time, the geometric features of I-70 do not meet current highway design criteria.

- **Safety:** The design of the current transportation infrastructure results in safety concerns for motorists entering and exiting I-70, traversing the 3rd Street curve, and crossing the Polk-Quincy Viaduct.

- **Roadway Capacity:** Designed in the 1950s, segments of the highway experience congestion during peak traffic flow periods.

- **Accessibility:** There are a number of key destinations in or near the I-70 corridor, but these locations are difficult to reach using the existing systems of ramps. Current connections between I-70 and city streets are located primarily on the east side of the Downtown area. No direct connections are provided to the two major north-south arterial streets (Topeka Boulevard and Kansas Avenue) that connect North Topeka, the Riverfront Area and Downtown Topeka.

- **Economic Development:** Improvements to I-70 and its connections to city streets will support the current development/redevelopment efforts in Downtown Topeka and North Topeka as well as support proposed developments in the Entertainment District and the Riverfront Area.
February 9, 2021

Amber Tilley
U.S. Environmental Protection Agency
11201 Renner Boulevard
Lenexa, Kansas 66219

Dear Ms. Tilley:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
Shawnee County

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Kansas Department of Transportation (KDOT), is initiating an Environmental Assessment (EA) for planned improvements to I-70 between MacVicar Avenue and California Avenue in Shawnee County, Kansas. The overall length of the corridor is approximately 4.08 miles (see enclosed project study area map). At this time, the first phase of the project from MacVicar Avenue to just north of 6th Street is a candidate for selection as part of the IKE Transportation Program.

The EA is the culmination of years of work in plans to improve this corridor. The study of the area lead to an alternative that was selected with community involvement in 2011. Since that time, preliminary design has evolved with the changing traffic projections and the future uses for the surrounding area. The EA will select a preferred alternative to prepare for a possible selection in the IKE Transportation Program.

An agency coordination process will continue to involve appropriate federal, state, and local agencies as well as stakeholders and the public. As part of the coordination process, we are inviting you to our next virtual public meeting. It is being held via Zoom from 5:00 p.m. to 6:30 p.m. on Wednesday, March 3, 2021. You may register at www.polkquincy.org to receive the log-in information by e-mail.

The enclosed project study area map and project description should help you understand the nature of the project and help you determine the location of the proposed improvements. A copy of the Purpose and Need Summary is also included for your information. To remain on
schedule, we are requesting your reply to our invitation to be included on future correspondence beyond the public meeting within 30 days of date of this letter.

If you have any questions about this project, please contact Greg Gonzales, Road Design Leader at (785) 368-8293 or greg.gonzales@ks.gov.

Sincerely

Scott W. King, P.E., Chief
Bureau of Road Design

[Signature]
Debbie Tanking, P.E.
Assistant Chief

Enclosures (3)

By e-mail: Greg Gonzales, Road Design Leader
Purpose and Need Summary

70-89 KA-1266-01
Shawnee County

August 2011

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February 9, 2021

Terri Parton, President
Wichita and Affiliated Tribes
P. O. Box 729
Anadarko, Oklahoma 73005

Dear Ms. Parton:

Subject: Environmental Assessment Agency Coordination
for the I-70 Polk-Quincy Reconstruction Project
KDOT Project Nos. 70-89 KA-1266-04 & 70-89 KA-1266-05
Federal Project Nos. NHPP-0705 (217) & NHPP-07055(218)
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Appendix L

Archeological Sites Map