

## **EXECUTIVE SUMMARY**

The Rex Whitton Problem Definition Study was completed to identify the existing and potential future traffic operational and safety concerns that are occurring, or could occur, along the Rex Whitton Expressway study corridor between Route 179 and the Eastland Street Interchange. The study also reviewed and identified the existing constraints that would be expected to limit the opportunities for correction of any identified issues. The constraints preliminarily reviewed include natural environmental impacts, socio-economic concerns, flood plains, and historic structures or locations.

This preliminary review has determined that a subsequent National Environmental Policy Act (NEPA) study will be required for the improvements along the Rex Whitton Expressway. It is likely that an Environmental Assessment (EA) or an Environmental Impact Study (EIS) will be required for the downtown and/or CES improvements. Please note, the improvement concepts developed in this study are not meant to be an all inclusive list, but a first attempt at defining the types of improvements that may be required to satisfy the future traffic demands.

Some of the key ideas and issues identified in this study are listed following:

- Traffic volumes are projected to double on Expressway through downtown by Year 2035. Other segments of the study corridor are expected to experience at least a 50% increase in traffic flows by Year 2035. The projected 2035 ADT for the Expressway are as follows:
  - 58,000 vehicles per day just west of the Tri-Level Interchange
  - 75,000 vehicles per day between Missouri Boulevard and Jefferson Street
  - 70,000 vehicles per day just east of Monroe Street
- The existing freeway sections west of Dix Road and east of Clark Avenue are expected to be able to handle the anticipated growth.
- The Expressway needs to be widened to three lanes between Dix Road and Tri-level Interchange – the new lanes could begin and end as ramps for the Dix Road interchange.
- The combination of US 50 w/ US 63 traffic, plus the Missouri State Penitentiary (MSP) Development effort, causes much of the congestion concern in downtown. It is estimated that the MSP Development will account for 25% of the traffic growth to the Expressway through the downtown segment.
- Additional access for the Central East Side (CES) of the City is desired by the public and for the MSP Development.
- The CES interchange should not be constructed without addressing the downtown congestion because the interchange will increase the traffic congestion in the downtown segment.

- Multiple access points to the local street system from the CES interchange are desirable for future traffic conditions, and to limit the extent of improvements required to the existing street system to satisfy traffic demands for the MSP Development.
- Clark Avenue ramp terminal intersections could be modified to roundabouts to enhance access for ramps and local streets. Roundabouts would allow all existing traffic operations to continue with minimal disruption.
- Local access through the downtown section is critical to local businesses.
- The downtown segment requires either 3 or 4 through lanes, plus multiple left and right turn lanes to satisfy traffic demands if all downtown intersections are to be maintained as at-grade signalized facilities. Alternatives to the widening of the existing facility were developed and include the separation of through traffic from local traffic and the creation of a separate elevated facility for these traffic flows. See Figures 1-5 for schematic layouts of some potential improvement options that could be completed through the downtown and CES areas of the study corridor.
- One historical building, Lincoln University President's House (L50 – Appendix G), recognized as a Local Landmark by the City of Jefferson, is located in the primary study area.
- The Jefferson City National Cemetery (N16, L10 – Appendix G), listed on both the National Register of Historic Places and the City of Jefferson Local Landmarks, abuts the primary study area; therefore, this resource should be carefully considered as transportation improvements in this vicinity are proposed.
- No previously identified historic bridges are located in the primary or secondary study areas; four bridges in the tertiary area may be determined to fulfill NRHP eligibility criteria once they are evaluated.
- The probability of significant archaeological sites in the primary study area is low. Similarly, natural environmental impacts will be minimal.
- Socio-economic impacts (access, change of traffic distribution, displacements) in the downtown area will be a primary issue during the subsequent NEPA study and design. Continued public involvement and context sensitive solutions to neighborhood and business impacts will be important elements of that study. Achieving informed consent or agreement on improvements will require a compromise of interested groups.