

Chapter II

Summary of Project Purpose and Need for Action

The purpose of this project is to provide a safe, efficient, environmentally sound and cost-effective transportation facility that is responsive to the local and system-wide need and the expectations of a national interstate. The specific project purpose and need for this project are described in detail in the Draft Environmental Assessment (EA) and are summarized below.

Service Conditions and Existing Roadway and Bridge Geometry. The Missouri Department of Transportation (MoDOT), in coordination with the Federal Highway Administration, has established overall program-level design criteria and guidance for the Second Tier preliminary engineering studies of the Interstate 70 (I-70) improvements. These guidelines were established based on MoDOT's Policy Procedure and Design Manual and American Association of State Highway and Transportation Officials' Policy on Geometric Design of Highways and Streets. However, recognizing that the investments in I-70 will be long term, more stringent and conservative design criteria have been defined in anticipation of future corridor needs and ever-evolving design parameters. More stringent design criteria have been established as a desired goal to allow design flexibility within the corridor such that future design evolutions can be reasonably absorbed within the project. Furthermore, more stringent design criteria provide a more conservative estimate of the impacts of the project for the purpose of the environmental planning process and documentation. Design criteria elements discussed in the Draft EA include those pertaining to the mainline facility (pavement section, median width, clear zones, frontage roads), interchanges and crossroads (access management, interchange bridges) and rest areas.

Roadway Capacity. The proposed improvements meet the need to increase roadway system capacity in accordance with the projected travel demands to improve the general operating conditions. This need is established based on an evaluation of existing traffic, future traffic and level of service for both the mainline facility and crossroads. Projected traffic volume changes between the existing condition and the year 2030 demonstrate a need for the proposed improvements.

Traffic Safety. Nine years of crash data (1995-2004) were considered as part of the evaluation of the existing facility. Proposed improvements to I-70 in Section of Independent Utility 3 will effectively reduce the number and severity of traffic-related crashes.

Missouri River Bridge. The proposed project addresses the functional and structural needs of the bridge over the Missouri River. A major roadway change planned as part of the Improve I-70 project is widening of the roadways to three, 12-foot (3.7-meter) lanes in each direction. Even before including shoulders, this would require a width greater than that provided by the existing bridge.

Improvements to the bridge are needed in conjunction with the need to provide increased capacity on I-70 within this section. The main span structure cannot be widened to carry six lanes of traffic without either providing unacceptable highway geometry (splitting the roadways into two lanes within the truss lines and one single lane carried to the outside of each truss line

on cantilever brackets) or total reconstruction of the entire structure. Each of these measures would require a total closure of the bridge to traffic for the duration of the reconstruction (at least two years). This long closure period is also unacceptable.

Goods Movement. An improved transportation facility would meet the needs of projected traffic increases and facilitate the flow of goods into, out of and within Missouri and could support local and regional economic growth. Improved interchanges would also improve truck movement from I-70 to adjacent businesses along the crossroads.

Access to Recreational Facilities. One of the identified purposes of this project is to maintain and improve (where possible) access to publicly owned facilities located within the study area and within the region. Improved access to both local and regional recreational attractions (i.e., Lake of the Ozarks and Branson, Missouri) would be provided by increased system and local capacity.

National Security. Following the tragic events of Sept. 11, 2001, changes in travel patterns along I-70 were observed. As a result, there is therefore a need to provide a facility to accommodate potential modal shifts in transportation due to issues related to national security.