

Chapter III Summary of the Selected Alternative

The formulation of alternatives for the Second Tier Studies in Section of Independent Utility 3 was an iterative process that entailed considerations of a full range of environmental and engineering factors, design guidelines and public and agency input.

Constraint information was developed by acquiring and consolidating information from a variety of sources including public involvement meetings, file information from the Missouri Department of Transportation, other state agencies (i.e., Missouri Department of Natural Resources, Missouri Department of Conservation, State Emergency Management Agency) and federal agencies (i.e., Natural Resources Conservation Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Army Corps of Engineers, Federal Emergency Management Agency) and field reconnaissance. Alternative development and analysis entailed a consideration of a full range of environmental and engineering issues and also factored in public comments. Factors considered included cultural resources; rare, threatened or endangered species; parklands; floodways; floodplains; residential and commercial displacements; land uses; wetlands and water resources; traffic and access management issues; engineering design guidelines and other factors.

Alternative development was conducted in a step-wise fashion in which the first step in the process entailed a consideration of the mainline, whereas the second step considered improvements at each of the five interchanges. As a result of these analyses, a recommended preferred alternative was identified consisting of Interstate 70 mainline widening to the south and modification of each of the five interchanges that provide for needed improvements in access and safety while minimizing impacts to the human and natural environment.

In addition, because of the potential for greater environmental impacts in the vicinity of Overton Bottoms, a second mainline alternative parallel to and north of the existing alignment was retained for detailed analysis. This alternative extends from the western Missouri River bluff, across the floodplain and the Missouri River and the eastern bluff and crosses over to the south, east of the interchange at Route BB in Rocheport. Design features and potential traffic characteristics of this northern alternative are similar to those of the south alternative.

The selected alternative was identified as a result of a thorough investigation of the environmental and engineering constraints of the project area and after full consideration of input received from agencies, public and other interested parties. The selected alternative within Section of Independent Utility 3 is illustrated in Figures III-1 and III-2 and consists of the south mainline alternative (including constructing a new parallel bridge over the Missouri River immediately to the south) and reconstructed interchanges at Routes 5, B, 87, 179 and BB detailed illustrations of these interchanges are provided in the Draft Environmental Assessment. The selected alternative interchanges consist of the following:

- Route 5 a diamond interchange with a new overpass immediately east of the existing bridge;
- Route B a diamond interchange with a new overpass immediately west of the existing bridge;

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- Route 87 a diamond interchange with a new overpass immediately east of the existing bridge;
- Route 179 a diamond interchange with a new overpass immediately east of the existing bridge and a roundabout at the westbound ramps and Route 98; and
- Route BB a diamond interchange with a new overpass 200 feet west of the existing bridge.

The selected alternative also consists of reconstructed eastbound and westbound rest areas at the sites of the existing rest areas just east of Route B in Boonville. Planimetric depictions of the selected alternative including an illustration of proposed pavement, grades and rights of way are available upon request.

CONCEPT ONLY 155.5' SPAN 155.5' SPAN 13.5' 24' 48' 62' 62' 48' 24' 13.5' 32' 36' TRAVELED WAY 36' TRAVELED WAY 32' CLEAR ZONE CLEAR ZONE 12' 12' 12' 12' 24' 18' 24' 12' 12' SHLDR LANE LANE LANE SHLDR SHLDR LANE LANE LANE SHLDR 2.0 % 2.0 % 2.0 % 2.0 % 6:1 HIGHWAY CROWN-(2.52' BELOW TOP OF HSR) THIGHWAY CROWN (2.52' BELOW TOP OF HSR) HIGHWAY PROFILE GRADE SECTION AT BRIDGE HIGHWAY PROFILE GRADE (3.00' BELOW TOP OF HSR) POINT OF SE ROTATION SECTION AT BRIDGE (3.00' BELOW TOP OF HSR) POINT OF SE ROTATION 32' CLEAR ZONE 32' 12' Mainline I-70 CLEAR ZONE SHLDR 124' Median - 6 lanes 12' GROUND LINE -GROUND LINE SHLDR 2.0 % 2.0 % DEPTH OF CUT SECTION FILL SECTION HEIGHT OF-FILL 24' TRAVELED WAY 24' 28' 28' 24' 24' 10' 12' 12' 10' 24' 36' TRAVELED WAY SHLDR LANE SHLDR LANE 12' 12' 12' LANE SHLDR SHLDR LANE LANE 2.0 % 2.0 % 2.0 % 2.0 % 6:1 PROFILE GRADE PROFILE GRADE-Route B and Route 5 Route 87, Route 179 and Route BB 3 - Lane Typical Section 2 - Lane Typical Section **SECTION IMPROVE FIGURE III-1** 3 **Typical NOT TO SCALE Sections**

