

Access Management and NEPA

MoDOT's Experience with the I-70 Second Tier Studies

The Missouri Department of Transportation is conducting a tiered process to determine how to improve 200 miles of Interstate 70 across the state. I-70 is the nation's first interstate, built in the 1950s and 1960s, and connects Missouri's two largest cities, Kansas City and St. Louis. The portion of the route being studied includes 130 bridges and 53 interchanges

I-70 Decision Making

A Feasibility Study conducted by MoDOT in 1999 concluded that I-70 could not be improved within existing right of way and meet federal engineering and safety standards. A tiered process was then undertaken to consider strategies for improving I-70, quantify their environmental impacts and establish a preferred strategy, or long-range plan for the route.

The First Tier Study began in 2000 by defining the problems to be addressed by I-70 improvements, and establishing the purpose and need for the effort. Seven corridor-wide improvement strategies were considered. It was determined that widening and reconstructing I-70 along its existing route was the best course of action for the future. The First Tier Study also recommended short-term improvements and defined the next steps in the tiered process.

The widening and reconstruction strategy would address I-70's four lanes, narrow shoulders and median and poor pavement. In rural areas the new I-70 would have six lanes, a wide median and shoulders and space for additional lanes in the future.

With the first tier complete, MoDOT initiated the Second Tier Studies in 2002. I-70 was separated into seven sections of independent utility and independent but coordinated studies are currently being conducted in each. The studies are considering whether to widen I-70 to the north or south of the existing route, and are determining how interchanges will be reconstructed. Two environmental impact statements (EIS), four environmental assessments (EA) and a categorical exclusion (CE) are being produced.

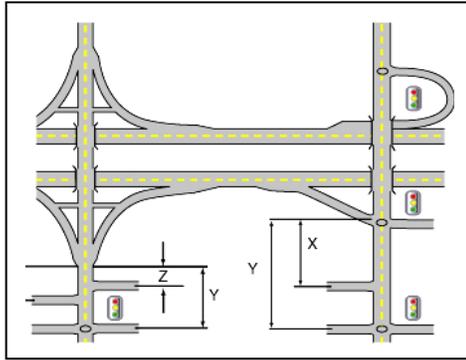
MoDOT's Access Management Guidelines

On a parallel but unrelated track, MoDOT finalized a new set of guidelines for access management on state-owned routes. The guidelines were developed to improve roadway safety, improve traffic operations, protect taxpayers' investments and create better conditions for non-automobile modes. The guidelines would encourage statewide uniformity and establish clear access requirements, and would apply to long-range planning, project planning and design, right of way acquisition, redesign of existing highway corridors and driveway permitting.

The guidelines included requirements for interchange spacing, clearance of the functional area for interchanges, spacing for public road intersections and spacing of traffic signals. The guidelines would impact the design of reconstructed I-70 interchanges such that much greater clearance areas than currently existed would be required.

Interchange Clearance

Distance	Urban	Rural
To first R in R out (X)	750	1320
To first major intersection or left turn (Y)	1320	1320
From last R in R out to On-Ramp (Z)	750	1320



The typical I-70 interchange includes development close to the highway, traffic signals located very near the functional area of the interchange and multiple breaks in access for driveways. The new guidelines, if applied strictly, would result in a number of impacts to area businesses. MoDOT’s challenge during the Second Tier Studies would be to apply the new guidelines “by the book” where possible and adjust the guidelines within reason and in an equitable way on a case-by-case basis.

Access Management and NEPA

The Second Tier Studies follow requirements of the National Environmental Policy Act. The NEPA process demands that decisions about transportation improvements consider engineering, traffic, environmental, social and economic factors. MoDOT has worked to ensure that access management would be fully integrated in the NEPA process, and conducted a variety of activities to meet that goal.

Purpose and Need

As in the first tier, the Second Tier Studies began by developing “purpose and need,” or defining the problems to be addressed by proposed improvements. Access management was incorporated during purpose and need through an I-70 technical team workshop. The two-day event featured Vergil Stover, who explained the importance of access management to highway safety and usefulness. Also on hand were MoDOT professionals who explained the new guidelines and answered questions about their application. The event served to ensure all team members would take a consistent approach in applying MoDOT’s guidelines during the Second Tier Studies.

Public Outreach and Education

MoDOT also worked to educate the public and various stakeholders about access management – what it is and why it’s important – before improvement alternatives were developed. An informational video was developed and shown at an initial round of public meetings across the corridor, and made available to anyone upon request. Clips of the video and other information about access management were included on the Improve I-70 Web site. And as the studies progressed, small group and committee meetings were held to discuss improvement alternatives and how access management measures had been integrated. Simulations and maps were used during facilitated discussions to ensure that decisions about I-70 improvements were made in an educated, open and collaborative way.

Alternatives Development

Under the preferred strategy from the First Tier Study, each I-70 interchange will be rebuilt to accommodate the new, wider interstate. Study teams were instructed to keep interchanges in their current location, and that no new interchanges should be developed. Teams generated a range of improvement alternatives for each interchange, with at least one of those alternatives applying MoDOT’s access management guidelines as written.

As expected, improvement alternatives that strictly applied MoDOT’s access management guidelines had a higher number of impacts to area businesses and homes, both in terms of relocations and changes in access.

Alternatives Evaluation

As the range of alternatives was narrowed from feasible to reasonable options, trade-offs were made in the degree to which access management guidelines would be applied. Those trade-offs were discussed internally, among the study teams and MoDOT leadership, as well as publicly, at meetings and workshops. The remaining alternatives were then evaluated based not only on how they incorporated access management measures, but also on their impact to the natural and man-made environments. Each interchange alternative presented a different set of benefits and impacts. The study teams, having gathered significant public input on the alternatives, worked with MoDOT to determine which alternative to recommend as the preferred option at each interchange.