FUTURE I-70
Kansas City Metro
STAYING AHEAD OF THE CURVE

RECORD OF DECISION

FHWA-MO-EIS-10-01-F
I-70 FIRST TIER EIS

First Tier Environmental Impact Statement for Route I-70, Jackson County, from the end of the last ramp termini east of the Missouri and Kansas state line to east of the I-470 interchange, including the entire Kansas City, Missouri's Downtown Central Business Freeway Loop

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Date of Approval

FEDERAL HIGHWAY ADMINISTRATION
RECORD OF DECISION

FHWA-MO-EIS-10-01-F
Interstate 70
From the end of the last ramp termini east of the Missouri and Kansas state line to east of the I-470 Interchange in Jackson County, Missouri including the entire downtown loop.

A. Decision

Federal Highway Administration (FHWA), in coordination with the Missouri DOT, has identified the Preferred Strategy as the Selected Strategy for the proposed improvements from the end of the last ramp termini east of the Missouri and Kansas state line to east of the I-470 Interchange in Jackson County, Missouri including the entire downtown loop, as described in the Final First Tier Environmental Impact Statement (FTEIS). The Preferred Strategy in the FTEIS was identified as the Selected Strategy after reviewing all the reasonable strategies under consideration (including the No-Build Strategy) with respect to their ability to meet the project purpose and need and environmental impacts. The Selected Strategy is described in **Section C** of this Record of Decision. The reader is also referred to the FTEIS for additional background information pertaining to the Selected Strategy, including potential impacts and mitigation solutions.

B. Purpose and Need for the Project

The Study Team developed the elements of the purpose and need in coordination with the Local Study Management Team and I-70 Major Investment Study (MIS). The overall purpose of the I-70 FTEIS is to determine an improvement strategy for the corridor, including future capacity and mode choices, which addresses the following items:

- Improve Safety: Reduce crash rates and crash severity on I-70 and within the downtown loop.
- Reduce Congestion: Remove key bottlenecks; reduce the potential for ramp back-up onto the freeway; and improve multi-modal travel times in coordination with plans put forward by local and regional agencies.
- Restore and Maintain Existing Infrastructure: Improve bridge and pavement conditions on I-70 and the downtown loop and implement cost effective investment strategies.

- Improve Accessibility: Provide travel options for all residents; increase safe access across I-70 and the downtown loop for non-motorized travel; and support local and regional land use plans.
- Improve Goods Movement: Improve the efficiency of freight movement on I-70 and the downtown loop.

C. Strategies Considered

No-Build Strategy

The No-Build Strategy provides the baseline for comparing all other strategies. In the context of this process, No-Build refers to the year 2030 transportation infrastructure and services assumed to be in place that year. The No-Build Strategy assumes that all existing and committed projects within the Study Area are constructed and in place by the year 2030. These projects include I-70 pavement maintenance, bridge rehabilitations as needed, the kcICON project, and Amendment 3 and economic recovery project, including the I-435/I-70 Interchange.

Improve Key Bottlenecks Strategy

The Improve Key Bottlenecks Strategy rebuilds and/or rehabilitates I-70 and the downtown loop to its existing configuration with a design life of 30 to 50 years. This includes pavement, roadbed, and structure improvements. This strategy will evaluate interchange improvements to address ramp lengths, merge areas, weave sections at all interchanges; improve the Jackson and Benton curves; consider interchange consolidations, modifications, and eliminations to improve traffic flow and safety; provide for bus transit on shoulder; and improve bicycle/pedestrian accommodations across I-70. Other corridor wide improvements in the Improve Key Bottlenecks Strategy include integrating Operation Green Light on parallel routes, improving incident management response times to clear incidents and stalled vehicles, coordinating with the Smart Moves Regional Transit Vision, improving non-motorized access across I-70 and the downtown loop with Community Bridges, and investigating locations to add Park and Ride lots as necessary.

Add General Lanes Strategy

The Add General Lanes Strategy builds upon the elements from the Improve Key Bottlenecks Strategy. Other key elements of the Add General Lanes Strategy includes rehabilitating and/or rebuilding I-70 with four lanes in each direction from the downtown loop to I-470, adding directional ramps in the southeast and southwest corners of the downtown loop, rebuilding the I-70/I-435 Interchange to provide eight lanes on I-70, and six lanes on I-435.

Transportation Improvement Corridor Strategy

The Transportation Improvement Corridor Strategy builds upon the elements of the Improve Key Bottlenecks Strategy plus it adds a transportation improvement corridor between the downtown loop

and east of Lee's Summit Road. The transportation improvement corridor could be located between the eastbound and westbound lanes or on one side of the I-70 corridor. As proposed, the transportation improvement corridor would be barrier separated from the regular traffic lanes. The transportation improvement corridor could be used for congestion managed lanes, reversible lanes, high occupancy vehicle (HOV) lanes, or bus lanes.

Environmentally Preferred and Selected Strategy

The I-70 FTEIS Selected Strategy is the Improve Key Bottlenecks Strategy in the downtown loop and to east of I-435. From east of I-435 to I-470, the Selected Strategy is to carry both the Improve Key Bottlenecks Strategy and the Add General Lanes Strategy into the Second Tier Studies. The Selected Strategy maps are in **Appendix A**.

The Improve Key Bottlenecks Strategy in the downtown loop to east of I-435 was selected for the following reasons:

- It addresses the purpose and need for improving I-70.
- It reduces peak hour congestion to LOS E or better.
- It has the lowest need to acquire properties and relocations of homes and businesses, especially in the environmental justice areas for the Build Strategies.
- It has the lowest human and natural environmental impacts for the Build Strategies.
- It has the lowest estimated cost of the Build Strategies.
- It improves access across the freeway.
- It improves transit service with bus on shoulder.
- It restores and/or rebuilds the existing infrastructure.

From east of I-435 to I-470, the Selected Strategy is to leave the decision open for the Second Tier Studies to decide. The Selected Strategy is to carry both the Improve Key Bottlenecks Strategy and the Add General Lanes Strategy with an option to stripe a HOV/Bus lane forward to the Second Tier Studies. The factors and issues leading to this conclusion include:

- Uncertainty in how much traffic levels are going to increase. Higher gas prices have caused reductions in national and regional vehicle miles traveled in recent years.
- Uncertainty of the effect of implementation of the Mid-America Regional Council's adopted 2040 Long Range Transportation Plan and its impact on growth patterns.
- Uncertainty of the Add General Lanes Strategy compatibility with future regional transit plan investments such as a fixed guide way system. Improving capacity in the I-70 corridor could potentially be solved by either adding new lanes to I-70 or through regional transit improvements. However, a significant investment to both potential highway and transit solutions is not necessary. If the region, supported by regional transit plans, concludes a significant transit investment would adequately address the traffic needs in the I-70 corridor, MoDOT, working with the region, would reevaluate the decision in the tiered environmental process.

- Potential federal climate change and vehicle emissions legislation. Congress is considering legislation that may focus transportation improvements on those that reduce driving instead of those that add capacity.
- Delaying the final improvement decision until the Second Tier studies would be a cost effective use of public dollars given the uncertainties noted above. This strategy avoids committing to a solution that may be undesirable given future policy changes and thus requiring reopening this First Tier study.

D. Impacts and Measures to Minimize Harm

At the First Tier environmental document level, the key impacts were based on the most/highest potential impacts for each strategy. The impacts were calculated from using the widest anticipated footprint for each strategy. Through the design and value engineering process, the key impacts are expected to be reduced. During the Second Tier Studies, all measures to avoid, minimize and mitigate adverse impacts will be examined and further design details will be refined such as the use of retaining walls to reduce the overall project impacts. The evaluation of the key impacts of the Strategies Considered and the Selected Strategy are provided in **Table 1** of this report. When possible, the strategies were evaluated using quantifiable measures. The subjective evaluations were summarized using a rating scale.

Community Impacts

The Study Area will have impacts to the nearby homes, businesses, and neighborhoods including relocations. The First Tier Study evaluated impacts on a high level with the widest potential roadway right of way needed. As part of the Second Tier Studies, more detailed engineering design will take place. The Missouri Department of Transportation (MoDOT) will seek to reduce community impacts through this process. This will occur throughout the Study Area, but is especially important in the identified environmental justice areas of concern west of I-435.

Hazardous Materials

The Study Area contains recognized environmental conditions that could cause contamination affects if uncovered during construction. The First Tier Study did not include a complete assessment of these types of sites. A full project area contamination survey will be completed as part of the Second Tier Studies.

Historic and Archaeological Resources

There are no anticipated adverse impacts to historic properties listed on the National Register of Historic Places (NRHP) as a result of the Selected Strategy. The Second Tier Studies will include detailed cultural resources investigations that may identify properties eligible for listing on the NRHP. The Second Tier Studies will identify any necessary measures to avoid, minimize, or mitigate potential

cultural resources impacts. This process will include the preparation of documentation should one be required under Section 4(f) of the Department of Transportation Act.

Noise

Noise levels may increase at residences, businesses, and community facilities located along the corridor of the Selected Strategy. The Second Tier Studies will further evaluate and refine the potential noise impacts that could result from implementation of the Selected Strategy. The MoDOT Noise Policy will dictate the evaluation and assessment methods used in the Second Tier Studies.

Air Quality

Three sets of air pollutants are of concern with regard to the I-70 First Tier EIS. These pollutants are criteria pollutants regulated under the National Ambient Air Quality Standards (NAAQS), Mobile Source Air Toxics (MSATs), and general carbon emissions from motor vehicles. MoDOT anticipates that the Second Tier Studies for the Selected Strategy will have to address new air quality regulations governing ozone. Further analysis may also be required for other air pollutants, including carbon monoxide, particulate matters, and MSATs.

Groundwater, Drainage, and Surface Water Quality

The Selected Strategy will increase the impervious surface and increase rainwater runoff. This leads to increased amounts of water flowing in the streams, especially during heavy rainfalls, and more erosion of the streambed because of faster flowing water. These changes to stream flow result in flooding; habitat loss; erosion, which widens the stream channel; and physical changes in how the stream looks and functions.

Use of best management practices for the control of erosion and sedimentation is recommended at all construction sites. The Second Tier Studies will identify any necessary measures to avoid, minimize, or mitigate potential impacts.

Floodplains, Streams, and River Crossings

The Selected Strategy will affect a total of 21 acres of floodplain. The majority of the potential impacts are near the crossing of the Blue River. The Selected Strategy will cross 10 river or stream tributaries. The Second Tier Studies will identify any necessary measures to avoid, minimize, or mitigate potential floodplain, stream, and river crossing impacts.

Wetlands

The potential for wetland and habitat loss was measured by estimating the area of wetlands within the boundaries of the construction limits. The Selected Strategy is anticipated to impact 2.03 acres.

Potential impacts to wetlands will be further delineated in the Second Tier Studies and required mitigation measures will be developed.

Wildlife, Plants, and Threatened and Endangered Species

There are four protected wildlife species known to occur in Jackson County and have a State designated endangered status. Terrestrial habitat for any of the protected species does not appear to be present within the Study Area boundaries. The Second Tier Studies will identify any necessary measures to avoid, minimize, or mitigate potential wildlife, plant, and threatened and endangered species impacts.

Energy

The Selected Strategy is expected to improve traffic flows and reduce vehicle fuel consumption on a per vehicle basis. The Second Tier Studies will further investigate potential changes in energy used due to improvements along I-70.

Utilities

The Selected Strategy would result in temporary impacts to utility services. The Second Tier Studies will further evaluate and refine the utility impacts and identify preliminary utility relocations.

Indirect and Cumulative

The Selected Strategy, in combination with other projects near I-70, could result in cumulative impacts on affordable housing, transportation, floodplains, and air quality. The Second Tier Studies will evaluate any indirect and cumulative impacts of the I-70 FTEIS.

Construction Impacts

Construction of any of the Selected Strategy would result in certain short-term environmental impacts associated with construction activities. The construction impacts could include noise, air quality, water quality, traffic circulation, and disposal of surplus and waste. The Second Tier Studies will identify any necessary measures to avoid, minimize, or mitigate potential construction impacts.

Permits

In addition, regulatory and construction permits will be required during the Second Tier Studies or the design phase. Continued coordination with U.S. Army Corp of Engineers (USACE) will be required to receive Section 404 Clean Water Act permits. In addition, coordination with the U.S. Coast Guard and the USACE will be necessary for regulatory permits related to Section 9 and Section 10 of the Rivers and Harbors Act as they relate to the Blue River. MoDOT will adhere to water pollution control

programs and established best management practices as established in agreements with the Missouri Department of Natural Resources.

In the First Tier environmental process, the affected environment and environmental consequences are investigated to a sufficient level of detail to determine if any of the improvement strategies create any issues that would prevent their implementation. No issues were identified that would prevent the Selected Strategy from being constructed. There are several environmental issues that will need additional investigation in the Second Tier Studies. The Second Tier Studies will address the measures to avoid, minimize, or mitigate potential impacts.

E. Section 4(f)

The FTEIS identified potential impacts to several parkland properties. The Selected Strategy is not expected to directly impact any of the known archaeological resources identified in the vicinity of the Study Area. The Second Tier Studies will address the measures to avoid, minimize, or mitigate potential parkland or cultural resources impacts. This process will also include any document preparation required under Section 4(f) of the Department of Transportation Act.

The Selected Strategy may impact West Terrace Park and Ermine Case Jr. Park as downtown loop access is improved. There would be potential impacts to Margaret Kemp Park with the reconfiguration of the access ramps on the east side of the downtown loop. Cypress Park is adjacent to the I-70 right-of-way and will potentially be impacted. Depending on the selected strategy east of I-435 during the Second Tier Studies, there are potentially impacts to Carriage Hills Park and Little Blue Trace Park, a Section 6(f) park, with proposed improvements to the I-470 interchange.

F. Second Tier Studies

The selected alternative of Improve Key Bottlenecks Strategy west of I-435 and either Add General Lanes Strategy or Improve Key Bottlenecks Strategy east of I-435 is subject to further review by federal and state agencies as well as local units of government during the Second Tier environmental studies and design phase. Several permits will be required prior to the beginning of construction and these should be identified in the Second Tier Studies. The review and permit process will be implemented in cooperation with the appropriate regulatory agencies.

MoDOT is committed to performing the Second Tier Studies in accordance with the commitments contained within this First Tier EIS. These Second Tier Studies will be conducted through a continued and ongoing program of public outreach and agency coordination. Through the Second Tier Studies, more specific definitions of the improvements will be developed for consideration by the general public and the various environmental and community resource agencies. The Second Tier Studies will assess and study more specifically the following items:

Corridor Wide

- Layouts and impacts of the interchange improvements to address ramp lengths, merge and diverge lengths, and weave areas.
- Air quality designation status throughout the Mid-America Regional Council (MARC) region.
- Relationship between MARC's regional long range transportation plan update (Transportation Outlook 2040) and I-70 FTEIS Selected Strategy.
- Locations and types of community bridges.
- Noise studies as directed by MoDOT's Noise Policy. Noise was a specific issue brought forward as a potentially controversial issue from the public and stakeholder outreach efforts.
- Detailed wetland and threatened and endangered species investigations as needed.
- Detailed investigations for historic structures and archaeological resources.
- U.S. Army Corps of Engineers Section 404 permitting will be required on this project.

Downtown Sub-Area

- Layouts and impacts of the interchange additions, consolidations, or eliminations throughout the downtown loop.
- Location and need to replace the Wyandotte Street ramp to westbound I-670.
- Coordination and impact of the South Loop Link Study.

Urban Sub-Area

- Layouts and impacts of the interchange additions, consolidations, or elimination of access.

I-435 Interchange Sub-Area

- Layouts and impacts of the interchange improvements at the I-435 interchange including modification of access at the Manchester Trafficway interchange.

Suburban Sub-Area

- Selection of the Improve Key Bottlenecks or Add General Lanes Strategy.
- Layouts and impacts of the interchange additions, consolidations, or elimination of access through the series of interchanges at the Sterling Avenue, U.S. 40, and Blue Ridge Boulevard interchanges.

I-470 Interchange Sub-Area

- Layouts and impacts of the interchange improvements at the I-470 interchange.

G. Comments on the Final First Tier EIS

Notice of Availability of the I-70 Condensed Final First Tier EIS was published in the January 14, 2011 *Federal Register* with the comment period ending February 18, 2011. MoDOT notified the public of the I-70 Condensed Final First Tier EIS through a news release, newsletter, and an online meeting. Comments on the I-70 Condensed Final First Tier EIS were accepted through February 18, 2011. Seven comments were received (four from local agencies and three from the public) on the I-70 Condensed Final First Tier EIS and are included in **Appendix B**.

The substantive comments specific to the adequacy of the Condensed Final First Tier EIS content or process are summarized and responses provided below. No response is provided for statements of preference, statements of fact, general opinions, or comments agreeing with the project information. Many of the comments received addressed similar aspects of the Condensed Final First Tier EIS content or process. These have been summarized below. In addition, MoDOT received letters from the Missouri Federal Assistance Clearinghouse and the State Historic Preservation Office which acknowledge the document with no substantive issues or comments and as a result required no response.

Agency Comments

Comment (MARC):
The following areas align with MARC plans and policies:

- The Final EIS incorporates updated crash statistics in the Purpose and Need statement.
- The established Purpose and Need was sufficiently coordinated and aligned with Transportation Outlook 2040 Policy Framework.
- The identified preferred strategies reinforce Purpose and Need and Transportation Outlook 2040 Policy Framework (Restore and maintain existing infrastructure, safety, multi-modal opportunities, improved accessibility).
- The document appropriately included multi-modal and goods movement issues in the Purpose and Need statement in addition to safety, congestion and system preservation.
- The EIS satisfactorily explained how the Congestion Management Toolbox was used to develop study alternatives.
- The EIS appropriately addressed future transit plans in the development of study alternatives.
- The Final EIS appropriately included "bicycle/pedestrian access" in all build alternatives.

Response:
Comment noted.

Comment (MARC):
The study does not resolve or offer any specific plan or commitments to resolve coordination issues between the regional and statewide plans for I-70 related to potential truck only lanes east of I-470.

Response:
The results of the I-70 Statewide Supplemental Environmental Impact Statement (SEIS) have been coordinated within the I-70 FTEIS in Jackson County. The I-70 SEIS concluded truck only lanes would transition into general purpose lanes east of I-470 and additional truck traffic will not divert to I-70 with dedicated truck lanes only on the 200 miles across Missouri. The I-70 Statewide SEIS (Table 1.1) indicates that the daily traffic west of I-470 is expected to grow by an average annual growth rate of one percent. Although the I-70 FTEIS in Jackson County focused on the peak periods, the average annual growth rate for the daily traffic was very similar. The Second Tier Studies will continue to evaluate this issue including incorporation of data from other studies on truck only lanes.

Comment (MARC):
While there is reference in Chapter 2, Section 3 to the utilization of MARC's regional travel model, there is no description of what land use assumptions were utilized as model inputs for forecasting purposes.

Response:
There were no changes to the existing or future land use elements within the model provided by MARC in 2008. The land use assumptions used in the model were the MARC plan assumptions in place at the time. It is recognized that land use assumptions in the travel demand model used for this study have been revised with the approval of the regional long range plan Transportation Outlook 2040. The Second Tier Studies will use the most current travel demand model available.

Comment (MARC):
It would be helpful to directly inset analysis and maps of traffic modeling that was used in assessing alternatives.

Response:
As a Condensed Final EIS was prepared, the 150+ pages of traffic modeling results and analysis were not included in the FTEIS document. This information was included as an appendix on a CD in the Draft FTEIS.

Comment (MARC):
As structured, Chapter 3 generally only assesses direct environmental impacts. MoDOT is encouraged to also assess and describe opportunities for environmental integration and preservation within the study area and as it relates to adjacent resources. Examples could include the further discussion of opportunities to reinforce or support the Blue River Channelization Project objectives, adjacent park or greenway access and integration, and delineation of high priority resources (beyond wetlands), that may help to further inform transportation and environmental strategies as they are refined.

Response:
MoDOT will consider the opportunities for the environmental integration and preservation noted in the Second Tier environmental scoping process with the appropriate resource and cooperating agencies.

Comment (EPA):
The vast scope and scale of this project provides significant opportunity to demonstrate sustainable practices in a transportation project. As collaboration with Mid-America Regional Council (MARC) and mention of their transportation plan has been noted throughout this document, it is assumed that MoDOT and FHWA are aware of MARC's Transportation Outlook 2040 plan. Because this long range transportation plan has included as part of its approach the consideration of environmental impacts and opportunity for sustainable growth, EPA recommends further collaboration with MARC and accompanying consideration of these important issues in Second Tier studies.

Response:
This study and the MARC long range plan update were being produced concurrently. The Second Tier Studies will include collaboration with MARC, the current regional long range plan, and consider the environmental impacts and the opportunities to support sustainable growth.

<u>Public Comments</u>

Comment:
I lived in the Kansas City area for 14 years and on Quality Hill for about three of them. My comments are more appropriate for the Tier 2 study of the downtown loop, when that happens.

Most system interchanges have eight ramps; the I-35/I-70 system interchange has 16. One way to reduce this number is for the inbound traffic on these two interstates to only have one choice of entering the loop. One interstate would travel the counterclockwise or normal direction and the other would travel the clockwise or reverse direction in the loop. This effectively separates through traffic on the two interstates, which could have big advantages. Distances work better if I-35 runs the clockwise direction. Exiting from the loop would remain in any direction, making the apparent "wrong way" travel on the clockwise interstate a diminished issue. The inbound drive may be a longer distance, but outbound would be the same.

This alternative allows more options for configuring local ramps without causing the elimination of any. It may also simplify signing and reduce overall weaving.

Response:
As noted, the comments are better geared towards the Second Tier Studies of the downtown loop which will examine the number and spacing of interchanges.

Comment:
Please stop allowing main through lanes from becoming off-ramps. Specifically, if the new I-70 will have 8 main lanes, then please make all 8 lanes continue uninterrupted all the way east and west without any of those 8 lanes being co-opted as peel-offs to cross highways. This has been a real problem with KC area interstates for more than 35 years at I-70, I-435, and other interchanges where it was incorrectly assumed that 1/3 of the traffic would always peel off onto those off-ramps to the cross highways.

This assumption was wrong then and is still wrong. As any observant driver driving these routes can see, there is almost never 1/3 of the total traffic off-ramping at those faulty interchanges. These areas instead now result in nightly back-ups with traffic trying to squeeze from 3 to 2 lanes that should have been 3 all of the way through. This assumption is the cause of through-flow bottle necks during every rush hour time period. Please do not propagate this error into the new I-70 or other new highway projects.

My point is to ask your planning group to please assume that all traffic is through traffic and require that the number of main lanes always proceed un-interrupted and that all cross-highway interchanges require additional exit lanes (one, two, or three extra ramp lanes) to siphon the desired traffic on and off. Main lanes should never suddenly turn into off-ramps.

Response:
The lane balance and lane drop concerns you raise are elements in the Improve Key Bottlenecks Strategy which is part of the recommended improvements for I-70.

Comment:
When a major interstate interchanges with another interstate in a major metro area like at I-70 and I-435 in Jackson County, MO. Please require that all diamond interchange ramps and fly-over ramps have at least two full lanes (or maybe three with a forward looking eye). Ramps with too few lanes cause backups every morning and night.

When on-ramps or fly-over ramps join two interstates in major metro areas, please require that those on-ramps have at least 1 mile of staggered merging distance. In other words, no on-ramp like these should ever abruptly dump into another main through lane where two drivers meeting at the same time have to evasively react. In this situation, the extreme right of the two or three on-ramp lanes would end and merge after 0.5 miles, the remaining on-ramp lane would then merge and end after another 0.5 mile later (totally at least one mile). This solution is similar to the layout of the interchange from 69 Hwy south bound to east bound I-435 in Overland Park, KS where there is plenty of distance to merge while all of the main lanes of I-435 precede uninterrupted and as independent lanes from the on-ramps.

Response:
Ensuring an adequate length of on-ramps is an element of the Improve Key Bottleneck Strategy. The I-70 on-ramps will be examined during the Second Tier studies to ensure adequate access is provided. One potential solution is a collector distributor lane(s) as you described at the 69 Highway and I-435 Interchange.

Comment:
Please adopt higher road smoothness standards. This means getting rid of the long up and down elevation waviness in open lanes and especially from main pavement onto bridges. There are so many of these even on newer interstate bridges (that were even recently rebuilt like I-470 at Blue Ridge) where the tangential entrance of the pavement surface onto the bridge surface does not match by several inches. More specifically, I refer to bridges that were built 1st followed by the final road surface ending up lower than the actual bridge surface. In those locations, it appears that there were surveying mistakes that did not match the road and bridge surfaces together. Instead of being corrected at the time, they were instead band-aid patched. These "band-aids" created a 10 feet or 15 feet long incline ramp between lower mismatched road-bed and the higher elevation of the bridge surface. This situation whether in error or not, causes a "ca-bump" or suspension bounce when traversing it at 65mph or 70mph. The rise-over-run incline is so dramatic at times, that the vertical velocity change to the vehicle is abrupt enough to cause almost a full compression of the suspension. This is most keenly felt in vehicles that may not be the newest of vehicles or not in perfect factory new condition. Not only is this pavement mismatch annoying, it is overly wearing on vehicles suspensions especially when traveling over the same 9 or 10 of these of sections day-in-and-day-out.

The worst danger with this problem is when this occurs on a curved bridge and on slick road conditions (snow or ice). The bounce induced by the upward incline of a curved patch-section coupled with slick conditions, can cause the vehicle's balance to be upset and the tires to skid. Since the vehicle is on a curve, the highway-speed slide occurs at the worst time. Experienced drivers can sometimes navigate out of this danger. But, less experienced drivers may not be able to.

Response:
These are primarily maintenance and final design issues to be considered in the Second Tier Studies and subsequent design studies. In the Selected Strategy, rebuilding the roadway (from the base material up to and including the driving surface) is included. This is anticipated to correct the transitions between the roadway and bridges.

Comment:
Place "Maintain Your Speed" signs along up-hill sections of high traffic segments of interstates especially near major interchanges. Many times, up-hill sections of highway, no matter how many lanes are available; still create a bottleneck as drivers fail to compensate their throttles for the up-hill slope of the highway. A simple reminder with signs (maybe over-head) may remind them to keep moving, so as not to cause a chain reaction of slow-downs behind them.

Response:
Comment noted. This is an operational/signing issue and the comment will be forwarded to MoDOT operations officials.

Comment:
Each of the Final FTEIS makes specific mention of bike/pedestrian access improvements along the corridor. The area west of I-435, particularly the downtown loop, is dense, urban development and I-70 is a barrier, not only at interchanges but along its entire path.

While all the access points in the loop are convenient this is an interstate and should be limited access that discourages use for intra-city trips. Though perhaps unpopular, elimination of ramps in KC downtown should be done. That in of itself will improve bike/pedestrian safety and access.

Response:
In addition to improving bicycle and pedestrian accommodations at bridges and overpasses along I-70, consideration of community bridges will be a part of the Second Tier studies. The number of ramps in the downtown loop will be evaluated during the Second Tier studies.

Comment:
HOV combined with bus lanes is more desirable than bus on shoulder as it encourages shared trips. As a retired fire fighter I worry that use of the shoulder for buses will complicate access to crashes and similar incidents, where the shoulder represents the best access for public safety personnel.

Response:
Comment noted. In the case of an incident or even a disabled vehicle on the shoulder, the bus would merge back into the main traffic flow. The safety provisions for bus on shoulder will be further considered in the Second Tier Studies.

Comment:
Removing or improving bottlenecks such as the Benton Curve are needed for safety as well as better traffic flow. I do not believe that adding more and more lanes has been proven to actually decrease long term congestion. It simply encourages development further out on the system.
This is contrary to MARC's current Long Range Transportation Plan.

Response:
Comment noted. It is one of the reasons why two strategies (Improve Key Bottlenecks Strategy or Add General Lanes Strategy) were carried forward east of I-435. This study and the MARC long range plan update were being produced concurrently. The Second Tier studies will include collaboration with MARC and the current regional long range plan.

H. Clarification on the Record of Decision

Table 1 of the Record of Decision includes a clarification from the same Table (Table ES.1) in the First Tier Condensed Final EIS. The clarification is on the last evaluation factor located on page 3 of 3. The cost estimate clarification includes only the cost for the I-70/I-435 interchange Phase 1 improvements. The ultimate improvement concept for the I-70/I-435 interchange has not been identified within the I-70 FTEIS and will be determined in the Second Tier Studies.

I. Conclusion

The selection of the Improve Key Bottlenecks Strategy west of I-435 and either Add General Lanes Strategy or Improve Key Bottlenecks Strategy between I-435 and I-470 to reduce congestion, enhance safety, restore and maintain the infrastructure, improve accessibility and improve goods movement was made after careful consideration of all social, economic, and environmental factors with input from the public, other stakeholders, Missouri DOT, and other local, state, and Federal agencies.

Table 1 I-70 First Tier EIS Impacts Summary

Achieved = 100% or highest benefit	Mostly Achieved = 80% or moderately high benefit	Moderately Achieved = 50% or moderate benefit	Slightly Achieved = 20% or low benefit	Not Achieved = 0% or no benefit

Evaluation Factor	Definition/Clarification	Indicators	Strategy Package				
			No-Build	Improve Key Bottlenecks	Add General Lanes	Transportation Improvement Corridor	Selected Strategy*
Safety							
Crash Reduction	Evaluate with respect to reduction in crash rate	Addresses all or most of locations with crash rates above statewide average					
		Improves I-70 curves					
		Number of interchanges where geometrics are improved	3	10	19	17	17
Compliance with MoDOT Access Management Guidelines	Evaluate how well the proposed strategy package provides for the opportunity to implement access management guidelines						
Congestion Relief							
Traffic Operations/ Congestion Relief	Evaluate the strategies from a traffic operations standpoint based on Level of Service.	Miles of LOS F in 2030	Total 12.5 West of I-435 – 2.3 East of I-435 – 10.2	Total 6.2 West of I-435 – 0.5** East of I-435 – 5.7 **Can be corrected with a different bottleneck improvement	Total 0.0	Total 0.0	Total 6.2 West of I-435 – 0.5** East of I-435 – 5.7 **Can be corrected with a different bottleneck improvement
Restore/Maintain Existing Infrastructure							
Restore & Maintain Existing Infrastructure	Evaluate the corridor wide rehabilitation and/or rebuilding of existing highway either in place or as part of capacity expansion	Rehabilitates and/or rebuilds existing highway in place or as part of capacity expansion					
Improve Accessibility							
Improve Accessibility Across/Neighborhood	Evaluate how well strategy package improves neighborhoods and communities accessibility	Number of interchange and overpass reconfigurations	3	10	24	22	22
		Bicycle and/or pedestrian accommodations and/or improvements proposed					

Achieved = 100% or highest benefit	Mostly Achieved = 80% or moderately high benefit	Moderately Achieved = 50% or moderate benefit	Slightly Achieved = 20% or low benefit	Not Achieved = 0% or no benefit

Evaluation Factor	Definition/Clarification	Indicators	Strategy Package				
			No-Build	Improve Key Bottlenecks	Add General Lanes	Transportation Improvement Corridor	Selected Strategy*
Improve Public Transportation	Evaluate potential for strategy package to improve public transportation	Adds park & ride					
		Support Operation Green Light					
		Integrate Smart Moves Transit Plan					
Improve Goods Movement							
Improve Goods Movement	Strategy package effectively serves freight movements in corridor	Improves Freight Movement					
Social and Economic							
Relocations	Evaluate the impact on residences and businesses to be displaced	Residential – Single family (each)	0	170	271	399	228
		Residential – Multi-family (each)	0	18	32	45	19
		Commercial/Industrial (each)	0	55	93	111	67
		Churches (each)	0	0	4	7	0
		Schools (each)	0	1	1	1	1
Environmental Justice	Evaluate the impact to low income and/or minority areas	Area of property affected (each)	0 Single Family 0 Multi-family	51 Single Family 5 Multi-family	95 Single Family 18 Multi-family	160 Single Family 28 Multi-family	51 Single Family 5 Multi-family
Public Facilities & Services	Evaluate the impact to facilities and services used for public uses	Number of facilities (each)	0	3	11	12	4
Environment							
Noise	Evaluate potential impact on existing sensitive receptors (residences, schools, churches, parks)	Proximity to sensitive noise receptor (number within 150 feet of proposed future edge of pavement)	664	465	335	282	414
Parks/Recreational Land	Evaluate potential impact on parks	Number of park/recreational lands affected (each)	0	5	8	8	5
Historic Property	Evaluate potential impact on historic properties	Number of historic properties impacted(buildings on or eligible for NRHP (each)	0	0	0	0	0
Historic Districts	Evaluate potential impact on historic district	Area of historic district impacted (each)	0	0	0	0	0
Archaeological Site	Evaluate potential impact to archeological sites	Number of potential archaeological locations (each)	0	7	9	9	9

Achieved = 100% or highest benefit	Mostly Achieved = 80% or moderately high benefit	Moderately Achieved = 50% or moderate benefit	Slightly Achieved = 20% or low benefit	Not Achieved = 0% or no benefit

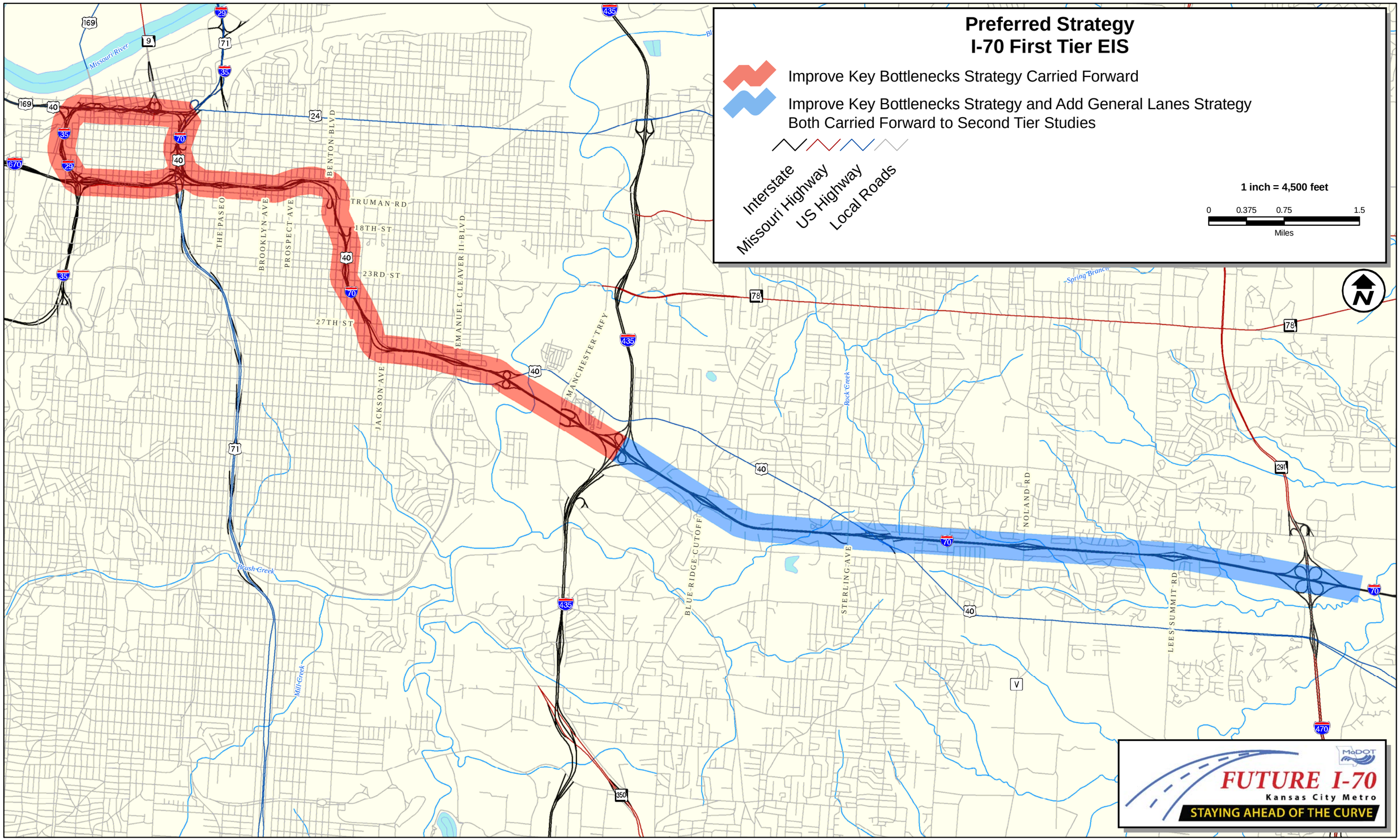
Evaluation Factor	Definition/Clarification	Indicators	Strategy Package				
			No-Build	Improve Key Bottlenecks	Add General Lanes	Transportation Improvement Corridor	Selected Strategy*
Water Resources	Evaluate potential impact to rivers and streams	Encroachment on the Blue River (*Fatal Flaw, Large, Moderate, Minor, None)*	None	Minor	Minor	Minor	Minor
		Number of streams/tributaries crossed (each)	0	8	10	10	10
Floodplains	Evaluate potential impact on floodplains	Area of floodplain affected (acres)	0	19 acres	21 acres	24 acres	21 acres
Wetlands	Evaluate potential impact on wetlands	Area of emergent wetland affected (acres)	0	0.9 acres	0.9 acres	0.9 acres	0.9 acres
		Area of forested/shrub wetland affected (acres)	0	0.48 acres	1.13 acres	1.09 acres	1.13 acres
Known Hazardous Waste Sites	Evaluate potential impact on known hazardous waste sites	Number of sites affected (each)	0	1	1	1	1
Forested Areas	Evaluate potential impact on forested areas	Area of sites affected (acres)	0	57 acres	69 acres	69 acres	69 acres
Cost							
Land Acquisition Cost	Opinion of probable land acquisition cost	Right of way cost (millions)	$0	$160	$185	$210	$157
Construction Cost	Opinion of probable construction cost	Total construction cost (millions)	$8.1 annual maintenance	$630	$735	$890	$633 - $673**
Total Costs	Opinion of total cost	Total cost (millions)	$250	$790	$920	$1,100	$790 and $830 million depending on the scenario selected east of I-435

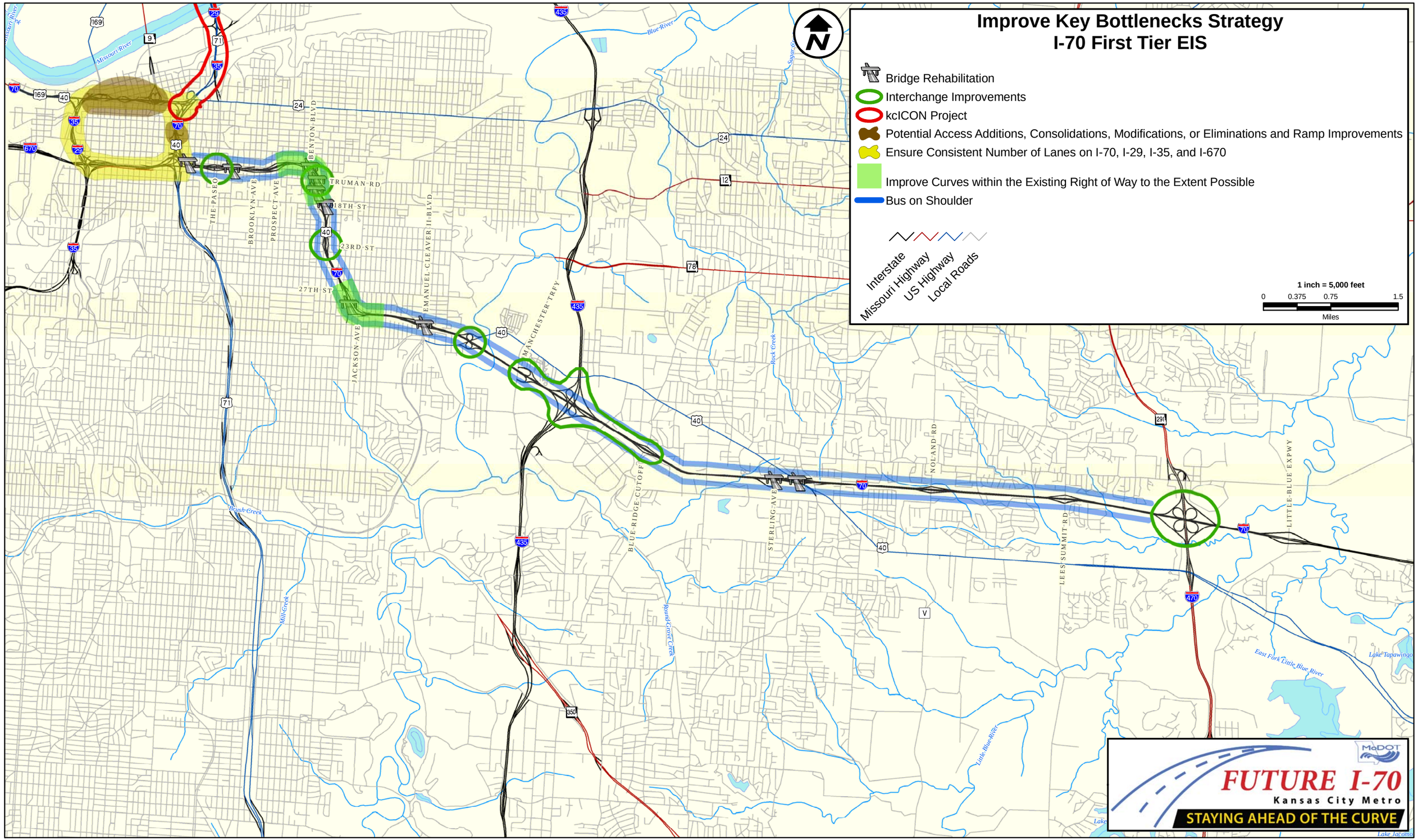
* The I-70 FTEIS Selected Strategy is the Improve Key Bottlenecks Strategy from the downtown loop to east of I-435. The Selected Strategy from east of I-435 to I-470 is either the Improve Key Bottlenecks Strategy or the Add General Lanes Strategy. The Selected Strategy environmental evaluation is based on the wider of the two footprints (Add General Lanes Strategy) to ensure appropriate environmental impact analysis is conducted prior to the Second Tier studies. The exception is in the evaluation of the traffic operations/congestion relief factor where the Improve Key Bottlenecks Strategy would have less beneficial impact of the two strategies being considered.

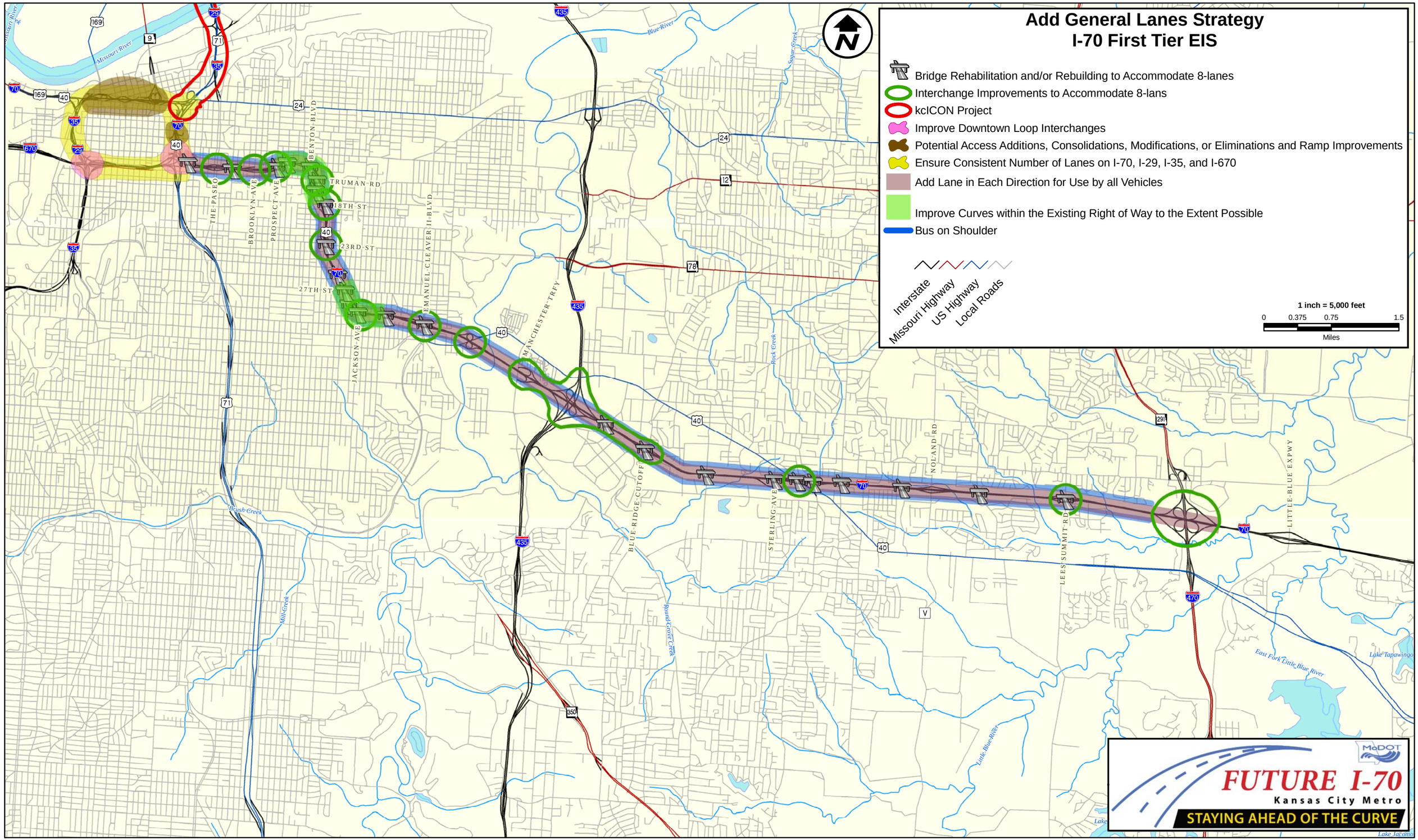
**The cost estimate only includes the cost for the I-70/I-435 interchange Phase 1 improvements. The ultimate improvement concept for the I-70/I-435 interchange has not been identified within the I-70 FTEIS and will be determined in the Second Tier Studies.

APPENDIX A

Maps of the Selected Strategy


Preferred Strategy
I-70 First Tier EIS
Improve Key Bottlenecks Strategy Carried Forward
Improve Key Bottlenecks Strategy and Add General Lanes Strategy
Both Carried Forward to Second Tier Studies
Interstate
Missouri Highway
US Highway
Local Roads
1 inch = 4,500 feet
0
0.375
0.75
1.5
Miles
N
Missouri River
Brush Creek
Mill Creek
Rock Creek
Spring Branch
TRUMAN RD
18TH ST
23RD ST
27TH ST
BENTON BLVD
THE PASEO
BROOKLYN AVE
PROSPECT AVE
JACKSON AVE
EMANUEL CLEAVER II BLVD
MANCHESTER TRFY
BLUE RIDGE CUTOFF
STERLING AVE
NOLAND RD
LEES SUMMIT RD
MoDOT
FUTURE I-70
Kansas City Metro
STAYING AHEAD OF THE CURVE


Improve Key Bottlenecks Strategy
I-70 First Tier EIS
Bridge Rehabilitation
Interchange Improvements
kcICON Project
Potential Access Additions, Consolidations, Modifications, or Eliminations and Ramp Improvements
Ensure Consistent Number of Lanes on I-70, I-29, I-35, and I-670
Improve Curves within the Existing Right of Way to the Extent Possible
Bus on Shoulder
Interstate
Missouri Highway
US Highway
Local Roads
1 inch = 5,000 feet
0
0.375
0.75
1.5
Miles
N
Missouri River
Blue River
Sugar Creek
Rock Creek
Brush Creek
Mill Creek
Round Grove Creek
Little Blue River
East Fork Little Blue River
Lake Tapawingo
Lake Jacomo
THE PASEO
BROOKLYN AVE
PROSPECT AVE
BENTON BLVD
TRUMAN RD
18TH ST
23RD ST
27TH ST
EMANUEL CLEAVER II BLVD
JACKSON AVE
MANCHESTER TRFY
BLUE RIDGE CUTOFF
STERLING AVE
NOLAND RD
LEES SUMMIT RD
LITTLE BLUE EXPWY
FUTURE I-70
Kansas City Metro
STAYING AHEAD OF THE CURVE
MoDOT


Add General Lanes Strategy
I-70 First Tier EIS
Bridge Rehabilitation and/or Rebuilding to Accommodate 8-lanes
Interchange Improvements to Accommodate 8-lans
kcICON Project
Improve Downtown Loop Interchanges
Potential Access Additions, Consolidations, Modifications, or Eliminations and Ramp Improvements
Ensure Consistent Number of Lanes on I-70, I-29, I-35, and I-670
Add Lane in Each Direction for Use by all Vehicles
Improve Curves within the Existing Right of Way to the Extent Possible
Bus on Shoulder
Interstate
Missouri Highway
US Highway
Local Roads
1 inch = 5,000 feet
0 0.375 0.75 1.5
Miles
N
Missouri River
Blue River
Sugar Creek
Rock Creek
Brush Creek
Mill Creek
Round Grove Creek
Little Blue River
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STERLING AVE
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LEES SUMMIT RD
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APPENDIX B

Comments on the First Tier Condensed Final EIS

Jeremiah W. (Jay) Nixon
Governor

State of Missouri
OFFICE OF ADMINISTRATION
Post Office Box 809
Jefferson City, Missouri 65102
Phone: (573) 751-1851
Fax: (573) 751-1212

Kelvin L. Simmons
Commissioner

January 25, 2011

Allan Zafft
MoDOT
600 NE Colbern Road
Lee's Summit, MO 64086
allan.zafft@modot.mo.gov

Dear Mr. Zafft:

Subject 1107017
Legal Name: MoDOT
Assistance
CFDA: ()
Project Description: I-70 First Tier EIS / I-70 Jackson County, MO / MoDOT Job No. J4I1486B

The Missouri Federal Assistance Clearinghouse, in cooperation with state and local agencies interested or possibly affected, has completed the review on the above project application.

None of the agencies involved in the review had comments or recommendations to offer at this time. This concludes the Clearinghouse's review.

A copy of this letter is to be attached to the application as evidence of compliance with the State Clearinghouse requirements.

Please be advised that I am the contact for the Federal Funding Clearinghouse. You can send future requests to the following address: Sara VanderFeltz, Federal Funding Clearinghouse, 201 West Capitol, Room 125, and Jefferson City, Missouri 65101.

Sincerely,

Sara VanderFeltz

Sara VanderFeltz
Administrative Assistant

cc:

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

January 25, 2011

Allan Zafft
Transportation Planning Coordinator
District 4 – Kansas City Area
600 NE Colbern Road
Lee's Summit, Missouri 64086

Re: I-70 First Tier Environmental Impact Statement (FHWA) Jackson County, Missouri

Dear Mr. Zafft:

Thank you for submitting information on the above referenced project for our review pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which requires identification and evaluation of cultural resources.

We have reviewed the information provided concerning the I-70 First Tier Environmental Impact Statement. We look forward to the opportunity to review the results of the historic architectural and the archaeological investigations that are planned for this phase of the project. Until we have this information, we will not be able to comment on the eligibility of properties to the National Register of Historic Places, or to the effect of the undertaking on historic properties.

If you have any questions, please write Judith Deel at State Historic Preservation Office, P.O. Box 176, Jefferson City, Missouri 65102 or call 573/751-7862. Please be sure to include the SHPO Log Number (**159-JA-11**) on all future correspondence or inquiries relating to this project.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE

Mark A. Miles
Director and Deputy
State Historic Preservation Officer

MAM:jd

c Peggy Casey, FHWA
Bob Reeder, MoDOT

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FEB - 3 2011

Peggy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

JAN 31 2011

Ms. Peggy Casey, Environmental Projects Engineer
FHWA Division Office
3220 W Edgewood, Ste H
Jefferson City, MO 65109

Mr. Kevin Keith, Chief Engineer
Missouri Department of Transportation
P.O. Box 270
Jefferson City, MO 65102

Dear Ms. Casey and Mr. Keith:

RE: Review of Final Environmental Impact Statement for First Tier-Future I-70 Kansas City Metro Project, Proposing to Improve I-70 Corridor from East of the Missouri and Kansas State Line to East of I-470 Interchange, Downtown Central Business Freeway Loop, Kansas City, Jackson County, Missouri FHWA-MO-EIS-10-01-F, MoDOT Job Number: J4I1486B

The U.S. Environmental Protection Agency (EPA) has reviewed the First Tier Final Environmental Impact Statement (FEIS) for Future I-70 Kansas City Metro Project. Our review is provided pursuant to the National Environmental Policy Act 42 U.S.C. 4231, Council on Environmental Quality (CEQ) regulations 40 C.F.R. Parts 1500-1508, and Section 309 of the Clean Air Act. The FEIS was assigned the CEQ number 20100483.

It appears that all of the suggestions and concerns presented in our DEIS comment letter of May 3, 2010, have been addressed in the FEIS. EPA thanks you for addressing these observations and recommendations.

The vast scope and scale of this project provides significant opportunity to demonstrate sustainable practices in a transportation project. As collaboration with Mid-America Regional Council (MARC) and mention of their transportation plans has been noted throughout this document, it is assumed that MoDOT and FHWA are aware of MARC's Transportation Outlook 2040 plan. Because this long range transportation plan has included as part of its approach the consideration of environmental impacts and opportunity for sustainable growth, EPA recommends further collaboration with MARC and accompanying consideration of these important issues in Second Tier studies. For further information regarding Transportation Outlook 2040, please refer to MARC's plan website at http://www.marc.org/2040/.

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Thank you for the opportunity to provide comments regarding this project and your FEIS. If you have any questions or concerns, please contact me at 913-551-7565, or via email at tucker.amber@epa.gov, or you may contact Joe Cothern, NEPA Team Leader, at (913) 551-7148 or via email at cothern.joe@epa.gov.

Sincerely,

Amber Tucker

Amber Tucker
NEPA Reviewer
Environmental Services Division

600 Broadway, Suite 200
Kansas City, Missouri 64105-1659

816/474-4240
816/421-7758 FAX
www.marc.org

MARC
Mid-America Regional Council

February 16, 2011

Allan Zafft
Missouri Department of Transportation
600 NE Colbern Road
Lee's Summit, MO 64086

Dear Allan:

On behalf of the Mid-America Regional Council, I wish to submit a series of comments related to the I-70 First Tier Condensed Final Environmental Impact Statement (EIS). This list of comments was initially developed by MARC staff, and has been made available to the MARC modal planning and programming committees for their review and feedback. These comments were considered and approved by the Total Transportation Policy Committee (TTPC) on February 15, 2011, and will be considered by the MARC Board of Directors on February 22, 2011.

There are several areas where the I-70 First Tier Final EIS aligns well with MARC plans and policies.

1) The Final EIS incorporates updated crash statistics in the Purpose and Need statement.
2) The established Purpose and Need was sufficiently coordinated and aligned with the Transportation Outlook 2040 Policy Framework.
3) The identified preferred strategies reinforce the Purpose and Need and the Transportation Outlook 2040 Policy Framework (Restore and maintain existing infrastructure, safety, multi-modal opportunities, improved accessibility).
4) The document appropriately included multi-modal and goods movement issues in the Purpose and Need statement in addition to safety, congestion and system preservation.
5) The EIS satisfactorily explained how the Congestion Management Toolbox was used to develop study alternatives.
6) The EIS appropriately addressed future transit plans in the development of study alternatives.
7) The Final EIS appropriately included "bicycle/pedestrian access" in all build alternatives.

MARC feels that there are some areas, however, that warrant additional clarification and/or effort.

1) The study does not resolve or offer any specific plan or commitments to resolve coordination issues between the regional and statewide plans for I-70 related to potential Truck Only Lanes east of I-470.
2) While there is reference in Chapter 2, Section 3 to the utilization of MARC's regional travel model, there is no description of what land use assumptions were utilized as model inputs for forecasting purposes.
3) It would be helpful to directly inset analysis and maps of traffic modeling that were used to assess alternatives.

Chair
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Executive Director
David A. Warm

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4) As structured, Chapter 3 generally only assesses direct environmental impacts. MoDOT is encouraged to also assess and describe opportunities for environmental integration and preservation within the study area and as related to adjacent resources. Examples could include the further discussion of opportunities to reinforce or support the Blue River Channelization Project objectives, adjacent park or greenway access and integration, and delineation of high priority resources (beyond wetlands), that may help to further inform transportation and environmental strategies as they are refined.

Please feel free to contact me if you have any questions regarding the MARC comments.

Sincerely,

Mell Henderson
Director of Transportation
Mid-America Regional Council

Public Comment: Throughout the planning the future of I-70 in Jackson Count, MO, I want to please comment on 5 general subjects.

1
Please stop allowing main through lanes from becoming off ramps.
Specifically, if the new I-70 will have 8 main lanes, then please make all 8 lanes continue uninterrupted all of the way east and west without any of those 8 lanes being co-opted as peel-offs to cross highways. This has been a real problem with KC area interstates for more than 35 years at I-70 and I-435 and other interchanges where it was incorrectly assumed that 1/3 of the traffic would always peel off onto those off-ramps to the cross highways.

This assumption was wrong then and is still wrong. As any observant drive driving these routes can see, there is almost never 1/3 of the total traffic off-ramping at those faulty interchanges. These areas instead now result in nightly back-ups with traffic trying to squeeze from 3 to 2 lanes that should have been 3 all of the way through. This assumption is the cause of through-flow bottle necks during every rush hour time period.
Please do not propagate this error into the new I-70 or other new highway projects.

My point is to ask your planning group to please assume that all traffic is through traffic and require that the number of main lanes always proceed un-interrupted and that all cross-highway interchanges require additional exit lanes (1, 2 or 3 extra ramp lanes) to siphon the desired traffic on and off. Main lanes should never suddenly turn into off ramps.

2
When a major interstate interchanges with another interstate in a major metro area like at I-70 and I-435 in Jackson County, MO. Please require that all diamond interchange ramps and fly-over ramps have at least 2 full lanes (or maybe 3 with a forward looking eye). Under laned ramps cause backups every morning and night.

3
When on-ramps or fly-over ramps join 2 interstates in major metro areas, please require that those on-ramps have at least 1 mile of staggered merging distance. In other words, no on-ramp like these should ever abruptly dump into another main through lane where 2 drivers meeting at the same time have to evasively react. In this situation, the extreme right of the 2 or 3 on-ramp lanes would end and merge after 0.5 miles, the remaining on-ramp lane #2 would then merge and end after another 0.5 mile later (totally at least 1 mile). This solution is similar to the layout of the interchange from 69 Hwy south bound to east bound I-435 in Overland Park, KS where there is plenty of distance to merge while all of the main lanes of I-435 proceed uninterrupted and as independent lanes from the on-ramps.

4
Please adopt higher road smoothness standards. This means getting rid of the long up and down elevation waviness in open lanes and especially from main pavement onto bridges. There are so many of these even on newer interstate bridges (that were even recently rebuilt like I-470 at Blue Ridge) where the tangential entrance of the pavement surface onto the bridge surface does not match by several inches. More specifically, I refer to bridges that were built 1st followed by the final road surface ending up lower than the actual bridge surface. In those locations, it appears that there were surveying mistakes that

did not match the road and bridge surfaces together. Instead of being corrected at the time, they were instead Band-Aid patched. These "band aides" created a 10' or 15' long incline ramp between lower mismatched road-bed and the higher elevation of the bridge surface.

This situation, whether an error or planned, causes a "ca-bump" or suspension bounce when traversing it at 65mph or 70mph. The rise-over-run incline is so dramatic at times, that the vertical velocity change to the vehicle is abrupt enough to cause almost a full compression of the its suspension.
This is most keenly felt in vehicles that may not be the newest of vehicles or not in perfect factory new condition. Not only is this pavement mismatch annoying, it is overly wearing on vehicles suspensions especially when traveling over the same 9 or 10 of these of sections day-in-and-day-out.

The worst danger with this problem is when this occurs on a curved bridge and on slick road conditions (snow or ice). The bounce induced by the upward incline of a curved patch-section coupled with slick conditions, can cause the vehicle's balance to be upset and the tires to skid. Since the vehicle is on a curve, the highway-speed slide occurs at the worst time.
Experienced drivers can sometimes navigate out of this danger. But, less experienced drivers may not be able to.

5
Place "Maintain Your Speed" signs along up-hill sections of high-traffic segments of interstates especially near major interchanges. Many times, up-hill sections of highway, no matter how many lanes are available, still create a bottlenecks as drivers fail to compensate their throttles for the up-hill slope of the highway. A simple reminder of signs (maybe over-head) may remind them to keep moving) so as not to cause a chain reaction slow-downs behind.

Public Comment: I lived in the Kansas City area for 14 years and on Quality Hill for about 3 of them. My comments are more appropriate for the Tier 2 study of the downtown loop, when that happens.

Most system interchanges have eight ramps, the I-35/I-70 system interchange has 16. One way to reduce this number is for the inbound traffic on these two interstates to only have one choice of entering the loop; one interstate would travel the counterclockwise or normal direction and the other would travel the clockwise or reverse direction in the loop. This effectively separates through traffic on the two interstates, which could have big advantages. Distances work better if I-35 runs the clockwise direction. Exiting from the loop would remain in any direction, making the apparent "wrong way" travel on the clockwise intersate a diminished issue.
The inbound drive may take a little more distance, but outbound would be the same.

Allows more options for configuring local ramps without being a cause of eliminating any. May simplify signing. May reduce overall weaving.

If you have questions about my comments or want to pick my thoughts further, please ask.

Public Comment: 1)Each of the Final FTEIS makes specific mention of bike/ped access improvments along the cooridor. The area west of I-435, particularly the downtown loop, are dense, urban development and I-70 is a barrier, not only at interchanges but along its entire path.

While all the access points in the loop are "convenient" this is an INTERSTATE and should be limited access that discourges use for intra-city trips. Though perhaps unpopular, elimmination of ramps in KC downtown should be done. That in itself will improve bike/ped safety and access.

2) HOV combined with Bus Lanes is more desirable than "bus on shoulder" as it encourages shared trips. As a retired Fire Fighter I worry that use of the shoulder for buses will complicate access to crashes and similar incidents, where the shoulder represents the best access for public safety personnel.

3)Removing or improving "bottlenecks" such as the Benton Curve are needed for safety as well as better traffic flow. I do not believe that adding more and more lanes has been proven to actually decrease long term congestion. It simply encourages development further out on the system.
This is contrary to MARC's current Long Range Transportation Plan.

Thanks for the opportunity to comment.