Louisville-Southern Indiana Ohio River Bridges

DRAFT Assessment of Economic Effects of Tolling and Potential Strategies for Mitigating Effects of Tolling on Low-Income and Minority Populations

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I. PROJECT BACKGROUND

The Revised Record of Decision (RROD) for the Louisville-Southern Indiana Ohio River Bridges (LSIORB) Project (the Project) included commitments to further assess the project’s potential effects on low-income and minority populations, and to consider measures to mitigate those effects. The commitments in the RROD addressed two types of potential impacts: (1) economic effects and (2) traffic-diversion effects. This document summarizes these environmental justice commitments in the RROD and describes the actions that will be taken to ensure that these commitments are met.

The purpose of the Project is “to improve cross-river mobility between Jefferson County, Kentucky, and Clark County, Indiana.” (Supplemental Final Environmental Impact Statement [“SFEIS”] p.2-1) Proposals to improve cross-river mobility through construction of an additional bridge or bridges across the Ohio River have been in every local and regional long-range planning study for decades. The three existing Ohio River roadway bridges in the area are located primarily in densely populated urban areas: the John F. Kennedy (I-65) and George Rogers Clark Memorial (US 31) bridges provide cross-river access between Downtown Louisville, Kentucky and Downtown Jeffersonville and Clarksville, Indiana, and the Sherman Minton Bridge (I-64) provides access between western Louisville and Downtown New Albany, Indiana, approximately five miles downstream from the Clark Memorial Bridge.

The Project includes construction of a new Downtown Bridge, immediately east of and adjacent to the existing Kennedy Bridge, to carry I-65 northbound traffic; reconstruction of the existing Kennedy Bridge to accommodate I-65 southbound traffic; reconstruction of the Kennedy Interchange (“Spaghetti Junction”) where I-64, I-65, and I-71 converge in Downtown Louisville; and construction of an East End Bridge connecting KY 841 in Kentucky to SR 265 in Indiana approximately six miles upriver from the Downtown I-65 crossings.

Factors that contribute to the need for the Project, as described in both the 2003 FEIS and 2012 SFEIS, include traffic congestion on the Kennedy Bridge and in the Kennedy Interchange, traffic safety problems in the Kennedy Interchange and on the Kennedy Bridge, inefficient mobility for existing and planned growth in population and employment in the Downtown area and in eastern Jefferson and southeastern Clark counties, and inadequate cross-river transportation system linkage and rerouting opportunities in the eastern portion of the region. Regional traffic forecasts indicate travel demand will increase nearly as fast as or faster than population and employment: cross-river travel demand is expected to increase 29% by 2030. The 2003 FEIS and 2012 SFEIS contain detailed discussions of the needs for the Project, as well as the benefits that are anticipated to result from the Project’s new Downtown and East End bridges and reconstructed Kennedy Interchange (see Chapter 2 “Purpose and Need,” and Chapter 3 “Alternatives”).
In summary, the benefits include:

- **Improved cross-river mobility in the region.**
- **Reduced traffic congestion on the Kennedy Bridge and within the Kennedy Interchange.**
- **Improved traffic safety within the Kennedy Interchange and on the Kennedy Bridge.**
- **Adequate cross-river transportation system linkage in the eastern portion of the Louisville metropolitan area.**

Benefits expected to be experienced by residents and businesses in the areas of Jefferson, Clark, and Floyd counties identified as low-income and/or minority communities (hereinafter referred to as “environmental justice” or “EJ” communities or populations) in the SFEIS will mirror the benefits anticipated for the region. For example, the improved I-65 crossing (new Downtown Bridge and reconstructed Kennedy Bridge) and the new East End Bridge will provide improved access to employment centers in the Downtown areas on both sides of the river, as well as to the fast-growing eastern Jefferson County and southeastern Clark County, which are experiencing growth in both population and employment. Congestion will be reduced, travel times will be improved, and safety will be enhanced for all cross-river travelers using those facilities. Upon completion of the Project, area residents, including members of EJ communities, who cross the river for work, shopping, medical services, recreation and dining, will have more and better options for crossing the Ohio River, including the existing Sherman Minton and Clark Memorial bridges, the Downtown I-65 bridges “couplet” (existing bridge southbound/new bridge northbound), and the new East End Bridge. This expanded cross-river roadway network will provide improved cross-river access for a wider range of the community, congestion relief (particularly in the vicinity of the Kennedy Bridge) and improved motoring safety, and will result in fewer miles traveled and improved travel times for regional commuters. Reductions in travel times and miles traveled also will result in reduced vehicle operator costs in terms of less time spent in traffic, reduced fuel consumption, and less vehicle wear and tear.

The State’s evaluation of funding options for the Project revealed that while a mix of traditional federal and state highway funds will be used to construct the Project, additional funding is required to meet the Project cost. The SFEIS evaluated the impact of including tolling as part of the Project in order to close this funding gap, and the Revised Record of Decision (RROD) approved placing tolls on the Downtown I-65 bridges and the new East End Bridge. While the new bridges will provide benefits to local and regional cross-river travelers, including members of the EJ communities, the SFEIS also evaluated whether the incorporation of tolling in the Project would have a disproportionate effect on EJ communities. While the SFEIS concluded that the cost of tolls would not be borne predominantly by EJ populations, the SFEIS found that the increase in average user costs for cross-river travelers originating in EJ areas, as a result of the Project, would be appreciably greater than the increase in average user costs for non-EJ travelers, and thus, those EJ users would likely experience a disproportionately high and adverse effect from the imposition of tolls as part of the Project (SFEIS pp. 5-43.)

This report further evaluates the potential economic effects of tolling on EJ populations and identifies potential measures that the States may implement to mitigate the adverse effects of tolling on those populations. The States are already working with the Transit Authority of River City (“TARC”), the region’s public transit provider, to implement measures that will provide benefits to the EJ communities and will help to mitigate the effect of tolling. Pursuant to the Revised Record of Decision, the States have entered into a Memorandum of Agreement (MOA) with TARC (www.kyinbridges.com) to provide for enhanced cross-river bus service in the region. That commitment is further described in Section III.G, below.
It is also important to note that of the five Ohio River bridges that will exist in the Louisville metropolitan area following construction, only the new East End Bridge and the Downtown I-65 Bridges (new Downtown Bridge and reconstructed Kennedy Bridge) will be tolled. The Sherman Minton (I-64) and Clark Memorial (US 31) bridges will remain un-tolled following Project completion, providing two free river crossing options for cross-river travelers who wish to avoid a toll. One or both of these cross river connections are familiar and readily accessible to most residents of EJ areas in Louisville, Clarksville/Jeffersonville, and New Albany, and in fact, both are located in close proximity to the largest concentrations of EJ populations in both Jefferson and Clark/Floyd counties. All planning for the Project, including traffic and financial studies, has been based on the Sherman Minton and Clark Memorial bridges remaining un-tolled. There are no current proposals to place tolls on the Sherman Minton Bridge or the Clark Memorial Bridge, and tolling of those crossings is not included in the region’s long-range transportation plan. Moreover, any future proposal to implement tolling on either of those river crossings, or any other transportation facility in the region, would be subject to an independent review process under the National Environmental Policy Act (NEPA) and approval by both States and FHWA. Such a review would analyze the effects of tolling on the natural and human environment, including socioeconomic and environmental justice impacts, consistent with NEPA review processes in effect at that time.

II. PURPOSE

The purpose of this assessment report is to evaluate the potential economic impacts of tolls associated with the Project on EJ populations, and to identify potential measures for mitigating the impacts of tolling on EJ populations. The information presented in this assessment report, along with the results of additional public outreach conducted in conjunction with the publication of this report in draft form, will be considered by the Indiana Department of Transportation (INDOT) and the Kentucky Transportation Cabinet (KYTC) in establishing the Tolling Policy and a Tolling Mitigation Plan for the Project, as required by the RROD.

The SFEIS for the Project included an evaluation of the potential effects of the Project on low-income and minority populations, consistent with Executive Order 12898, Environmental Justice, FHWA Directive 6640.23A, and USDOT Order 5610.2(a). Based on that analysis, FHWA reached the following conclusion:

Based on the analyses presented in Section 5.1.7 of the SFEIS, FHWA has determined that neither the cost of tolls, nor other direct or indirect impacts, would be “predominantly borne” by environmental justice populations. FHWA has also concluded that, based on the vehicle user cost data as presented in Section 5.1.7, the Modified Selected Alternative is likely to cause disproportionately high and adverse effects on minority and low-income populations. Although the impacts would not be “predominantly borne” by environmental justice populations, the impact would be appreciably more severe or greater in magnitude for these populations. (RROD p. 64)

INDOT and KYTC, in cooperation with the Federal Highway Administration (FHWA), then identified the following measures (RROD, pp. 64–65) that are to be implemented to minimize and mitigate the economic effect of tolling on EJ populations:

- **INDOT and KYTC have committed to include enhanced bus service as part of the Modified Selected Alternative.**

- **Prior to the implementation of tolling, the states of Indiana and Kentucky will adopt a policy that is sensitive and responsive to low-income and minority (environmental**
justice) populations (“Tolling Policy”). The development of this policy will include additional outreach and public involvement with the environmental justice populations. During the development of the Tolling Policy, KYTC and INDOT will:

- Conduct a detailed assessment of the potential economic effects of tolls on low-income and minority populations, using the latest publicly available population data, traffic forecasts, and community input.
- Make the results of that study publicly available.
- Identify and evaluate a range of measures for mitigating the effects of tolling on low-income and minority populations.
- Provide an opportunity for additional public input on those potential measures.

- As part of the Tolling Policy, KYTC and INDOT will adopt a plan for mitigating the effects of tolling on low-income and minority populations (“Tolling Mitigation Plan”). The Tolling Mitigation Plan will:
  - Include practicable measures for minimizing impacts of tolling on low-income and minority communities.
  - Comply with FHWA policy, including FHWA “Guidance on Environmental Justice and NEPA” dated December 16, 2011; FHWA Order 6640.23A, “FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” (June 14, 2012); and any update or other current FHWA policy available at the time of the assessment.

- The Tolling Policy will be completed before tolling is allowed to be initiated on the LSIORB Project.
- In determining practicability of measures to mitigate effects on low-income and minority communities, KYTC and INDOT may take into account the financial requirements of the project, the technical and logistical issues associated with toll collection methods, and other needs.
- In developing the Tolling Policy, consideration shall be given to the information contained in the FHWA report, “Environmental Justice Emerging Trends and Best Practices Guidebook” (November 2011), the “Department of Transportation Environmental Justice Strategy” (March 2, 2012), and other applicable publications available at the time the toll policy is developed.

The RROD (pp. 19-20) also included a commitment to conduct traffic monitoring in the EJ communities to determine whether changes in traffic patterns caused by the Project will adversely affect EJ communities, and to work with local authorities to identify mitigation strategies that could be implemented. The RROD (p. 19) concluded that:

...while changes in traffic patterns are expected due to the imposition of tolls ... because the changes will be minimally perceptible and will not result in a noticeable increase in congestion, no adverse effects on nearby environmental justice communities are anticipated.

Nevertheless, KYTC and INDOT committed to monitor traffic in EJ communities to confirm whether this conclusion is correct and to identify the need for additional mitigation if adverse effects are, in fact, observed.
This report presents the assessment of the potential economic effects of tolls on EJ populations, and reviews the latest publicly available population data, traffic forecasts, and community input relevant to that assessment, and EJ community input obtained to date regarding the potential economic effect of tolls on EJ populations. This report also identifies and evaluates a range of potential measures for mitigating the economic effects of tolling on EJ populations, as well for mitigating any unanticipated traffic diversion effects, in part based on the feedback received from the EJ community. The evaluation of potential mitigation measures takes into account the practicability of such measures, in light of the financial requirements of the Project, the technical and logistical issues associated with toll collection methods, and other Project needs. Finally, this report summarizes the previous evaluation of potential traffic diversion effects associated with tolls and describes the States’ commitments with respect to monitoring traffic post-construction to confirm the conclusions of that evaluation.

In conjunction with the publication of this assessment report, and in furtherance of their commitments in the RROD, INDOT and KYTC will engage in additional public outreach to local leaders in the EJ community and representatives of the EJ community at large. The focus of this outreach effort will be to solicit input on the content of this report, including its assessment of the potential economic effects of tolling on EJ populations, and on the potential range of options for mitigating those effects. Those outreach efforts are described in detail in Section III.F of this report.

III. ECONOMIC EFFECTS

III.A SFEIS USER COST ANALYSIS

As part of the SFEIS, FHWA conducted an analysis of the effects of tolling on vehicle user costs for minority and low-income populations. (See SFEIS pp. 5-34 to 5-38.) This analysis included a detailed breakdown of the average cost-per-trip in 2030 for various population groups within the Louisville metropolitan area. The analysis in the SFEIS showed that tolling had the potential to cause minority and low-income users to experience a greater increase in average user costs than would be experienced by non-minority and non-low-income users (SFEIS p. 5-36).

The analysis of the economic impacts of tolling took into account both the actual cost of the toll and the non-toll costs incurred by vehicle users in making cross-river trips, including vehicle operating costs and the cost of time spent in traffic. The time spent in traffic was derived from the Time-of-Day Travel Model, Phase 2 (SFEIS Appendix H.3).

These costs were identified for “EJ community cars” (defined as car trips that originated from an area identified as an EJ community) and “Non-EJ community cars” (car trips originating outside areas identified as EJ communities). The analysis of average user costs found that non-EJ community cars would experience an 11% ($0.98) increase in average cost per trip for Ohio River bridge crossings (from $9.15 to $10.13), while EJ community cars would experience a 21% ($1.41) increase in the average cost per trip for bridge crossings (from $6.75 to $8.16). The increase in the average cost per trip for EJ community cars is expected to be greater than the increase for non-EJ community cars, and thus FHWA found that the Project is likely to cause a disproportionately high and adverse economic effect on EJ populations.

1 The time-of-day (TOD) model is a state-of-the-art traffic forecasting model that was developed for the Project, based on the Kentuckiana Regional Planning and Development Agency (KIPDA) regional model, and is designed to predict traffic demand and congestion on each of the Ohio River bridges at specific times during the day.
In addition to calculating the impact of tolls on the average cost per trip, an analysis also was conducted to assess the annual cost of tolls in relation to income. The annual cost of tolls was calculated based on a daily commute. The calculations used a tolling scenario of a $1.00 each way (i.e., $2.00 roundtrip)\(^2\), multiplied by 5 days a week, 4 weeks a month, for 12 months per year. In this manner, the cost for tolls would be $40.00 per month and approximately $480.00 annually. This would equate to approximately 4\% of a low-income person’s 2010 annual income, based on an estimated gross annual income of $11,139, which is the 2010 Health and Human Services (HHS) poverty threshold. The 2011 HHS poverty threshold is $11,484, meaning that the annual cost of tolls would still be about 4\% of the single-person low-income threshold. American Community Survey (ACS) one-year survey data for income\(^3\) lists the 2011 per capita income for Indiana as $23,524 and for Kentucky as $22,300, meaning that the annual toll cost would constitute approximately 2\% of the each state’s annual per capita income. The calculations for both 2010, and the updated value for 2011, demonstrate that in general, and as one would expect, low-income persons who use the bridges for a daily commute would have more of their annual income used for tolls than would non-low-income populations using the bridges.

User data were also obtained from a telephone survey, Ohio River Bridge Users Study (SFEIS Appendix B.8.2) conducted in October 2011 to gain a better understanding of residents’ use of the Ohio River bridges, including the bridge usage patterns of EJ populations. The study indicated that 36\% of low-income populations and 57\% of minority populations cross the Ohio River by car every weekday or several times per week.

Based on the vehicle user cost data, FHWA concluded that the Modified Selected Alternative is likely to cause a disproportionately high and adverse effect on minority and low-income populations. Although the impacts would not be “predominantly borne” by environmental justice populations, the impact (measured as the increase in average user cost) would be appreciably more severe or greater in magnitude for these populations. Therefore, in accordance with FHWA Order 6640.23A, it is necessary to consider strategies for minimizing and mitigating the economic effects of tolling on minority and low-income populations.

### III.B TOLLING CONSIDERATIONS

The SFEIS analyzed the user costs for trips originating from both EJ and non-EJ areas (see Figure 1) and compared the effect that tolling would have on the overall cost of these trips. The tolling component of the cost was based upon the baseline tolling scenario of $1.50 for passenger cars, $3 for light trucks, and $6 for heavy trucks. The trips were analyzed using the time-of-day travel demand model.

The SFEIS also documented a sensitivity analysis that considered the effects of toll rates other than those in the base scenario, including the tolls rates that were proposed in the KRS 175B Financial Plan scenario ($1/$2/$5/$10). (See SFEIS Appendix H.4.) The $1 rate was considered to apply to frequent users, which were defined as “vehicles that use a crossing twice a day, 20 days a month.” The analysis concluded that variation in toll rates has very little effect on the overall number of cross-river trips but that higher rates result in greater diversion to the un-tolled bridges—the I-64 Sherman Minton Bridge in the West End and the US 31/George Rogers Clark Memorial (“Second Street”) Bridge in the Downtown (see Figures 1 and 2, which illustrate the free bridges with a black line, and the tolled bridges with a blue

\(^2\) Assumes the use of the toll scenario identified in the March 5, 2012 KRS 175B Financial Plan, which includes a $2.00 “frequent user” rate for a round trip across the Ohio River (i.e., $1.00 each way).

\(^3\) Source of ACS data: www.deptofnumbers/income/Kentucky, and www.deptofnumbers/income/Indiana
line). The analysis also concluded: “Regarding the differences between the SFEIS baseline scenario ($1.50/$3/$6) and the KRS 175B Financial Plan scenario ($1/$2/$5/$10), the model predicts virtually no difference in total cross-river trips or trips on the East End Bridge, and approximately 2% to 4% differences between the I-65 tolled bridges and the non-tolled I-64 and U.S. 31 bridges.”

Since publication of the RROD, the States have engaged in additional discussions regarding toll rates. It is anticipated that the lowest toll rates (the $1 and $2 rates in the case of the KRS 175B Financial Plan scenario) would apply only to those vehicles using a transponder. A transponder is a small device or sticker, similar in size to a credit card, that is placed in the vehicle and that communicates wirelessly with the tolling system through sensors placed on overhead gantries when the vehicle crosses the tolled bridge, automatically charging an established user account for toll payment.

Tolls will be collected from bridge users who do not have transponders by taking a picture of the vehicle’s license plate and charging the vehicle’s registered owner (either to an established account or by mail, as discussed below). In order to offset the administrative costs of user identification, collection, and enforcement of these charges, the States anticipate that bridge users who do not have transponders would be charged a higher rate (a “video rate”). The higher rate also would provide an incentive for the public to acquire and use transponders, which provide the easiest and most accurate means of identifying bridge users and collecting tolls. A “pre-paid video rate” is also under consideration. This would allow a user to establish a pre-paid account that could be used to pay a video-based toll. The rate for a pre-paid video toll would be expected to be less than the video toll rate (because the existence of the pre-paid account reduces collection expenses, etc.) but more than the cost for transponder equipped vehicles.

These video rates would be higher than the transponder rates for comparable vehicles, as a result of the additional costs associated with vehicle identification, toll collection, and enforcement. KYTC and INDOT have considered whether the inclusion of video toll rates may have a material effect on the conclusions contained in the SFEIS and RROD based on the User Cost Analysis. Transponder usage by EJ populations, and particularly low-income populations, may encounter obstacles not recognized in other areas related to difficulties with affording/purchasing a transponder, initially establishing a transponder account with a cash balance, replenishing a transponder account, etc. Numerous mitigation measures to address these specific challenges are being considered as means to minimize these potential obstacles. (See Section I.G.)

To be successful in this effort, it will be important to communicate that transponder usage can reduce an individual’s toll costs, especially for frequent users. KYTC and INDOT recognize that EJ populations may not readily embrace the concept of tolling or the use of a transponder, and could, in some instances, have difficulty with establishing, managing and replenishing the tolling account. To overcome these obstacles will require a focused educational campaign within these communities and a combination of other measures that will maximize transponder use by the community. These may include establishing minimum account balances that are not overly burdensome and establishing convenient locations and methods for account replenishment. Many measures to accomplish this end are included in the mitigation measures, described below in Section III.G, to be considered for inclusion in the Tolling Mitigation Plan and the Tolling Policy. KYTC and INDOT are also soliciting additional input and suggestions for appropriate mitigation measures during the public comment period on this draft assessment report.

All final decisions related to Tolling Policy for the Project, including a Tolling Mitigation Plan, will be determined by the States’ Tolling Body. The Tolling Body is comprised of three representatives from each state.
III.C UPDATED POPULATION DATA

As part of this assessment, the population data relied upon in the SFEIS, and in particular the income and race data used in the environmental justice analysis, were reviewed to determine whether new data were publicly available and, if so, whether those new data changed any of the previous conclusions regarding the potential economic effects of tolling on EJ populations.

The 2012 SFEIS used year 2010 demographic data for the environmental justice analysis, which included the 2006-2010 American Community Survey (ACS) data for income and the 2010 U.S. Census data for race. The data identified six areas in the vicinity of the Project (Areas A–F on Figure 1, Original SFEIS Data: 2010 Race [Census] and Income [ACS]) that had disproportionately high concentrations of environmental justice populations, where proximity effects of the Project were considered possible. Those areas were evaluated to determine whether the Project was likely to have direct or indirect adverse effects on EJ populations, including adverse effects as a result of toll-related traffic diversion. As noted previously, the SFEIS and the RROD concluded that no adverse effects on nearby environmental justice areas were anticipated as a result of the minimal traffic diversion expected to be caused by tolls (which would be minimally perceptible and not result in any noticeable increase in congestion).

Since the publication of the SFEIS, more current ACS Community Survey data at the Block Group level for the study area have been published. The current ACS data are for the years 2007–2011 and include both race and income. The ACS data were obtained via a survey that used different methodologies than those used to obtain the Decennial (2010) Census data. ACS includes questions that were not asked by the 2010 Census, as the two data sets serve different purposes. Consequently, INDOT and KYTC believe it to be appropriate to continue to rely on the 2010 Census data for race, as the 2007–2011 ACS race data would not provide a reasonable basis for comparison to the previous 2010 race data. On the other hand, the updated ACS data for income were incorporated in this assessment, given that ACS income data were previously used in the SFEIS evaluation.

The combined 2010 race and 2007–2011 income data are illustrated in Figure 2, Updated Data: 2010 Race (Census) and 2011 Income (ACS). These updated data illustrate that there have been only minor changes in the distribution of low-income populations between the two ACS survey samples, and those minor changes would not notably change the general locations of environmental justice areas, as identified in the SFEIS. Therefore, the updated income data, based on the 2007–2011 ACS, do not appear to differ materially from the 2006-2010 ACS data, and they reaffirm the overall conclusions from the SFEIS with regard to the locations of low-income and minority populations.
The general consistency in areas of the community with EJ populations, as shown in Figures 1 and 2, also supports a conclusion that the changes in income data between 2010 and 2011 do not undermine the conclusions in the SFEIS and RROD regarding average user costs. So-called EJ community cars and non-EJ community cars would still be originating largely from the same areas, resulting in similar estimates of average user cost increases associated with the implementation of tolling for the Project.

The HHS poverty threshold, updated from $11,139 in 2010 to $11,484 in 2011, also reflects a very minor change—in both 2010 and 2011, the annual cost of tolls would comprise about 4% of the income of an individual living at the HHS poverty threshold, and about 2% of the income of the person earning the average per capita income in both states.

III.D UPDATED TRAFFIC FORECASTS

The Traffic Forecast dated February 22, 2012 (SFEIS Appendix H.1), which was developed for the Project, has not been updated since the issuance of the RROD approximately one year ago, nor has the traffic model for the Louisville Metropolitan Planning Organization (MPO) or the time-of-day (TOD) model developed specifically for this Project. The purpose of the TOD model was to assess the traffic related impacts for use in developing the SFEIS.

Since publication of the RROD, an investment grade Traffic and Revenue (T&R) study has been completed by KYTC to assess the financing of the Project. The purpose of KYTC’s T&R study was to provide a conservative estimate of the cross-river trips on the new and rehabilitated bridges, and, with a margin of fiscal safety, forecast the tolling revenues that can be expected with high probability. The study was conservative from a financial standpoint; that is, its assumptions were intended to ensure that the revenue forecasts would provide assurances to the financial markets of the Project’s financial soundness with an adequate margin of safety and, therefore, would provide a reliable basis for bond financing. The T&R study also evaluated the possibility of a video toll rate and a pre-paid video toll rate as part of the overall toll rate structure, as part of its evaluation of traffic demand and potential toll revenues.

In order to develop the T&R study, the traffic model that was used to develop the User Cost Analysis in 2012 (i.e., the TOD model) was modified to include more conservative assumptions regarding travel demand and traffic movements in the area. Therefore, the two traffic models contain assumptions that
differ in important ways. For example, socioeconomic assumptions in the model were modified in the T&R study to reflect lower growth in the area and thus a reduced volume of traffic crossing the river. This adjustment was designed to ensure that even if the region grows at rates that are significantly lower than those that are reasonably anticipated in the MPO and TOD models, the Project would remain financially viable, thus providing bond investors with revenue forecasts in which they can have high confidence. (While the T&R study included conservative assumptions, the TOD model includes assumptions consistent with predicting the most probable case, as was explained in the SFEIS and its appendices. These assumptions and the overall approach taken in the SFEIS are in keeping with the standards of the traffic forecasting industry and the overall transportation planning process established under federal guidance.) The intent of the T&R analysis was to identify the toll revenues that can be conservatively anticipated and thus increase the confidence of Project investors in the soundness of the Project’s revenue stream. The T&R study also did not forecast traffic volumes under both a “No Build” and a “Build” scenario, as the TOD model did, and thus cannot be used to quantify the likely changes in traffic, or in average user costs, between those scenarios. (The “No Build” scenario provides the base against which the “Build” scenario can be compared and any Project-related changes measured.) As such, the T&R study serves a much different purpose than the SFEIS TOD model that was the basis of the User Cost Analysis. The traffic model used in the T&R study and its outputs are therefore not directly relevant or useful in evaluating the SFEIS’s User Cost Analysis or the potential of the Project to have a disproportionately high and adverse economic effect on EJ populations, as was found in the User Cost Analysis.

III.E CONCLUSIONS OF ECONOMIC ANALYSIS

The TOD traffic model and race data used in the SFEIS remain the most reliable data publicly available for use in evaluating the potential economic effects of tolling on EJ populations, and the tolling rates used in the SFEIS, including the sensitivity analyses, remain similar to those currently under consideration. While updated income data from 2011 are available and the HHS poverty thresholds increased slightly between 2010 and 2011, an examination of those data did not reveal any change in EJ population distribution that would reasonably be expected to alter the results of the previous User Cost Analysis. The States have concluded that these minor differences are not significant when assessing the User Cost Analysis conducted for the SFEIS and would not alter the conclusions previously reached. As explained in Section III.B above, while the States are now considering inclusion of one or more video toll rates in the overall toll rate structure, the States’ potential transponder-related mitigation should minimize the effect of video toll rates on average user costs, including those of EJ users. Consequently, the evaluation of average user costs contained in the SFEIS and RROD remains the best information currently available regarding the potential economic effect of tolls on EJ populations and should serve as the basis for evaluating potential mitigation measures, as discussed in Section III.H, below. The States are committed to making transponder usage as widespread as possible and intend, with the concurrence of the Tolling Body, to provide local toll system transponders to users at no cost, thereby maximizing users’ ability to avoid the higher “video rate” and take advantage of the lower toll rates available to transponder users. This provision of free transponders to users of all incomes, along with other potential mitigation measures related to minimum required transponder account balances, transponder replenishment options, etc., would help to eliminate the impediments to transponder usage by low-income residents. Providing free transponders would render a proportionately greater benefit to low-income populations, as the money saved on the transponder purchase by low-income people would be a higher percentage of their income, than would the money saved by people with higher incomes. In addition, because the cost of the toll constitutes a greater percentage of the average cross-river trip cost for EJ users than for non-EJ users (as demonstrated in the User Cost Analysis), access
to the lowest available toll rates (i.e., the transponder rates) will provide a proportionately greater benefit (proportionately greater mitigative effect) for EJ users than other travelers. Ensuring widespread transponder availability and usage should in turn effectively minimize any potential additional adverse effects from implementation of a video toll rate and/or prepaid video toll rate as part of the overall toll rate structure.

An assessment of the potential economic effects of tolls on EJ populations, based on the latest publicly available population data, traffic forecasts, anticipated tolls rates, and preliminary community input, has confirmed the User Cost Analysis contained in the SFEIS and RROD, which demonstrated that the average user cost for an EJ community car is likely to increase by a greater percentage than for a non-EJ community car, as the result of implementation of tolling with the Project. As a result, FHWA and the States have concluded that EJ populations are likely to experience a disproportionately high and adverse economic effect as a result of tolling. Consequently, it is appropriate to consider and adopt, where appropriate and practicable, potential measures to mitigate this identified adverse economic effect of tolling on EJ populations (i.e., to mitigate or reduce the increased cost of cross-river trips on EJ populations).

III. PUBLIC INPUT

III.F Opinion Survey

In February–March 2013, KYTC and INDOT conducted an opinion survey to better understand the perceptions and opinions of the low-income and minority communities regarding tolling, its impacts, and potential measures to mitigate those impacts (IQS Research, LSIORB, Impacts on Environmental Justice Populations, March 2013, p.3)[see Appendix A.] The surveys included telephone interviews with low-income and minority individuals who frequently cross the Ohio River, and a focus group meeting with minority business owners. Four subsets of the environmental justice populations were surveyed in the first portion of the study:

- Racial minority residents who cross the Ohio River for work-related reasons
- Racial minority residents who cross the Ohio River for reasons other than work
- Low-income residents who cross the Ohio River for work-related reasons
- Low-income residents who cross the Ohio River for reasons other than work

The survey also included owners of minority-owned businesses that use vehicles to cross the Ohio River on most days of the week and/or have employees who cross the Ohio River.

Each of the five groups of respondents was provided with a basic description of the Project and educational information regarding all-electronic tolling, and then asked to indicate the burdens that may result from tolling and identify a variety of potential mitigation measures. These were found generally to fall within the following categories: toll payments, transponders, discounted tolls, and public transit.

The following excerpt from the Executive Summary of March 2013 IQS Research Survey report (p.3) summarizes the purpose, methodology, and findings of the survey. The full survey report is included as Appendix A, herein.

*The purpose of this study was to perform comparisons of Ohio River bridge usage patterns and perceptions around future tolling between specific segments of the population within Louisville and Southern Indiana. We interviewed racial minorities who cross the river for work and non-work activities and low-income individuals crossing for work and non-work activities. Both groups were identified using the Federal Highway Administration definitions*
of EJ race and low-income. Minority business owners who regularly cross the bridge were also targeted to take part in a focus group to better understand the impacts tolls would have on their business operations.

Tolls were considered by many to be a necessary function of the new bridges, and many residents believe that the proposed tolls are reasonable. However, there was more concern among those with lower-incomes (particularly who cross the river for work related reasons) that tolls will be a burden. For these individuals, they recognize that they will have the ability to reroute to non-tolled bridges, but they have concern regarding the added congestion on these bridges and the time it will take to cross the river. Added fuel costs related to this rerouting was also mentioned.

This concern is prevalent among minority business owners as well. They believe that the additional costs to their business, created by tolling, will have to be passed on to their customers, and they worry that they may become less competitive as a result.

Input obtained from the survey and focus groups has been incorporated in this draft report, including the potential mitigation measures identified in Section III.G, below.

III.F.2 Public Comment Period

During the public review period for this draft report, additional public outreach to local EJ community leaders and representatives will be undertaken. The intent of that outreach will be to solicit input from EJ community leaders on the content of the report, the effects of tolling on minority and low income communities, and the range of mitigation options. The draft report also will be available through the Project web site (www.kyinbridges.com) for review and comment by the general public and the EJ community in particular. This draft report will be made publicly available at area libraries and will be presented at public meetings, in both Jeffersonville and Louisville, which are tentatively scheduled for the week of July 22-26, 2013.

Another element in the public involvement will be the use of traveling kiosks, each to be staffed with a researcher and to be located in high traffic areas in EJ communities. The kiosks will not only provide opportunities for public comment on the report, but also make available, in both English and Spanish, written information and a survey intended to generate additional public responses.

III.G Transit-Related Mitigation

The survey of bridge users conducted for the SFEIS [Ohio River Bridge Users Study, October 21, 2011], found that when comparing the travel patterns of TARC users versus automobile drivers, those who use TARC for cross-river travel cross the bridges more regularly than drivers. Specifically, the study found that 53% of the TARC users crossed the bridges several times a week or every weekday. The study further determined that 36% of those users were low-income while 57% were minority. Transit improvements will directly benefit TARC users from EJ communities by enhancing transit options for cross-river travel and thus provide mitigation for the impacts of tolling.

The two States coordinated with TARC on several occasions during the Supplemental EIS process to identify opportunities to minimize or mitigate adverse impacts on EJ populations and have committed to provide $20,000,000 to TARC for an enhanced bus program.
The commitments for enhanced bus service in the RROD are as follows (see pp. 67–68 of the RROD):

- Constructing and/or expanding park and ride facilities.
- Purchasing buses and vans for express and shuttle bus service during construction.
- Purchasing and rehabilitating additional facilities to accommodate the increased fleet.
- Improving and consolidating existing bus stops and constructing new bus stops.
- Developing a public awareness and communications program, including advertising, using emerging technology to communicate with the public to encourage ridership, and informing low-income populations of the enhanced bus service options.

After the RROD was issued, an MOA between KYTC, INDOT, and TARC was executed to fulfill these commitments. The MOA (signed May 2, 2013) specifically identifies the objective of serving EJ populations, as follows [emphasis added to highlight relationship with EJ concerns]:

WHEREAS, Section 4.1.17 of the Revised ROD describes the measures that have been identified by INDOT and KYTC, in cooperation with FHWA, to mitigate the economic effect of tolling on minority and low-income populations, including the commitment to include enhanced bus service as part of the Modified Selected Alternative, as described in Section 4.3.2 of the Revised ROD;

NOW, THEREFORE, INDOT, KYTC, and TARC [the Parties]...have entered into this Memorandum of Agreement (MOA) to satisfy the requirements of the SFEIS and the Revised ROD with respect to the inclusion of enhanced bus service as an element of the Modified Selected Alternative and as partial mitigation for the economic effect of tolling on environmental justice populations. (p. 2)

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The Parties agree that, following the end of construction of the Project, INDOT and KYTC will coordinate with TARC to determine how the investment in transit equipment can continue to promote cross-river mobility. Matters that may...be explored at the time include continued monitoring and adjustment of cross-river transit service to address the needs of environmental justice populations.... (II.A, p. 5)

Since the signing of the MOA, TARC has identified the following planned investments that will be funded with the $20 million as part of the Project:

- Acquisition of 21 new buses
- Acquisition of four new shuttle vehicles
- Acquisition of eight TARC 3 (paratransit) vehicles
- Acquisition of eight vanpool vehicles
- Conduct of Surveys to establish a base line to develop service & benchmarks
- Creation of a TARC Information and Customer Service Center
- Development of a public awareness and information program
- Acquisition of maintenance equipment – diesel particulate filter cleaner, service truck
• Upgrade of the Asset Management System
• Construction and expansion of Park and Ride and other TARC facilities
• Construction of new bus stops and shelters
• Consolidation and improvements to existing bus stops and shelters
• Rehabilitation and construction of buildings and facilities

These capital investments and infrastructure improvements, used to enhance cross river mobility, will provide long-term benefits extending well beyond the completion of construction that will aid in mitigating the effect on EJ communities as a result of tolling.

Independent of the MOA and the SFEIS, during the 2013 Kentucky General Assembly, HB441 was introduced, passed by the Senate and House, and then signed by the Governor on March 19, 2013. HB441 has not yet been codified, but includes the following language regarding tolling and transit:

_The General Assembly encourages the Kentucky Transportation Cabinet...to consider the feasibility of exempting mass transit vehicles from the payment of tolls for any project developed under the provisions of that chapter. (pp. 6–7)_

Consideration of exempting mass transit vehicles from the payment of tolls will occur as the Tolling Mitigation Plan is being developed. The analysis of such an exemption would document the financial consequences for both TARC and the Project.

**III.

 III.H POTENTIAL MITIGATION MEASURES FOR ECONOMIC EFFECTS OF TOLLING**

Below is a summary of mitigation measures identified during the preparation of the SFEIS and RROD, through the community input survey process summarized above, as well as through review of EJ-related FHWA publications and other appropriate documents (see below). The mitigation measures have been divided into those proposed for further consideration, and those not recommended for further consideration.

**III.H.1 Potential Mitigation Measures Proposed for Further Consideration**

The preliminary range of potential, practicable mitigation measures proposed for consideration to address economic effects on low-income and minority populations are identified below. The measures are based on the results of public input, additional research and evaluation by the States, and consideration of information in documents that include:

- “Environmental Justice Emerging Trends and Best Practices Guidebook.” FHWA, November 2011—which explores “road pricing [e.g., tolls] as a potential solution to address challenges, such as growing traffic congestion, increasing emissions, and inadequate funding for transportation improvements”; describes “some problems of equity in implementing road pricing strategies”; and “offers solutions...to address EJ issues during planning and implementation.” (p.2)

- “Environmental Justice Strategy.” Department of Transportation, March 2, 2012—which “provides guidance on how to address disproportionately high and adverse effects [to EJ populations]....including community input in identifying potential mitigation measures for DOT actions.” (http://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/dot_ej_strategy/index.cfm)
Transportation Research Record: Journal of the Transportation Research Board, “Environmental Justice Issues Related to Transponder Ownership and Road Pricing.” Transportation Research Board, Volume 1932, 2005—which encourages agencies “to be cognizant of the current difficulties involved in obtaining and maintaining transponder accounts” for low-income populations.

After public comments on this report have been considered, KYTC and INDOT will develop and recommend a proposed Tolling Mitigation Plan, which will include specific mitigation commitments that will become part of the Tolling Policy for the Project. KYTC and INDOT will submit the proposed Tolling Mitigation Plan to the Tolling Body, which will have authority to approve the plan. That Tolling Mitigation Plan may include any of the following potential mitigation measures, as well as additional mitigation measures that may be identified by the public, EJ community leaders, and the States during the public outreach process.

**Traffic Control Measures**

Traffic congestion itself can contribute to economic effects, even for users who do not pay the toll, because traffic congestion lengthens the time needed to complete a trip, and increased travel times contribute to higher “user costs”. Time of travel is influenced by traffic and congestion along the travel corridor. Improving the travel time, with attention to travel corridors used by EJ populations, could be accomplished by optimizing signal timing, improving signal technology and identifying signal relationships within the overall traffic network. Modifying lane widths, minimizing conflicts, reducing parking, access management, and conversion of one-way or two-way streets all could help to facilitate improved travel times for residents originating in EJ areas. As required by the Revised ROD (pp. 19-20), post-construction traffic monitoring will be conducted in EJ communities by the States (see discussion on p. 4, above). Should this monitoring identify congestion-related problems associated with traffic diversion through these environmental justice areas, the States will work with the local authorities (who generally have jurisdiction over local traffic management issues) to mitigate these traffic-diversion impacts. [See Section IV. Traffic Diversion]

**Transponder Procurement**

Because the States currently anticipate that the lowest toll rates will be charged for vehicles with transponders, measures that help to maximize the use of transponders within the EJ communities would be among the most effective means to minimize the effect of tolls on low-income and minority populations. Measures to make transponders affordable and easy to acquire, and to maximize the availability and use of transponders, would reduce tolling costs for bridge users. This could be achieved by a number of mitigation measures being considered for inclusion in the Project’s Tolling Mitigation Plan.

With the concurrence of the Tolling Body, the States intend to provide transponders at no cost, which would assist low-income and minority users in minimizing their tolling expense. Developing a system for acquiring the transponders that is user-friendly and convenient could also play an important role in assuring maximum use of transponders by the population. By removing or minimizing impediments to transponder procurement, low-income and minority populations would

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4 The SFEIS evaluated economic effects of tolling by calculating the effects of tolling on “user costs” for cross-river trips. As defined in the SFEIS, user costs include three types of costs: (1) the cost of the toll itself, (2) the cost of operating the vehicle, which increases with the length of the trip; and (3) the value of time, which also increases with the length of the trip. For more information on how user-cost was calculated, see SFEIS pp. 5-34 to 5-38.
have the opportunity to take advantage of the lower system toll rates that require use of a transponder. The States intend, with the concurrence of the Tolling Body, to provide transponders that work with the local tolling system (i.e., the East End and Downtown crossings) at no cost to local residents of Louisville and Southern Indiana. Providing free transponders would render a proportionately greater benefit to low-income populations, as the money saved on the transponder purchase by low-income people would be a higher percentage of their income, than would the money saved by people with higher incomes. In addition, because the cost of the toll constitutes a greater percentage of the average cross-river trip cost for EJ users than for non-EJ users (as demonstrated in the User Cost Analysis), access to the lowest available toll rates (i.e., the transponder rates) will provide a proportionately greater benefit (proportionately greater mitigative effect) for EJ users than other travelers. Thus, ensuring that transponder usage is maximized through the provision of free transponders would help to mitigate the disproportionately high and adverse effect on EJ populations identified through the User Cost Analysis.

In addition to providing transponders at no cost, the States are considering the following additional, potential transponder-related mitigation measures.

- Establishing locations within existing brick-and-mortar retailers located within low-income and minority communities, such as grocery stores and markets, for obtaining transponders and replenishing accounts could increase the probability that these populations will be eligible to receive the lowest possible rates and reduce their costs of cross-river travel.

- Making transponders available at local Department of Motor Vehicle (DMV) offices as part of the normal licensing and registration process would provide a convenience that could increase the likelihood of transponder usage and minimize tolling expense.

- Partnering with other Governmental Service offices to establish a wide range of locations where transponders can be obtained would also provide opportunities to acquire transponders at locations already frequented by members of EJ populations. This convenience could result in higher use of transponders and reduce tolling costs.

- Establishing one or more locations within the EJ communities for the Toll Operator to locate an office where the community can interact directly and conveniently with persons involved in managing the tolling operations of the Project. These locations could include a mobile site, like a “bookmobile,” to increase convenience. By embedding the tolling representative within the community, local residents would have ready access to someone knowledgeable about the electronic tolling system who could address concerns with transponders, maximize their usage and benefit, and help to eliminate other frustrations that may impair efficient use of the improved cross-river transportation system.

- Developing a Web site and/or smart phone mobile app, so users can order transponders online and have them shipped directly to their homes and/or businesses. Offering this convenient method to acquire a transponder could increase the potential for low-income and minority users to take advantage of lower toll rates that require use of a transponder.

**Managing User Accounts**

- Establishing a relatively low minimum amount balance to be deposited by users into their user accounts. This measure could make establishing an account less of a financial burden and reduce the probability that low-income populations will be excluded from the financial advantages of transponder usage.
• Establishing a wide range of options for the replenishment of funds in a user’s account, including cash, credit/debit cards, money orders, bank transfers, on-line payments, a smart phone mobile app, and other typical means of paying for goods and services, including a secure method for managing accounts. A diversity of funding options to replenish an account will provide opportunities for persons to take advantage of low transponder rates and best manage their tolling expenses.
• Establishing brick-and-mortar locations, such as government buildings, DMV locations, grocery stores, etc., with particular emphasis on low-income areas and minority neighborhoods, for individuals to replenish or make deposits to tolling accounts. Likewise, a mobile source, like a “bookmobile,” could be used to improve convenience. Convenience of these locations could increase the probability that these populations will be eligible to receive the lowest possible rates and reduce their costs of cross-river mobility.
• Developing a Web site that would allow for the management of accounts on-line. Offering this convenient method to manage accounts would reduce the costs of mailing or otherwise traveling to central points in the area to address account needs.
• Establishing opportunities for multiple users/transponders to be funded under a single account. Especially for low-income individuals, establishing multiple transponder accounts for family members or multiple vehicles, each with its own minimum balance requirement, could create a financial burden. Creating the opportunity to link multiple transponder accounts to a single funding source would minimize the initial cost of an account and make it easier to take advantage of the low transponder rates.

III.H.2 Mitigation Measures Considered but Not Proposed

Discounted Tolls for EJ Segments of the Population

Survey respondents indicated that discounted tolls for EJ communities are one measure that could serve to alleviate some of the disproportionately high and adverse effects on average user costs resulting from tolls. During the 2013 Kentucky General Assembly, House Bill 441 (HB441) was passed by the House and Senate and signed by the Governor on March 19, 2013. This bill (also referenced in Section III.G) requires the Tolling Authority “to consider establishing toll rates based on user income level or any other mechanism to ameliorate financial hardship to low-income users of a tolled project.”

From a system management perspective, the implementation of reduced tolls for specific segments of the population would be a significant administrative and enforcement challenge. Vetting of system users to determine whether individuals meet low-income or minority-status requirements would be onerous and intrusive and likely require a large staff and significant financial resources to manage, including processing, reviewing, and acting on applications and verifying continued eligibility. The implementation of discounts for EJ populations would be further complicated by the need for constant updating of data to assure that changes in people’s economic status would be properly reflected by their toll system status. Administratively, a re-verification process would be necessary on a routine and on-going basis throughout the period when tolls were being collected, which would have its own demand for additional staffing and associated expenses.

Such a system also could create an enforcement challenge for the States whereby persons not intended to receive the benefit of the discounted rate (i.e., those who are neither minority nor low-income) could seek to acquire transponders that would allow them to enjoy the discount rate (i.e., transponders intended for members of the EJ community). This could turn transponders into a
valuable commodity, posing significant administrative and enforcement concerns for the States. The use of “discount rate” transponders by non-EJ users would result in lost revenue and would require investigative and enforcement personnel to supplement the other staffing needs of the program, with the associated financial burdens. In addition, any proposal to establish a discount linked to the account-holder’s minority status could face legal challenges. Before such an option could be adopted, the States would first need to determine whether it is legally permissible to establish different toll rates for different individuals based on their racial or ethnic group.

The Project would not be possible without tolling, because tolling is necessary for the project to be financially feasible. [RROD, p.21] Rates must be set such that they generate the revenues needed to pay for construction, maintenance and on-going operations of the project. Adjusting the toll rates to provide a discount to a segment of the population, and incurring the additional expense for administration, extra staff, enforcement, etc., would reduce the toll revenues available to address Project needs and could result in the need to adjust the overall Project toll schedule. As shown in the sensitivity analysis conducted for the SFEIS (see SFEIS pp. 3-19), higher toll rates would likely result in greater traffic diversion to the untolled bridges. As a result, by increasing toll rates on a majority of bridge users, greater congestion and delays may be created on the untolled bridges, thereby causing EJ users who are seeking to avoid paying a toll to experience longer trips and greater travel delays on the untolled bridges.

For these reasons, this mitigation measure is not being proposed for further consideration.

A variant of this approach would be to establish a discounted toll rate for residents living within those areas identified as “EJ areas” using the methodology described in the SFEIS (see Figure 1 and Figure 2, herein). Areas that have been identified as having high concentrations of low-income and minority populations through survey and census data are useful in evaluating the effects of a project, as documented in the SFEIS/RROD. These tools are not, however, reliable for accurately determining the status of individuals within these areas. Basing a discount rate on residence within a geographic area would be imprecise, as it would provide benefits to non-EJ persons who happen to live within these areas while denying the benefit to low-income and minority residents living beyond those boundaries. This inequitable distribution of benefits to the low-income and minority populations would significantly reduce the overall effectiveness of this proposed measure.

While an area-based approach would not require intrusive data collection regarding race and income, it would also have challenges similar to those cited above including administrative costs, staffing requirements, enforcement, and toll revenue issues. An area-based approach would also pose legal questions. In other States, discounts that are directly linked to geographic areas (rather than frequency of use) have been challenged in court based on their effect on interstate commerce. An example of such a challenge is Surprenant v. Massachusetts Turnpike Authority, involving the Tobin Bridge in Boston. Additionally, because of the way EJ Areas are defined, an area based approach may have complications similar to those identified above with respect to basing a discount on the user’s race or ethnicity. Furthermore, the implementation of a discounted rate for EJ areas would result in lower toll revenues, and could require the overall rate structure to be altered to increase rates for users outside those EJ areas. Members of EJ populations living outside the identified EJ areas would pay greater user costs as a result of the higher toll rates. In addition, as shown in the sensitivity analysis conducted for the SFEIS (see SFEIS pp. 3-18 to 3-19), higher toll rates would likely result in greater traffic diversion to the untolled bridges. As a result, by increasing toll rates on a majority of bridge users, greater congestion and delays may be created on the
untolled bridges, thereby causing EJ users who are seeking to avoid paying a toll to experience longer trips and greater travel delays on the untolled bridges.

For these reasons, this mitigation measure is not being proposed for further consideration.

*Provide Multi-System Compatible Transponders at No or Reduced Cost*

Two types of transponders likely will be recognized by the toll collection system established for the Project. A transponder, compatible with tolling systems used in other areas of the country (e.g., EZ Pass, Sun Pass, etc.) would be available (i.e., a “national system” transponder). The specifications required to manufacture these transponders require a hard plastic casing and result in a relatively high production cost. A less costly type of transponder would also be available for the local system. This type of transponder may have compatibility with other tolling systems that do not use the hard casing transponder, but would cost considerably less than the national-system transponder.

As discussed above and further in Section III.H.1, the States intend, with the concurrence of the Tolling Body, to distribute local-system transponders at no cost, to increase the use of transponders and help minimize tolling effects on low-income and minority populations. To avoid the logistical and technical challenges cited previously for discounted toll rates (verification of qualifications, monitoring qualifications of existing users, enforcement, legal issues, etc.), availability of cost-free local system transponders is intended for all members of the community, thus lowering user costs for all users.

KYTC and INDOT do not believe that it is either reasonable or practicable for the States to incur the additional expense of providing cost-free national-system transponders. The national-system transponders are significantly more costly, and would not provide any additional mitigation of the economic effects of tolls for this Project. Moreover, the mitigation developed for this Project is not intended to address the effects of tolling costs associated with other toll systems elsewhere in the country. Because free local system transponders would adequately address the effects of tolls associated with this Project, and free national-system transponders would not address those effects, providing national-system transponders at no cost is not considered to be a practicable mitigation measure.

*Provide a Transponder Credit for EJ Communities*

To incentivize transponder usage and to offset initial tolling costs, persons from EJ communities could receive a credit to their transponder account when established. Eligibility for the credit could be based upon either of two methods: (1) Residency within an identified EJ area; or (2) demonstrating low-income or minority status. The level of credit being considered is in the range of $20–$25.

The administrative, staffing, and enforcement concerns cited above and related to the implementation of a discount toll rate are also applicable to this potential mitigation measure. In addition, providing a transponder credit based on residence within an identified EJ area would result in non-EJ residents within those areas enjoying the benefit of the credit while members of EJ communities living outside those areas would not receive the intended EJ benefit – which would undermine the effectiveness and fairness of this mitigation measure. For these reasons, this mitigation measure is not being proposed for further consideration.
IV TRAFFIC DIVERSION

IV.A SFEIS Traffic Study

During the development of the SFEIS, a traffic study (SFEIS Appendix H.1) was completed that analyzed the potential for changes in traffic patterns resulting from the introduction of tolls that could affect areas with high concentrations of EJ populations. That evaluation concluded that while some changes in traffic patterns are anticipated as a result of tolling, the changes are anticipated to be minimal and would not have an adverse effect on those EJ populations. Nevertheless, the States have committed to monitor traffic post-construction to confirm whether those conclusions are correct, and to work with local authorities to identify mitigation measures that would be implemented for any unanticipated adverse effects.

The introduction of tolls will likely cause some users to alter their travel patterns to un-tolled or lower-cost alternatives. Changes in travel patterns can result from:

- Route changes: shift to a toll-free route.
- Mode shift: move to an alternative mode of travel, such as transit or carpool.
- Change of destination: choose a similar or related destination that does not require traversing tolled facility.
- Frequency of use/trip elimination: reducing the frequency of a trip, combining multiple trips, or eliminating the trip altogether.

The study in the SFEIS predicted that a portion of cross-river traffic would shift from the tolled river crossings to the free I-64 Sherman Minton Bridge and US 31 Clark Memorial Bridge as a result of toll implementation. In addition to the bridges themselves, increases in traffic can be expected on certain arterial or high-volume roadways that connect to I-64 and US 31.

As shown in Figure 3 below, the primary routes that likely will be used to accommodate the changes in travel patterns due to bridge tolling are the SR 62 Corridor in Indiana, I-64 and the Sherman Minton Bridge, and US 31 on the Clark Memorial Bridge, all of which pass through or near areas that are considered to be environmental justice communities. In the 2012 RROD (p. 5-47), FHWA determined that the traffic increases associated with this diversion are not expected to adversely affect environmental justice areas or communities due to the low volume of additional traffic that is predicted. The increased traffic is not expected to contribute to additional congestion on those roadways or to be perceptible over existing traffic levels. Thus, FHWA concluded that the Project would not cause a disproportionately high and adverse effect on EJ communities as a result of toll-related traffic diversion.

To verify this conclusion, KYTC and INDOT have committed to monitor the traffic in these communities to identify whether any unanticipated traffic increases caused by toll-related diversion result in adverse effects to EJ populations in these areas, and if so, to work with Local Authorities to identify strategies that would be implemented to address the unanticipated disproportionately high and adverse effect.
IV.B Strategies to Address Unanticipated Traffic Diversion

KYTC and INDOT have been gathering baseline traffic information in the relevant EJ communities (using traffic counts at relevant times of day, etc.), and this baseline monitoring was completed prior to the start of Project construction. The results of this pre-construction monitoring will provide a baseline against which to measure future traffic conditions in those areas, based on data to be collected following completion of construction. Post-construction traffic monitoring will occur in the same areas after construction is completed and tolling is commenced on the new and reconstructed bridges. This monitoring will occur no sooner than 12 months and no later than 15 months following completion of construction—providing time for new traffic patterns to establish themselves, but ensuring that monitoring will still be completed in a timely manner.

As part of the outreach process to be conducted after publication of this report, and as part of the development of the Project’s Tolling Mitigation Plan, KYTC and INDOT will engage Local Authorities to discuss strategies that would be implemented to mitigate any unanticipated adverse effects of traffic diversion on EJ communities, if such effects are identified as a result of the traffic monitoring conducted after Project implementation. Local Authorities (including representatives of the Kentuckiana Regional Planning and Development Agency [KIPDA], Louisville Metro Government, Jeffersonville, New Albany, Clarksville, Clark County and Floyd County) will be engaged at this stage to identify and evaluate...
potential strategies that would be implemented should unanticipated adverse traffic diversion impacts be identified within the EJ communities after construction and commencement of tolling. This public engagement also will include the identification of potential members, including members of the local EJ communities, for the formation of a Traffic Advisory Group. The charge given to this group will be to: (1) review and consult regarding the results and conclusions of current and future traffic studies; and (2) consult regarding potential strategies that could be pursued with Local Authorities should unanticipated changes in traffic volumes result in unanticipated adverse effects on EJ populations in these areas. This Traffic Advisory Group will be engaged both during this initial evaluation process, and then again once post-construction monitoring results are available and potential mitigation measures are to be considered, if necessary.

Following completion of construction and commencement of tolling, traffic data will be collected from all locations where baseline data was gathered. KYTC and INDOT will analyze the data collected, compare it with the baseline data, and provide a report to FHWA and to the Traffic Advisory Group documenting the evaluation and conclusions regarding post-construction traffic volumes and the effects of diverted traffic, if any, on the local EJ communities. Should unanticipated adverse effects be identified, KYTC and INDOT will reengage with the relevant Local Authority(ies) to identify those strategies that may be implemented to minimize, reduce, or eliminate the adverse effects.

Many strategies exist that could reduce the effects of traffic diversion onto non-interstate or arterial roadways, if such diversion is identified. Options could include measures that would make the roadway safer (if accidents become an issue) and/or increase the travel time (reduce speed) through the area, thus discouraging diverted traffic. The appropriateness of each strategy will depend on the exact location, nature and extent of any traffic diversion effect that is identified, and will be affected by the conditions and characteristics of the existing network in the area where an effect is recognized. These strategies may include any one or combination of the following: adjustments to traffic signals (signal timing changes, upgrading traffic signals technologies, etc.); traffic calming (speed bumps, raised intersections, roundabouts, etc.); “road diets”; conversion of one-way to two-way traffic flow; closing roadway connections; access management; development of complete streets; reduced lane widths; development of gateway signage; changing the roadside context; changing, adding or removing on-street parking; and use of medians. Again, the need for and appropriateness of any of these measures can only be determined definitively after post-construction monitoring is completed. FHWA and the States currently do not anticipate any adverse effects on EJ communities from traffic diversion. Nevertheless, the Tolling Mitigation Plan will identify potential measures that would be implemented if unanticipated effects occur, and the States will work with Local Authorities and the Traffic Advisory Group to identify and evaluate such measures to be implemented, if necessary, once post-construction monitoring is complete.

V. Conclusion—Final Report, Tolling Mitigation Plan, and Tolling Policy

The information and comments gathered through the public outreach approach described in Section III.F and consultation with Local Authorities regarding strategies to address unanticipated traffic diversion effects will be considered prior to finalizing this report and preparing a proposed Tolling Mitigation Plan for the Project.

The Tolling Mitigation Plan will document the input received from EJ community leaders, individual members of the EJ communities, Local Authorities, with respect to traffic diversion, and the general public, and will identify those mitigation measures proposed to mitigate the adverse effects of tolling on low-income and minority populations. That proposal will be considered for adoption by the States’
Tolling Body, which was created with the responsibility to establish tolling policy, tolling rates and mitigation for adverse effects of tolls. The Tolling Body for the Project is comprised of three representatives from each state. Through action of the Tolling Body, the Tolling Mitigation Plan will be incorporated in a Tolling Policy that will be “sensitive and responsive to low-income and minority (environmental justice populations).” (RROD, p.64) The Tolling Policy will be finalized before toll collection is initiated on the Project.