



K I P D A

Kentuckiana Regional Planning
& Development Agency

DRAFT

Amendment 5
to the
Fiscal Year 2025 - 2028
Transportation Improvement Program (TIP)

Amendment 14
to
Connecting Kentuckiana 2050
Metropolitan Transportation Plan (MTP)

Anticipated TPC Approval for September 24, 2026

Please note - Amendment 5 and 14 are a single list of updates with two different reference numbers. The TIP numbering scheme restarted with the FY25-FY28 TIP adoption and the MTP numbering scheme will not restart until a new MTP is adopted.



WHY ARE THERE AMENDMENTS TO THE MTP & TIP?

New projects that are not regionally significant and qualify as Group Projects, as well as many minor changes to existing projects, can be added through an administrative modification. Administrative modifications can be processed within 30 days.

New projects and project changes that do not fit the criteria above must be added to the MTP and/or TIP through an amendment. There are many reasons why a project must be amended. Adding a regionally significant project that does not fit KIPDA's Group Projects policy or changing the scope of a roadway project to add a travel lane are both examples of projects that must be amended. While every effort is made to expedite amendments, the process can take up to 6 months.

KEY STEPS & TIMING

Project applications (new or modified) are due from sponsors	July 31, 2026
KIPDA staff completes project review	August 7, 2026
Air quality conformity activities	August 10, 2026 – August 31, 2026
Interagency Consultation Group (IAC) Coordination	Week of August 24th, 2026
Public comment period	September 1, 2026 – September 15, 2026
Comments sent to the Transportation Policy Committee (TPC)	September 16, 2026
Transportation Technical Coordinating Committee (TTCC) Recommendation	September 9, 2026
TPC Action	September 24, 2026

ADDITIONAL INFORMATION

Amendment 5 to the TIP and Amendment 14 to the MTP are identical lists of project updates. TIP amendment numbering restarted with the adoption of the FY25-FY28 TIP. MTP amendment numbering will continue until a new MTP is adopted.

All new projects and changes to existing projects must be submitted through the Project Application form found on KIPDA's Transportation Planning Portal.

The Portal can be accessed at the following address: <https://kipdatransportation.org/forms/>

MTP Action:	Add new project				
TIP Action:	Add new project				
Exempt/Non Exempt:	Exempt		Model Impact:	No change to the model	
Project Sponsor:	Indiana Department of Transportation (INDOT)	KIPDA ID:	NEW	State ID:	2600714
County:	Clark	Parent ID:	N/A	Group ID:	N/A
Project Name:	Access Control at the I-65 & Eastern Blvd. Interchange	Funding Source:	Highway Safety Improvement Program (HSIP)- State	Open to Public (OTP) Date:	2031
Total Estimated Project Cost:	\$3,863,471		Total Cost Programmed in TIP to date:	\$3,863,471	
Description:	Access Control project to improve the safety and operation of the interchange at Eastern Blvd by purchasing limited access right-of-way (LARW) in northwest, northeast, southwest, and southeast quadrant of interchange. Access Control I-65, 4.08 miles S of I-265 to 3.08 miles S of I-265.				
Justification:	The project need at this location is because the existing limited access LARW protection is insufficient in comparison with INDOT standards. The purpose of the project is to improve and protect the safe and efficient operation of the interchange.				
FY 25-28 TIP Funding:	FY 2027 Preliminary Engineering (PE) phase with HSIP-ST funds: \$309,600 (Federal) + \$34,400 (Other) = \$344,000 (Total) *FY 2029 Right of Way (ROW) phase with HSIP-ST funds: \$1,678,435 (Federal) + \$186,493 (Other) = \$1,864,928 (Total) *FY 2031 Construction (CN) phase with HSIP-ST funds: \$1,489,089 (Federal) + \$165,454 (Other) = \$1,654,543 (Total)				
*Funds programmed in fiscal years outside of the current 2025-2028 TIP years					

MTP Action:	Add new project				
TIP Action:	Add new project				
Exempt/Non Exempt:	Exempt		Model Impact:	No change to the model	
Project Sponsor:	Indiana Department of Transportation (INDOT)	KIPDA ID:	NEW	State ID:	2600723
County:	Clark	Parent ID:	N/A	Group ID:	N/A
Project Name:	Access control at the I-65 & Veterans Parkway Interchange	Funding Source:	Highway Safety Improvement Program (HSIP)- State	Open to Public (OTP) Date:	2031
Total Estimated Project Cost:	\$12,298,168		Total Cost Programmed in TIP to date:	\$12,298,168	
Description:	Access control for Veterans Parkway. The I-65 at Veterans Parkway interchange is located in Clark County, in the Seymour District. The interchange presently has limited access right-of-way (LARW) of approximately 500' in the Northwest, Southeast and Southwest quadrants of the interchange, and approximately 400' of LARW in the Northeast quadrant. LARW continues along Armed Forces Way in the Northeast quadrant down to US 31. Access control, I-65 from 1.5 miles S of I-265 to 0.50 miles S of I-265.				
Justification:	The project need at this location is because the existing limited access right-of-way (LARW) protection is insufficient in comparison with INDOT standards.				
FY 25-28 TIP Funding:	FY 2027 Preliminary Engineering (PE) phase with HSIP-ST funds: \$110,000 (Federal) + \$12,000 (Other) = \$122,000 (Total) *FY 2029 Right of Way (ROW) phase with HSIP-ST funds: \$10,605,672 (Federal) + \$1,178,408 (Other) = \$11,784,080 (Total) *FY 2031 Construction (CN) phase with HSIP-ST funds: \$352,879 (Federal) + \$39,209 (Other) = \$392,088 (Total)				
*Funds programmed in fiscal years outside of the current 2025-2028 TIP years					

MTP Action:	Add to MTP and update Total Estimated Project Cost				
TIP Action:	Remove Group ID and update TIP funding				
Exempt/Non Exempt:	Exempt		Model Impact:	No change to the model	
Project Sponsor:	Kentucky Transportation Cabinet (KYTC)	KIPDA ID:	3042	State ID:	5-80110.00
County:	Jefferson	Parent ID:	N/A	Group ID:	2673
Project Name:	KY 2055 Mt Holly Sidewalk	Funding Source:	Surface Transportation Block Grant - MPO (STBG-MPO)	Open to Public (OTP) Date:	2028
Total Estimated Project Cost:	\$850,000 \$1,115,000		Total Cost Programmed in TIP to date:	\$775,000 \$850,000	
Description:	Construct a sidewalk along Mount Holly Road from Charlene Drive to Fox Avenue for Coral Ridge Elementary. The project will consider elements consistent with the KIPDA Complete Streets Policy, the KYTC Complete Streets Policy and the KYTC Complete Streets, Roads and Highways Manual.				
Justification:	The project would fill a recognized gap in the sidewalk system between the Fairdale community and Coral Ridge Elementary School. This area is identified in the KIPDA Online Resource Center through their Gap Analysis.				
FY 25-28 TIP Funding:	FY 2026 Design (D) phase with STBG-MPO funds: \$212,000 (Federal) + \$53,000 (Other) = \$265,000 (Total) FY 2026 Right of Way (ROW) phase with STBG-MPO funds: \$24,000 (Federal) + \$6,000 (Other) = \$30,000 (Total) FY 2026 Utilities (U) phase with STBG-MPO funds: \$24,000 (Federal) + \$6,000 (Other) = \$30,000 (Total) FY 2026 Construction (C) phase with STBG-MPO funds: \$120,000 (Federal) + \$30,000 (Other) = \$150,000 (Total) *FY 2029 Right of Way (ROW) phase with SPP funds: \$0 (Federal) + \$40,000 (Other) = \$40,000 (Total) *FY 2030 Utilities (U) phase with SPP funds: \$0 (Federal) + \$40,000 (Other) = \$40,000 (Total) *FY 2031 Construction (C) phase with SPP funds: \$0 (Federal) + \$330,000 (Other) = \$330,000 (Total)				
*Funds programmed in fiscal years outside of the current 2025-2028 TIP years					

MTP Action:	None				
TIP Action:	Update TIP funding and OTP				
Exempt/Non Exempt:	Non-exempt		Model Impact:	No change to the model	
Project Sponsor:	Kentucky Transportation Cabinet (KYTC)	KIPDA ID:	3386	State ID:	5-80352.00
County:	Jefferson	Parent ID:	N/A	Group ID:	N/A
Project Name:	KY 1865	Funding Source:	National Highway System (NHS)	Open to Public Date:	2032 2033
Total Estimated Project Cost:	\$81,000,000		Total Cost Programmed in TIP to date:	\$20,000,000 \$81,000,000	
Description:	Safety improvements on KY 1865 (New Cut Road)/Taylor Boulevard from MP 0.5 (just south of Old New Cut Road) to MP 5.766 (just north of the I-264 ramp).				
Justification:	Route is part of Louisville Metro's High Injury Network under their Vision Zero Safety Program. The routes identified in Louisville's High Injury Network will guide the city's Safer Roads strategy, in support of Louisville's vision to eliminate roadway deaths on surface streets by 2050. This project strives to implement safety improvements for all users along the KY 1865/New Cut Road corridor consistent with Metro's 2024 KY 1865 New Cut Road/Taylor Blvd Safety Study.				
FY 25-28 TIP Funding:	FY 2026 Design (D) phase with NHS funds: \$800,000 (Federal) + \$200,000 (Other) = \$1,000,000 (Total) FY 2027 Design (D) phase with NHS funds: \$1,600,000 (Federal) + \$400,000 (Other) = \$2,000,000 (Total) FY 2027 Right of Way (ROW) phase with NHS funds: \$7,200,000 (Federal) + \$1,800,000 (Other) = \$9,000,000 (Total) FY 2028 Utilities (U) phase with NHS funds: \$6,400,000 (Federal) + \$1,600,000 (Other) = \$8,000,000 (Total) *FY 2029 Design (D) phase with NHS funds: \$3,200,000 (Federal) + \$800,000 (Other) = \$4,000,000 (Total) *FY 2030 Right of Way (ROW) phase with NHS funds: \$7,200,000 (Federal) + \$1,800,000 (Other) = \$9,000,000 (Total) *FY 2031 Utilities (U) phase with NHS funds: \$6,400,000 (Federal) + \$1,600,000 (Other) = \$8,000,000 (Total) *FY 2032 Construction (C) phase with NHS funds: \$48,000,000 (Federal) + \$12,000,000 (Other) = \$60,000,000 (Total)				
*Funds programmed in fiscal years outside of the current 2025-2028 TIP years					

MTP Action:	Remove redundant project - See KIPDA ID 3386				
TIP Action:	N/A				
Exempt/Non Exempt:	Non-exempt		Model Impact:	No change to the Model	
Project Sponsor:	Louisville Metro	KIPDA ID:	2769	State ID:	
County:	Jefferson	Parent ID:	N/A	Group ID:	N/A
Project Name:	New Cut Road Complete Street	Funding Source:	None	Open to Public (OTP) Date:	2035
Total Estimated Project Cost:	\$15,000,000		Total Cost Programmed in TIP to date:	\$0	
Description:	New Cut Road is a four lane cross section from Southern Parkway to Palatka Road, 5 lane cross section from Palatka Road to I-265 and from I-265 to Mitchell Hill Road, 2 lanes with a turn lane at intersection. This project would reconstruct New Cut Road/West Manslick Road, adding access management, sidewalks and bicycle accommodations. We would review for the appropriateness of road re-configurations to achieve better pedestrian accommodations, fill in sidewalk gaps and create bike lanes.				
Justification:	New Cut Road was widened from a 3 lane section to a 5 lane section from just north of the railroad tracks to I-265 in 2004, with anticipation of traffic growth. Average Daily Traffic (ADT) along New Cut Road in this segment has been stagnate to date according to KYTC traffic historic counts. There is opportunity to create a complete streets and take some of the unneeded excess right-of-way from the 2004 widening as well as north and south of that segment. The Fairdale round-about was open in 2017 and a greenspace beside the round-about with a Louisville Loop/Jefferson Memorial Forest trailhead installation. This will be a great opportunity to connect pedestrian and bicycle gaps to reach the proposed shared used paths on both sides of the terminus of this project (Southern Parkway and Jefferson Memorial Forest).				
FY 25-28 TIP Funding:	N/A				

MTP Action:	Remove redundant project - See KIPDA ID 3386				
TIP Action:	N/A				
Exempt/Non Exempt:	Exempt		Model Impact:	No change to the Model	
Project Sponsor:	Louisville Metro	KIPDA ID:	3159	State ID:	
County:	Jefferson	Parent ID:	N/A	Group ID:	N/A
Project Name:	New Cut Road/Taylor Boulevard Safety Improvements	Funding Source:	None	Open to Public (OTP) Date:	2035
Total Estimated Project Cost:	\$16,000,000		Total Cost Programmed in TIP to date:	\$0	
Description:	Design and construct safety improvements on KY 1865 (New Cut Road)/Taylor Boulevard from milepoint 2.668 (3rd Street Road/Southside Drive) to milepoint 5.766 (just north of the I-264 ramp). Project will consider bicycle and pedestrian facilities, traffic signal retiming, medians, and a two-way left-turn lane.				
Justification:	Improve safety for all modes, and build a complete street network to facilitate travel by bike, foot, or bus on this major arterial corridor, the conditions of which make this a high-risk corridor for fatal and serious injury crashes.				
FY 25-28 TIP Funding:	N/A				

MTP Action:	Add new project				
TIP Action:	Add new project				
Exempt/Non Exempt:	Exempt		Model Impact:	No change to the model	
Project Sponsor:	Ports of Indiana-Jeffersonville	KIPDA ID:	NEW	State ID:	
County:	Clark	Parent ID:	N/A	Group ID:	N/A
Project Name:	Jeffersonville Crane Terminal Project	Funding Source:	Better Utilizing Investments to Leverage Development (BUILD)	Open to Public (OTP) Date:	2029
Total Estimated Project Cost:	\$31,984,806		Total Cost Programmed in TIP to date:	\$31,984,806	
Description:	The Project will include the purchase a new 300-ton overhead crane with a 25,000 sq ft covered bridge craneway. In addition, the project will construct a new 6,500 sq ft pile-supported dock and a new 22,000 sq ft warehouse with a 5,600 sq ft attached maintenance shed necessary to house crane machinery and provide operator workspace.				
Justification:	The Ports of Indiana-Jeffersonville Crane Terminal Project has been awarded \$25 million in U.S. DOT BUILD funding to address critical constraints in the port's ability to handle heavy-lift, breakbulk, and weather-sensitive cargo due to the lack of permanent heavy-lift infrastructure, covered storage, and a modern dock facility.				
FY 25-28 TIP Funding:	FY 2027 Design (D) phase with BUILD funds: \$1,513,218 (Federal) + \$422,782 (Other) = \$1,936,000 (Total) FY 2028 Construction (C) phase with BUILD funds: \$23,486,782 (Federal) + \$6,562,024 (Other) = \$30,048,806 (Total)				

AIR QUALITY CONFORMITY

At this time, the Louisville, KY-IN transportation planning study area consists of Clark and Floyd counties in Indiana, and Bullitt, Jefferson, Oldham counties, and approximately 4 square miles of Shelby County in Kentucky. Much of the existing planning area coincides with the local ozone nonattainment area. In the past, a portion of the planning study area also coincided with a local fine particulate matter (PM 2.5) nonattainment area, but that standard was revoked in April, 2015. The Louisville, KY-IN maintenance area for the 1997 8-hour ozone standard consisted of Clark and Floyd counties, IN, and Bullitt, Jefferson, and Oldham counties, KY. It was designated as a basic non-attainment area in June, 2004 and redesignated as an attainment area with a maintenance status in July, 2007. The 1997 8-hour ozone standard was revoked for the local area in April, 2015, and at that time, it was not necessary for the local area to determine conformity. (However, the local area was still eligible to receive Congestion Mitigation/Air Quality funding).

In June 2018, the former Louisville, KY-IN 1997 ozone maintenance area was designated as a marginal nonattainment area for the 2015 8-hour ozone standard. Since that time, the monitoring data has indicated that the design value is sufficiently low that the local area can be redesignated as attainment of the 2015 8-hour ozone standard, and the air quality agencies with responsibility for the local area have undertaken steps to do so. The redesignation State Implementation Plan has been submitted to Regions 4 and 5 of US EPA, and the Motor Vehicle Emission Budgets (MVEBs) have been found adequate by Region 5. They are still under review by Region 4. Meanwhile, in January 2023, the Kentucky portion of the local ozone nonattainment area was “bumped up” to a moderate ozone nonattainment area.

Recently, the Louisville Metro Air Pollution Control District (LMAPCD) submitted an Exceptional Events demonstration to US EPA, Region 4 to support their contention that the Canadian wildfires in 2023 led to exceedances of the Ozone standard that year. US EPA, Region 4 reviewed the demonstration and has proposed to determine that the Kentucky portion of the Louisville, KY-IN area attained the 2015 Ozone standard by the Moderate attainment date. Also, LMAPCD submitted a request to US EPA, Region 4 to remove the requirement that the only Reformulated Gasoline (RFG) could be sold in the local area, and US EPA has reviewed the information submitted by LMAPCD and granted the request.

KIPDA is amending *Connecting Kentuckiana 2050*, the metropolitan transportation plan (MTP), and the FY 2025 – FY 2028 Transportation Improvement Program (TIP). This conformity analysis will support conformity determinations by the metropolitan planning organization and the U. S. Department of Transportation agencies for both documents. This analysis is intended to support determinations of conformity under the 1997 and 2015 8-hour ozone standards.

CONFORMITY UNDER THE 1997 and 2015 8-HOUR OZONE STANDARD

When an area such as the Louisville area becomes nonattainment, the area must undertake a process known as conformity. This process provides a linkage between transportation planning and air quality planning. One of the key activities of conformity is to quantify the level of emissions of the air pollutant(s) and/or precursor(s) for certain analysis years and compare those levels to the motor vehicle emission budgets (MVEBs)—if they exist. The MVEBs limit the amount of a pollutant or precursor that can be emitted. If MVEBs do not exist, the area must rely on interim tests, such as comparing the emissions to the level of emissions in a baseyear, to determine conformity. The baseyear would be set by US EPA when the standard is promulgated.

When the local area was designated as nonattainment of the 2015 8-hour ozone standard, the air quality agencies with responsibility for the local area were charged with the additional responsibility to develop a set of actions that could be taken to reduce pollutant/precursor emissions. These actions were to be included in air quality plans known as State Implementation Plans (SIPs). Since the Louisville nonattainment area is a bi-state area, these sets of actions to reduce precursor emissions were to be incorporated into both the Indiana and Kentucky SIPs. It was during this process that MVEBs were established. Subsequent to the local area being designated as a nonattainment area but before the SIPs were completed, the data from the air quality monitors in the area indicated that the 2015 8-hour ozone standard had been met. With this data in hand, the air quality agencies were each able to submit a SIP known as a redesignation request. The establishment of the MVEBs was one of the components of the redesignation request. Since the SIPs were redesignation requests for ozone, the MVEBs were established for the precursors of ozone -- volatile organic compounds and oxides of Nitrogen.

Because the redesignation requests by the air quality agencies in Indiana and Kentucky are in different states of approval, it is necessary to use different emission budgets to determine whether each set of counties has passed conformity. Since Region 5 of US EPA has approved Indiana's redesignation request, the allowed emissions for the 2019 base year and the 2035 emission budgets for the 2015 Ozone standard are used for the Indiana counties of Clark and Floyd. Since Region 4 of US EPA has not yet approved Kentucky's redesignation request, the 2020 emission budgets for the 1997 Ozone standard are used for the Kentucky counties of Bullitt, Jefferson, and Oldham.

CONSULTATION FOR TIP AMENDMENT 5 (MTP 14) OF *CONNECTING KENTUCKIANA 2050*

Normally, the first step in determining conformity of an amendment of *Connecting Kentuckiana 2050* would be to consult with the interagency consultation (IAC) group concerning matters not explicitly determined by the conformity rule. Conformity under 1997 and 2015 8-hour ozone standards have been previously determined. Therefore, many of the issues normally arising in conformity had undergone consultation previously when the local area was a nonattainment or maintenance area under the 1997 8-hour ozone standard or during the previous conformity process for *Connecting Kentuckiana 2050*.

For this amendment (5/14), rather than having a consultation meeting, an e-mail was sent to the members of the IAC informing them of the project changes of amendment 5/14 relative to the projects in amendment 4/13. They were then asked if they agreed that conformity for amendment 5/14 could rely on the previous regional emissions analysis. Below is a description of the reasoning provided by KIPDA staff to the IAC members as to why conformity of amendment 5/14 could rely on the previous regional emissions analysis.

Amendment 5/14 contains non-exempt projects as well as exempt projects. Therefore, a regional emission analysis would ordinarily be necessary for amendment 5/14. However, since certain conditions are met, amendment 5/14 can rely on the previous regional emissions analysis (conducted in April 2026) to support a conformity determination. Those conditions include the following:

- (1) Amendment 5/14 will not delay the implementation of any Transportation Control Measures (TCMs), and
- (2) Amendment 5/14 fulfills the requirements the conformity rule (40 CFR 93, subpart A), specifically section 93.122, in relying on the previous regional emissions analysis.

These issues are discussed in greater detail below.

Implementation of TCMs

The transportation plan for the Louisville area does not include any transportation control measures (TCMs). Therefore, amendment 5/14 cannot hinder the implementation of a TCM.

Requirements of section 93.122 of the Conformity rule

The requirements of section 93.122 of the conformity rule are satisfied if the following conditions are met.

- (1) The transportation improvement program (TIP) contains all projects which must be started in the TIP's timeframe in order to achieve the highway and transit system envisioned by the Metropolitan Transportation Plan (MTP);

- (2) All TIP projects which are regionally significant are included in the MTP with design concept and scope adequate to determine their contribution to the MTP's regional emissions at the time of the transportation plan's conformity determination; and
- (3) The design concept and scope of each regionally significant project in the TIP is not significantly different from that described in the MTP.

The responses to the e-mail of KIPDA staff were in agreement with the reasoning that conformity for amendment 5/14 could rely on the previous emissions analysis without dissent.

The remainder of this report is a reproduction of the conformity report for the previous amendment (4/13), including Tables 2 and 3, which show that the regional emissions of VOCs and NO_x are smaller than the values of the vehicle emission budget in the Indiana and Kentucky State Implementation Plans. Therefore, these tables show that the MTP, as amended by amendment 5/14 conforms to the SIPs and meets the requirements of the federal conformity rule.

ESTABLISHED PRACTICE

In addition to the issues discussed during consultation, there were several issues which were not explicitly discussed or received little discussion during the video conference consultation, but which had impacts on the analysis. Many of these issues have been discussed during previous consultations. These issues were handled in a manner consistent with the previous established practice. The more prominent issues are discussed below.

Relationship of MTP and TIP for Conformity Purposes

The Transportation Improvement Program (TIP) is maintained as a subset of the Metropolitan Transportation Plan (MTP). Therefore, the conformity determination for the MTP will serve as the conformity determination for the TIP.

Conclusion: The IAC members are informed of this from time to time in order to clarify that the conformity determination for the MTP also serves as the conformity determination for the TIP.

Vehicle Registration (Fleet Mix) Data

At various times in the past, new vehicle registration data has been provided for use in developing pollutant emissions. This vehicle registration data has been reviewed and accepted by the IAC. The data being used for the Indiana counties has been updated to 2022, and the data being used for the Kentucky counties has been previously updated to 2023. These data represent the most recent information available for this issue.

Conclusion: Based on a consensus of the IAC members, vehicle registration data for 2022 for the Indiana counties and for 2023 for the Kentucky counties is now being used in developing emission estimates.

CONFORMITY OF *CONNECTING KENTUCKIANA 2050*

The MTP, *Connecting Kentuckiana 2050*, was examined to determine if it met the requirements of the conformity rule under the 1997 and 2015 8-hour ozone standards. In general, the process leading to a conformity determination has two major components:

- (1) a regional emissions (air quality) analysis to determine that air pollutant emissions do not exceed the budgets set in the SIPs, if applicable, or the emission levels for a given base year; and
- (2) a monitoring of the progress in implementation of the Transportation Control Measures (TCMs) contained in the SIPs.

In the past, consultation with the state and local air quality agencies and EPA had determined that there are no approved TCMs in the SIPs of Indiana and Kentucky. Therefore, it is possible to show conformity of *Connecting Kentuckiana 2050* simply by determining that the air pollutant emissions do not exceed the budgets in the SIPs or the base year emissions.

ANALYSIS PROCESS

The process of calculating the regional emissions for *Connecting Kentuckiana 2050* involved three main procedures. The first procedure was a review of the projects to determine which projects needed to be included in the regional emissions analysis. The second procedure was to perform the calculations necessary to quantify certain measures of travel behavior. The third procedure was to calculate the pollutant / precursor emissions. These activities are discussed below in greater detail.

Project Review

The first procedure was to review the projects to determine which projects were exempt or non-exempt and which projects were “regionally significant.” The combination of these two considerations was the basis for determining which projects were recommended for inclusion in the regional emissions analysis. As part of the process of developing amendment 12 of the MTP, *Connecting Kentuckiana 2050*, a group of projects had been proposed for the amendment of the plan. These projects were reviewed by KIPDA staff, who prepared a list of the projects with information about the projects and a staff recommendation concerning the project’s status relative to its being included in the regional emissions analysis. There is usually a straightforward explanation for why projects are included in or excluded from the analysis and why they are analyzed as they are. Most of the projects which were excluded were exempt projects as defined in the Code of Federal Regulations in 40 CFR 93.126 and 40 CFR 93.127.

During consultation, this list was reviewed and accepted by the IAC as described under the section entitled “CONSULTATION FOR *CONNECTING KENTUCKIANA 2050*.” (Please see above.) The projects in *Connecting Kentuckiana 2050* were analyzed as indicated on the list provided to IAC.

In the past, there were several projects which could not be analyzed using the travel model but were not explicitly exempt. Most of these projects had been evaluated using spreadsheet methods using emission factors (rates). Since the MOVES emissions model was being used in the inventory mode, emission factors were not available for this analysis. However, experience had shown that the emission impacts for these projects were always small and positive (i.e., emission reducing). Therefore, it is reasonable to predict that the emission impacts of these projects—if they could be quantified—would decrease the emissions shown in the tables at the end of this document.

Calculation of Travel-Related Information

The analysis of the travel behavior impacts for the nonattainment area primarily involved using the KIPDA travel demand forecasting model to determine measures of travel such as vehicle-miles-traveled (VMT) and speed. The method for determining these measures was to input the appropriate roadway and transit information into the model and to run the model using the appropriate socioeconomic information for a given analysis year. This analysis is explained below in further detail in the sections concerning the KIPDA travel demand forecasting model and adjustment factors for travel model output.

KIPDA Travel Demand Forecasting Model

The KIPDA travel demand forecasting model is a mathematical model which relates travel to the transportation system and basic socioeconomic information. The domain of the model is a study area which includes the Louisville (KY-IN) Metropolitan Planning Area. The Louisville (KY-IN) Metropolitan Planning Area presently consists of Clark and Floyd counties in Indiana, and Bullitt, Jefferson, and Oldham counties and approximately 4 square miles in Shelby County in Kentucky. This area is divided into 984 smaller units called traffic analysis zones.

As previously mentioned, the KIPDA regional travel demand forecasting model was updated and calibrated in 2022. This update established 2019 as the new base year for the model. The model update utilized the information incorporated into the travel model during previous updates. In addition, a significant amount of data from Streetlight Data, Inc. was incorporated into the updated model, particularly for trips which crossed the external boundary of the model. During the update, the model parameters were adjusted such that the model output matched—within reason—two main calibration criteria based on measured data. These criteria were: (1) the total daily VMT for all highway facilities except local roads for the region; and (2) highway traffic volumes crossing the Ohio River screenline. The result of the update was a travel model which generally replicated travel in the Louisville area for 2019. The updated travel model was used in the regional emissions analysis.

The KIPDA travel demand forecasting model uses the standard four steps of modeling: trip generation, trip distribution, mode choice, and trip assignment. In addition, it considers travel by vehicles entering, leaving, and crossing the study area. These types of trips are known as

external-internal, internal-external, and external-external, respectively. The internal ends of these trips are determined by the methods described below for internal-internal travel. The external ends are determined from the volume of traffic crossing the study area boundary at any of the 46 external stations.

Trip generation is the process of determining the number of unlinked trip ends--called productions and attractions--and their spatial distribution based on socioeconomic variables such as households and employment. The trip rates used to define these relationships were derived from the travel data collection efforts described above. This information was supplemented by use of the *National Cooperative Highway Research Program Report #365* and the Institute of Transportation Engineers' *Trip Generation Report*. The KIPDA travel demand model uses three internal-internal trip purposes. Internal-internal trips are those which have both ends inside the modeling domain. The three purposes are home-based work, home-based other, and non-home-based. The set of trip rates is one of the calibration parameters of the model.

Trip distribution is the process of linking the trip ends thereby creating trips which traverse the area. The KIPDA travel model uses a gravity model to link all trips except the external-external ones. The gravity model is based on the principle that productions are linked to attractions as a direct function of the number of attractions of a zone and as an inverse function of the travel time between zones. This inverse function of travel time is used to generate parameters called friction factors which, in turn, direct the gravity model. In addition, information from a study which investigated the behavior of travelers crossing the Ohio River and traffic count information from years near 2019 were utilized to develop additional parameters called K-factors. The K-factors are used by the model to ensure that it is predicting the correct volume of traffic crossing the Ohio River. Friction factors and K-factors are two of the calibration parameters of the model.

Mode choice is the process used to separate the trips which use transit from those which use automobiles. It is also used to separate the auto drive-alone trips from auto shared-ride trips. In some previous KIPDA travel demand models, mode choice was based primarily on information provided by the *TARC Travel Forecasting Study* from some time ago. In that model, the user's benefit or utility was calculated for each mode based on zonal socioeconomic characteristics and the cost and time of the trip using the various modes. A nested logit model was used to determine the probability of the trip being made by each of the modes. This probability was then multiplied by the number of trips between zones to determine the number of trips by each mode.

As previously stated, the conformity analysis for *Connecting Kentuckiana 2050* utilizes transit information from previous travel demand models. The results of the 2004 TARC on-board survey had been used to factor the data in the previous transit files. This was deemed acceptable for several reasons. The primary reason was that the transit network envisioned by *Connecting Kentuckiana 2050* is essentially the same as the existing one. In addition, the number of total trips from the two models was similar. Therefore, the use of the factored

transit trip information from previous travel models did not significantly change the proportion of trips allocated to transit. Finally, the proportion of trips utilizing transit is less than 2% of the total trips. So small differences in the number of transit trips should provide a negligible effect on overall travel.

Trip assignment is the process used to determine which links of the network a given trip will use. There are several assignment schemes which may be used. Two of the more common schemes are All-or-Nothing (AON)--in which all trips between two zones follow the shortest time path--and Stochastic--in which trips between two zones may be assigned to several paths based on their relative impedances or travel times. It is not uncommon for travel models to use several assignment schemes in sequence to converge to a better assignment. A sequence commonly used involves using several AONs with the traffic volumes reported at the end of each scheme being a weighted average of the volumes from the most recent scheme and the volumes from the previous schemes. A capacity restraint provision is used to adjust travel times between assignment schemes. This sequence is called an equilibrium assignment. The KIPDA travel model uses an equilibrium assignment which converges when the change in system-wide travel time over successive iterations is estimated to be within 0.0001 or less.

Tolls are being used as a means of providing for a portion of the cost of the Louisville Southern Indiana Ohio River Bridges project. To reflect the effect of the tolls in the KIPDA travel model, time penalties have been used in the model on the bridges where tolls are being collected. As mentioned above, the toll structure was recently changed. To reflect this in the travel model update, the time penalties used in the KIPDA travel model were likewise changed to reflect the effect of the new toll structure. The time penalties also reflect some travel effects which could not otherwise be quantified.

The output from the KIPDA travel model is in the form of a series of links with each link having certain associated data such as number of lanes, capacity, facility type, area type, functional class, and volume. This data allows for the calculation of other link information such as vehicle-miles-traveled (VMT). The VMT can be calculated as the product of the volume of traffic using a link times the distance (length) of the link.

Adjustment Factors for Travel Model Output

The VMT and speeds from the travel demand model were adjusted before being used in the calculation of regional emissions. The purpose of these adjustments was to reconcile the model output with travel estimates from other sources, such as the Highway Performance Monitoring System (HPMS) estimates of VMT. To perform this adjustment, factors were developed for the baseyear of the model using HPMS or other estimates and applied to model output for other years.

The development of the VMT adjustment factors involved comparing the VMT outputs of the travel demand model to the HPMS VMT estimates for 2019. Factors were developed to adjust the model output to account for variation between the model and HPMS within each of the counties. To do this, the VMT from the 2019 model run was tabulated by county and functional

classification. The VMT estimates derived from the model were then compared to the HPMS VMT estimates for 2019 to develop adjustment factors to be applied to the model output for subsequent years. The 8-hour ozone analysis is based on a level of traffic and the accompanying emissions expected on a typical summer weekday. For that analysis, the adjustment factors were increased by 2.9% to reflect the higher volume of traffic that can be expected on a typical summer weekday relative to the annual average daily traffic. The adjustment factors for VMT were developed on a functional classification basis for each county.

The development of the speed adjustment factors involved a similar process. The outputs of the travel demand model were compared to estimates of speed based on the equations of the Highway Economic Reporting System (HERS).

In general, the HERS equations were used to estimate speeds for five functional classifications of urban roadways and for five functional classifications of rural roadways. The speeds from these roadway sections were used to determine the average speed for each of five rural and urban functional classes. The speeds used in the travel model were also averaged for each of the five rural and urban functional classes for which HERS estimates had been developed. The speed adjustment factor for each of these functional classes was calculated as the ratio of the average speed using the HERS equations to the average speed using the travel model data. In some cases, the adjustment factors for some functional classes for some counties had to be based on the combined effects of the functional classes due to the sparseness of data for one or more of the functional classes.

The procedures described above produced speed adjustment factors for all functional classes except rural and urban local roads and ramps. (Ramps are not officially a separate functional class, but the speed behavior of traffic on ramps is not expected to be like that of any other functional class. Therefore, the ramps were treated as a separate “functional class”.) There was not sufficient data to estimate speeds for the roadways of these classes. For rural and urban local roads and ramps, the speeds in the travel model were used without adjustment (i.e., the speed adjustment factor for rural and urban local roads and for ramps = 1).

Calculation of Pollutant/Precursor Emissions

The calculation of the pollutant/precursor emissions for the nonattainment area involved using the adjusted output data from the KIPDA travel demand forecasting model as input to the MOVES model. KIPDA staff developed travel model output data in the form of vehicle-miles-traveled (VMT) in three formats: (1) VMT by speed bin by MOBILE 6 facility type (road type) for each county, (2) VMT fractions by speed bin by county by MOBILE 6 facility type (road type) for each county, and (3) VMT and average speed by functional class for each county. KIPDA staff utilized this data along with other necessary inputs to run the MOVES model and develop emission estimates for volatile organic compounds (VOCs) and oxides of Nitrogen (NOx).

MOVES Emissions Model

As previously mentioned, the Louisville region is a nonattainment/maintenance area for the pollutant ozone and must therefore control the precursors of ozone, VOCs and NO_x. The emission estimates for VOCs and NO_x were determined using the MOVES4 emissions model. KIPDA staff produced the emissions for all of the counties in the nonattainment/ maintenance area. The methodology used in calculating these emission estimates is discussed below.

There are a number of factors affecting the emission estimates developed from the MOVES model. In the past, these factors included the presence of inspection/ maintenance (I/M) programs in some of the counties. During that time period, the VMT generated in Clark, Floyd, and Jefferson (KY) counties came from some vehicles subject to an I/M program and from some vehicles not subject to an I/M program. The I/M program in Clark and Floyd counties was discontinued at the end of 2006. The I/M program in Jefferson County (KY) was discontinued in 2003. Therefore, these programs are no longer a factor in estimating emissions.

One of the other factors is the fuel used by the vehicles in the various counties. The fuels which are used in Clark, Floyd, and Jefferson counties include reduced Reid vapor pressure gasoline (RVP) and reformulated gasoline (RFG). While RFG is used in some portions of Bullitt and Oldham counties, unregulated gasoline is used in the other portions of those counties as well as the areas adjacent to the nonattainment area. Vehicles from these other areas can be expected to travel in the Clark, Floyd, and Jefferson (KY) counties also. In the past, the emission factors (from the MOBILE 6 model) for Clark, Floyd, and Jefferson (KY) counties used in the air quality analysis varied by county because they represent a VMT-weighted composite based on an estimate of travel in each county by vehicles from the various portions of the region. For this analysis, the MOVES model was used in what is known as the inventory mode. Using the inventory mode, it is possible to define the fuel characteristics and the presence of an I/M program for each county, but it is not possible to represent the effect of travel in a county by vehicles from other counties. Therefore, the use of composite emission factors was not possible. Other than that, the assumptions used in the analysis were consistent with those of the appropriate air quality agency for each of the counties. For Clark and Floyd counties, the assumptions of the Indiana Department of Environmental Management (IDEM) were used. Some assumptions of LMAPCD were also used for Clark and Floyd counties. For Jefferson County (KY), the assumptions of the LMAPCD were used. These assumptions had been previously reviewed and accepted by the IAC partners.

The assumptions used in developing the emissions for Clark, Floyd, and Jefferson (KY) counties were the same as those used in developing the ozone budgets update (for VOCs and NO_x) for the recent redesignation request in 2022. These assumptions included some changes which were incorporated in recent years prior to 2022. The changes which affected the VOC and NO_x emissions included:

- (1) improved consistency and completeness of gasoline data provided with the new MOVES model,

- (2) the incorporation of newer vehicle registration data (for 2022) for Clark and Floyd counties (provided by INDOT), and
- (3) improvements in internal model calculations to account for emission controls, driving profiles and engine characteristics.

The emissions for Bullitt and Oldham counties were also developed by KIPDA staff. As with the other counties, the assumptions for these counties were consistent with those used in the redesignation request developed in 2022. Most of the inputs to the MOVES model were defaults and/or data used that was consistent with previous SIPs or data updated for the redesignation request. As mentioned above, RFG is used in some portions (the “original” portions) of Bullitt and Oldham counties, and unregulated gasoline is used in the other portions (the “new” portions) of those counties as well as the areas adjacent to the nonattainment area. The “original” portions and “new” portions refer to whether a portion of these counties had originally designated as a nonattainment/maintenance status for the 1-hour ozone standard (used in the 1990’s) or had only been designated under the 1997 8-hour ozone standard. Neither portion of either county had an I/M program. So, it was not necessary to have I/M input information for MOVES. However, it was possible that the gasoline formulation in the different portions of these counties could be different.

It was determined—based on data provided by US EPA for the MOVES model—that the gasoline formulation for Bullitt and Oldham counties is essentially the same as that for Jefferson County with respect to the use of RFG. Since the use of the MOVES model in the inventory mode does not allow for the characteristics of different blends of gasoline within the same county, the gasoline formulations of Bullitt and Oldham counties were modeled the same as for Jefferson County.

The assumptions used for Bullitt and Oldham counties were consistent with those for the ozone budgets update for the recent redesignation request in 2022. The changes which affected the VOC and NO_x emissions included:

- (1) improved consistency and completeness of gasoline data provided with the new MOVES model,
- (2) the characterization of gasolines described in the previous paragraph, and
- (3) improvements in internal model calculations to account for emission controls, driving profiles and engine characteristics.

KIPDA staff developed emission estimates of VOCs and NO_x using the MOVES model. To review, the following steps were undertaken.

- (1) KIPDA staff received developed the adjusted travel model output in the forms of VMT and average speed, VMT by speed bin, and VMT fractions by speed bin, all by county and by MOBILE facility type by analysis year, as described above.
- (2) KIPDA reformatted the data to prepare it as input to the MOVES model. Other necessary data was received from LMAPCD.
- (3) The MOVES model was run in inventory mode to determine emission estimates of each precursor for each county for each analysis year.

As mentioned above, the requirement for the Kentucky portion of the local area to use Reformulated Gasoline (RFG) has been removed. So the MOVES modeling has been changed to indicate that conventional gasoline will be used for the Bullitt, Jefferson, and Oldham counties during the years used in the air quality analysis.

RESULTS OF THE ANALYSIS

The transportation plan, *Connecting Kentuckiana 2050*, has been examined to determine if it is in conformity with the SIPs of Indiana and Kentucky and fulfills the criteria in the federal conformity rule (found in 40 CFR 93). The examination has been based on an air quality analysis to determine that air pollutant emissions of the appropriate areas did not exceed the VOC and NOx motor vehicle emission budgets.

As previously mentioned, the other criterion for determining conformity would have been the progress in implementation of the Transportation Control Measures (TCMs) contained in the SIPs. However, since previous consultation had determined that there were no approved TCMs, that criterion did not affect the determination of conformity. The results of the regional emissions analyses for ozone precursors are discussed below.

8-hour Ozone Analysis

The eight-hour ozone redesignation SIPs of Indiana and Kentucky contain emission budgets for the precursors of ozone, volatile organic compounds (VOCs) and oxides of Nitrogen (NOx). The regional emissions analysis was conducted to provide estimates of the levels of emissions of VOCs and NOx for the various analysis years. These emission levels were then compared to the budgets in the SIPs to determine if the conformity tests were passed.

The results of the regional emissions analysis are summarized in Tables 1, 2, and 3. Table 1 shows the summer weekday vehicle-miles-traveled from the analysis. Table 2 shows that for 2025 and 2030, the summer weekday VOC and NOx emission levels for the 2015 8-hour nonattainment area are less than the 2019 base year emissions in the 2015 8-hour ozone redesignation SIP. Table 2 also shows that for 2035, 2040, and 2050, the summer weekday VOC and NOx emission levels for the 2015 8-hour nonattainment area are less than the motor vehicle emission budgets established in the 2015 8-hour ozone redesignation SIP. Table 2 also shows that for 2035, 2040, and 2050, the summer weekday VOC and NOx emission levels for the 2015 8-hour nonattainment area are less than the 2035 motor vehicle emission budgets established in the 2015 8-hour ozone redesignation SIP. Table 3 shows that for 2025, 2030, 2035, 2040, and 2050, the summer weekday VOC and NOx emission levels for the 2015 8-hour nonattainment area are less than 2020 emission budgets in the 1997 8-hour ozone redesignation SIP.

Conclusions – 8-hour Ozone

The regional emissions analysis of *Connecting Kentuckiana 2050* indicates that the Metropolitan Transportation Plan is consistent with the goals and emission budgets established in the State Implementation Plans of Indiana and Kentucky. The cumulative effect of the results shown in Tables 2 and 3 indicates that *Connecting Kentuckiana 2050* has met the requirements of conformity under the 2015 8-hour ozone standards. In summary, it can be concluded that *Connecting Kentuckiana 2050* conforms to the SIPs and meets the requirements of the federal conformity rule.

TABLE 1

SUMMER WEEKDAY VEHICLE-MILES-TRAVELED (VMT) ESTIMATED FOR THE 8-HOUR OZONE NONATTAINMENT AREA (in 1000's of vmt/day)			
YEAR	INDIANA	KENTUCKY	TOTAL
2025	8123	26658	34781
2030	8460	27868	36328
2035	8849	28867	37716
2040	9256	29766	39022
2050	10091	31855	41946

TABLE 2

SUMMER WEEKDAY EMISSIONS FOR THE 8-HOUR NONATTAINMENT AREA (kg/day)				
EMISSION LEVELS FOR VARIOUS YEARS				
YEAR	Area	VOCs	NOx	PASS
2027	Regional	6899	13316	YES
2030		5831	9964	YES
2035		4618	6418	YES
2040		3765	4783	YES
2050		2796	3613	YES

NOTE: The criteria for conformity for the INDIANA counties are as follows:

2027 and 2030 Regional emission levels for VOCs must be below the 2015 Ozone standard redesignation SIP base year (2019) emissions of 13.65 tons/day or 12,383 kg/day.

2027 and 2030 Regional emission levels for NOx must be below the 2015 Ozone standard redesignation SIP base year (2019) emissions of 33.03 tons/day or 29,964 kg/day.

2035, 2040, and 2050 Regional emission levels for VOCs must be below the 2015 Ozone standard redesignation SIP emission budget (2035) of 5.51 tons/day or 4,999 kg/day.

2035, 2040, and 2050 Regional emission levels for NOx must be below the 2015 Ozone standard redesignation SIP emission budget (2035) of 17.18 tons/day or 15,585 kg/day.

TABLE 3

SUMMER WEEKDAY EMISSIONS FOR THE 8-HOUR NONATTAINMENT AREA (kg/day)				
EMISSION LEVELS FOR VARIOUS YEARS				
YEAR	Area	VOCs	NOx	PASS
2025	Regional	6899	13316	YES
2030		5831	9964	YES
2035		4618	6418	YES
2040		3765	4783	YES
2050		2796	3613	YES

NOTE: The criteria for conformity for the KENTUCKY counties are as follows:

2025, 2030, 2035, 2040, and 2050 Regional emission levels for VOCs must be below the 1997 Ozone standard redesignation SIP emission budget (2020) of 22.92 tons/day or 20,793 kg/day.

2025, 2030, 2035, 2040, and 2050 Regional emission levels for NOx must be below the 1997 Ozone standard redesignation SIP emission budget (2020) of 29.46 tons/day or 26,726 kg/day.



U.S. Department
of Transportation
**Federal Highway
Administration**

Kentucky Division

June 24, 2026

330 West Broadway
Frankfort, KY 40601
PH (502) 223-6720
FAX (502) 223-6735

<http://www.fhwa.dot.gov/kydiv>

In Reply Refer To:
HDA-KY

Mr. Jarrett Haley, Executive Director
Louisville Area Metropolitan Planning Organization
c/o Kentuckiana Regional Planning and Development Agency
11520 Commonwealth Drive
Louisville, KY 40299

Dear Mr. Haley:

The Kentucky Division of the Federal Highway Administration (FHWA) and Region 4 of the Federal Transit Administration (FTA), in consultation with the Indiana Division Office of the Federal Highway Administration and Regions 4 and 5 of the United States Environmental Protection Agency (EPA), have reviewed the following document(s):

Amendment 13 to the 2050 Metropolitan Transportation Plan (MTP) and
Amendment 4 to the 2025-2028 Transportation Improvement Program (TIP) for the
Louisville Area Metropolitan Planning Organization (MPO)
(MPO approved resolution signed on January 22, 2026)

The Kentucky Environmental and Public Protection Cabinet's Division for Air Quality, the Kentucky Transportation Cabinet's (KYTC) Division of Planning, the KYTC Office of Transportation Delivery, the Louisville Metro Air Pollution Control District, and the Transit Authority of River City also had an opportunity to review and comment on the aforementioned documents.

We found that this document meets the five primary criteria of the Transportation Conformity Rule (40 CFR Part 93):

- use of the latest planning assumptions;
- use of the latest emissions model;
- use of appropriate consultation procedures;
- consistency with the mobile vehicle emission budgets in the State Implementation Plan (SIP); and
- provisions for the timely implementation of transportation control measures in the SIP.

We found that these documents met the criteria outlined in the July 1, 2004, Transportation Conformity Rule Amendments for New 8-hr Ozone and PM_{2.5} National Ambient Air Quality Standards (NAAQS), Response to March 1999 Court Decision and Additional Rule Changes (69 FR 40004). We therefore find that these documents conform to the 2015 8-hour Ozone NAAQS.

Should you have any questions or need additional information, please contact Tonya Higdon, Transportation Specialist, at (502) 223-6734.

Sincerely,



Shundreka R. Givan, AICP
Division Administrator

CC: Aviance Webb, FTA-R4
Ronald Smith, FTA-R4
Erica Tait, FHWA-IN
Steven Jacobs, FHWA-KY
Brad Akers, USEPA-R4
Simone Jarvis, USEPA-R4
Gillian Washe-Langford, US EPA-R4
Weston Freund, USEPA-R4
Clair Oyler, KEEC-DAQ
Emma Moreo, KEEC-DAQ
Rachael Hamilton, APCD
Ozzy Gibson, TARC
Ron Rigney, KYTC-Program Management
Mikael Pelfrey, KYTC-Planning
Andy Rush, Louisville Area MPO