



**AIR QUALITY CONFORMITY DETERMINATION
OF OKI 2040 REGIONAL TRANSPORTATION PLAN AND THE
OKI FY 2016-2019 TRANSPORTATION IMPROVEMENT
PROGRAM FOR THE CINCINNATI-HAMILTON OH-KY-IN,
AREA FOR NATIONAL AMBIENT AIR QUALITY STANDARDS
(NAAQS) – TECHNICAL DOCUMENTATION**

**FINAL
JUNE 9, 2016**



Table of Contents

	<u>Page</u>
I. Background	1
II. OKI's Conformity Process	3
III. Description of Conformity Tests	8
IV. Non-Exempt Projects in Transportation Networks.....	10
V. Conformity Determination for the Ohio and Indiana Portion of the NA Area	10
V. Conformity Determination for the Kentucky Portion of the NA Area	11
VI. Interagency Consultation and Public Involvement	13

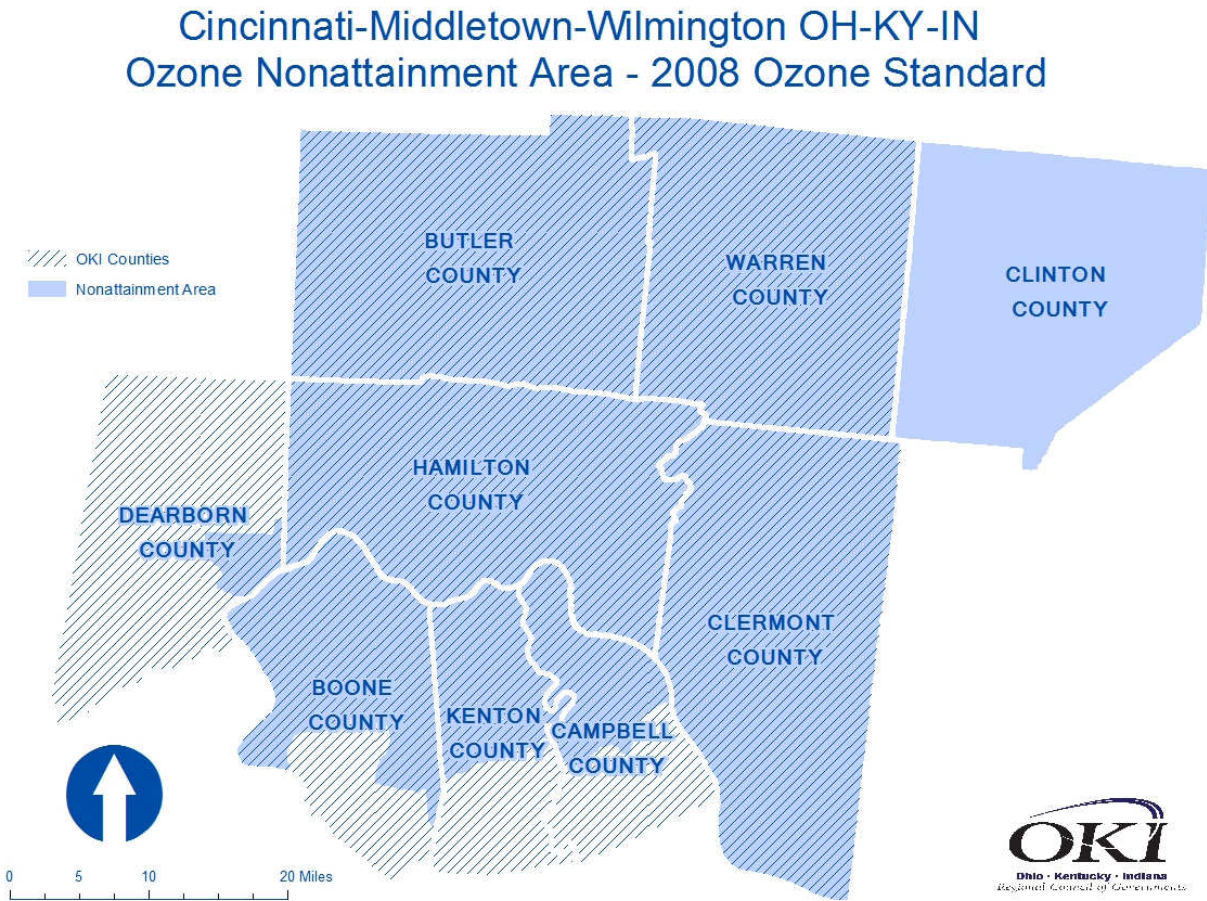
List of Figures and Tables

Figure 1. Map of Ozone Nonattainment Area	1
Figure 2. Map of PM2.5 Nonattainment/Maintenance Area	2
Table 1. MOVES Run Specifications.....	7
Table 2. MOVES County Data Manager Data and Sources	8
Table 3. Conformity Analysis Years and Tests - Ozone	9
Table 4. Conformity Analysis Years and Tests – PM2.5.....	9
Table 5. Quantitative Conformity Findings of Ozone-forming emissions for the Ohio and Indiana Portion of the Maintenance Area	10
Table 6. Quantitative Conformity Findings of Annual Direct PM2.5 and NO _x emissions for the Ohio and Indiana Portion of the Maintenance Area	11
Table 7. Quantitative Conformity Findings of Ozone-forming emissions for the Kentucky portion of the Maintenance Area	12
Table 8. Quantitative Conformity Findings of Annual Direct PM2.5 and NO _x emissions for the Kentucky Portion of the Nonattainment Area.....	12
Appendix A. Non-Exempt Projects in Transportation Networks	
Appendix B. Interagency Consultation Meeting Minutes, Interagency Consultation comments and public comments	

I. BACKGROUND

In May 2012, pursuant to provisions of the Clean Air Act Amendments of 1990, the U.S. Environmental Protection Agency (EPA) designated nine counties in the Cincinnati area as a marginal nonattainment area for ozone under the 2008 ozone standard. Nonattainment means that the area is not meeting the national ambient air quality standard. The Cincinnati ozone nonattainment area includes Lawrenceburg Township in Dearborn County Indiana, portions of the Kentucky counties of Boone, Campbell and Kenton, and the Ohio counties of Butler, Clermont, Clinton, Hamilton and Warren. Clinton County is outside of the OKI region, but is part of the nonattainment area. The Ohio Department of Transportation (ODOT) is the lead planning agency for Clinton County.

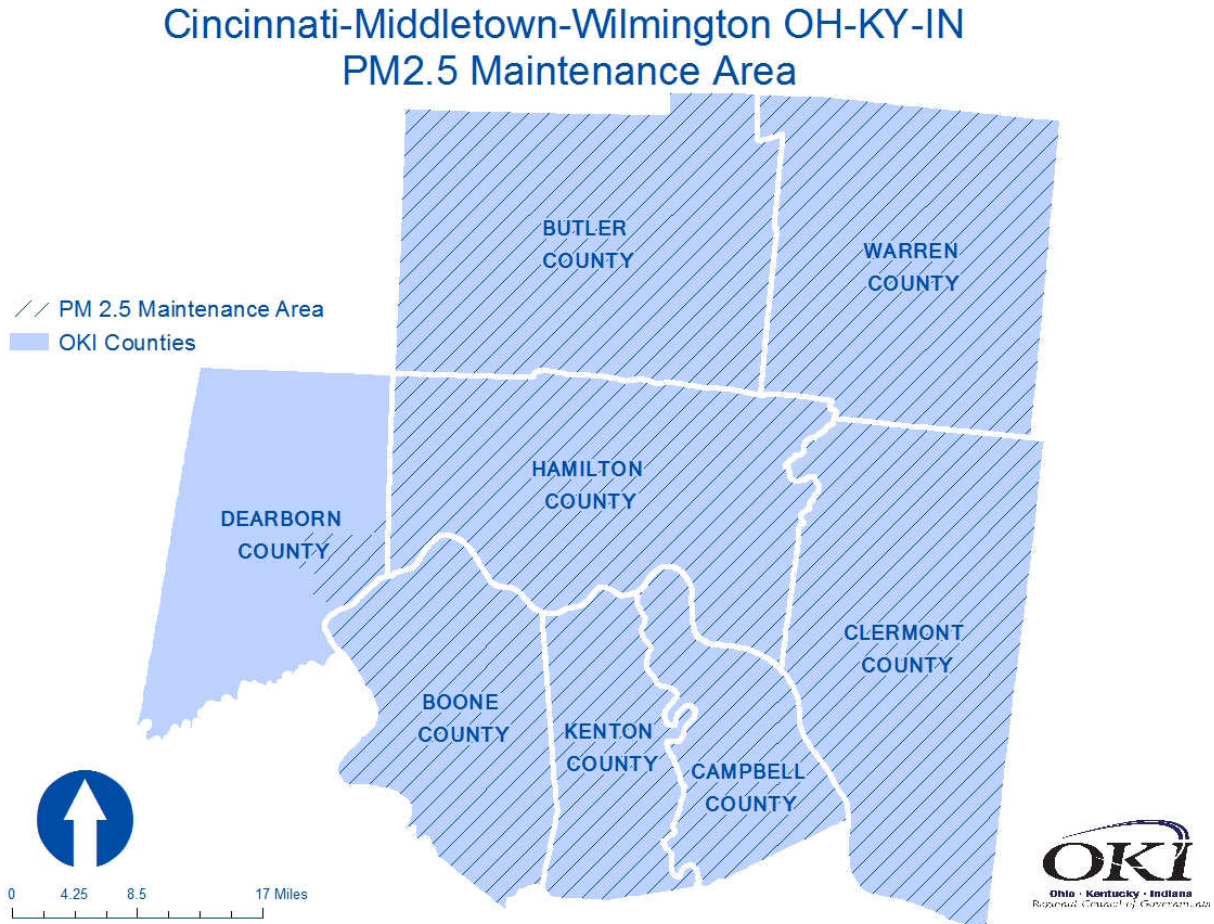
Figure 1.



The Ohio portion of the Cincinnati area has been designated by the U.S. EPA as a nonattainment area under the 1997 annual fine particulate (PM_{2.5}) standard and will remain so until the 1997 PM_{2.5} standard is revoked by U.S. EPA (projected to occur in the fall of 2016). The fine particulate nonattainment area includes Lawrenceburg Township in Dearborn County Indiana and the Ohio counties of Butler, Clermont, Hamilton and Warren. The Kentucky portion of the Cincinnati area has been designated by the U.S. EPA as a maintenance area under the 1997 annual PM_{2.5} standard and will

remain so until the standard is revoked. The maintenance area includes the Kentucky counties of Boone, Campbell, and Kenton. The region is in attainment for all other criteria pollutants monitored by U.S. EPA.

Figure 2.



Transportation conformity is a mechanism to ensure that federal funding and approval are given to those transportation activities that are consistent with air quality goals as contained in the State Implementation Plans (SIPs). OKI is responsible for the air quality conformity determination for the region's Transportation Plan and Transportation Improvement Program.

This 2016 update to the *OKI 2040 Regional Transportation Plan* (also called the Metropolitan Transportation Plan) involves additions and changes to projects, which, due to their scope and regional significance, trigger the need for a new regional emissions analysis and finding of conformity. The *OKI 2040 Regional Transportation Plan* and the *FY 2016-2019 TIP* include one-hundred four projects that are subject to transportation conformity requirements (non-exempt projects). A summary of the proposed conformity analysis years, budgets and tests were shared with the Interagency Consultation Group on January 27, 2016. A draft technical conformity report, with a new regional emissions

analysis and details on OKI's conformity process, was provided to the OKI Interagency Consultation group on April 19, 2016.

II. OKI'S CONFORMITY PROCESS

Transportation networks

The conformity analysis involves the use of the four CUBE-based transportation networks. Each transportation network consists of highway and transit components. The Ohio Department of Transportation provided emissions data for Clinton County.

The five networks specifically developed for use in this conformity process represented an ozone budget year (2020), a PM2.5 budget year (2021), an interim year (2030) and the Regional Transportation Plan horizon year (2040). All regionally significant projects regardless of the funding source were evaluated for their impacts on air quality in the maintenance area.

- The 2020 transportation network includes the current year network plus projects in the *FY2016-2019 Transportation Improvement Program* and the *OKI 2040 Regional Transportation Plan* that are expected to be open to traffic before the year 2020.
- The 2021 transportation network is identical to the 2020 network.
- The 2030 transportation network includes the 2021 network plus projects in the *FY2016-2019 Transportation Improvement Program* and *OKI 2040 Regional Transportation Plan* that are expected to be open to traffic before the year 2030.
- The 2040 transportation network includes the 2030 network plus projects in the *OKI 2040 Regional Transportation Plan* that are expected to be open to traffic before the year 2040.

OKI Travel Demand Model

Vehicle miles traveled and vehicle hours were estimated using the OKI Travel Demand Model Version 8.0. The OKI Travel Demand Model utilizes the Citilabs CUBE transportation modeling platform and includes a series of CUBE Voyager programs written by OKI. It is a state of the practice model that uses the standard four phase sequential modeling approach of trip generation, distribution, modal choice and assignment. The model uses demographic and land use data and capacity and free-flow speed characteristics for each roadway segment in the network to produce a "loaded" highway network with forecasted traffic volumes with revised speeds based on specified speed/capacity relationships.

Travel analysis zones are the basic geographic unit for estimating travel in the OKI model. The OKI region is subdivided into 2299 traffic analysis zones to permit detail as well as manageability. A variety of socioeconomic data items are used in the OKI transportation planning process. These data are used primarily to forecast future travel patterns by serving as independent variables in OKI trip generation equations. The following categories of planning data are utilized:

- Population (household and group quarter)

- Households
- Household vehicles
- Employment (by employment category and zone of work)
- Labor force participation (by zone of residence)
- Area type

The principal data requirements of the OKI travel demand forecasting model are population and employment. From these variables, other characteristics including households, labor force, and personal vehicles may be derived. The *OKI 2040 Regional Transportation Plan* provides a complete demographic overview of the region.

OKI utilizes both base year (2010) and future year data (2020, 2030, and 2040) in the planning process. Planning data are maintained at the Traffic Analysis Zone (TAZ) level, and originate in the 2010 Census of Population and Housing. Base year 2010 and future year data for each variable are developed through various methods. More detailed explanation of base year and future year data generation for each of the above-mentioned categories of planning data follows. All of the variables represent the latest OKI planning assumptions.

Population

Base and Future Year Data: Population data for base year 2010 and future years 2020, 2030, and 2040 originate with the 2010 Census of Population and Housing. Utilizing ArcGIS, population data at the zonal level for 2010 was derived from the area proportion allocation of block level population.

As a tri-state regional planning agency, OKI uses the most current county level population projections as prepared by the respective state data centers (Ohio Development Services Agency Department of Research, Kentucky State Data Center and Indiana Business Research Center) as control totals. Projections based on the 2010 census for years 2020 to 2040 were released by the Ohio state data center in 2013, the Indiana state data center in 2012 and the Kentucky state data center in 2011. Population projections at the zonal level are calculated by multiplying household size by the projected zonal households. Household size is factored so that, in each county, the sum of the zonal populations equals the county control total.

Households

Base Year Data: Household data for base year 2010 originates with the 2010 Census of Population and Housing. Utilizing the geographic information system ArcGIS, household data at the zonal level for 2010 was derived from the area proportion allocation of block level households.

Future Year Data: The preparation of household projections was accomplished by calculating the number of households for a projected county population using ratios of householders to total population by age specific cohorts derived from the 2010 Census for each analysis year. Disaggregation to TAZs was determined by historical trends,

existing and future land use, topography, flood plain information, availability of land, local knowledge and other factors.

Household Vehicles

Base and Future Year Data: Base and future year household vehicle data were obtained from the 2009-2013 American Community Survey. Average vehicles per household were calculated for block groups then applied to the TAZs associated with each block group. The 2020, 2030 and 2040 vehicles per household were held at the 2009-2013 level based on the fact that, since 2002, the number of vehicles per household has exceeded the number of drivers per household.

Labor Force

Base and Future Year Data: The OKI labor force is a function of the population as determined by a labor force participation rate (the number of employed persons in the labor force per persons 16 and over). Household data for base year 2010 originates with 2009-2013 American Community Survey. Utilizing the geographic information system ArcGIS, household data at the zonal level for 2010 was derived from the area proportion allocation of block group level employed labor force. The labor force projections for 2020, 2030, and 2040 were based on the most recent projections of national labor force participation rates by age and sex cohorts from the U.S. Department of Labor, Bureau of Labor Statistics for each of those years. These rates were then applied to the projected county age/sex cohorts and adjusted to eliminate the unemployed to arrive at a county employed labor force control total. Employed labor force at the zonal level is calculated by multiplying the labor force participation rate by the zonal population. The labor force participation rate is adjusted so that, in each county, the sum of the zonal labor force counts equals the control total.

Employment

Base Year Data: Quarterly Census of Employment and Wages (QCEW) data for 2010 was utilized as the primary tool to calculate base year employment at the zonal level. Individual business records containing physical location, number of employees and North American Industry Classification System (NAICS) code were geocoded in ArcGIS and aggregated to the TAZ level. This data set was supplemented by other sources of data to complete the commuting employment picture in the OKI region. Each zone's employment was divided into twelve categories based on two-digit NAICS sector codes. The categories represent sectors grouped according to their similarity in generating trips.

Future Year Data: For future year employment projection, calculation was first made of the employment at the regional level. At the regional level, employment is a calculation of the region's employed labor force minus workers who live in the region but commute out to work, plus workers who live outside the region but commute in to work. The regional total was disaggregated first to the county level based on historic trends and expected changes in the county's share of the region's employment and then to the TAZ level. Disaggregation to TAZs was determined by historical trends, existing and future

land use, topography, flood plain information, availability of land, local knowledge and other factors.

Area Type

Base and Future Year Data: For each analysis year, each TAZ is assigned an area type designation as CBD, Urban, Suburban or Rural based on population and employment densities.

Model Calibration

OKI's Travel Demand Model has been validated to observed traffic volumes for the model base year 2010. The modeling network encompasses the entire ozone Maintenance area with the exception of Clinton County, Ohio. The modeling network also includes Greene, Miami and Montgomery counties in Ohio and the remainder of Dearborn County Indiana. The difference between estimated vehicle miles traveled (VMT) and 2010 observed VMT is less than 3%. A highway screenline analysis compares the screenline observed and simulated traffic volume discrepancies with the ODOT standard of maximum desirable deviation. The comparison shows that the model performs at a satisfactory level. For the calibration, OKI used over 3000 traffic counts collected through 2014 by OKI, the Ohio Department of Transportation (ODOT), the Kentucky Transportation Cabinet, the Indiana Department of Transportation (INDOT) and local governments. These traffic counts cover nearly 50% percent of the links in the OKI portion of the modeling network. The methodology provides consistency with past emission inventory and conformity analysis work performed by OKI.

Local Inputs and Post-Model Processing

OKI incorporates a variety of sources of local data to both improve and confirm the accuracy of VMT, as well as other travel-related parameters. Free flow speeds used on the highway and transit networks are based on travel time studies performed locally. The OKI post-processing program, IMPACT, uses the loaded highway network to generate VMT by hour, VMT by speed distribution and VMT by facility type. These tables are then included as input into MOVES. Two separate sets of VMT tables are generated: one for the four Ohio counties plus Dearborn County Indiana, and a second for the three Kentucky counties. The VMT by hour tables utilize hourly traffic distribution and directional split factors for different roadway types as developed by OKI. The main source of the data was the permanent traffic counting stations located throughout the OKI region for the years of 2009-2014. This data was supplemented with data collected at coverage count stations (locations with counts taken on only one-two days). The stations were classified by area type: urban and rural, and functional classification: freeway, arterial and collector. Speeds representing various "loaded" conditions (with traffic volumes) are estimated using techniques from the 1997 Highway Capacity Manual. This permits the estimation of speeds as conditions vary from hour to hour on the different facility types throughout the region. The IMPACT program performs the appropriate summation by area and roadway type as well as regional totals. OKI has also developed seasonal conversion

factors to adjust traffic volumes to summer conditions. The factors were derived for June, July and August from local data collected at permanent traffic counting stations.

Emission Factor Models

OKI’s conformity assessment utilized U.S.EPA’s emission model MOVES2014a to develop emission factors for VOC’s, NO_x and PM2.5. The MOVES input files contain local parameters, developed through consultation with state partners, for temperature, fuel programs, fuel characteristics, and vehicle fleet composition. The local parameters are combined with the VMT and speed data from the OKI Travel Demand Model to produce emission factors measured in grams per mile and grams per vehicle for the appropriate analysis year. These emission factors are then multiplied by VMT and vehicle population. The methodologies incorporated into MOVES for estimating emissions are based on methods and research conducted by U.S.EPA. OKI’s development of MOVES input values were guided by the U.S.EPA’s document *"MOVES2014 and MOVES2014a Technical Guidance: Using MOVES to Prepare Emission Inventories for State Implementation Plans and Transportation Conformity"*, November 2015.

Table 1 summarizes the settings used in the MOVES run specification file. Table 2 lists the data and sources used in the MOVES County-Data Manager.

Table 1

MOVES RunSpec Parameter	Settings
MOVES2014a-20151201; movesdb20151028	
Scale	County, Emission Rates
Time Span	Time aggregation = Hour July and April weekday, July meteorological data and annual average meteorological data used in place of April data All hours of day selected Weekdays only
Geographic Bounds	Two Custom Domains 1) 4 Ohio counties and Lawrenceburg IN, 2) 3 Kentucky counties
Vehicles/Equipment	All source types available for gasoline,diesel, & ethanol. CNG transit buses
Road Type	All road types including off-network
Pollutants and Processes	VOC, hydrocarbons, NO _x and all PM2.5 pollutants. No emissions from refueling.
Strategies	Default
General Output	Units= grams, joules and miles
Output Emissions	Time = hour, Location =county, on-road emission rates by road type and source use type.
Advanced Performance	none

Table 2

MOVES County Data Manager	Data Source
Source Type Population	Local and default. Local data from KYTC (2014) and ODOT (2012) from motor vehicle registration data. Default data used for source types 41, 51, 52, 53, 61 and 62 in Ohio and types 41, 42, 43, 51, 52, 53, 61 and 62 in Kentucky.
Vehicle Type VMT	Local and default. HPMSVTypeYear VMT=daily VMT from OKI travel demand model with EPA's daily to annual VMT converter applied. MonthVMTFraction = default. dayVMTFraction=default, hourVMTFraction=default.
I/M Programs	No I/M Program. Default setting.
Fuel Supply	Default for Hamilton County, OH and Boone County, KY as representative counties.
Meteorology Data	Local. MOBILE6 converted values for Ohio and Kentucky values from Kentucky Division for Air Quality.
Ramp Fraction	Local. OKI travel demand model.
Road Type Distribution	Local. OKI travel demand model.
Age Distribution	Local and default. Local data from KYTC (2014) and ODOT (2012) from motor vehicle registration data. Default data used for source types 41, 51, 52, 53, 61 and 62 in Ohio and types 41, 42, 43, 51, 52, 53, 61 and 62 in Kentucky.
Average Speed Distribution	Local. OKI travel demand model.

Complete MOVES input and output files are available electronically upon request.

III. DESCRIPTION OF CONFORMITY TESTS

This report documents that the *OKI 2040 Regional Transportation Plan* and its short range component, the *OKI FY2016-2019 Transportation Improvement Program* are in conformance with the State Implementation Plans (SIPs) of Indiana, Kentucky and Ohio, complies with the Clean Air Act, and the analysis is in accordance with federal Transportation Conformity Regulations, 40 CFR Parts 51 and 93. The analysis is also in accordance with other applicable federal and state requirements such as the *Ohio State Transportation Conformity Rules, Ohio Administration Code Part 3745-101-01 through 20* and the Commonwealth of Kentucky's *Conformity of Transportation Plans, Programs and Projects: 401 KAR 50:066*. Methodologies and results of the conformity determination are presented herein. The selection of analysis years and tests were determined through interagency consultation with federal, state and local partners and in accordance with 40 CFR 23.118(d)(2). The selection of analysis year 2040 represents the "build" condition of the *OKI 2040 Regional Transportation Plan*.

Table 3 - Conformity Analysis Years and Tests
Ozone

Ozone	
Attainment status:	Ozone nonattainment area – 2008 standard.
Geography:	Butler, Clermont, Clinton, Hamilton, & Warren Counties in Ohio; Boone (partial), Campbell (partial), & Kenton Counties (partial) in Kentucky; Dearborn County (partial) in Indiana
A/Q Budget Status:	8-Hour ozone budgets approved <i>Revised 8-hour ozone budgets pending redesignation approval</i>
SIP Commitments:	RVP 7.8 in Ohio Counties (except Clinton) RFG in Kentucky Counties
Conformity Tests:	8-Hour ozone budget tests of OKI Plan/TIP & Clinton Co. TIP analysis year networks. 24-hour summer emissions.
Analysis Years:	2020 Budget year, 2030 Interim year, 2040 Plan horizon year.
Other:	ODOT provided Clinton Co. ozone emissions to OKI. OKI performs conformity analysis for Warren County portion of MVRPC.

Table 4 - Conformity Analysis Years and Tests
PM_{2.5}

PM _{2.5}	
Attainment status:	PM _{2.5} nonattainment area (OH/IN), annual standard PM _{2.5} maintenance area (KY), annual standard. Status continues until US EPA revokes 1997 standard.
Geography:	Butler, Clermont, Hamilton, & Warren Counties in Ohio; Boone, Campbell, & Kenton Counties in Kentucky; Lawrenceburg Twp, Dearborn County Indiana
A/Q Budget Status:	MOVES-based budgets from the revised 1997 PM _{2.5} SIP.
SIP Commitments:	None
Conformity Tests:	Annual PM _{2.5} budget tests of OKI Plan/TIP analysis year networks
Analysis Years:	2021 Budget year, 2030 Interim year, 2040 Plan horizon year
Other:	PM _{2.5} includes brake and tirewear

IV. NON-EXEMPT PROJECTS IN THE TRANSPORTATION NETWORKS

The TIP and Plan include a number of projects, which, due to their scope and regional significance, trigger the need for a new finding of conformity. Sections 93.126 and 93.127 of the Transportation Conformity Rule cite a number of project types, such as safety and maintenance projects that may be excluded from the regional emissions analysis required to determine conformity. Because of their nature, the “exempt” projects will not affect the outcome of the regional emissions analysis nor will they add substance to the analysis. The Transportation Plan highway projects listed in this Appendix are considered “non-exempt” in regards to air quality and thus are required to be included in a conformity finding. OKI’s highway and transit networks include the existing transportation system plus all regionally significant projects regardless of funding source. Regionally significant project means a “non-exempt” transportation project that is on a facility that serves regional transportation needs.

V. CONFORMITY DETERMINATION FOR THE OHIO AND INDIANA PORTION OF THE NONATTAINMENT AREA

OKI has determined that the projects in this *OKI FY2016-2019 TIP* or the *OKI 2040 Regional Transportation Plan* are consistent with the air quality goals of the SIP and the conformity requirements under the 8-hour ozone standard and the annual PM_{2.5} standard. OKI’s quantitative conformity findings for ozone-forming emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x) in the Ohio and Indiana portion of the ozone maintenance area are found in Table 5. Table 6 shows the quantitative conformity finding for annual PM_{2.5} and NO_x emissions in the Ohio and Indiana portion of the PM_{2.5} maintenance area. In spring 2016, Ohio and Indiana are expected to submit ozone redesignation requests, with revised VOC and NO_x mobile vehicle emission budgets, to U.S. EPA for approval. The tables show the pending budgets in italics.

Table 5
Quantitative Conformity Findings of Ozone-forming Emissions (tons per day) for the Ohio¹ and Indiana Portion² of the Nonattainment Area

	<u>2020</u>	<u>2030</u>	<u>2040</u>
Ohio/Indiana VOC Budget	42.81	42.81	42.81
<i>Pending Ohio/Indiana VOC Budget</i>	<i>30.00</i>	<i>18.22</i>	<i>18.22</i>
Ohio/Indiana VOC Emissions	24.16	14.79	10.52
Ohio/Indiana NO _x Budget	73.13	73.13	73.13
<i>Pending Ohio/Indiana NO_x Budget</i>	<i>30.79</i>	<i>16.22</i>	<i>16.22</i>
Ohio/Indiana NO _x Emissions	24.12	13.10	10.04

Table 6
Quantitative Conformity Findings of PM_{2.5} Emissions (tons per year) for the Ohio and Indiana Portion² of the Maintenance Area

	<u>2021</u>	<u>2030</u>	<u>2040</u>
Ohio Annual Direct PM _{2.5} Budget	1241.19	1241.19	1241.19
Ohio Annual Direct PM _{2.5} Emissions	238.67	186.08	163.68
Ohio Annual NO _x Budget	21747.71	21747.71	21747.71
Ohio Annual NO _x Emissions	7570.94	4595.92	3637.11

¹Includes Clinton County

²Dearborn County emissions are for the nonattainment portion only

- VOC and NO_x emissions in the Ohio and Indiana portion of the ozone nonattainment area do not exceed the 2020 VOC or NO_x budget for the budget year 2020, the intermediate year 2030, or the Plan year 2040.
- Annual Direct PM_{2.5} and annual NO_x emissions in the Ohio and Indiana portion of the PM_{2.5} maintenance area do not exceed the budget year 2021, the intermediate year 2030, or the Plan year 2040.
- OKI qualitatively finds no factors in the *OKI FY2016-2019 TIP* or the *OKI 2040 Regional Transportation Plan* that would cause or contribute to a new daily ozone or annual PM_{2.5} violation or exacerbate an existing violation in the years before 2020 for the Ohio and Indiana portion of the nonattainment area.
- OKI qualitatively finds that no goals, directives, recommendations or projects identified in the *OKI FY2016-2019 TIP* or the *OKI 2040 Regional Transportation Plan* contradict in a negative manner any specific requirements or commitments of the applicable state implementation plan.
- The applicable implementation plans do not contain any transportation control measures (TCM's), therefore; nothing in *OKI FY2016-2019 TIP* or the *OKI 2040 Regional Transportation Plan* can interfere with their timely implementation.

VI. CONFORMITY DETERMINATION FOR THE KENTUCKY PORTION OF THE NONATTAINMENT AREA

OKI has determined that the recommended projects in this *OKI FY2016-2019 TIP* and the *OKI 2040 Regional Transportation Plan* are consistent with the air quality goals of the SIP and the conformity requirements under the 8-hour ozone standard and the annual PM_{2.5} standard. OKI's quantitative conformity findings for ozone-forming emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are found in Table 7. The PM_{2.5} quantitative conformity finding is found in Table 8. In spring 2016, Kentucky is expected to submit ozone redesignation requests, with revised VOC and NO_x mobile vehicle emission budgets, to U.S. EPA for approval. The revised budgets are for the partial counties included in the nonattainment area. The tables show the pending, partial county budgets and emissions in italics.

Table 7
Quantitative Conformity Findings of Ozone-forming Emissions (tons per day) for the
Kentucky Portion of the Nonattainment Area

	<u>2020</u>	<u>2030</u>	<u>2040</u>
N. Kentucky VOC Budget	8.76	8.76	8.76
N. Kentucky VOC Emissions	3.96	2.26	1.92
<i>Pending N. Kentucky VOC Budget (partial)</i>	<i>4.11</i>	<i>2.82</i>	<i>2.82</i>
<i>N. Kentucky VOC Emissions (partial)</i>	<i>3.47</i>	<i>1.98</i>	<i>1.69</i>
N. Kentucky NO _x Budget	28.13	28.13	28.13
N. Kentucky NO _x Emissions	6.84	2.98	2.40
<i>Pending N. Kentucky NO_x Budget (partial)</i>	<i>7.39</i>	<i>4.37</i>	<i>4.37</i>
<i>N. Kentucky NO_x Emissions (partial)</i>	<i>5.95</i>	<i>2.59</i>	<i>2.00</i>

Table 8
Quantitative Conformity Findings of PM_{2.5} Emissions (tons per year) for the Kentucky
Portion of the Maintenance Area

	<u>2021</u>	<u>2030</u>	<u>2040</u>
N. Kentucky Direct PM _{2.5} Annual Budget	302.92	302.92	302.92
N. Kentucky Direct PM _{2.5} Annual Emissions	74.63	49.76	46.01
N. Kentucky NO _x Annual Budget	7384.32	7384.32	7384.32
N. Kentucky NO _x Annual Emissions	2196.93	1130.96	918.30

- VOC and NO_x emissions in the Kentucky portion of the ozone nonattainment area do not exceed the 2020 VOC or NO_x budget for the budget year 2020, the intermediate year 2030, or the Plan year 2040.
- Annual Direct PM_{2.5} and annual NO_x emissions in the Kentucky portion of the PM_{2.5} maintenance area do not exceed the budget year 2021, the intermediate year 2030, or the Plan year 2040.
- OKI qualitatively finds no factors in the *OKI FY2016-2019 TIP* or the *OKI 2040 Regional Transportation Plan* that would cause or contribute to a new daily ozone or annual PM_{2.5} violation or exacerbate an existing violation in the years before 2020 for the Kentucky portion of the maintenance area.
- OKI qualitatively finds that no goals, directives, recommendations or projects identified in the *OKI FY2016-2019 TIP* or the *OKI 2040 Regional Transportation Plan* contradict in a negative manner any specific requirements or commitments of the applicable state implementation plan.
- The applicable implementation plan in Kentucky does not contain any transportation control measures (TCM's), therefore; nothing in the *OKI FY2016-Air Quality Conformity Determination for OKI 2040 Plan Update and OKI FY16-19 TIP*, June 2016

2019 TIP or the *OKI 2040 Regional Transportation Plan* can interfere with their timely implementation.

VII. INTERAGENCY CONSULTATION AND PUBLIC INVOLVEMENT

OKI has engaged in consultation procedures with the Indiana Department of Transportation, the Indiana Department of Environmental Management, the Ohio Department of Transportation, the Ohio Environmental Protection Agency, the Kentucky Transportation Cabinet, the Kentucky Division of Air Quality, Miami Valley Regional Planning Commission, the U.S. Environmental Protection Agency, and the U.S. Department of Transportation before making this conformity determination and throughout the conformity process as appropriate. The criteria and procedures for the conformity determination of transportation plans, programs and projects are found in the OKI Transportation Conformity Consultation Memorandum of Understanding as adopted by the OKI Board of Directors on April 10, 2008. Interagency consultation for this conformity analysis was initiated on January 27, 2016 with a conference call. A conformity summary that included the proposed geography, conformity analysis years, budgets, tests and adoption schedule was distributed and discussed with the air quality stakeholders. Minutes of the IAC meeting and IAC comments are included in the Appendix. The conformity results were reported to the OKI Board of Directors on April 14, 2016. Beginning April 19, 2016 the draft conformity report was made available for public inspection on OKI's website and at OKI's office. Comments specifically regarding this conformity determination are included in the Appendix.

The *OKI 2040 Regional Transportation Plan* was developed with significant attention to public involvement in accordance with *OKI's Participation Plan, November 2013*. Notice of the availability of the draft documents, the announcement of the public comment period and the June 6, 2016 public hearing were published in several local newspapers in May 2016. Information on general comments received, and details on the entire public involvement process may be found on the *OKI 2040 Regional Transportation Plan* website www.2040Plan.oki.org.

APPENDIX A
Interagency Consultation Meeting Minutes and Comments
Public Comments

Minutes of Meeting
 January 27, 2016 at 11am EST
 Interagency Consultation for Transportation Conformity for the OKI 2040 Regional
 Transportation Plan

List of IAC Members:

Call Participant?

Bernadette	Dupont	FHWA- KY	YES	
John	Gardocki	SORTA		
Dianna	Myers	EPA R4	YES	
Ana	Ramirez	MVRPC		Concurrence via email
Michelle	Allen	FHWA-IN		
Leigh	Oesterling	FHWA-OH	YES	
Mike	Maleski	OEPA		
Andy	Johns	FHWA-OH	YES	
Leslie	Poff	KDAQ		
Joe	Forgacs	KDAQ	YES	
Justin	Harrod	KYTC		Concurrence via email
Beth	Jones	KYTC		
Frank	Busofsky	TANK		
Shawn	Seals	IDEM	YES	
Vanessa	Adams	FTA R5		
Dave	Moore	ODOT		
Emmanuel	Nsonwu	INDOT		
Tony	Maietta	EPA R5	YES	
Amanetta	Somerville	EPA R4		
Bob	Koehler	OKI	YES	
Andrew	Rohne	OKI	YES	
Andy	Reser	OKI	YES	

1. Andy Reser reviewed the schedule for Plan adoption and completing the conformity analysis. The conformity process, including interagency consultation, will result in a new MPO and US DOT conformity determination for the updated OKI 2040 Metropolitan Transportation Plan and current 2016-2019 Transportation Improvement Program and Clinton County, Ohio STIP. US DOT conformity determination is needed on or before August 1, 2016. The current OKI Transportation Plan was adopted in 2012 and lapses on 8/1/16. Other key dates:
 - a. 1/27/16- the official kickoff of the interagency consultation process.
 - b. 3/10/16 - Draft project list available. The non-exempt projects will be identified and completion dates estimated. Staff will begin conformity modeling. Staff will send a draft project list and financial constraint information to the IAC.
 - c. 4/14/16 - OKI Board of Directors approves release of Draft Plan and conformity for public comment.
 - d. 4/18/16 – The Draft Plan will be sent to the IAC with the draft conformity documentation. The draft conformity documentation will, at a minimum, consist

of the results table, list of non-exempt projects, and draft conformity finding. Information on the impact to EJ communities will be included in the draft. Public involvement begins and the adopted OKI Participation Process will be followed.

- e. 6/9/16 – scheduled approval of Plan Update by MPO Board
- f. 6/13/16 - Final Plan and Conformity documentation to IAC and Federal review agencies
- g. Mr. Reser reminded the group that all Plan materials can be found on OKI's website and 2040Plan.oki.org. Since September 2015, staff has been rolling out the planning assumptions and performance measures.

2. Conformity Summaries

- a. Mr. Reser reviewed the Conformity summary document for ozone. The ozone nonattainment area includes Butler, Clermont, Clinton, Hamilton, Warren Counties, OH; Portions of Boone, Campbell, Kenton Counties, KY; and Lawrenceburg Township, Dearborn County, IN. Clinton County is outside of OKI's planning area. ODOT generates emissions for Clinton County and OKI incorporates into conformity document. Analysis years for ozone are 2020, 2030 and 2040. Approved VOC and NO_x budgets are available for 2020. In 2015, the states initiated an ozone redesignation process for the 2008 ozone standard. The redesignation request contains revised ozone budgets for 2020 and 2030. These revised budgets are listed as "pending" and in italics on the attached summary sheet. EPA Region 5 is working with OEPA and IDEM to have a ruling on "adequate" budgets for conformity. This adequacy finding must occur prior to April 14th in order for OKI to include in the draft documentation. There was some uncertainty regarding the status of the ozone redesignation process for Kentucky, and it appears unlikely an adequacy finding will be made prior to April 14th. The existing budgets can be used where the new, revised budgets are not available.
- b. The Conformity summary document for PM_{2.5} was reviewed. The PM_{2.5} maintenance area includes Butler, Clermont, Hamilton, Warren Counties, OH; Boone, Campbell, Kenton Counties, KY; and Lawrenceburg Township, Dearborn County, IN. Analysis years for PM_{2.5} are 2021, 2030 and 2040. Approved budgets from the maintenance plan for the 1997 standards remain valid. There are approved 2021 budgets for annual PM_{2.5} and annual NO_x. The PM_{2.5} analysis years are 2021, 2030 and 2040. In response to a question, Mr. Reser explained that 2021 values will not be interpolated, it will come from a model run. However, population and employment estimates, used as model input, will be interpolated from 2020 and 2030.

3. Conformity Criteria

- a. OKI will use the latest planning assumptions in the conformity modeling. The travel model is OKI's Travel Demand Model version 8.0 with model base year of 2010. Staff will develop highway and transit networks for 2020, 2030 and 2040.

- b. The conformity analysis will use emission rates from MOVES2014a, the latest EPA model release. Mr. Reser explained that MOVES2014a was installed in November and new rates have been generated and available for use. Two sets of emission rates were developed; Ohio/Indiana portion and Kentucky portion.
 - c. SIP TCM status
There are no transportation control measures (TCM) in any of the three State Implementation Plans (SIPs).
 - d. The IAC had a brief discussion of the documentation requirements. The final conformity document will be extensive and be included as an appendix to the final Plan. All MOVES input and output files will be available upon request. MOVES model input selections will be detailed. The IAC process documentation will be included, as well as, all public comments related to the Plan and conformity.
4. Other issues
- a. Tony Maietta provided more detail on the 2015 vacature of the PM_{2.5} attainment demonstration in Ohio. The budgets used for conformity are not affected by the court action.
 - b. Dianna Myers of EPA R4 indicated that a member of their staff (Egide Louis) will likely follow-up with OKI in order to acquire the MOVES input files.

**OKI 2040 Regional Transportation Plan Update
Conformity Analysis Summary
1/25/16**

Ozone

Attainment status: 8-hour ozone maintenance area
 Geography: Butler, Clermont, Clinton, Hamilton, Warren Counties, OH
 Portions of Boone, Campbell, Kenton Counties, KY
 Lawrenceburg Township, Dearborn County, IN
 A/Q Status: 8-Hour ozone budgets approved
Revised 8-hour ozone budgets pending redesignation approval
 SIP Commitments RVP 7.8 in Ohio Counties (except Clinton)
 RFG in Kentucky Counties
 Conformity Tests: 8-Hour ozone budget tests of OKI Plan/TIP & Clinton Co.TIP analysis year
 networks. 24-hour summer emissions.
 Analysis Years: 2020 Budget year
 2030 Interim year
 2040 Plan horizon year
 Other: ODOT provides Clinton County emissions to OKI
 OKI performs conformity analysis for MVRPC portion of Warren County

Ohio/Indiana Ozone

	<u>2020</u>	<u>2030</u>	<u>2040</u>
Ohio/Indiana VOC Budget	42.81	42.81	42.81
<i>Ohio/Indiana VOC Budget (pending)</i>	30.00	18.22	18.22
Ohio/Indiana VOC Emissions			
Ohio/Indiana NOx Budget	73.13	73.13	73.13
<i>Ohio/Indiana NOx Budget (pending)</i>	30.79	16.22	16.22
Ohio/Indiana NOx Emissions			

Northern Kentucky Ozone

	<u>2020</u>	<u>2030</u>	<u>2040</u>
N. Kentucky VOC Budget (whole counties)	8.76	8.76	8.76
<i>N. Kentucky VOC Budget (pending-NA only)</i>	4.54	2.55	2.55
N. Kentucky VOC Emissions			
N. Kentucky NOx Budget (whole counties)	28.13	28.13	28.13
<i>N. Kentucky NOx Budget (pending-NA only)</i>	8.02	3.48	3.48
N. Kentucky NOx Emissions			

PM_{2.5}

Attainment status: PM_{2.5} nonattainment area (OH/IN), annual standard
PM_{2.5} maintenance area (KY), annual standard

Geography: Butler, Clermont, Hamilton, Warren Counties, OH
Boone, Campbell, Kenton Counties, KY
Lawrenceburg Township, Dearborn County, IN

A/Q status: PM_{2.5} budgets approved

SIP Commitments: None

Conformity Tests: Annual PM_{2.5} budget tests of OKI Plan/TIP analysis year networks

Analysis Years: 2021 Budget year
2030 Interim year
2040 Plan horizon year

Other: PM_{2.5} includes brake and tirewear

Ohio and Indiana PM_{2.5}

	<u>2021</u>	<u>2030</u>	<u>2040</u>
Ohio/Indiana Annual PM _{2.5} Budget	1241.19	1241.19	1241.19
Ohio/Indiana Annual PM _{2.5} Emissions			
Ohio/Indiana Annual NO _x Budget	21747.71	21747.71	21747.71
Ohio/Indiana Annual NO _x Emissions			

NKY PM_{2.5}

	<u>2021</u>	<u>2030</u>	<u>2040</u>
N. Kentucky Annual PM _{2.5} Budget	302.92	302.92	302.92
N. Kentucky Annual PM _{2.5} Emissions			
N. Kentucky Annual NO _x Budget	7384.32	7384.32	7384.32
N. Kentucky Annual NO _x Emissions			

Email comments from IAC:

From: Anthony Maietta, USEPA R5, 4/20/16

Just read through the document.

I'd add something along the lines of "The Ohio portion of the Cincinnati area has been designated by the U.S. EPA as a nonattainment area under the 1997 annual fine particulate (PM_{2.5}) standard and will remain so until the 1997 PM_{2.5} standard is revoked by U.S. EPA (projected to occur in the fall of 2016)."

And a similar ending for the Kentucky portion on maintenance.

That way it will be more clear that we're all just waiting for EPA HQ to revoke the standard for the area. It is a small caveat, but will hopefully leave an 'out' for the area on PM air quality reviews once the revocation of the standard occurs without having to revise the document down the road too substantially, or at all.

You may want to add that caveat elsewhere in the document too as it can sort of 'future proof' it for a little while anyway.

-Tony

Anthony Maietta
EPA Region 5
maietta.anthony@epa.gov
(312) 353-8777

From: Andy.Johns@dot.gov [<mailto:Andy.Johns@dot.gov>]
Sent: Wednesday, April 20, 2016 11:27 AM
To: Andy Reser <ARESER@oki.org>
Subject: RE: OKI Air Quality Interagency Consultation - 2040MTP

Andy:

For your email record, I have no specific comments other than following up with Tony Maietta as needed on status of PM 2.5 vacature of redesignation for Ohio to verify narrative is accurate.

Thanks.

AJ

APPENDIX B
NON-EXEMPT PROJECTS IN THE TRANSPORTATION NETWORKS

Non-Exempt Projects Beyond Existing System Included in Transportation Networks

PID	Plan ID	Facility	Location	Description
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Additional Non-Exempt Projects Identified for the 2020 Transportation Network

Kentucky

Boone

6-417	4050	Wendell Ford Blvd	From end of current Wendell Ford Blvd to Aero Parkway--0.48 miles	Extension of Wendell Ford Boulevard near CVG Airport
6-700	3881	Veterans Way	Existing Veterans Way between KY 18 and KY 237 (Amend. Mod #4, 1-12-16)	2-lane extension of existing Veterans Way between KY 18 and KY 237
6-14.50	3134	IR 75	From KY 536 to US 42. Admin. Mod #9, 6-10-14	Widen to 10 lanes
6-409	3410	Mall Road/I-71/75 Interchange	Mall Road Interchange (Admin Mod #3, 11-10-15)	New ramp from Mall Rd. to IR75 SB
6-8001.21	1181	KY 237	Valley View to Rogers Lane--Toll credits (Admin Mod #3, 11-10-15)	Reconstruct and widen to 4 lanes
6-158	311	KY 536	From US 42 to I-75 (Admin Mod #3, 11-10-15)	Widen to 5 lanes

Campbell

6-8105.05	4099	New Route	From John's Hill Rd (KY 2345) to Three-Mile Rd (KY 2238) near the IR 275 interchange. Toll credits	New connector KY 2345 to KY 2238
6-8101.20	4081	KY 9	MP 21.643 to KY 8 near 4th Street Bridge (Amendment #1, 9-12-13, Admin. Mod. #9, 6-10-14)	Construct a new route with 4 through lanes
6-8101.25	4888	KY 9	North of 10th Street to 5th Street (Amendment #5, 1-14-16)	Reconstruct KY 9 along a new route
6-352	14	KY 536	US 27 to AA Highway (KY 9)	Extension of existing roadway
	4981	US 27	Nunn Drive to Johns Hill Road	Widen to 3 through lanes southbound
6-8706	3876	US 27	MP 17.9 in Pendleton County to MP 1.9 in Campbell County	Widen to 4 lanes

Ohio

Butler

81174	3477	South Hamilton Crossing	Grand Blvd in city of Hamilton connecting SR 4 (Erie Blvd) on the east side of the four existing CSX	Replace with RR grade separation
98852	4096	Salzman Road	Intersection of Todhunter to northern terminus of Salzman, approx. 2,750' (Amendment #8, 5-12-16)	New 2-lane extension from Todhunter Rd. to SR 63. Added as Yankee Rd extension in MTP Amendment#3.
96452	3954	CR 19 (Cin-Day Road)	West Chester Road to Station/LeSourdsville West Chester Road	Widening from 2 lanes to 4 lanes
99558	4097	SR 747	Between Princeton and Millikin Roads (Amendment #11-B, 11-13-14, Amendment #13, 2-12-15)	Widen from 2 to 5 lanes, Princeton Rd. to Milliken Rd.

Clermont

82552	4112	Clepper Lane	Existing Clepper Lane from Gate Drive to new interchange just east of Elick Lane/Bach-Buxton Road.	2-lane extension of existing roadway. Added as part of Amendment#3 to MTP
82553	1431	Aicholtz Road Connector (CR 3)	Mt. Carmel-Tobasco to Eastgate Blvd. (Admin. Mod. #1, 9-8-15)	Reconnect Aicholtz Rd./Rust Ln. under I-275 to Mt. Carmel-Tobasco Rd.
82557	606	CR 171 (Old SR 74) Phase 1	Schoolhouse Road to Glen Este-Withamsville Road (Amendment #7, 3-10-16)	Add center turn lane
82582	1439	CR 171 (Old SR 74)	Olive Branch-Stonelick Rd. to Armstrong Blvd. (Amendment #7, 3-10-16, Mod. #9, 6-7-16)	Widening to three lanes with 4 foot page shoulders and curb and gutter

Hamilton

Non-Exempt Projects Beyond Existing System Included in Transportation Networks

PID	Plan ID	Facility	Location	Description
Additional Non-Exempt Projects Identified for the 2020 Transportation Network				
87036	1423	West ML King Drive (CR 612)	Central Parkway to Clifton Avenue. (Admin. Mod. #4, 1-7-14; Admin. Mod #12, 1-6-15)	Widen to 5 lanes w/ twl/lt from Central Pkwy to Clifton
98689	4643	Duck Creek Road Extension	Existing intersection of Duck Creek road to Madison Road (Amendment 2B, 9-10-15)	Construct new 4 lane roadway with sidewalks on southside of project
77889	1378	IR 75	From south of SR 562 to north of SR 4 (Amendment #3, 11-14-13)	Widen for additional through lanes, reconstruct interchanges as needed. MCE Phases 8 and 8A
82288	1377	IR 75	0.3 mi S of Shepherd to 0.2 mi N of Glendale-Milford (Amend 2B; Mod 6 3-8-16; Mod 7, Mod 9)	Reconstruct IR 75 between Shepherd Lane and Glendale-Milford Road. TTV Phase 1
83723	3150	IR 75	Monmouth overpass to just south of Clifton (Amendment #2, 10-10-13; Admin Mod #4, 1-12-16)	Add a lane to IR 75 and reconfigure the IR74/75 interchange. MCE Phase 5
Warren				
	4987	Clearcreek Franklin Road (MVRPC #715)	Whispering Pines to Pennyroyal Road	Add TWLTL from SR 73 to Pennyroyal
93964	3638	IR 71	IR 71 at Western Row Road (Amendment #2, 10-10-13)	Convert existing partial interchange to full interchange with new ramps and auxiliary

Non-Exempt Projects Beyond Existing System Included in Transportation Networks

PID	Plan ID	Facility	Location	Description
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Additional Non-Exempt Projects Identified for the 2030 Transportation Network

Kentucky

Boone

6-14.00	878	IR 75/KY 536 Interchange	IR 71/75 at KY 536 (Mt. Zion Road) See 14.02 for additional funding (Amendment #4, 11-12-15)	Reconstruct interchange to DCD and widen KY 536 to five lanes from Tiburon Drive east to US 25
6-14.02	3831	IR 75/KY 536 Interchange	IR 71/75 at KY 536 (Mt. Zion Road) Toll credits	Additional funding for 14.00
6-18.00	845	IR 75/KY 338 Interchange	KY 338 (Richwood Road) Interchange (Amendment #4, 11-12-15)	Add 2 lanes (DCD) at I-75 interchange

Campbell

	4658	I-471	US 27 to Ohio State line	Widen to four lanes to improve safety and reduce congestion
6-8104	496	IR 471	KY 8 interchange	Construct a new southbound off-ramp from I-471 to KY 8

Kenton

	4429	Brent Spence Bridge	I-71/I-75 bridge over the Ohio River to Dixie Hwy Interchange	New 8 lane I-75 bridge west of current BSB. Widen 1 lane each direction to Dixie.
6-17.03	1308	IR 75	MP 191.277 to 191.777--Brent Spence Bridge	KY portion of Brent Spence Bridge replacement
6-17.04	1309	IR 75	Brent Spence Bridge (see 6-17.03) Admin. Mod. #9, 6-10-14	KY portion of Brent Spence Bridge replacement
6-17.09	3855	IR 75	Brent Spence Bridge--milepost 191.277 to 191.777 (Admin. Mod. #9, 6-10-14)	Additional funding for the design phase of I-75 widening project
	4975	KY 536	Norfolk Southern RR bridge to KY 17	Widen to 4 lanes on existing and new alignment.
6-162.01	247	KY 536	Boone County Line to KY 17--toll credits (Admin. Mod. #4, 1-12-14)	Widen to 4 lane divided roadway

Ohio

Butler

	4863	S. Gilmore Rd	Resor Rd to Mack Rd	Widen to 4 lanes
	4870	Grand Blvd	SR 4 to Five Points	Widen to 4 lanes
	4871	Tylersville Rd	Bypass 4 to Five Points	Widen to 4 lanes with TWLTL
	4356	SORTA Liberty Twp Park & Ride Lot	Vicinity of SR 129 and Cincinnati-Dayton Rd	Utilize ODOT/BCTID Liberty Twp P&R; extend Rt 42X to new location. Replace leased facility w new P&R
	4902	BCRTA New Service connecting Hamilton and Liberty	Vicinity of SR 129 and Cincinnati-Dayton Rd	Add BCRTA service connection from Liberty Twp/Liberty Center to Market Street Station in Hamilton
	4354	SR 747	Milliken Rd to SR 4 (N. Jct)	Widen to 5 lanes
	4865	US 127	Augusta Blvd to Patterson Blvd	Widen 3 lanes to Resor, 4 lanes to Wessel, 5 lanes to Patterson

Clermont

	4894	Aicholtz Rd	Eastgate Blvd to Glen-Este-Withamsville Rd	Widen to 4 lanes
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Hamilton

	4814	Babson/Hetzel Connector	Terminus of Babson Pl to Old Red Bank Rd	New 2 lane connection
	4815	Old Red Bank Rd	Medpace Dr to Erie Ave	Rebuild bridge over RR and improve roadway with pedestrian facilities
	3773	Wooster Rd	Beechmont Ave to Red Bank Rd	Add TWLTL from Beechmont to Red Bank Road
	1526	Ebenezer Rd	Werk Rd to Rapid Run Pk (Green Township)	Add TWLTL
	4372	Brent Spence Bridge	IR 71/IR 75 bridge over the Ohio River to Western Hills Viaduct	Construct new I-71/I-75 bridge adjacent to the existing Brent Spence Bridge

Non-Exempt Projects Beyond Existing System Included in Transportation Networks

PID	Plan ID	Facility	Location	Description
Additional Non-Exempt Projects Identified for the 2030 Transportation Network				
	4381	Eastern Corridor Oasis Line Segments 1, 2, 3 & 4	Oasis Rail Line (downtown Cincinnati to Milford)	Rail transit plus feeder bus. PID 86463
88135	3187	GE Parkway	Shepherd Lane to Glendale Milford Road (Amendment #1, 9-12-13; Letter of Concurrence 4-7-14)	Add local roadway connection on eastside of IR 75. TTV Phase 2
98109	4098	Elmore Street Connector	West of IR 74 to Central Parkway near Cincinnati State Technical College	New 2-lane connector from west side of I-75 to Central Pkwy near Cincinnati State.
89077	3084	IR 71	Part of the Brent Spence Bridge project (Amendment #29, 9-9-10)	Ohio's share of design and construction of the new Ohio River Bridge
94741	3880	IR 71	0.1 mi south of Williams Avenue Overpass to 0.04 mi north of Red Bank (SLM 6.86-9.74)	Widen northbound IR-71 to provide three continuous through lanes through the SR-562 interchange.
76256	990	IR 75	Glendale Milford Road to IR 275 (Admin. Mod. #1, 9-8-15)	Add 4th lane each direction with an auxiliary lane where warranted, upgrade interchanges. TTV Ph8
88124	3183	IR 75	From bridge at 10.10 (over Mill Creek) to SR 126	Add 4th lane in each direction and associated improvements. TTV Phase 3
88132	4046	IR 75	Galbraith Road to Shepherd Lane, SB only (Amendment #2, 10-10-13)	Add one lane SB. TTV Phase 5
88133	3185	IR 75	Between Galbraith and Shepherd Roads (Amendment #3, 10-8-15)	Add 4th lane and auxiliary lane for NB IR 75. TTV Phase 6
89068	3087	IR 75	Brent Spence Bridge (Ohio only) Amendment #2, 10-10-13	Brent Spence Bridge replacement (Ohio portion)
Warren				
	1500	Snider Rd	Fields Ertel to Hunters Green Dr	Widen to 4 lanes
	3353	Union Rd	SR 63 to SR 123 interchanges	Widen to 4 lanes with connection to Gateway Blvd. Extension

Non-Exempt Projects Beyond Existing System Included in Transportation Networks

PID	Plan ID	Facility	Location	Description
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Additional Non-Exempt Projects Identified for the 2040 Transportation Network

Indiana

Dearborn

4450	Bright 74 Improvements	Bright/I-74		New 2-lane connection between State Line Road north to I-74
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Kentucky

Boone

4656	I-275	Graves Rd		New interchange at Graves Road
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6-8000.20	1300	IR 275	I-275/KY 212 Interchange and KY 20 reconstruction	Airport access interchange improvements with new ramp I-275 WB to KY 212 SB and upgrade KY 20
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Campbell

4977	NKY Streetcar Phase 1	Newport		Extension of Cincinnati Streetcar to Newport (Phase 1)
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Kenton

4685	KY 16 (Taylor Mill Rd)	KY 2047 (Senour Rd) to KY 536 (Harris Pike)		Widen to 5 lanes
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4675	KY 536	KY 17 (Madison Pike) to Staffordsburg Rd		Reconstruct on existing and new alignment with bike/ped facilities KY 536 Scop
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4677	KY 536	Staffordsburg Rd to Campbell County line		Reconstruct on new alignment with multi use path as recommended by KY 536 Scoping Study
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4666	KY 1303 (Turkeyfoot Rd)	Crestview Hills Mall Rd and Thomas Moore Pkwy intersections		Relocate the intersection of Crestview Hill Mall Rd to improve traffic flow
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4673	KY 1303 (Turkeyfoot Rd)	Dudley to US 25 (Dixie Hwy)		Widen to 4 lanes from I-275 to US25 (Dixie Hwy)
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Ohio

Butler

4869	Black Street Bridge	Over Great Miami River		Replace 2 lane bridge with new 4 lane bridge
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3609	River Rd	Williams Ave to St Clair Ave		Widen to 4 lanes
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4357	Bethany Rd	Cincinnati Dayton Rd to Butler Warren Rd		Widen to 4 lanes
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3735	Cincinnati-Dayton Rd	Milliken Rd to Monroe South Corp Line		Add TWLTL
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3626	Butler-Warren/Cox Connector Rd	Bethany Rd to SR 63		New facility. 5 lane route from Cox Rd. to SR 63
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3662	I-75	Milliken Rd		New interchange at Milliken and widen Milliken from Cin-Day to Butler-Warren
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4353	SR 128	Rossgate Ct to Cincinnati-Brookville Rd		Add TWLTL
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900	US 27	South of Oxford between SR 732 and US 27		New 2-lane connector
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Clermont

3707	Aicholtz Rd Extension	Glen Este-Withamsville Rd to Bach-Buxton Rd		New 3 lane extension
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2621	Branch Hill - Guinea Pike	SR 28 to Wards Corner Rd		Add TWLTL
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3646	SR 32	1000' west of existing Herold Rd intersection on SR 32		Replace intersection with new grade separated interchange
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4371	SR 32	SR 32/Main St interchange in Village of Batavia		Convert existing half interchange to full.
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4363	SR 32	Glen Este-Withamsville Dr to Old SR 74		Grade separation at Glen-Este and add 1 lane each direction between GEW and Old 74
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3701	SR 32 (Frontage Rd)	Bauer Rd to Half Acre Rd		New three-lane frontage road with turn lanes at major intersections. PID: 82586
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Hamilton

3651	Cheviot Rd	Tallahassee Dr to Jessup Rd		Widen to 4 lanes
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Non-Exempt Projects Beyond Existing System Included in Transportation Networks

PID	Plan ID	Facility	Location	Description
Additional Non-Exempt Projects Identified for the 2040 Transportation Network				
1521		New Haven Rd	I-74 to Harrison (City of Harrison)	Continue with 2 lanes each direction to Harrison Avenue
3667		North Bend Rd	Kleeman Rd to Westwood Northern Blvd	Widen to 4 lanes
3338		Ancor Connector	Between Broadwell Rd and SR 32, east of Roundbottom Rd	Construct a two-lane facility with appropriate turn lanes
3736		Fields Ertel Rd	Reed Hartman Hwy to IR 71 (Warren Co - Butler Warren Rd to Wilkens Rd) widen to 5 lanes	Add TWLTL
3703		I- 275	US 52 to Five Mile Rd	Widen to 3 lanes each direction
3615		US 42 (Reading Rd)	Dorchester St to Burnet Ave	Provide 5 lanes and intersection improvements
Warren				
3746		Gateway Blvd	Gateway Blvd Extension north from SR 63 to Union Rd	4 Lane Extension to Union Road
3705		Gateway Blvd	Gateway Blvd Extension to Butler/Warren/Cox Extension	5 Lane Extension
3698		Mason-Morrow-Millgrove Rd	US 42 to Columbia Rd	Widen to 5 lanes
4394		Bethany Rd	West Mason Corp Limit to Mason-Morrow-Millgrove Rd	Widen to 5 lanes and extend Bethany to Mason-Morrow-Millgrove
4398		Mason Montgomery Rd	Fields Ertel Rd to Socialville Fosters Rd	Widen to 6 lanes
3778		Greentree Rd	SR 123 to Cox Road Extension	Widen to 4 lanes from Cox Road Ext. to SR123
4985		I-75 (MVRPC #338G)	Pennyroyal Lane to I-675 in Montgomery Co.	Widen from 6 to 8 lanes from approximately Pennyroyal Lane to I-675.
4811		SR 48	I-71 to Kingsview Dr	Widen to 6 lanes
4810		SR 48	I-71 to Mason-Morrow-Millgrove	Widen to 6 lanes
3631		SR 48	Miller Rd to SR 122	Widen to 4 lanes
3740		SR 48	Mason-Morrow-Millgrove Road to Stephens Rd (south of US 22/3)	Widen to 4 lanes
3713		SR 63	Union Rd to SR 741	Widen to 4 lanes
3678		SR 741	Parkside Dr to US 42	Widen to 4 lanes with TWLTL
3699		SR 741	SR 63 to Greentree Rd	Widen to 4 lanes
3720		SR 741	SR 63 to US 42	Widen to 4 lanes