

Amendment 3A -
**OKI 2030 REGIONAL
TRANSPORTATION PLAN**



November, 2010

**Prepared by the
Ohio-Kentucky-Indiana
Regional Council of Governments**

Acknowledgments

Title	Amendment 3A - OKI 2030 Regional Transportation Plan
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INTRODUCTION

This report constitutes an amendment to the regional transportation plan prepared by the Ohio-Kentucky-Indiana Regional Council of Governments (OKI) for the Cincinnati metropolitan area. The *OKI 2030 Regional Transportation Plan "Setting Your Transportation Landscape"* (the Plan) was originally adopted by the OKI Board of Directors on June 12, 2008.

On January 14, 2010, the OKI Board of Directors approved Amendment 3 of the OKI Regional Transportation Plan. That amendment included several items including the Ohio High Speed Intercity Passenger Rail Plan (3C Quick Start Corridor Program), the Kennedy Connector project requested by the City of Cincinnati and adjustments to air quality analysis years for a KY-237 and KY-16 roadway projects in Boone County Kentucky.

Approval of the Amendment 3 has been pending awaiting a financial plan for the 3C project. Without the 3C Rail Quick Start financial plan, the Federal Highway Administration (FHWA) cannot issue an air quality conformity determination. This has the effect of preventing all the projects included in Amendment 3 from advancing. Amendment 3A proposes the separation of all the projects in the original Amendment 3 be incorporated into 3A except the 3C Rail project. The rail project will be presented as a future Amendment 3B once the Ohio DOT has developed a financial plan. The projects in Amendment 3A underwent public review and meet air quality and fiscal constraint.

A copy of the full *OKI 2030 Regional Transportation Plan* is available on CD, printed document or on-line at www.oki.org.

The OKI 2030 Plan has fiscal capacity to accommodate the project and the emissions impacts are positive. Following is a more detailed description of each.

PROJECT RECOMMENDATIONS

Kennedy Connector

The purpose of the project is to address the substandard geometry, improve the capacity and safety, and support future development along the Ridge Avenue corridor in the Community of Oakley. The project will build a parallel route next to Ridge Avenue by extending Kennedy Avenue to the south from the Kennedy Avenue and Duck Creek Road intersection to the Madison Road and Camberwell Road intersection. The estimated cost of the new five-lane roadway is \$12 million. See the Figure 1 below.

Figure 1



Air Quality Analysis Year Adjustments

Minor adjustments to analysis years is performed to meet the requirements of air quality conformity analysis. Analysis years for projects #6-8001 KY-237 Boone County and #6-344 KY-16 Kenton County are revised from 2010 to 2015. More information is included the Transportation Air Quality Conformity section later in this document (see Figure XX).

Project Costs

The Kennedy Connector is the only new or revised project requiring consideration of the fiscal constraint element of the plan. See Figure 2 below.

Figure 2

(cost for stations includes 20% contingency)

Action	Description	Cost Estimate
Add	Kennedy Connector - Extend Kennedy Ave to the Madison Rd and Camberwell Rd intersection. New ramp to SR-562 and I-71 south.	\$12.00 million
	Total	\$12.00 million

AMENDED FISCAL CONSTRAINT DETERMINATION

Figure 3 is a copy of the revenue estimates from the original Plan (Figure 15-1). The average annual funding is derived from several years of Transportation Improvement Program (TIP) data and includes formula funds, non formula funds and local matching funds. OKI expects that revenue trend to continue, therefore no adjustments are made at this time. Figure 4 shows the original and amended information related to regional plan expenditures by mode. Figure 5 presents the Regional Summary of Available Revenues & Expenditures by State.

The OKI Plan monitors fiscal constraint by state because the revenue sources vary by state and the expenditure decisions are primarily made by the individual states.

Amendment 3A involves only one Ohio project and Ohio funds. Fiscal constraint of the Plan is therefore maintained as demonstrated in Figure 6. The estimated available Ohio funds uncommitted (\$222,631,360 – \$26,200,000 for amendment 2 = \$196,431,360) exceeds the funds required for the amendment 3A (\$12,000,000), therefore fiscal constraint is maintained.

**Figure 3
Transportation Funds Summary by State**

Estimated Annual Revenues	Annual Avg	Planning Period Total Available	TIP	Balance Available
Ohio New Capacity Total	117,596,625	3,002,150,431	470,386,500	2,531,763,931
OH O&M Total	98,451,125	2,463,149,090	393,804,500	2,069,344,590
OH Non-Hwy Total	21,143,125	528,979,929	84,572,500	444,407,429
State of Ohio Total		5,994,279,449	948,763,500	5,045,515,949
Net OH Available (capacity + non-hwy)				2,976,171,360
KY New Capacity Total	68,506,750	1,713,970,652	274,027,000	1,439,943,652
KY O&M Total	15,962,875	399,375,233	63,851,500	335,523,733
KY Non-Hwy Total	1,339,375	33,509,828	5,357,500	28,152,328
State of KY Total		2,146,855,713	343,236,000	1,803,619,713
Net KY Available (capacity + non-hwy)				1,468,095,980
IN New Capacity Total	2,875,000	71,929,636	11,500,000	60,429,636
IN O&M Total	5,035,875	125,992,577	20,143,500	105,849,077
IN Non-Hwy Total	388,875	9,729,265	1,555,500	8,173,765
State of IN Total		207,651,478	33,199,000	174,452,478
Net IN Available (capacity + non-hwy)				68,603,402
Region Total	331,068,625	8,348,786,641	1,325,198,500	7,023,588,141

**Figure 4
Regional Summary of Plan Expenditures (millions)**

	Original Plan	Amendment 2	Amendment 3
Operations & Maintenance	\$ 2511	\$ 2511	\$ 2511
Roadway*	\$ 6299	\$ 6299	\$ 6311
Bus and Rail Transit	\$ 767	\$ 793	\$ 793
Intelligent Transportation Systems	\$ 66	\$ 66	\$ 66
Freight	\$ 69	\$ 69	\$ 69
Bicycle and Pedestrian	\$ 28	\$ 28	\$ 28
TOTAL	\$ 9740	\$ 9766	\$ 9778

*Includes Brent Spence Bridge Replace/rehab.

Source: OKI.

**Figure 5
Regional Summary of Available Revenues & Expenditures by State**

State	Non O&M Revenues	Non O&M Costs	Difference
Ohio	2,976,171,360	-2,753,540,000	222,631,360
Kentucky	1,468,095,980	-1,451,030,000	17,065,980

Indiana	68,603,402	-66,360,000	2,243,402
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Revenues related to 3C not included in the OKI Regional Summary. These are considered new funds to the region.

Figure 6
Demonstration of Fiscal Constraint
(Ohio portion of the region only)

Estimated available funds for all Ohio projects (see Fig. 15-1, June 08 Plan)	\$2,976,171,360
Total cost of Ohio projects in June 2008 Plan	\$2,753,540,000
Estimated available Ohio funds uncommitted	\$222,631,360
Net Change in cost for new projects in Amendment 2	\$26,250,000
Net Change in cost for new projects in Amendment 3A	\$12,000,000
Remaining available funds	\$184,381,360

TRANSPORTATION AIR QUALITY CONFORMITY

The following Figure 7 includes descriptions of the OKI Travel Demand Model network coding changes required to generate vehicle miles traveled and speed changes necessary for the emissions analysis. EPA's MOBILE6.2 was used to generate emission factors unique to local parameters. Details on the OKI Travel Model and the generation of emission factors can be found in the technical document "Air Quality Conformity Determination of the Amended OKI 2030 Regional Transportation Plan and the OKI FY 2008-2011 Transportation Improvement Program", January 2010. The resulting emission estimates were used in the air quality conformity analysis for this Transportation Plan amendment. All projects included in this amendment are regionally significant and subject to transportation conformity requirements (non-exempt).

Figure 7
Amendment #3A
Changes to Transportation Networks

ID	State	County	Facility	Description	Scope Change	Original AQ Analysis Year	Revised AQ Analysis Year
6-8001.10	Kentucky	Boone	KY 237	Reconstruct and widen from US 42 at Gun Powder to Woodcreek Drive (south section)	No	2010	2015
6-8001.2	Kentucky	Boone	KY 237	Reconstruct and widen from Woodcreek Drive to Rogers Lane (middle section)	No	2010	2015
6-8001.25	Kentucky	Boone	KY 237	Reconstruct and widen from Rogers Lane to KY 18 (north section)	No	2010	2015
6-344.11	Kentucky	Kenton	KY 16	Reconstruct and widen from I-275 to south intersection of Old Taylor Mill Rd.	No	2010	2015
6-344.21	Kentucky	Kenton	KY 16	Reconstruct and widen from Hands Pike to the south intersection of Old Taylor Mill Rd.	No	2010	2015
LRP 679	Ohio	Hamilton	Kennedy Connector	Extend Kennedy Ave to the south to the Madison Rd and Camberwell Rd intersection. New ramp from the connector to the Norwood Lateral and I-71 south	Add	NA	2015

BACKGROUND

Amendment 3A includes all changes that were originally included as part of Amendment 3, with the exception of the "3C" passenger rail project. Amendment 3 was adopted by OKI in January 2010, however, federal approval is still pending due to uncertainties with Ohio's financial plan for the "3C" passenger rail project. Approval of Amendment 3A will allow the projects listed to proceed. Since the benefits of the 3C rail project were evaluated "off-model", the transportation networks used for the conformity analysis are identical to

those networks prepared for Amendment 3. The conformity table below, originally prepared for Amendment 3, has been modified to remove the impact of "3C" rail.

AMENDED CONFORMITY DETERMINATION FOR THE OHIO AND INDIANA PORTION OF THE NONATTAINMENT AREA

OKI has determined that the recommended projects in this amended *OKI 2030 Regional Transportation Plan* are consistent with the air quality goals of SIP and the conformity requirements under the 8-hour ozone standard and the annual PM2.5 standard. Figure 8 shows the ozone conformity analysis years and tests performed for the Ohio and Indiana portion of the nonattainment area. OKI's quantitative conformity findings for ozone-forming emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are found in Figure 9. Clinton County, Ohio is part of the ozone nonattainment area and is included in the VOC and NO_x totals. The emissions from the Ohio counties of Butler, Clermont, Hamilton and Warren include the impact of lower vapor pressure gasoline (7.8 RVP) as a SIP commitment. PM2.5 conformity analysis years and tests are found in Figure 10. Figure 11 shows the quantitative conformity finding for annual PM2.5 and NO_x emissions in the Ohio portion of the PM2.5 nonattainment area. Annual PM2.5 and NO_x emissions in the Indiana portion of the PM2.5 nonattainment area are found in Figure 12.

Figure 8

Conformity Analysis Years and Tests for the Ohio and Indiana Portion of the Nonattainment Area – Ozone

Analysis Year	Ozone Conformity Test	Which Requirement Fulfilled	Pollutants
2008	<=2008 Budget	Ozone budget year	VOC, NO _x
2010	<=2008 Budget	Interim year	VOC, NO _x
2020	<=2008 Budget	Interim year	VOC, NO _x
2030	<=2008 Budget	Last year of Plan	VOC, NO _x

Figure 9

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

	2008	2010	2015	2020	2030
Ohio/Indiana VOC Budget			31.73	28.82	28.82
Ohio/Indiana VOC Emissions	40.92	38.39	27.73	24.97	23.19
Ohio/Indiana NO _x Budget			49.00	34.39	34.39
Ohio/Indiana NO _x Emissions	89.96	75.20	42.68	30.04	23.62

¹Includes Clinton County

²Dearborn County emissions are for the nonattainment portion only

Figure 10

Conformity Analysis Years and Tests for the Ohio Portion of the Nonattainment Area – PM2.5

Analysis Year	PM2.5 Conformity Test	Which Requirement Fulfilled	Pollutants
2010	<=2002 Baseline	First analysis year, no more than 5 years in the future	Direct PM2.5, NOx
2020	<=2002 Baseline	Intermediate year	Direct PM2.5, NOx
2030	<=2002 Baseline	Last year of Plan	Direct PM2.5, NOx

Figure 11

Quantitative Conformity Findings of PM2.5 Emissions (tons per year) for the Ohio Portion of the Nonattainment Area

	<u>2010</u>	<u>2020</u>	<u>2030</u>
Ohio Annual Direct PM2.5 2002 Baseline	710.6	710.6	710.6
Ohio Annual Direct PM2.5 Emissions	402.4	252.3	251.9
Ohio Annual NOx 2002 Baseline	38057.8	38057.8	38057.8
Ohio Annual NOx Emissions	24076.7	9583.2	7412.9

Figure 12

Quantitative Conformity Findings of PM2.5 Emissions (tons per year) for the Indiana Portion of the Nonattainment Area

	<u>2010</u>	<u>2020</u>	<u>2030</u>
Indiana Annual Direct PM2.5 2002 Baseline	9.76	9.76	9.76
Indiana Annual Direct PM2.5 Emissions	6.02	3.78	3.68
Indiana Annual NOx 2002 Baseline	571.28	571.28	571.28
Indiana Annual NOx Emissions	340.51	147.05	104.92

¹Dearborn 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 2008 VOC or NO_x budget for the budget year 2008, the intermediate years 2010 and 2020, or the Plan year 2030.
- Annual Direct PM2.5 and annual NO_x emissions in the Ohio and Indiana portion of the PM2.5 nonattainment area do not exceed the 2002 baseline

emissions for the first analysis year 2010, the intermediate year 2020, or the Plan year 2030.

- OKI qualitatively finds no factors in the TIP or the amended OKI *2030 Regional Transportation Plan* that would cause or contribute to a new annual PM2.5 violation or exacerbate an existing violation in the years before 2010 for the Ohio and Indiana portion of the PM2.5 nonattainment area.
- OKI qualitatively finds that no goals, directives, recommendations or projects identified in the amended *OKI 2030 Regional Transportation Plan* contradict in a negative manner any specific requirements or commitments of the applicable state implementation plan.
- The applicable implementation plan does not contain any transportation control measures (TCM's), therefore, nothing in amended *OKI 2030 Regional Transportation Plan* can interfere with their timely implementation.

AMENDED CONFORMITY DETERMINATION FOR THE KENTUCKY PORTION OF THE NONATTAINMENT AREA

OKI has determined that the recommended projects in this amended *OKI 2030 Regional Transportation Plan* are consistent with the air quality goals of the Kentucky SIP and the conformity requirements under the 8-hour ozone standard and the annual PM2.5 standard. Figure 13 shows the ozone conformity analysis years and tests performed for the Kentucky portion of the nonattainment area. OKI's quantitative conformity findings for ozone-forming emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are found in Figure 14. PM2.5 conformity analysis years and tests are found in Figure 15. Figure 16 shows the quantitative conformity finding for annual PM2.5 emissions.

Figure 13

Conformity Analysis Years and Tests for the Kentucky Portion of the Nonattainment Area – Ozone

Analysis Year	Ozone Conformity Test	Which Requirement Fulfilled	Pollutant
2008	<=2008 budget	Budget year	VOC, NOx
2010	<=2008 budget	Interim year	VOC, NOx
2020	<=2008 budget	Interim year	VOC, NOx
2030	<=2008 budget	Last year of Plan	VOC, NOx

Figure 14

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

	<u>2008</u>	<u>2010</u>	<u>2015</u>	<u>2020</u>	<u>2030</u>
N. Kentucky VOC Budget			9.76	10.07	10.07
N. Kentucky VOC Emissions	9.91	9.83	8.04	7.18	7.25
N. Kentucky NOx Budget			14.40	13.27	13.27
N. Kentucky NOx Emissions	21.28	18.68	11.61	8.36	6.37

Figure 15
 Conformity Analysis Years and Tests for the Kentucky Portion of the
 Nonattainment Area – PM2.5

Analysis Year	PM2.5 Conformity Test	Which Requirement Fulfilled	Pollutants
2010	<=2002 Baseline	Analysis year no more than 5 years in the future	Direct PM2.5, NOx
2020	<=2002 Baseline	Intermediate year	Direct PM2.5, NOx
2030	<=2002 Baseline	Last year of Plan	Direct PM2.5, NOx

Figure 16
 Quantitative Conformity Findings of PM2.5 Emissions (tons per year) for the
 Kentucky Portion of the Nonattainment Area

	<u>2010</u>	<u>2020</u>	<u>2030</u>
N. Kentucky Direct PM2.5 2002 Annual Baseline	164.68	164.68	164.68
N. Kentucky Direct PM2.5 Annual Emissions	106.94	70.50	73.53
N. Kentucky Annual NOx 2002 Baseline	9509.84	9509.84	9509.84
N. Kentucky Annual NOx Emissions	6359.79	2840.75	2165.74

- VOC and NO_x emissions in the Kentucky counties of the nonattainment area do not exceed the SIP budget for the budget year 2008, the intermediate years 2010 and 2020, or the Plan year 2030.
- Annual Direct PM2.5 and annual NO_x emissions in the Kentucky portion of the nonattainment area do not exceed the 2002 baseline emissions for the first analysis year 2010, the intermediate year 2020, or the Plan year 2030..
- OKI qualitatively finds no factors in the TIP or the amended OKI *2030 Regional Transportation Plan* that would cause or contribute to a new annual PM2.5 violation or exacerbate an existing violation in the years before 2010 for the Kentucky counties of the nonattainment area.
- OKI qualitatively finds that no goals, directives, recommendations or projects identified in the amended *OKI 2030 Regional Transportation Plan* contradicts in a negative manner any specific requirements or commitments of the applicable state implementation plan.
- The applicable implementation plan does not contain any transportation control measures (TCM's), therefore, nothing in the amended *OKI 2030 Regional Transportation Plan* can interfere with their timely implementation.

PUBLIC INVOLVEMENT

The *OKI 2030 Regional Transportation Plan "Setting Your Transportation Landscape"* was developed with significant attention to public involvement. Please refer to Chapter 2. Provisions for public comment on this Amendment 3A were provided through a public comment period and culminated in a resolution by the OKI Executive committee at its regular public meeting on November 10, 2010 at the OKI offices, 720 East Pete Rose Way, Suite 420, Cincinnati, Ohio. In addition, the elements included in this amendment were part of the robust public involvement effort for the original Amendment 3 in which the projects were advertised on the OKI website and through standing OKI committees. The public and interested individuals were also provided an opportunity to comment at a public hearing held at OKI on January 11, 2010 for the original Amendment 3. The projects have not changed and no adverse comments were received.

Through a qualitative evaluation, it is determined that this *Amendment 3A – OKI 2030 Regional Transportation Plan* ensures that low income populations and minority populations receive a proportionate share of benefits from federally funded transportation investments. The resulting projects will provide a more multimodal system, more connectivity and more travel options for travelers in the region.