Agenda Item 5.03



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MEMORANDUM

To: CMAP Transportation Committee and MPO Policy Committee

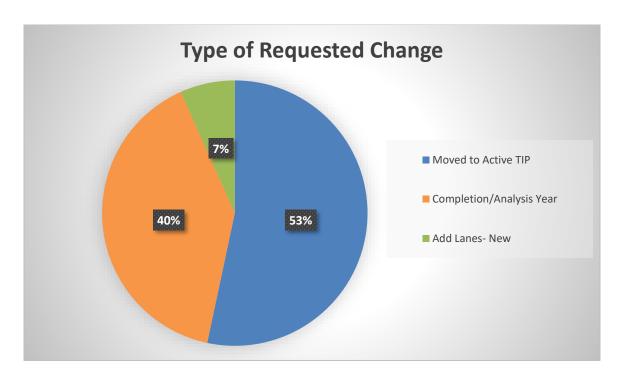
From: CMAP Staff

Date: November 8, 2024

Re: ON TO 2050/2025-2029 TIP Conformity Analysis & TIP Amendment 25-03 release

for public comment

In accordance with the required plan update conformity analysis policy, CMAP staff asked programmers to submit changes, additions, or deletions to projects that are currently included or are being submitted for inclusion in the FFY 2025-2029 TIP/ON TO 2050 plan that are Not Exempt from air quality emissions analysis and are thus required to being included in the regional emissions analysis. Fifteen projects submitted TIP changes, shown on conformity amendment 25-03. These changes will be included in CMAP's regional emissions analysis. Below is a summary by type of requested changes.



If the FFY 2025-2029 TIP conformity amendment is approved, nine new Not Exempt projects and six previously conformed projects will be included in the fiscally constrained and conformed TIP.

The Transportation Improvement Program (TIP) is required under federal regulations to be both fiscally constrained and conformed. As a Metropolitan Planning Organization (MPO), CMAP is responsible for ensuring that the TIP is fiscally constrained by determining that sufficient resources will be available to construct projects shown in the TIP. These types of projects are included in the conformity analysis because funding for phases beyond preliminary engineering has been identified in the TIP or within the planning horizon of ON TO 2050. Not Exempt projects with only preliminary engineering funding and exempt tested projects are excluded from conformity analysis. Transportation Conformity is a requirement of the Clean Air Act section 176(c).

The new Not Exempt project to be conformed is:

• TIP ID 07-25-0002: road expansion of I-80 from Torrance Ave to the State Line (Flex Rd – ITS) to add an eastbound Dynamic Speed Lane (DSL) lane. This lane will continue to I-65 in Indiana. The Illinois portion is a small segment of a much larger I-80 Flex lanes TSMO project being led by INDOT.

The Not Exempt projects moving into active TIP years to be conformed are:

- TIP ID 03-24-0010: resurfacing of Gannon Drive from Golf Road to Higgins to implement a road diet from 4 lane section to 3 lane section between IL 58 and IL 72, with ADA, curb, and gutter improvements and a new off-street multi-use path.
- TIP ID 03-24-0014: road reconstruction of Springinsguth Road from Weathersfield Way
 to Schaumburg Road with a lane reduction to accommodate an on-street parking lane
 and a bike lane along each side of the road. Construction will include utility and
 sidewalk improvements and the installation of a roundabout at the intersection with
 Weathersfield Way.
- TIP ID 09-23-0003: traffic signal interconnects at five intersections along Kindall Street between Grove Avenue and Dundee Avenue.
- TIP ID 09-24-0028: road reconstruction of Bilter Road from Premium Outlets Boulevard to DuPage Parkway, adding an additional lane in each direction. Construction will include signal modernization, ADA ramp improvements, pedestrian improvements, and drainage, and pavement marking.
- TIP ID 09-24-0031: road reconstruction and widening of Farnsworth Avenue from US 34 to Hafenrichter Road from 2-lane to 4-lane section with curb & gutter, landscaped median, storm sewers, street lighting, ADA ramps, sidewalks, and associated work
- TIP ID 09-24-0032: traffic signal modernization at 4 intersections along Commons Drive from New York Street to McCoy Drive, with ADA improvement at intersections and resurfacing.
- TIP ID 12-24-0011: road extension of Highpoint Drive from the intersection with Airport Road north to south of Alder Creek Drive. The project will include construction of curb & gutter, aggregate base course and asphalt pavement, storm sewer, multi-use path, bridge over Mink Creek, street lighting, and all other ancillary work necessary to properly complete the project.

 TIP ID 12-24-0020: road reconstruction and add lanes on Rodeo Drive from just east of Naperville-Plainfield Road to Kings Road roundabout and reconstruction and add lanes on Essington Drive north and south of Rodeo Drive. The intersection of Rodeo Drive and Essington Drive is designed for a roundabout.

The previously conformed projects that have conformity changes included in the amendment are:

- TIP ID 08-20-0026: intersection improvements including new signals and signal interconnects of Lemont Rd from 87th St to 83rd St and 87th Street from Lemont Rd to Havens Dr. including resurfacing.
- TIP ID 09-99-0102: road expansion of a new bypass under UPRR to connect Bunker Road and LaFox Road from Keslinger Road to Bunker Road.
- TIP ID 10-03-0005: road expansion widening Deerfield Road from IL 21 US 45
 Milwaukee Ave to Saunders Road to a 3-lane cross section with the addition of a multiuse path.
- TIP ID 10-18-0005: road expansion extension of Hook Drive (new roadway) from Nicole Lane to Orchard Lane and reconstruction of Nicole Lane at existing pavement width from proposed Hook Drive to Rollins Road.
- TIP ID 10-22-0001: railroad grade separation on Old McHenry Road with intersection improvements at Fairfield, Midlothian, and Quentin- including widening of Quentin Road from Old McHenry to IL 22, new bike paths, and new signals at St. Mathews Church and Old McHenry, at Old McHenry Rd and Echo Lake Rd, and at Quentin Road and Highland Road.
- TIP ID 12-18-0019: expanded interchange of I-55 I-80 to US 52 (Jefferson St) and at IL 59 and US 52 Jefferson St River Rd to Houbolt Rd, including adding lanes, bridge replacement, and road widening and extension.

Changes to existing projects are described below.

Analysis Year changes:

The completion year indicates when a project is anticipated to be in service to users. The conformity analysis is conducted for selected analysis years between now and 2050. The analysis years are currently 2025, 2030, 2035, 2040 and 2050. If a change in completion year results in moving a project across an analysis year, that needs to be reflected in the emissions modeling. This information is captured through the conformity amendment process.

The following Not Exempt projects crossed an analysis year:

- TIP ID 08-20-0026: the intersection improvements of Lemont Rd had the open to traffic year updated from 2024 to 2026, and the completion year(s) for analysis were changed to 2026-2030.
- TIP ID 09-99-0102: the road expansion of a new bypass under UPRR had the open to traffic year updated from 2023 to 2025 as Construction phases were moved to later years due to earlier phase delays.
- TIP ID 10-03-0005: the road expansion widening Deerfield Road had the open to traffic year updated from 2026 to 2027.

- TIP ID 10-18-0005: the road expansion extension of Hook Drive had the open to traffic year updated from 2025 to 2026, and the completion year(s) for analysis were changed to 2026-2030.
- TIP ID 10-22-0001: railroad grade separation on Old McHenry Road had Construction phases moved to later years due to the project being adjusted for staged construction. The open to traffic date was update from 2026 to 2029.

Scope Changes:

The scope of a project is determined by the work types associated with the project.

- Not Exempt work types are expected to affect air quality and must be included in the conformity analysis. Examples of Not Exempt work types are adding lanes to a road, removing lanes from road, interchange expansion, a major expansion of bus route service, etc.
- Exempt work types do not require an air quality conformity analysis. Examples
 of exempt work types are resurfacing, intersection improvements, and rail
 station modernization.

The Not Exempt projects moving into active TIP years (FFY 2025-2029) to be conformed are:

- TIP ID 03-24-0010: the resurfacing of Gannon Drive from Golf Road to Higgins had Engineering II and Construction phases moved to earlier years as funding was added from the illustrative multi-year budget (MYB) to FFY 2025 for ENG II and FFY 2026 for Construction.
- TIP ID 03-24-0014: the road reconstruction of Springinsguth Road from Weathersfield Way to Schaumburg Road had the Construction phase moved to earlier years as funding was added from the illustrative multi-year budget (MYB) to FFY 2029.
- TIP ID 09-23-0003: the traffic signal interconnects at five intersections along Kindall Street had Construction phases moved to FFY 2026 due to earlier phase delays.
- TIP ID 09-24-0028: the road reconstruction of Bilter Road from Premium Outlets Boulevard To DuPage Parkway had right of way (ROW) and construction phases moved to earlier years as funding was add from the illustrative multi-year budget (MYB) to FFY 2025 for ROW and FFY 2028 for construction. The open to traffic date was updated to from 2030 to 2028.
- TIP ID 09-24-0031: the road reconstruction and widening of Farnsworth Avenue had Engineering II and Construction phases moved to earlier years as funding was added from the illustrative multi-year budget (MYB) to FFY 2027 for ENG II and FFY 2028 for Construction.
- TIP ID 09-24-0032: the traffic signal modernization at 4 intersections along Commons Drive had Construction phases moved to earlier years as funding was added from the illustrative multi-year budget (MYB) to FFY 2029 for Construction and Construction Engineering. The open to traffic date was updated from 2030 to 2029. Right of Way funding in FFY 2025 was removed and the phase was deleted from the project.
- TIP ID 12-18-0019: expanded interchange of I-55 I-80 to US 52 had Construction phases moved to earlier years as funding was added from the illustrative multi-year budget (MYB) to FFY 2028 and 2029 for Construction and Construction Engineering.

- TIP ID 12-24-0011: the road expansion of the new Highpoint Drive had Engineering I and Engineering II phases added to the TIP, with funds in FFY 2024 and FFY 2028 respectively. Construction phases were moved to earlier years as funding was added from the illustrative multi-year budget (MYB) to FFY 2029 for Construction. The project scope was expanded to include work types for a new bridge, shared use path, curb and gutters, stormwater infrastructure, lighting, along with the road extension.
- TIP ID 12-24-0020: the road reconstruction of Rodeo Drive had Right of Way (ROW) and Engineering II phases moved to earlier years as funding was added from the illustrative multi-year budget (MYB) to FFY 2027 for ROW and ENG II.

This project has been newly added to the TIP, funded with Illinois state funding, to complete work led by the Indiana Department of Transportation:

• TIP ID 07-25-0002: road expansion of I-80 from Torrance Ave to the State Line (Flex Rd – ITS) to add an eastbound lane of traffic. Construction includes a new 10' eastbound lane (DSL) for car traffic only. The lane next to it to be reduced from 12' to 11', which will also be prohibited for use by trucks. The lane will only open during peak traffic periods or when the corridor is congested. Funding for Construction has been added for FFY 2025 and 2026, with an estimated open to traffic date of 2027.

Newly submitted changes are found in the 25-03 Conformity Amendments report.

The regional travel demand model was run using the updated networks. The resultant vehicle miles traveled (VMT) by vehicle class, speed, time of day, and facility type were entered into U.S. Environmental Protection Agency's (U.S. EPA) MOVES4 model for emissions modeling.

Using MOVES4, model on-road emission estimates for each precursor or direct pollutant in each analysis year were produced. The MVEB for the NEIL nonattainment area for 2035 and beyond reflect federal register notice on May 20, 2022 (87 FR 30828) and is part of the 2008 ozone maintenance SIP that was approved in that noticed by U.S. EPA. The result is that the MVEB changes to 65 tons/day of VOCs and 110 tons/day of NOx in 2035. Prior year MVEB remain unchanged. For ozone precursors volatile organic compounds (VOC) and nitrogen oxides (NOx), the resulting mobile source emissions estimates fell below the motor vehicle emissions budgets for ozone as shown in the table below. The emission analysis shown below demonstrates that FFY 2025-2029 TIP and the ON TO 2050 plan conform to the Motor Vehicle Emissions Budget for volatile organic compounds (VOC) and nitrogen oxides (NOx) as required.

VOC and NOx Emissions in Tons per Summer Day for Ozone Conformity

	Volatile Organic Compounds		Nitrogen Oxides	
Year	Northeastern Illinois	SIP Budget	Northeastern Illinois	SIP Budget
2025	50.66	60.13	125.10	150.27
2030	43.74	60.13	74.88	150.27
2035	38.66	65.00	49.50	110.00
2040	34.71	65.00	39.74	110.00
2050	30.79	65.00	35.46	110.00

Conformity is demonstrated by comparison of analysis year emissions to the SIP budgets

Notes:

Off-model benefits are not included in the total emissions estimates

Results updated as of November 2024

Direct PM2.5 and NOx Emissions in Tons per Year for PM2.5 (Informational Only)

	Fine Particulate Matter		Nitrogen Oxides	
Year	Northeastern Illinois	Historical SIP Budget	Northeastern Illinois	Historical SIP Budget
2025	1,537.14	5,100.00	42,234.27	127,951.00
2030	1,052.22	2,377.00	25,280.62	44,224.00
2035	870.61	2,377.00	17,122.03	44,224.00
2040	842.43	2,377.00	14,266.56	44,224.00
2050	863.16	2,377.00	13,095.85	44,224.00

Greenhouse Gas Mobile Source Emissions (Informational Only)

CO2 Equivalent in Tons per Year				
Year	Northeastern Illinois			
2025	37,459,207.56			
2030	34,721,629.54			
2035	32,798,922.38			
2040	32,017,996.80			
2050	32,283,923.93			

ACTION REQUESTED: Approval of the ON TO 2050/2025-2029 TIP Conformity Analysis & TIP Amendment 25-03 by the MPO Policy Committee.