Chicago Metropolitan Agency for Planning

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MEMORANDUM

To: Transportation Committee

From: CMAP Staff

Date: April 22, 2025

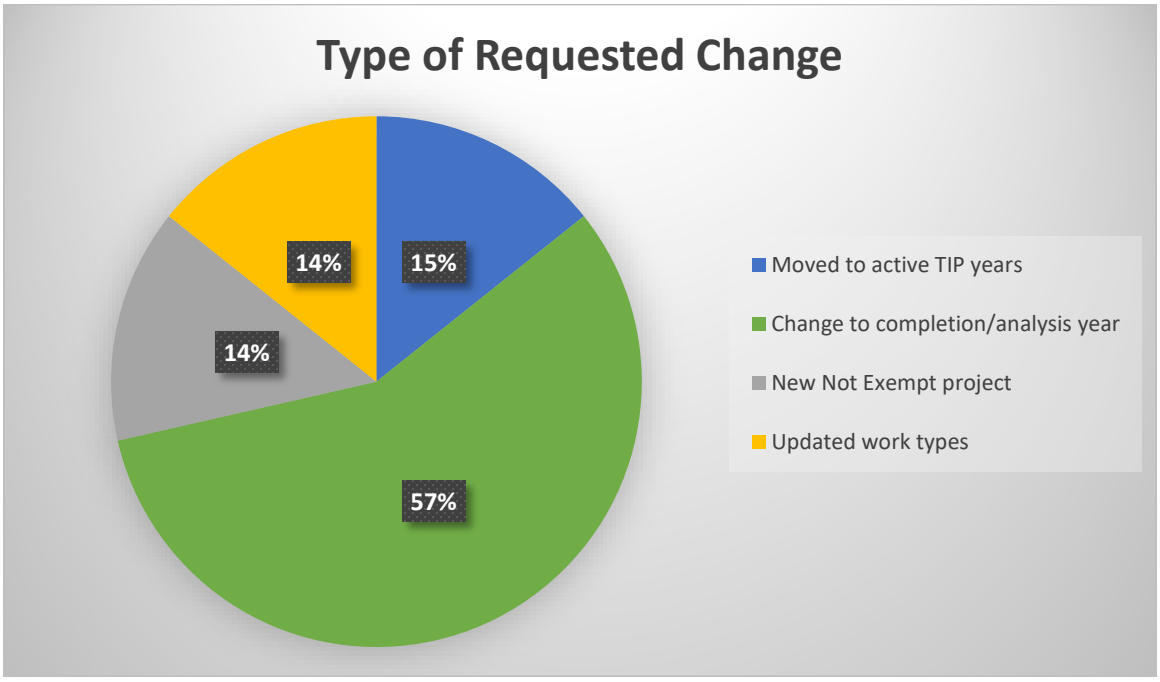
Subject: ON TO 2050/2025-2029 TIP Conformity Analysis & TIP Amendment 25-08 and 25-08.1 release for public comment

Action Requested: Recommendation for approval by the MPO Policy Committee

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Purpose

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. Seven projects submitted TIP changes, shown on formal conformity amendment 25-08. These changes will be included in the required regional emissions analysis. Below is a summary by type of requested changes.



If the FFY 2025-2029 TIP formal conformity amendment is approved, two projects not previously conformed and modifications to five 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. In nonattainment areas (The CMAP region is a nonattainment area for ozone) Transportation Conformity Regulations state that conformity determinations are required for the adoption, acceptance, approval or support of TIPs and TIP amendments developed pursuant to 23 CFR part 450 or 49 CFR part 613 by an MPO or DOT; and the approval, funding, or implementation of FHWA/FTA projects.

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:

- 08-25-0022: extension of the IL 390 ramps from Lake St (US 20) to County Farm Road. Work includes replacing the current interchange with a diverging diamond and intersection improvements at Ontarioville Rd & Lake St, Greenbrook Blvd & Lake St, as well as the intersection of the new ramps & County Farm Rd.

The Not Exempt project moving into active TIP years to be conformed is:

- 08-19-0042: road expansion of I-55 from I-355 to Bolingbrook Dr (IL 53) to reconstruct the road to include additional through lanes and an auxiliary lane.

The previously conformed projects that submitted conformity related TIP changes included in the amendment are:

- 07-14-0003: road expansion of Vollmer Road from Kedzie Avenue to Western Avenue including full replacement of the bridge over the rail tracks and the addition of a new shared use path.
- 09-10-0024: road modernization of State St (IL 38) from the Fox River to Kirk Road, reconstructing the roadway and implementing new bicycle facilities.
- 09-20-0098: road modernization of Orchard Gateway Boulevard from Orchard Road to Hansen Boulevard. Work will provide adequate turn lanes at intersections, new traffic signals and interconnection, sidewalk improvements, and a new curb and gutter. The project also includes installation of a new intersection, roadway lighting, and a retaining wall.
- 10-17-0027: road expansions of Baron Boulevard (IL 83) and Belvidere Road (IL 120) to Buckley Road (IL 137) and Atkinson Road, respectively. This project includes the construction of a new road between IL 120 and Atkinson Road, along with reconstruction, intersection upgrades, and ADA improvements along the two routes.
- 17-94-0008: new transit vehicle acquisition and implementation, purchasing over 100 hybrid buses for system-wide vehicle replacements and fleet expansions. Investments in new bus stock will include a focus on Pace's Pulse Dempster Corridor.

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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:

- 09-10-0024: the road modernization of State St (IL 38) had the open to traffic year updated from 2026 to 2027, with the implementation status changed to reflect that the project has been let to construction.
- 09-20-0098: the road modernization of Orchard Gateway Boulevard from Orchard Road to Hansen Boulevard had a change to the project completion year(s) for analysis from 2025 to 2026-2030 as the construction letting date was delayed.
- 10-17-0027: the road expansions of Baron Boulevard (IL 83) and Belvidere Road (IL 120) had the open to traffic year changed from TBD to 2035 and the completion year(s) for analysis updated to 2031-35. The second phase of this project is set to be let for construction in 2033. The Signal Timing work type was also added to the project scope.
- 17-94-0008: the new transit vehicle implementation had a change to the project completion year(s) for analysis from 2025 to 2026-30.

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.

This previously Not Exempt project removed the Not Exempt work type, making it an Exempt project and removing it from the conformity analysis model:

- 07-14-0003: the road expansion of Vollmer Road from Kedzie Avenue to Western Avenue no longer includes adding additional thru lanes, thus the add lanes work type was removed and the project is now a bridge replacement only.

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

- 08-19-0042: the road expansion of I-55 from I-355 to Bolingbrook Dr (IL 53) was moved out of the illustrative program and into the active TIP. Engineering II phases were programmed in FFY 2025-27, with the open to traffic date for this project changed from 2030 to 2032, with analysis completion year(s) of 2031-35.

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Newly submitted changes are found in the 25-08 Conformity Formal Amendment report.

An administrative conformity amendment, 25-08.1 was created to enable projects to make technical corrections or update modeling information for Exempt Tested projects. Exempt Tested projects are projects that have work types that do not impact air quality but do impact the master highway network used in travel demand modeling. An example of an Exempt Tested project is a change in the width of a travel lane. Adding a new travel lane requires a project to go through conformity analysis, but changing the width of an existing lane does not. Exempt Tested projects help ensure that the master highway network is kept up to date. Through this administrative amendment CMAP can update the master highway network, ensuring that the most updated network is used for conformity analysis. The administrative changes can be found in the 25-08.1 Conformity Administrative Amendment report. Administrative amendments are effective upon staff approval in the eTIP database.

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.

The Chicago Nonattainment area is within the CMAP region and is classified as Serious Nonattainment for Ozone. Ozone is a gas that is formed by the reaction of Volatile Organic Compounds (VOC) and Oxides of Nitrogen (NO_X) in the atmosphere in the presence of sunlight (VOC and NOX are referred to as ozone precursors). Illinois EPA has an approved State Implementation Plan (SIP) to reduce Ozone levels in the CMAP region to meet the current National Ambient Air Quality Standards (NAAQS). The SIP has emissions budgets including the Motor Vehicle Emissions budget (MVEB) for VOC and NO_x that the CMAP TIP needs to demonstrate conformity to. 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 NO_x in 2035. Prior year MVEB's remained unchanged. To demonstrate that the CMAP TIP conforms to the MVEB CMAP performed the required regional emissions analysis per the Transportation Conformity regulations pervious mentioned. Using MOVES4, CMAP modeled on-road emission estimates for ozone precursors VOC and NO_x in each analysis year were produced. The emission analysis shown in the table 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 (NO_x) as required.

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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	**50.60**	60.13	**125.00**	150.27
2030	**43.81**	60.13	**74.91**	150.27
2035	**38.58**	65.00	**49.45**	110.00
2040	**34.70**	65.00	**39.69**	110.00
2050	**30.80**	65.00	**35.44**	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 April 2025

ACTION REQUESTED: Approval of the ON TO 2050/2025-2029 TIP Conformity Analysis & TIP Amendment 25-08 by the MPO Policy Committee.

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