



MEMORANDUM

To: CMAP Board and Committees

From: CMAP Staff

Date: April 1, 2020

Re: Proposed Amendment to ON TO 2050 – Improvements to I-55 from I-80 to US 52 and US 52 from River Road to Houbolt Road

The Illinois Department of Transportation (IDOT) has requested to amend the ON TO 2050 regional comprehensive plan to add improvements to I-55 from I-80 to US 52 and US 52 from River Road to Houbolt Road (“I-55 at IL 59 Access Project” or “the project”) to the list of fiscally constrained regionally significant projects (RSPs). RSPs are capital investments in the region’s expressways, transit system, and arterials with impacts and benefits that are large enough to warrant additional discussion through the regional planning process. This memo represents the initial staff analysis, and will be provided for public comment from April 10 to May 11, 2020. The amendment process itself and the thresholds defining RSPs are described in a November 9, 2018, memo to the CMAP Transportation Committee.¹

Amendments to ON TO 2050 address RSPs with significant changes in funding or status since the plan’s development, thus warranting a new evaluation. Plan amendments undergo the same analysis and public process as projects identified in the plan development process. Proposed plan amendments should substantially implement ON TO 2050 by addressing current needs, improving travel over the long term, and having positive impacts on plan priorities, such as investing in existing communities, enhancing environmental quality, and improving quality of life. An amendment must also meet fiscal constraint requirements, described further below.

PROJECT DESCRIPTION

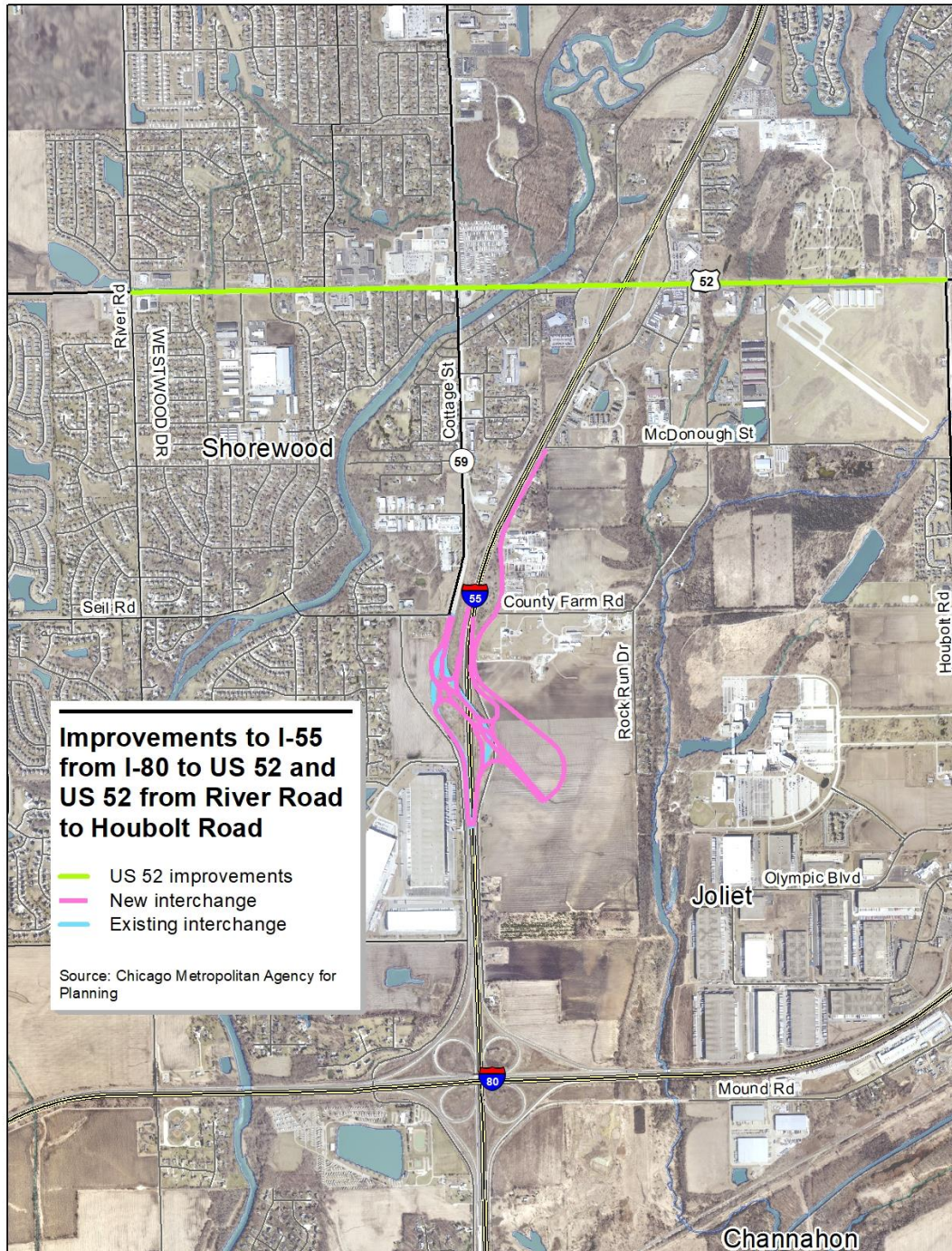
The purpose of this project is to improve regional mobility and provide better local interstate access. The I-55 from I-80 to US 52 portion involves converting a partial interchange to a full access interchange at I-55 and IL 59 -- including a new structure over I-55 -- and adding auxiliary lanes from IL 59 to US 52. The US 52 from River Rd to Houbolt Rd portion includes

¹ Chicago Metropolitan Agency for Planning, “ON TO 2050 Regionally Significant Projects: Proposed amendment process,” November 2018,

https://www.cmap.illinois.gov/documents/10180/944935/CmteMemo_RSPAmendmentProcess.pdf

reconstruction, bridge widening and repair, widening pavement, and adding turn and through lanes. Because it is on the National Highway System and is above \$100 million, it is a regionally significant project requiring a plan amendment. Figure 1 shows the general location and extent of the improvements.

Figure 1. Location map for the Improvements to I-55 from I-80 to US 52 and US 52 from River Road to Houbolt Road



Project history

The interchange at I-55 and IL 59 was first evaluated in the 1990s as part of the widening of IL 59. That project was designed to accommodate a full interchange at IL 59, planning for which began in the early 2010s. Following discussion with the City of Joliet to study a larger area, project planning for the I-55 at IL 59 Access Project began in 2017.² The study has been conducted using IDOT's Context Sensitive Solutions process, with two public meetings and four community advisory group meetings to date. In 2018, the project was split into four components to aid in establishing local sponsorship. The four components are: 1) improvements to I-55 at IL 59; 2) improvements to US 52 from River Road to Houbolt Road; 3) extension of Olympic Boulevard to connect the I-55 East Frontage Road and Houbolt Road (sponsored by the City of Joliet); and 4) improvements to Seil Road at the DuPage River (sponsored by the Village of Shorewood). Only the first two components, which include capacity additions on the National Highway System, are part of the RSP amendment.

The project receives some support from local plans. The 2017 Will County Long Range Transportation Plan³ includes IL 59 at US 52 (Jefferson St) improvements as an "investment priority." I-55 at IL 59 is included in a lower priority list of projects. The 2017 Will County Community Friendly Freight Mobility plan includes the I-55 at IL 59 interchange project as a Tier 4 priority. The U.S. 52 (Jefferson St) at I-55 interchange project is included as a Tier 2 priority. Shorewood's 2007 comprehensive plan does not specifically contemplate the improvements in the amendment. It does note the importance of U.S. 52 as an arterial roadway. Joliet is currently undertaking a comprehensive plan, its first in 60 years.⁴

Project status

This project entered the National Environmental Policy Act (NEPA) process as a large study area that subsequently resulted in four projects of independent utility. The I-55 from I-80 to US 52 element of the project will be treated as a categorical exclusion under NEPA, while the US 52 from River Road to Houbolt Road portion has not been determined. Both portions of the project received concurrence for the preferred alternative in September 2018. The I-55 from I-80 to US 52 element received design approval in May 2019, while design approval from the US 52 from River Road to Houbolt Road portion is anticipated in early 2021.

Project costs and revenues

Capital costs

The project is anticipated to cost \$146.5 million in year of expenditure dollars. IDOT has indicated that approximately \$23.4 million of the total \$146.5 million cost is attributable to new capacity, including new movements at the interchanges, added lanes, a new bridge, and

² http://www.i55atil59accessproject.org/comm_advis_group.html

³ <https://www.willcountyillinois.com/County-Offices/Economic-Development/Division-of-Transportation/Transportation-Plans-Programs>

⁴ <https://www.theherald-news.com/2019/08/12/making-comprehensive-plans/a8orxn7/>

additional bridge deck width. In addition, investments for system enhancements like additional turn lanes and pedestrian and bicycle facilities will total \$25.0 million.

Revenues

The projects are funded in IDOT's FY 2020-2025 Proposed Multi-Year Highway Improvement Program (MYP). The projects are anticipated to utilize National Highway Performance Program (NHPP) funding. The US 52 from River Road to Houbolt Road portion is expected to have a 20 percent state match, while the I-55 from I-80 to US 52 portion would have a \$12.4 million local contribution from the City of Joliet with the balance of the match made up by the state. The local contribution is expected to be split with the developer of the Rock Run Crossings project (discussed below) through an agreement being negotiated with the City of Joliet.

ON TO 2050 fiscal constraint

ON TO 2050 includes a financial plan for transportation investments, which is a requirement under federal regulation. This compares the estimated revenue from existing and proposed funding sources with the estimated costs of constructing, maintaining, and operating the total transportation system. This process is known as "fiscal constraint." Constraint for plans is important because it reminds regional decision makers to set priorities and make trade-offs rather than including an extensive list of projects and activities that may not be affordable relative to projected revenues. In order for ON TO 2050 to be amended, costs for new capacity associated with the project would need to be included within the plan's fiscal constraint. Projects often contain a blend of reconstructing existing infrastructure and adding new capacity to serve new markets or improve service. The plan focuses on new capacity elements of RSPs because they are discretionary investments and create ongoing maintenance needs.

The State plans to use federal and state dollars for all project costs, including the \$23.4 million allocated to constructing new interchange movements and other new capacity. While some of this funding is newly available through Rebuild Illinois, the ON TO 2050 financial plan already assumes increased transportation revenues, so Rebuild Illinois does not represent "new money" over and above what is included in the financial plan. However, the cost of new capacity in this project is small in the context of the financial plan, which constrains \$518 billion of investments through 2050. Within the financial plan, \$4.9 billion is allocated toward the new capacity elements of RSPs. The System Enhancement funding category is allocated \$17.5 billion and specifically allows for various smaller project types including smaller lane additions.⁵ Given the focus of this project on the existing system and adding missing movements to interchanges, it may be appropriate to reallocate the new capacity cost of the project to the RSP category from the System Enhancements category.

⁵ Chicago Metropolitan Agency for Planning, "ON TO 2050 Financial Plan for Transportation," 14. <https://www.cmap.illinois.gov/documents/10180/911391/FINAL+Financial+Plan+for+Transportation+Appendix.pdf/80791482-09e6-e7e3-fe51-fd32e653f35b>

PROJECT EVALUATION

The following section contains the CMAP staff evaluation of the project. The project has been evaluated, to the extent possible, using the same metrics that were evaluated for all RSPs in the ON TO 2050 development process. This section also discusses the project’s fit with the principles and goals of the plan.

ON TO 2050 principles

Three principles guide the goals and recommendations of the ON TO 2050 plan: Inclusive Growth, Resilience, and Prioritized Investment.

The Inclusive Growth principle emphasizes that we must grow our economy through growing opportunity for all residents, particularly minority and low income residents. Use of these roadways by residents of economically disconnected areas is expected to be low. However, the project is expected to improve access to Joliet Junior College, and the project’s improvement of mobility in the Will County freight cluster supports middle-skill jobs in the transportation, distribution, and logistics industry. No negative impacts to economically disconnected areas are anticipated.

The Resilience principle emphasizes the need to prepare for change, both known and unknown. The project aims to improve regional mobility, local connectivity, and system linkage. The project addresses resilience to a limited degree. Portions of the project contain bicycle and pedestrian improvements that may adapt to growing demand for walking and biking. Given the limited east-west travel possible in the area – in the five miles between US 52 and US 6, the only crossing of I-55 is I-80 – the project may also better accommodate access needs during floods or other emergencies.

The Prioritized Investment principle emphasizes the need to carefully target limited resources to maximize benefits. The project addresses current needs in the area, particularly congestion and reliability problems on US 52, adding missing interchange movements in a developed area, and improving truck access.

ON TO 2050 Goals and Recommendations

Building on its principles, ON TO 2050 provides a comprehensive set of recommendations to guide decisions relating to community, prosperity, the environment, governance, and mobility. The following table shows whether the project impacts relevant goals and recommendations of ON TO 2050. ON TO 2050 is divided into five chapters that are, in turn, comprised of 12 goal areas. If a goal area is potentially impacted, the text that follows the table provides detail.

Appendix I provides detailed findings of the quantitative analysis of the project.

ON TO 2050 Chapter	Goal Area	I-55 at IL 59 Access Proposal Impact
Community	Strategic and sustainable development	Potential impact

ON TO 2050 Chapter	Goal Area	I-55 at IL 59 Access Proposal Impact
	Reinvestment for vibrant communities	Negligible Impact
	Development that supports local and regional economic strength	Negligible impact
Prosperity	Robust economic growth that reduces inequality	Impact
	Responsive, strategic workforce and economic development	Negligible impact
Environment	A region prepared for climate change	Potential impact
	Integrated approach to water resources	Potential impact
	Development practices that protect natural resources	Potential impact
Governance	Collaboration at all levels of government	Impact
	Capacity to provide a strong quality of life	Negligible impact
	Data driven and transparent investment decisions	Negligible impact
Mobility	A modern, multimodal system that adapts to changing travel demand	Impact
	A system that works better for everyone	Impact
	Making transformative investments	Impact

Community

The Community chapter touches on many issues relevant to creating vibrant places and communities. This includes reinvestment in existing places and developing communities that offer housing choice, easy access to jobs and amenities, and a strong quality of life.

Strategic and sustainable development

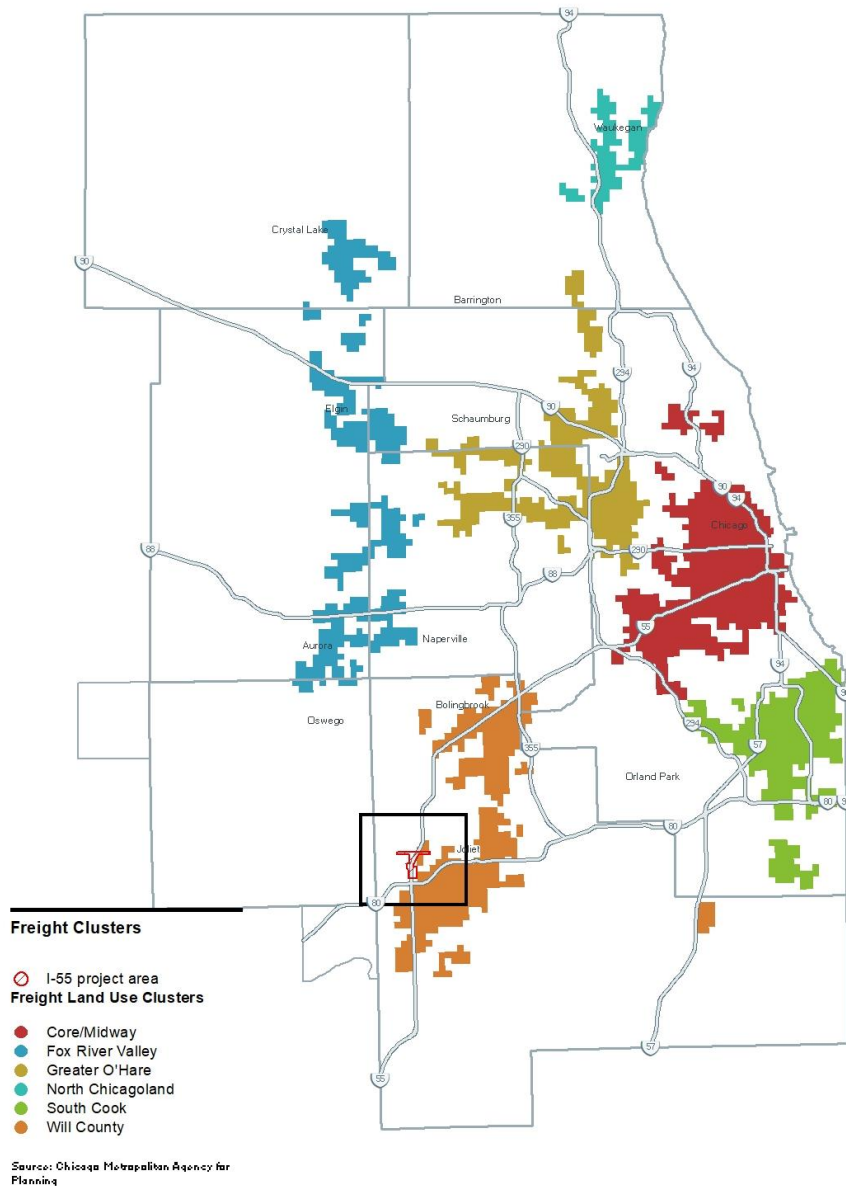
ON TO 2050 provides recommendations to target investment in existing communities as well as promote careful, fiscally and environmentally sustainable growth. The project is located towards the edge of region and is largely in areas categorized as “Coordinated Planning Areas” in ON TO 2050, indicating large amounts of agricultural or natural lands in proximity. These areas are generally considered partially supportive of infill development. The project facilitates a proposed mixed-use development (“Rock Run Crossings”) at the northeast corner of I-55 and I-80.⁶ While it is greenfield development, and is adjacent to a forest preserve holding, the development would be surrounded by already built-up land. ON TO 2050 emphasizes infill to best utilize existing infrastructure.

⁶ <http://rockruncrossings.com/wp-content/uploads/2020/03/RRC-NEW-AERIAL-NEW-REGAL-LOGO-STRAIGHT.jpg>

The project also contains an expansion of US 52 from two lanes to four lanes from River Rd to IL 59. There is minimal development west of this stretch of roadway, with significant agricultural land. The area west of the roadway expansion is largely categorized as minimally supportive of infill. It is possible that increased roadway capacity could facilitate new development in existing agricultural areas. The Village of Shorewood’s comprehensive plan contemplates commercial development along US 52 west of the expansion area.

ON TO 2050 also emphasizes investing in disinvested areas. The project is not within a disinvested area, though there are disinvested areas a few miles east. As noted in the quantitative analysis, project use by residents of economically disconnected areas is expected to be low.

Figure 2. Freight Clusters in ON TO 2050



Prosperity

The Prosperity chapter offers recommendations on economic development and workforce to help the region thrive. Its recommendations highlight the need to coordinate across governments to provide the infrastructure, human capital, and support needed to retain businesses and attract growth.

Robust economic growth that reduces inequality

This goal of ON TO 2050 recognizes that the region has extensive assets, including its people, industries, educational and research institutions, infrastructure, and location. It also encourages support for the region's traded clusters -- those that sell products and services in markets outside the region.

The project is near the Will County freight cluster (Figure 2) as defined by CMAP (with portions of it in the cluster), and it offers potential to improve or support expansion of existing operations of some of the region's traded clusters, particularly in the area of transportation, distribution, and logistics. Quantitative analysis suggests high benefits to areas with industrial vacancies as well as moderate benefits to key industries, those that are export-oriented and sensitive to transportation costs. The project also serves Rock Run Crossings, though the envisioned development appears to predominantly feature businesses with a more local impact, such as retail, restaurants, and entertainment.

Environment

ON TO 2050 has several goals and recommendations related to improving natural resources and green infrastructure throughout the region.

Development practices that protect natural resources

This ON TO 2050 goal recommends preserving high-priority natural areas and enhancing impaired areas during development and redevelopment processes. Some sections of the project are located within general areas CMAP has identified as regional conservation priorities, including oak woodlands and riparian corridors. The area immediately surrounding Rock Run Creek contains important oak communities and connects to the Middle Rock Run County Forest Preserve. The project may provide an opportunity for these natural areas to be expanded and enhanced. Most of the immediate project area and surrounding lands also contain high quality agricultural soils, which ON TO 2050 generally supports preserving.

Integrated approach to water resources

This ON TO 2050 goal includes recommendations for stormwater management, water quality, and water supply. Construction at this site could have a significant impact on local habitat, which may be mitigated by best management practices and ongoing management of the area as a green infrastructure facility. It will be important for construction, maintenance, and operations to be managed in a way that reduces the impact of stormwater runoff into surrounding areas. IDOT anticipates using best management practices to control runoff during construction and post-construction. Certain project design choices were also made to avoid impacts on natural areas. For example, early alternatives that may have impacted wetlands near Joliet Junior College ("the fen") were dismissed.

A region prepared for climate change

This ON TO 2050 goal includes recommendations for climate change mitigation and adaptation. The section of the project site near Rock Run Creek is located within the existing one 100-year floodplain, which is expected to see more frequent and more severe flooding during the coming decades, though future floodplain maps are not available. Bridge and roadway design at IDOT incorporates significant safety factors above the expected flood height in a 100-year event. Engineers at IDOT have discussed the need to have a sensitivity analysis to examine the potential for future storms to exceed current design criteria, but this is not currently available.

The effects of the proposed project on greenhouse gas emissions are not clear. The reduction in congestion and reduction in out-of-direction travel by adding missing interchange movements will reduce emissions, but this could be offset somewhat by an increase in vehicle miles traveled in the longer term.

Governance

The Governance chapter focuses on leading effectively together and contains recommendations related to collaboration, local government capacity, and making decisions in a data driven and transparent way.

Collaboration at all levels of government

This ON TO 2050 goal emphasizes that leaders in northeastern Illinois must work together efficiently and effectively. It encourages transportation agencies to partner with other units of government to deliver infrastructure projects to achieve benefits such as speeding up project delivery and improving system reliability. The I-55 at IL 59 Access Project involved significant collaboration between IDOT and local partners, both governmental and nongovernmental. The project emerged from a large study area that eventually resulted in four components – as noted above – two of which will be led by local agencies.

Mobility

The Mobility chapter focuses on achieving a safe and reliable transportation system for the future. It calls for careful investment to meet today's needs, while preparing the transportation system for changes in demand, technology, and the economy.

A modern, multimodal system that adapts to changing travel demand

This ON TO 2050 goal emphasizes safety, resilience, and equitable access to the transportation system. The project's Purpose and Need statement is related to improving mobility, connectivity, and system linkage. The project has a very high score among other RSPs for unreliable travel time, meaning that high traffic volumes in combination with events such as bad weather combine to create unpredictably long travel times. Capacity improvements would alleviate some of this.

A system that works better for everyone

The project limits include two intersections and one segment on US 52 that are 2017 safety 5-percent locations (that is, in the most unsafe 5 percent of locations in the state). The US 52

portion of the project will include a barrier median and intersection channelization to address the safety issues, and some of the safety issues on I-55 related to weaving at ramps will be addressed by adding auxiliary lanes.

The goal also emphasizes investing in safe bike and pedestrian pathways to desired destinations. The I-55 at IL 59 interchange incorporates a new bicycle and pedestrian pathway, and US 52 will also include new bicycle and pedestrian accommodations. Doing so would allow for pedestrian access from hotels on the east side of the interchange to restaurants and other amenities on the west side.

Making transformative investments

This section of ON TO 2050 contains many of the plan's revenue recommendations, as well as recommendations related to performance based programming and implementing value capture. According to IDOT's FY2020-2025 MYP, all segments of the project appear in the MYP for the first time this year, with portions of the I-80 to US 52 segment in FY20, the first year of the program. The timing may be linked to the adjacent mixed-use development.

This section also recommends further implementing value capture to reflect the local benefits of many state-led projects. The plan includes a recommendation that IDOT and counties consider policies similar to the Tollway's, which requires local governments to contribute half the cost of interchange projects. According to IDOT's TIP amendment request, the project's I-55 at IL 59 interchange component does contain local funds for engineering and construction that represent about 16 percent of the project's total cost.

NEXT STEPS

CMAQ has analyzed the impacts of this project based on available information. The public comment period for amending the ON TO 2050 plan to include the Improvements to I-55 from I-80 to US 52 and US 52 from River Road to Houbolt Road Project runs from April 10-May 11, 2020. Public comment can be submitted by:

- Emailing i55projects@cmap.illinois.gov
- Mailing a comment to:
Chicago Metropolitan Agency for Planning
Attn: Jane Grover
233 South Wacker Drive, Suite 800
Chicago, IL 60606

Additional information can be found at <https://www.cmap.illinois.gov/updates/proposed-amendments>.

Following the public comment period, CMAQ staff will make a recommendation on whether the Plan should be amended to include the projects. The CMAQ Board and MPO Policy Committee will consider this recommendation in June 2020.

APPENDIX I: EVALUATION OF IMPACT ON CURRENT NEEDS AND PLANNING PRIORITIES

The following tables contain the results of the quantitative evaluation of the project. The evaluation replicates the “current needs” and “planning priorities” assessment used in the ON TO 2050 process, which are described in more detail in an appendix to ON TO 2050.⁷ The current needs assessment scores the existing congestion, safety, etc. problems at the project location based on a 0 – 100 index of how that location compares against the entire arterial or expressway National Highway System (NHS), with 100 representing the most severe problems and highest possible need. In the tables below, comparisons are also given against other RSPs included in ON TO 2050 to aid interpretation. In some cases, the project may seem to have a relatively low score against the entire NHS, yet still address more significant needs than other constrained RSPs. Because the project is providing better access to the expressway from the adjacent arterial network, the congestion, safety, etc. problems on the affected arterials are also assessed. Arterial and expressway results are presented in separate tables.

The planning priorities assessment examines the degree to which a project at a given location could address the priorities in ON TO 2050, such as avoiding impacts to conservation areas or improving freight movement. Generally these scores are also provided as a 0 – 100 index, with 100 indicating that a project at that location is more desirable. For a few factors, providing the value itself is more appropriate than an index. A travel model analysis was not undertaken because the project makes primarily operational improvements which the regional travel model is less suited to evaluating.

Arterial

Overall, the arterial portions of the project display moderate to moderately high scores for pavement condition, safety, and mobility and a high score for reliability among other arterial RSPs.

Current Need	Score (compared to the entire NHS)	Notes (Comparison is made to other constrained RSPs where relevant)
Structurally deficient bridge (square feet of deck)	0	No structurally deficient bridges.
Pavement condition (condition rating and pavement roughness)	48	Moderately high score among the NHS overall. Comparable to US-41 Lake Shore Dr.
Safety (fatal crashes per VMT)	28	Moderately high score among arterials and the NHS overall.

⁷ Chicago Metropolitan Agency for Planning, “ON TO 2050 Regionally Significant Projects Benefit Report,” October 2018.

<https://www.cmap.illinois.gov/documents/10180/911391/FINAL+Regionally+Significant+Projects+Benefit+Report+Appendix.pdf/612e47c8-5038-c3f7-035e-22959ffb0c51>

Current Need	Score (compared to the entire NHS)	Notes (Comparison is made to other constrained RSPs where relevant)
Mobility (intensity and duration of congestion)	60	Moderate score among arterials (comparable to IL 47) and the NHS overall.
Reliability (planning time index)	74	High score among arterials and the NHS overall.

Note: these scores are scaled 1-100, and indicate how a project performs relative to all expressways and arterials in the entire NHS. A score of 100 indicates the highest need, i.e. poorest current performance.

The following table depicts the results of the project on the ON TO 2050 planning priorities assessment. The arterial portions of the project display a moderate impact on industry clustering, benefits to key industries and benefits to areas with industrial vacancy. The project also displays moderately high increases in expected traffic growth and freight improvement.

Planning Priority	Score	Notes (Comparison is made to other constrained RSPs where relevant)
Conservation Area Impact (sq ft of CA within 500 ft, per mile of road)	61	Moderately high score. Comparable to US-45/Olde Half Day Rd.
Economic impact due to industry clustering	13	Moderate impact, comparable to Laraway Rd.
Benefits to key industries (indexed to RSP arterial set)	53	Moderate impact compared to arterial RSPs.
Freight Improvement	33	Moderately high impact on freight, comparable to IL 83.
Expected traffic growth (percent by 2050)	33%	Moderately high increase. Comparable to IL 47 and IL 31/Front Street.
Project use by residents of economically disconnected areas (percent of VMT)	5.2%	Low usage by EDA residents compared to arterial RSPs.
Benefits to areas with industrial vacancy (current vacant space)	2.8 M	Moderate score.

Expressway

The expressway portions of the project display a high safety need among other RSPs for the Need Factors below.

Current Need	Score (compared to the entire NHS)	Notes (Comparison is made to other constrained RSPs where relevant)
Structurally deficient bridge (square feet of deck)	0	No structurally deficient bridges.

Current Need	Score (compared to the entire NHS)	Notes (Comparison is made to other constrained RSPs where relevant)
Pavement condition (condition rating and pavement roughness)	32	Moderate score among the NHS overall.
Safety (fatal crashes per VMT)	51	High score among expressway projects and within the NHS overall.
Mobility (intensity and duration of congestion)	33	Low score among the NHS overall.
Reliability (planning time index)	15	Low score among expressways and the NHS overall.

Note: these scores are scaled 1-100, and indicate how a project performs relative to all expressways and arterials in the entire NHS. A score of 100 indicates the highest need, i.e. poorest current performance.

The expressway portions of the project display high impact on conservation areas and freight improvement and moderate impact on expected traffic growth and benefits to areas with industrial vacancy.

Planning Factor	Score	Notes (Comparison is made to other constrained RSPs where relevant)
Conservation Area Impact (sq ft of CA within 500 ft, per mile of road)	90	High score among expressway RSPs.
Benefits to key industries (indexed to RSP arterial set)	30	Moderately low impact among expressway projects.
Freight Improvement	93	High impact among expressway RSPs.
Expected traffic growth (percent by 2050)	23%	Moderate increase.
Project use by residents of economically disconnected areas (percent of VMT)	1.7%	Low usage by EDA residents compared to expressway RSPs.
Economic impact due to industry clustering	N/A	Negligible impact.
Benefits to areas with industrial vacancy (current vacant space)	8.4 M	Moderate score among expressway RSPs.

ACTION REQUESTED: Information

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