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MEMORANDUM

To: Transportation Committee

From: CMAP Staff

Date: September 27, 2013

Re: Recommendation on Proposed Illiana Corridor

On April 10, 2013, CMAP received a formal request from the Illinois Department of Transportation (IDOT) to consider including the proposed Illiana Corridor -- a new tolled expressway -- as a fiscally constrained major capital project in the GO TO 2040 comprehensive regional plan and also to accelerate its construction. According to federal regulations, the IDOT Tier 2 Environmental Impact Statement (EIS) can only be completed if this proposed new highway facility is first approved as a GO TO 2040 major capital project.

In late July, CMAP staff released its analysis of the proposed facility, describing the project's status and evaluating it within the context of GO TO 2040 socioeconomic forecasts. That document also includes numerous links to IDOT and CMAP technical documentation. The Transportation Committee released it for public comment from August 2 to September 3. For the CMAP Board's September 11 meeting, public comments were summarized in a staff memo, which includes categorized links to the comments themselves. Of the 965 public comments, 169 supported the proposed amendment and 796 opposed it. Those numbers do not include two petitions submitted in opposition, with more than 3,700 total signatures.

The CMAP Board and MPO Policy Committee will consider this amendment to the region's plan at their meetings on, respectively, October 9 and 17. CMAP's Transportation Committee (October 4) and the Regional Coordinating Committee (October 9) will also consider this plan amendment at their upcoming meetings. Because the Regional Coordinating Committee membership includes the co-chairs of CMAP's six working committees, CMAP staff has previously presented its analysis at the working committee meetings since July, which IDOT staff also attended to field questions.

GO TO 2040 Context

This document assesses whether the proposed Illiana Corridor is compatible with our region's policy-based goals as established in its GO TO 2040 comprehensive plan. Just under three years ago, the plan was approved unanimously by the CMAP Board and MPO Policy Committee after

extensive technical analysis, public outreach, and close deliberation between these and other committees, partners, and stakeholders.

The first of three recommendations in GO TO 2040's chapter on Regional Mobility is to "Invest Strategically in Transportation." This section of the plan guides the process to which our region has committed itself when considering proposed major transportation capital investments. It emphasizes maintenance and modernization of our existing system, performance-based funding, changes to public policy, and innovative strategies (including financing, pricing, and travel demand management) to improve mobility and increase transportation resources for metropolitan Chicago. The plan states that achieving a "world-class transportation system" requires improving, modernizing, and increasing service on existing assets, rather than building expensive new projects that may be difficult to finance, operate, and maintain over the long term.

GO TO 2040's Livable Communities chapter is also predicated on reinvestment in existing assets. It describes the problems created by several decades' development trends, most notably the outward expansion that has consumed vast amounts of land and requires considerable investments in water, wastewater, and transportation infrastructure. The Livable Communities chapter promotes development in existing communities that already have the infrastructure to support it.

Summary of the CMAP Staff Recommendation

The Illiana Corridor proposal is broadly incompatible with the overall goals and recommendations of GO TO 2040. Staff recommends that it not be added to the plan at this time.

While the GO TO 2040 plan acknowledges that some new transportation capacity is needed in northeastern Illinois, it strongly emphasizes that major capital projects require careful prioritization due to our region's widespread congestion problems, unsustainable historical growth patterns, and fiscal hardships plaguing the State of Illinois. Through the GO TO 2040 process, the region established a realistic set of high-priority transportation investments based on clear strategies for improving mobility, accessibility, and overall economic prosperity across the region. Inclusion of the Illiana Corridor on GO TO 2040's list of fiscally constrained projects would be inconsistent with the region's commitment to its own clearly established priorities.

For two reasons, the Illiana Corridor was not included as a priority project when GO TO 2040 was adopted. First, the plan noted that Illiana financing was uncertain. Second, the benefits and costs could not be estimated because IDOT had not chosen an alignment for the project's location prior to CMAP's adoption of the comprehensive regional plan.

Both these concerns are still quite real and must be addressed when considering whether the Illiana Corridor is now to be added as a GO TO 2040 priority project. Yet public information about the project's funding has not improved substantially since GO TO 2040's adoption, so its financing remains uncertain. And although a project alignment has now been selected, its

location in a rural area far from existing development would severely limit the facility's benefits.

This document emphasizes four specific issues that should be of particular concern to the CMAP Board and MPO Policy Committee as they consider whether to approve the proposed amendment as consistent with the GO TO 2040 plan:

1) **Financial Risk.** The proposed facility's estimated cost and potential financing structure expose the State of Illinois to extensive financial risk. The information provided to justify the project's financial viability has been incomplete and largely anecdotal.

2) **Contradictory Growth Assumptions.** To estimate performance of the facility, IDOT has used growth projections that are not consistent with GO TO 2040 forecasts, which are based on the need to direct investment toward existing communities. The IDOT forecasts essentially show what is likely to result if GO TO 2040 is not implemented, with negative impacts on livability, mobility, and natural resources.

3) **Unsubstantiated Economic Development Potential.** The proposed facility's ability to spur or support economic growth remains unclear because existing nearby development is minimal. The selected corridor alignment is not located near the existing residential and commercial centers to the north that are necessary for sustained job creation and economic development.

4) **Limited Benefits to Regional Mobility.** The proposed Illiana Corridor achieves negligible impacts on regional transportation performance, making it a lower priority than the planned GO TO 2040 investments that do address the region's congestion challenges.

The balance of this document will detail each of these four issues in turn.

Financial Risk

The proposed Illiana's estimated cost and potential financing structure expose the State of Illinois to considerable financial risk. In brief, the cost currently estimated by IDOT falls short of other comparable projects built recently both regionally and nationwide. Additionally, the information provided to justify the project's financial viability has been incomplete and largely anecdotal, with insufficient details available to reasonably include the project on the GO TO 2040 list of fiscally constrained projects. CMAP's planning-level analysis of the proposed facility's potential traffic volumes and hypothetical financing scenarios indicates the likely need for a significant public contribution -- from $440 million to potentially over $1 billion, depending on overall project cost and revenues -- to make the Illiana Corridor financially feasible for a public-private partnership (P3).

GO TO 2040 and Public-Private Partnerships

CMAP supports the appropriate use of P3s. GO TO 2040 recommended that broad authority be given to IDOT and the Tollway to enter into these agreements, but the plan also stated that these arrangements must be handled with a high degree of transparency and care. Among various P3 strategies, each has its pros and cons, and some can be extremely complicated and costly to enact. While the Illiana Corridor may benefit from the cost-saving aspects of P3s, the risk of projected traffic not materializing is significant. P3 bids will incorporate this risk by requiring public funds to fill revenue shortfalls.

National experience regarding P3s has been mixed. Toll road P3s predicated on growth in rural and exurban areas face particular difficulty in meeting traffic and revenue expectations. A number of new, exurban toll facilities in the U.S. have not generated the projected demand and therefore cannot meet debt service payments. Some of this struggle is related to the nation's slow recovery from the economic recession, but older projects have also experienced revenue difficulties that predate the recession.[1]

Most fundamentally, there is no "free money." Private loans must be repaid, and private partners will require a reasonable rate of return for their investors.[2] To achieve these objectives, private partners will require a project of this type to generate a reasonable cash flow through tolling or public subsidy. Traffic levels must be projected conservatively many years into the future, and the financial underpinning of a project is based on these projections.

Project Cost

In the July 2013 staff analysis of the Illiana Corridor that was released for public comment, staff observed that the estimated cost of the proposed facility was low compared to other regional and national projects. This observation still stands. IDOT has published an estimated project cost of **$1.25 billion**, of which the Illinois share would be **$950 million**.[3] According to the Tier 1 Record of Decision, the estimate includes costs for construction, utility relocations, right of way,[4] mitigation, and engineering.[5]

IDOT has also recently provided revised cost estimates for three of the seven original interchanges and added two potential interchanges. Analysis of the alternatives recommended to be carried forward indicates a total cost increase of approximately $70 million for these

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[1] See related articles for the San Joaquin Hills Toll Road, the Dulles Greenway, the Camino Colombia, and the Southern Connector. Also, CMAP published a policy update on toll road P3s in March 2012.

[2] Analysis of other Toll P3 projects indicates that private toll operators expect to earn internal rates of return (IRR) as high as 11 to 12 percent before sharing profits with public entities. IRR is a private toll operator's expected return on their initial equity investment over the life of a project.

[3] IDOT's presentation to the CMAP Transportation Committee on June 7, 2013, shows these cost estimates in terms of "year of expenditure" for the facility.

[4] Land acquisition is currently included in the northeastern Illinois FY 13-16 Transportation Improvement Program (TIP) at $10 million. A TIP change for an additional $70 million in land acquisition has been submitted and will be considered for approval in October 2013.

[5] Tier 1 Final Environmental Impact Statement, p. 4-18 (http://www.illianacorridor.org/pdfs/feis/section_04.pdf).

elements alone.[6] Refinements to the Tier 1 design have also increased the local road crossings kept open from 19 to 26. Finally, the refined environmental impact analyses identified additional floodplain, wetland, park, residence, and farm impacts above those initially estimated in Tier 1. All of these items will add to the project cost.

CMAP's analysis showed that Illiana's per-lane mile cost in 2020 dollars would be $8.1 million, compared to the recently constructed I-355 extension ($18.9 million), the planned IL 53/IL 120 extension in Lake County ($25.3 million), and other similar national projects (from $12.9 million to $37.1 million.) IDOT also provided CMAP with costs for two recent facilities in Illinois and Indiana. The Illinois facility is a recently let 6.5-mile section of the US 67 Corridor, and the Indiana example is the 26-mile "Section 3" of I-69 in Greene and Daviess counties. CMAP has reviewed both these projects, and neither provides a strong comparison to the Illiana. The referenced section of US 67 is only partially limited access, with one interchange and several at-grade intersections.[7] Section 3 of I-69 in Indiana contains just 1.5 interchanges in 26 miles.[8]

Potential Private Financing Methods

IDOT and the Indiana Department of Transportation (INDOT) have begun to pursue a P3 for construction, operation, and maintenance of the Illiana Corridor. In public forums, IDOT officials have stated that two potential P3 models are under consideration. The first would be a more traditional full-concession model in which a private partner would design, construct, operate, and maintain the facility and be repaid through toll revenues. The second is an "availability payment" model, in which the public sector would pay a private concessionaire an agreed-upon sum (usually this is done via an annual outlay) over the period of a contract as compensation for design, construction, operations, and maintenance work.

Given the low projected traffic and the inherently higher risk associated with exurban toll facilities, P3 bidders will likely propose an availability payment model that puts taxpayers at risk to pay revenue shortfalls. Because the local road network is minimally congested, CMAP analysis indicates that tolls would divert approximately 40 percent of potential users from the facility. The presence of minimally congested alternative routes introduces significant risk into the tolling scenario and potentially increases risk to the public sector. In a P3 process, the methods and assumptions for estimating facility traffic, revenues, and costs must be transparent and conservative in order to best protect the public interest, particularly in an availability payment scenario.

Beyond these broad outlines of the desired P3 structures, CMAP has had access to little of the information necessary to fully analyze the facility's potential cost, financing plan, and resulting public costs. In its August 2013 Illiana Fact Sheet, IDOT states that the Illiana "will generate sufficient toll revenue over the period to 2053 to repay the initial cost of the project AND the

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[6] CMAP analysis of Appendix G of the Tier 1 EIS and Appendix C of the Tier 2 Alternatives to be Carried Forward Technical Memorandum.

[7] CMAP review of the US 67 letting and engineering plans.

[8] More information on the I-69 project is available on the project website, as is a map of Section 3.

operation and maintenance costs of the facility for the term of the agreement."[9] IDOT has indicated that further information on the proposed P3 structure, tolling analyses, revised project cost estimates, operations and maintenance cost estimates, and financing analyses completed to date are not available at this time due to the confidentiality required for the P3 solicitation process. IDOT has noted that financial information will be provided to CMAP as it becomes publicly available.

Financial Analysis

In lieu of information from IDOT regarding the public cost of the Illiana under a P3 financing scenario, staff analyzed the potential revenue gap if the Illiana Corridor were built, financed, and operated by a private firm. What follows is a planning-level (not an investment-grade) analysis intended to provide more information and context to the discussion regarding potential public costs of the facility. CMAP staff analysis indicates a potential project gap (or required public subsidy) of between $440 million and $1.1 billion over the life of the facility across a range of private funding scenarios.

Similar to IDOT's stated methodology, CMAP staff first determined what toll rates would maximize annual revenue on the facility based on how drivers value travel time savings.[10] Both CMAP and IDOT analyses converged on approximately 20,000 to 25,000 vehicles per day under an optimized tolled scenario. An optimized scenario is the toll rate that maximizes revenue without diverting so many users from the facility that projected annual revenues fall. The CMAP optimized toll rate in 2018 is $0.16 per mile for autos and $0.36 per mile for trucks (in 2013 dollars). Toll rates are assumed to increase at an average of 2 percent per year to reflect inflation.

The analysis assumes utilization of a mix of private equity, private loans, and federal tools like private activity bonds (PAB) and TIFIA loans, both of which lower the cost of borrowing. It also accounts for initial construction costs, financing costs, and private sector return requirements. It assumes normal operations and maintenance costs, a range of typical interest rates, a mix of debt and equity similar to other recently-completed P3 toll projects, and a range of project costs and annual toll revenues.[11]

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[9] See http://www.illianacorridor.org/pdfs/illianakeyissuesfactsheet.pdf.

[10] For more on IDOT methodology, see page 18 of Tier 2 Alternatives to be Carried Forward Technical Memorandum.

[11] The estimated Illinois portion of project costs was $1.4 billion, $1.1 billion, and $950 million for the pessimistic, moderate, and optimistic scenarios. Tolling proceeds ranged from 80 percent to 120 percent of the forecasted optimized toll rates and revenues. Interest rates reflected average rates and spreads on similar toll PABs, current and three-year high TIFIA rates, and market interest rates. The optimistic scenario received the highest proportion of PAB and TIFIA funds, the moderate received 32 percent, and the pessimistic received 20 percent. Private equity ranged from 20 percent to 25 percent of project costs. Operations, maintenance, and capital improvement costs and schedules reflected those provided by IDOT for the update of the GO TO 2040 fiscal constraint and information specific to the Illiana in Tier 1 and Tier 2 documents.

Table 1. Project funding gap assuming private funding scenarios, 2018 dollars

	Pessimistic Scenario	*Moderate Scenario*	*Optimistic Scenario*
35-Year P3	-$1,100 M	-$710 M	-$440 M

Source: Chicago Metropolitan Agency for Planning analysis. The estimated Illinois portion of project costs was $1.4 billion, $1.1 billion, and $950 million for the pessimistic, moderate, and optimistic scenarios.

This analysis indicates that, over a 35-year timespan, the Illiana Corridor is unable to repay its initial debt, pay for annual operations and maintenance, finance required periodic capital maintenance expenditures, and meet private-sector return on investment requirements without public subsidy. The analysis above contemplates an up-front public contribution via a bond or grant, but this subsidy could also be made in the form of an annual availability payment. While optimistic scenarios include higher-than anticipated toll revenues, on-target construction and maintenance costs, and higher proportions of low-cost debt, some amount of public subsidy could still be required.

To date, IDOT has not publicly released any of the specific information about costs, revenues, or the specific structure of any potential agreements to enable a finer grained analysis of how the Illiana Corridor will be financed or how the nature of the proposed P3 would protect the public interest. CMAP's high-level analysis indicates the potential for significant public costs, which must be better understood before the project can be added to the fiscally constrained list of major capital projects. To date, insufficient information has been made available to indicate whether projections are reasonable and to what extent public subsidy will be required.

Contradictory Growth Assumptions

The growth projections underlying IDOT expectations of the facility's future performance represent a wholesale departure from GO TO 2040's policy of directing investment toward existing communities and thus establish an entirely new and different planning policy from what the CMAP Board and MPO Policy Committee approved in GO TO 2040. The GO TO 2040 forecasts were developed to ensure that transportation projects support specific regional goals. To the contrary, IDOT's forecasts essentially show what is likely to happen if GO TO 2040 is not implemented. CMAP's staff analysis from July summarizes differences between the two forecasts.[12]

GO TO 2040 focuses most infrastructure investment in and near existing communities, while recommending that growth in undeveloped areas be carefully targeted. In so doing, the plan directs resources toward solving the problems we have now -- such as linking people and jobs

[12] See CMAP's Forecast Principles, which provide direction for forecast developers, users, and policy makers in using and interpreting the GO TO 2040 preferred scenario data.

while reducing congestion -- and avoiding the new problems created by outward metropolitan expansion. Over the long run, this approach lessens the need to expand infrastructure at the edge of the region, protects natural resources, and limits fiscal impacts to local governments. Because of this focused investment, existing communities become more attractive places to live and work. National and regional research shows that compact development patterns can significantly reduce the cost of local roads and other infrastructure, with the cost savings accruing to local governments and developers.[13]

CMAP's forecasts are a direct outcome of implementing the policies recommended in GO TO 2040. By contrast, IDOT's forecasts are an extrapolation of past suburban growth patterns, without recognition of current constraints posed by changing demographic preferences with regard to housing and commute choices, increasing fuel prices, and decreasing growth trends for vehicle miles traveled (VMT). The differences between the forecasts are significant, with more than twice as much of the region's population growth occurring outside existing communities under the IDOT forecasts.

Table 2. Build and no-build population forecasts by county

County	*Base, 2010*	*CMAP No-Build, 2040*	*CMAP Build, 2040*	*IDOT No-Build, 2040*	*IDOT Build, 2040*
Cook	5,148,673	6,239,232	6,240,455	5,774,388	5,770,755
DuPage	910,884	1,160,418	1,160,484	1,022,251	1,021,742
Kane	511,885	804,325	804,472	953,533	949,746
Kendall	114,574	207,802	207,812	262,442	261,379
Lake	698,616	971,048	971,084	941,616	940,042
McHenry	307,454	527,773	527,841	692,208	690,522
Will	671,260	1,217,973	1,223,571	1,366,659	1,371,468
Total	**8,363,344**	**11,128,570**	**11,135,719**	**11,013,097**	**11,005,653**

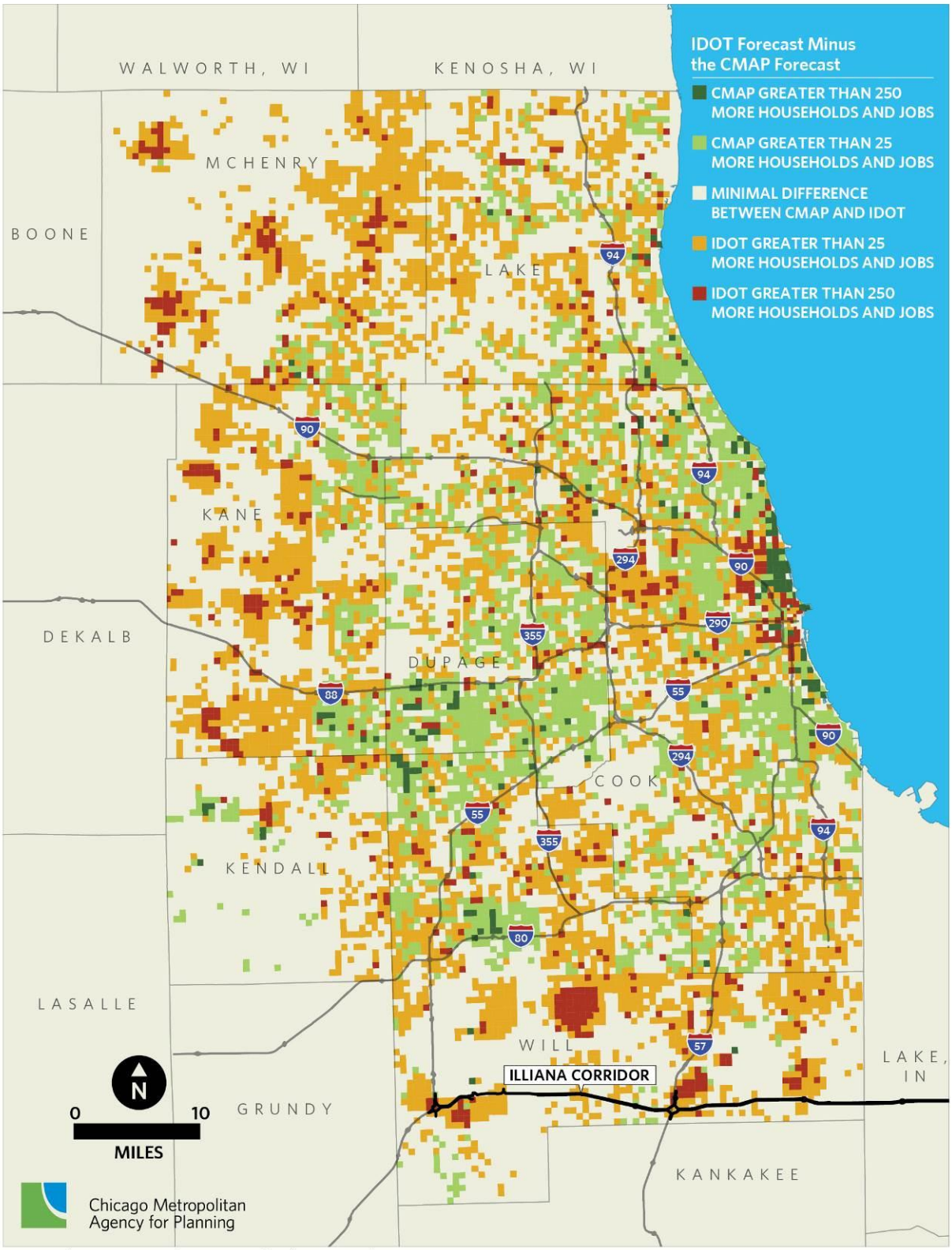
Source: Chicago Metropolitan Agency for Planning analysis.

To be clear, Table 2 shows that GO TO 2040 envisions considerable growth in Will County as a whole. In fact, it is projected to grow more on a percentage basis than any other county in the CMAP region between now and 2040. The difference is that in GO TO 2040 more of this growth occurs in and near existing communities in Will County rather than the rural southern part. As shown in the following map, less than a quarter of the population growth in Will County is projected to occur in the southern portion under GO TO 2040, whereas IDOT's forecasts have

[13] For examples, see Mark Muro and Robert Puentes, "Investing in a Better Future: A Review of the Fiscal and Competitive Advantages of Smarter Growth Development Patterns," Brookings Institute Center on Urban and Metropolitan Policy, 2004.; Burchell et al., "Costs of Sprawl — Revisited," Transportation Research Board (National Academy Press, 1998) or Burchell et al., "Costs of Sprawl 2000," TCRP Report 39.

about half the growth occurring there. The Illiana is planned to serve a travel market that will be much smaller if the region is committed to the implementation of GO TO 2040.

Comparison of CMAP and IDOT Illiana build forecasts of households and jobs, 2040



Source: Chicago Metropolitan Agency for Planning analysis.

Focused investment in existing communities improves regional transportation system performance while also decreasing the environmental impact of regional growth. Table 3 summarizes the indicators already discussed in the staff analysis. Overall automobile travel, as measured by VMT and vehicle hours traveled, would be lower with the development GO TO 2040 envisions than with the pattern of growth assumed by IDOT. The percentage of that travel under congested conditions would be lower as well, including truck traffic.

CMAP's analysis also suggests that the more compact GO TO 2040 growth pattern would have less effect on natural resources in the study area when compared to the IDOT forecasts' pattern. Under the IDOT forecasts, 70 percent more impervious surface would be added in the Illiana study area, and significantly affected watersheds would total nine more than in GO TO 2040. Similarly, potential impact on important regional natural resources identified by Chicago Wilderness in its Green Infrastructure Vision is almost double under the IDOT forecasts. Greenhouse gas emissions from the transportation sector and water use in the study area are also significantly higher than in GO TO 2040.

Table 3. Changes in regional indicators identified in GO TO 2040

Indicator	*CMAP 2010 Base*	*CMAP No-Build*	*IDOT No-Build*
Vehicle Miles Traveled (in thousands)	*153,355*	*211,401*	*226,017*
% Congested	5%	9%	14%
Vehicle Hours Traveled (in thousands)	4,528	6,632	7,252
% Congested	10%	20%	27%
Heavy Truck Vehicle Miles Traveled (in thousands)	24,040	37,547	40,284
% Congested	9%	12%	19%
Heavy Truck Vehicle Hours Traveled (in thousands)	222	425	440
% Congested	16%	29%	36%
Total Impervious Acres in Illiana Study Area	15,832	39,613	67,729
Number of Watersheds >10% Impervious	9	14	23
Households in Green Infrastructure Vision Area in Illiana Study Area	4,924	5,767	11,108
Water Use in Illiana Study Area (millions of gallons/day)	10.7	22.2	42
Annual CO_2 Emissions from Transportation Sector (million metric tons / year)	33.2	33.9	37.4

On these indicators, the impacts are mostly due to assumed regional growth in the no-build scenario, not to the Illiana, which is why only the no-build scenario is shown in Table 3. However, the expressway itself would also have environmental impacts. The Tier 1 EIS surveys these impacts at a high level, while the Tier 2 EIS will examine them in more detail.

The numerous impacts described by environmental groups in the public comment period are concerning. The proximity of the Midewin National Tallgrass Prairie creates the potential for

injury to wildlife and degradation of a unique landscape. Noise and traffic impacts are possible at the nearby Abraham Lincoln National Cemetery, and the conflicts between funerals and trucks on IL 53 are already an ongoing issue. Beyond this, environmental groups have noted the potential for impacts to several high-quality water resources, including the Kankakee River, Forked Creek, and others. A large proportion of the public comments CMAP received in opposition to amending GO TO 2040 to include the Illiana cited the potential for environmental damage.

To summarize, the Illiana does not support reinvestment within existing communities, and its traffic forecasts are predicated on growth patterns that contradict the GO TO 2040 forecasts. The proposed alignment for the Illiana is located 10 miles south of the urbanized area in a currently rural portion of Will County. IDOT forecasts significant development and congestion in southern Will County in 2040, but these forecasts represent a planning policy inconsistent with what the CMAP Board and MPO Policy Committee approved in GO TO 2040. If the region is committed to implementing GO TO 2040, then travel needs will be very different from what IDOT forecasts because the location and type of growth will be different. The Illiana is being planned for a future out of step with GO TO 2040.

Unsubstantiated Economic Development Potential

The proposed facility's potential to spur or support economic growth in this part of the region remains unclear given the minimal amount of adjacent development and the considerable distance between the selected corridor and the household and job centers to the north. The proposed Illiana alignment is located about 10 miles south of the bulk of the region's supporting businesses, labor pool, and transit networks that serve commuters. While GO TO 2040 anticipates considerable future employment growth in Will County, this growth is likely to be more intensive in the north rather than near this proposed corridor. The proposed Illiana Corridor would be a misplaced investment and a missed opportunity to catalyze and nurture the broad range of economic activities that are so vital to the region's future prosperity.

Future Employment

Regardless of where they occur, infrastructure projects are typically associated with short-term job creation, and IDOT predicts the Illiana Corridor will support 9,000 construction jobs.[14] But beyond short-term employment, this project does not have the potential to spur or support the significant long-term economic development that results from congestion mitigation and access to new markets.

Will County has grown significantly over the last several decades. GO TO 2040 assumes a continuation of this trend with employment increasing nearly 140 percent and population increasing more than 80 percent between 2010 and 2040. As stated above, CMAP's projections show growth in the county's population centers far to the north of the facility rather than adjacent to the corridor. In terms of the proposed facility's direct impact on long-term jobs,

[14] See IDOT Illiana Corridor proposed amendment at http://cmap.is/1b6DkTx.

CMAP estimates a modest net regional employment gain of 3,800 in northeastern Illinois for the year 2040, compared to a no-build forecast. Due to the location of the Illiana Corridor, approximately three-quarters of this gain would accrue to Will County. On the other hand, IDOT estimates a net job loss to the region of nearly 9,000 jobs, though it assumes a net job gain outside the region, in Kankakee and Grundy counties and northwestern Indiana.[15]

Regional Freight and Logistics Activity

Freight is a critical industry in metropolitan Chicago. The overall regional freight cluster (which includes customer and support industries) comprises 4 percent of the region's private sector employment, and over a quarter of all the region's jobs are in industries directly tied to freight.[16] The CMAP freight cluster drill-down report, released in June 2012, summarizes a number of challenges and opportunities faced by the cluster across the areas of infrastructure, innovation, and workforce. That report recommends targeted investments in infrastructure, workforce, and economic development to bolster this regional competitive advantage.

The growing intermodal base in Will County represents a relatively small component of this large and thriving regional industry cluster. The most recent available data show that metropolitan Chicago had an estimated 6.8 million intermodal lifts in 2011. The two intermodal facilities in Will County (BNSF's Logistics Park in Elwood and UP's Joliet Intermodal) contributed 1.2 million lifts, or 17.7 percent of all lifts in metropolitan Chicago.[17] In other words, 82 percent of all lifts occurred outside of Will County, so while Will County is an important node, it is not the dominant portion of the freight system.[18]

The following map depicts freight cluster employment by zip code in the CMAP region. While northern and western Will County have a moderate concentration of freight employment, freight employment and facilities remain most concentrated in other areas of the region, particularly central Cook, south Cook, and the O'Hare area, including northeastern DuPage County.

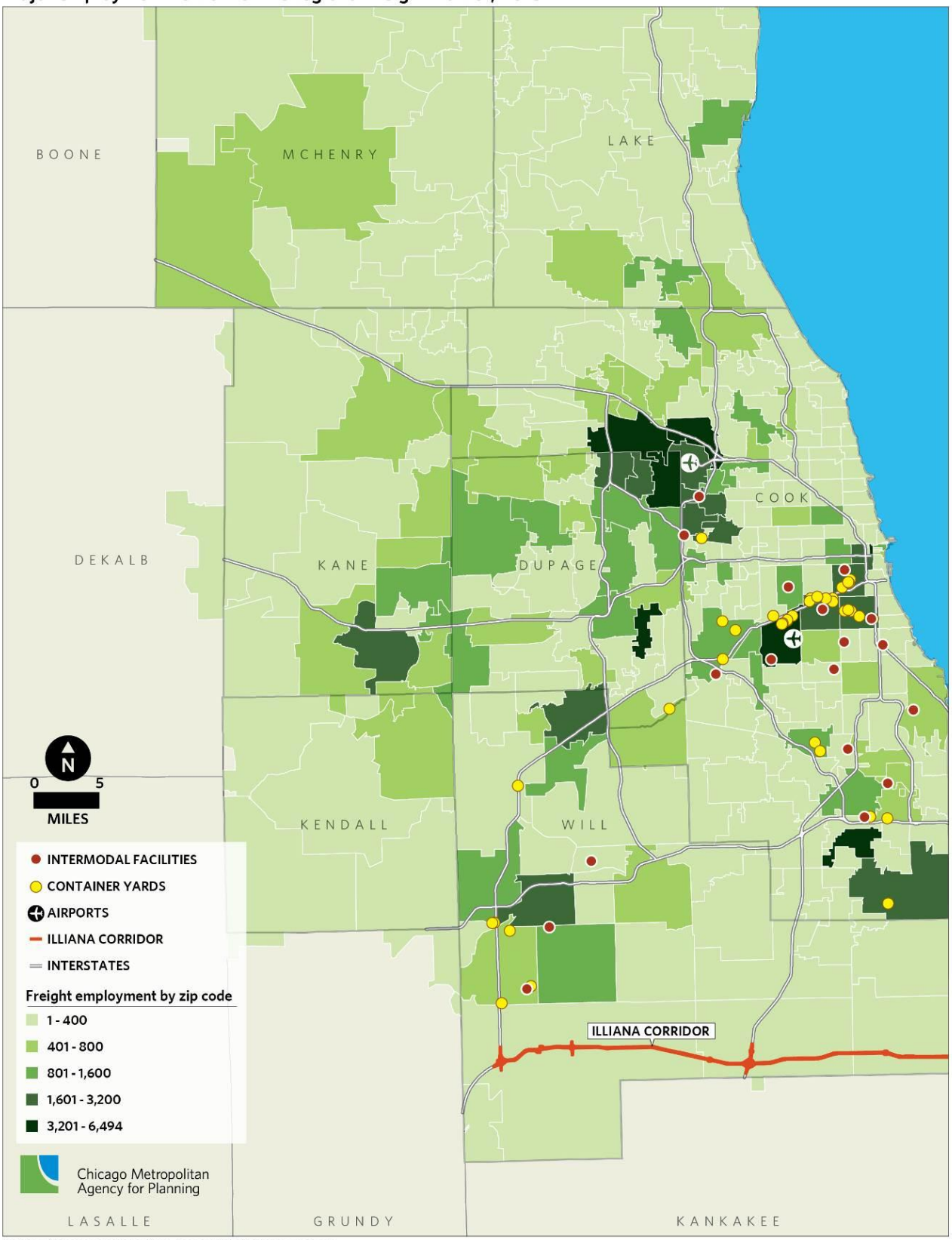
[15] See the July 2013 staff analysis of the Illiana Corridor.

[16] CMAP analysis of Economic Modeling Specialists, Inc. (EMSI) data.

[17] The CN Joliet Intermodal, located north of Interstate 80, opened in 2013. CMAP does not have access to recent data about intermodal lifts from this facility.

[18] Chicago Intermodal Facility Lift Counts and Regional TEU Estimate, Revised October 2012. Source: CMAP, Railroad Companies, Surface Transportation Board.

Major employment centers of the regional freight cluster, 2013



Source: Chicago Metropolitan Agency for Planning analysis.

As shown in the following map, much of the county's freight and logistics facilities -- including the existing Elwood Intermodal facility and the proposed Crete Intermodal facility -- are located more than five miles from the proposed Illiana Corridor. The location of the planned Ridgeport Logistics Park, while potentially benefiting from the Illiana, has already been chosen as directly adjacent to I-55. Intermodal facilities in the region are located an average 2.4 miles from expressway entrances, and both of the recently developed Joliet intermodal facilities benefit from existing access to I-80 and I-55.[19] Overall, most existing and proposed intermodal facilities in Will County are located closer to existing expressway interchanges than they would be to the Illiana.

Proposed Illiana Corridor with existing and planned intermodal facilities

Source: Chicago Metropolitan Agency for Planning analysis.

[19] CMAP staff used Intermodal Terminal Association of Chicago data on intermodal facility locations, the CMAP travel model network, and ESRI network analyst to calculate the distance on the road network from each active and planned intermodal facility to the closest expressway entrance.

Gross Regional Product

A new expressway is typically associated with higher economic output, driven in large part by the long-term gains in efficiency due to shorter travel times and better market access. Based on analysis using economic impact software, CMAP estimates the Illiana would increase gross regional product (GRP) by $425 million in 2040, compared to a no-build scenario.[20] This number is largely driven by one main factor, improvements to market access, a common impact from the construction of brand new expressways. As the Regional Mobility section of this analysis will demonstrate, CMAP's analysis shows that the Illiana Corridor will have no significant impact on regional travel performance. For additional perspective, CMAP also ran these numbers for the two major new expressway projects already included in GO TO 2040: the Central Lake County Corridor (IL 53/IL 120) and the Elgin O'Hare Western Access project.[21] The analysis indicates that the Illiana provides a smaller GRP impact ($425 million) compared to these projects ($1.2 billion and $600 million respectively.)

Table 4. Impact on gross regional product (GRP) by Illiana Corridor, Elgin O'Hare Western Access, and Central Lake County Corridor, 2040

Facility	Additional GRP, 2040
Illiana Expressway	$425 M
Elgin O'Hare Western Access	$600 M
Central Lake County Corridor (IL 53/IL 120)	$1,200 M

Limited Benefits to Regional Mobility

The proposed Illiana Corridor achieves negligible impacts on regional transportation performance, making it a lower priority than the planned GO TO 2040 investments that do address the region's congestion challenges. GO TO 2040's recommendation to implement performance-based project selection, as well as its emphasis on maintenance and modernization of the existing system, establish a high threshold for the construction of a new expressway. Furthermore, examination of recent congestion and reliability data on other regional expressways reinforces that the existing recommended improvements in GO TO 2040 should remain the region's highest priorities.

[20] Please see the July staff analysis of the Illiana Corridor for further detail.

[21] During the run up to GO TO 2040, the Elgin O'Hare Western Access was analyzed as three separate projects (improvements to the existing Elgin O'Hare, the Elgin O'Hare east extension, and the western bypass/access). This analysis forecasts GRP for the entirety of the Elgin O'Hare Western Access, rather than its discrete subcomponents.

The Importance of Setting Regional Transportation Priorities

GO TO 2040 states that "the region needs to get more serious about setting priorities for how existing transportation resources are spent."[22] To do so, the plan recommends that state and regional decision makers should use performance-driven criteria when making investment decisions. One year ago, the CMAP Board and MPO Policy Committee reaffirmed this policy direction through their unanimous approval of a staff recommendation to advance performance-based funding for transportation projects in Illinois. To date, there has been no movement toward the region's request that the State form a technical advisory group for implementing performance-based funding.

GO TO 2040 recommends a focus on maintaining the existing system first, and using most of the region's limited remaining resources to modernize the system. The plan also identifies a short list of major capital investments to expand the capacity of regionally significant transportation facilities, although GO TO 2040 emphasizes that these projects should be a lower priority than other activities. These major projects comprise only a small portion (less than 3 percent, totaling $10.5 billion) of the plan's overall "fiscal constraint," which was developed by estimating available transportation revenues and expenditures over the next 30 years. Because the region has only limited dollars to spend on transportation, GO TO 2040 requires a commitment to the paramount importance of prioritizing the projects with the greatest benefits.

To ensure better system continuity, the only two GO TO 2040 major capital projects that are new expressways -- the Central Lake County Corridor (IL 53/IL 120 extension) and Elgin O'Hare Western Access -- are extensions of the existing system. The plan also recommends the implementation of managed lanes and/or multimodal corridors as innovative solutions for improving mobility on I-55, I-90, and I-290, the most heavily traveled expressways in the region. To move forward on this objective, CMAP staff recently initiated a congestion pricing campaign to educate the region about the benefits of providing new choices for motorists.

Negligible Benefits to Regional Congestion Challenges

Highway expansion projects are most appropriate where there is pervasive existing congestion, as occurs in developed parts of the region. The Illiana Tier 1 EIS states that the project's purpose and need is to "alleviate local system congestion and improve local system mobility."[23] As the following map makes evident, however, the Illiana is not being proposed in an area that suffers from heavy congestion. The red areas show where traffic volume is estimated to be at least 75 percent of capacity; major congested areas are well to the north of the corridor. The Illiana would not relieve significant existing congestion in Illinois. By contrast, drivers in central Lake County and the area west of O'Hare see heavy traffic, and both would experience relief from new highway projects proposed in GO TO 2040 (the Central Lake County Corridor and the Elgin O'Hare Western Access projects, respectively).

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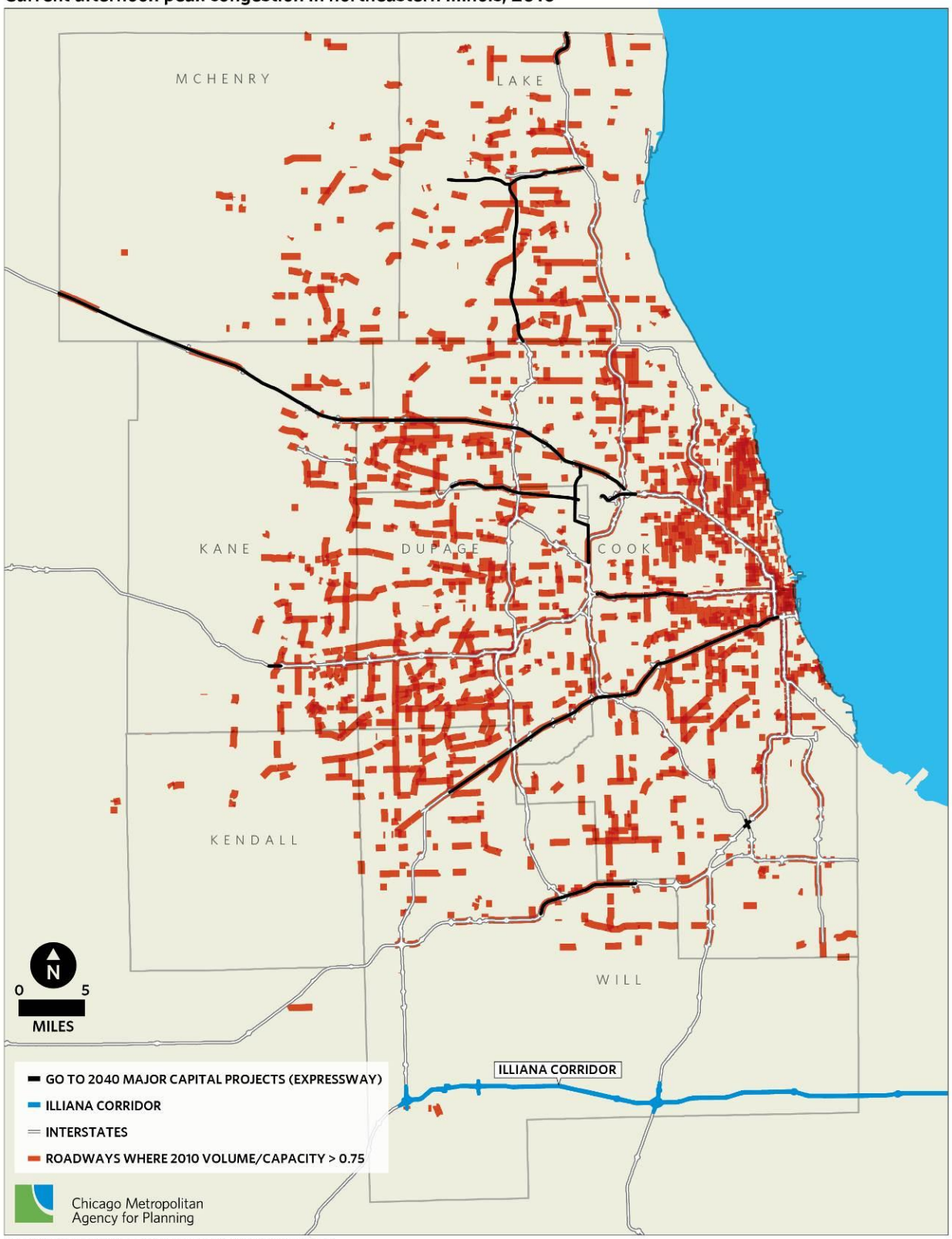
[22] GO TO 2040, p.259.

[23] Illiana Corridor Project Tier One EIS and Record of Decision, p. 1-8.

Current afternoon peak congestion in northeastern Illinois, 2010



Source: Chicago Metropolitan Agency for Planning analysis.

Besides serving a local travel market, a major stated purpose of the Illiana is to provide a bypass for congested facilities in the study area. IDOT and INDOT's documentation states that "the transportation benefit of the Illiana Corridor is based on improving mobility by serving the longer distance trips that previously used the Study Area arterial network and congested east-west facilities, such as the I-80 corridor."[24]

However, the Illiana would not serve this function well. It would be located approximately 12 to 19 miles south of I-80, the road it is intended to bypass.[25] CMAP's analysis of regional congestion impacts indicate that, while I-80 may see some minor improvements from the addition of an untolled Illiana (as considered in the EIS), the benefits will be limited. The imposition of a toll on the Illiana is estimated to divert as much as 40 percent of the potential traffic from the facility, further limiting its potential to perform as a true bypass.[26] Furthermore, it should be pointed out that although I-80 experiences congested conditions and reliability issues, these problems are considerably less severe than on some of other major regional expressways recommended for improvements in GO TO 2040, including I-290 and I-55 as shown in Table 5. Other projects should have priority over a bypass of I-80.

Table 5. Average travel speed on major facilities

			Average Speed during Peaks	
Facility	**Road Segment**	**Length**	**Typical Day**	**Bad Day**
I-290	Canal Street to Wolf Road	14 miles	31 MPH	20 MPH
I-55	Lake Shore Drive to I-294	18 miles	39 MPH	25 MPH
I-80	I-294 to US 45	10 miles	51 MPH	42 MPH

Source: Chicago Metropolitan Agency for Planning. The above data from 2011 are calculated from regional intelligent transportation systems (ITS) sensor data that monitor travel conditions on the region's major expressways during the morning and afternoon peaks. Each facility enjoys free flow speeds of about 60 mph. "Bad days" show average speeds at the 95th percentile. Data for Kingery Expressway portion of I-80/I-94 are not available because of sensor issues.

[24] Alternatives to be Carried Forward, Technical Memorandum, Illiana Corridor Tier Two Environmental Impact Statement, p.83.

[25] Distances from the Illiana Expressway to I-80 are as follows: I-57 (19 miles), I-55 (12 miles), I-65 (17 miles), State line (18 miles).

[26] On p. 82 of the Tier Two Alternatives to be Carried Forward document, IDOT and INDOT base 2040 bi-directional average daily traffic numbers on a tolled Illiana facility carrying an assumed 40 percent of the traffic, or 60 percent less, than the traffic of a non-tolled Illiana facility.

Conclusion

IDOT's proposal is to add the Illiana Corridor -- a new tolled expressway project -- as a GO TO 2040 major capital project and also to accelerate its construction. Our region receives limited resources for transportation, and the probability that a public subsidy would be required in the early years of a P3 deal means this aggressive schedule would likely prioritize implementation of Illiana at the expense of the existing projects in the comprehensive regional plan. Given the Illiana's limited impact on regional transportation performance, CMAP staff does not believe this project merits designation as a regional priority.

As demonstrated in this document and accompanying analysis, the facility poses a considerable financial risk because its currently estimated cost falls short of other comparable recent projects both regionally and nationwide. Because available public financial information is incomplete and largely anecdotal, its viability remains uncertain. For this reason, it was not included in the original GO TO 2040 list of fiscally constrained projects, and because that financial uncertainty remains, the Illiana Corridor should not be added as an amendment to the plan.

This document also shows how the project is based on growth assumptions that contradict GO TO 2040 policies that direct investment toward existing communities. To approve the Illiana Corridor project would be a detour around regional planning policy that the CMAP Board and MPO Policy Committee approved in GO TO 2040.

The facility's long-term economic benefits are unsubstantiated. Existing nearby development is minimal, and the selected corridor is far from current residential and commercial centers to the north that are necessary for sustained job creation and economic development.

And finally, the Illiana Corridor proposal has negligible mobility benefits. In contrast with the major capital projects -- primarily extensions of existing facilities -- that were identified as high-priority investments to address regional congestion challenges when GO TO 2040 was adopted just under three years ago, the priority of pursuing the Illiana project should remain low.

At its core, GO TO 2040 emphasizes the importance of basing investment decisions on performance-driven criteria. This was reaffirmed one year ago when the CMAP Board and MPO Policy Committee unanimously approved a staff recommendation to advance performance-based funding for transportation projects in Illinois. Rather than step away from that conviction, our region must renew its commitment to prioritizing projects on the basis of their regional benefits. This fundamental policy is essential to implementing GO TO 2040 and therefore to achieving sustainable prosperity and quality of life for decades to come.

ACTION REQUESTED: At the request of the Illinois Department of Transportation, amend the GO TO 2040 comprehensive regional plan to include the proposed Illiana Corridor as a fiscally constrained major capital project.

STAFF RECOMMENDATION: Do not amend GO TO 2040.