Agenda Item No. 10.2



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MEMORANDUM

To: CMAP Board

From: CMAP Staff

Date: May 7, 2014

Re: GO TO 2040 Plan Update – Proposed Major Capital Projects

A key element of the GO TO 2040 update is to establish a priority list of proposed major capital projects to fit within the plan's expected funding envelope or "fiscal constraint." As CMAP defines them, major capital projects are large projects with a significant effect on the capacity of the region's transportation system, including extensions or additional lanes on the interstate system, new expressways, major new expressway-to-expressway interchanges, or similar changes to the public transit system. These must be identified in GO TO 2040 to be eligible to receive federal transportation funds or obtain certain federal approvals. Staff has previously presented the overall "universe" of capital projects be considered in the planning process, as well as an evaluation of the costs and benefits of the projects, to the Transportation Committee.

This memo provides staff's recommendations on priority major capital projects that the region should pursue between now and 2040. The GO TO 2040 update includes the same list of projects under fiscal constraint as the original plan, minus the three already completed, plus two projects amended into the plan in 2013. Thus, the update continues the same priorities of GO TO 2040, although details have changed in some cases, including costs, financing, and project scope. The financial plan for the GO TO 2040 update indicates that funding will be available to construct these projects within the planning period. Nevertheless, rapid progress has been made on some projects and less on others, and several projects have near-term funding shortfalls. Funding and other implementation challenges are discussed where needed.

Expressway Additions: Express Toll Lanes

A major focus of GO TO 2040 is directing investment to improve the heavily used transportation infrastructure that serves existing communities in the region. Strategically adding capacity to existing expressways in the region is a key part of this approach. The expressway additions recommended for fiscal constraint in the GO TO 2040 update address capacity limitations and reliability on some of the most congested facilities in the region. At the

same time, these projects also rehabilitate older infrastructure and tackle major safety and operational problems.

Once built, new capacity needs to be managed to prevent the loss of performance to congestion over time. The most effective way of managing highway capacity is to implement congestion pricing, so that the price to use the facility changes with demand. This allows traffic to flow freely even in peak periods and improves travel time reliability by giving operators a mechanism to respond to changes in travel demand. Except on very short or isolated segments, GO TO 2040 recommends constructing added lanes as express toll lanes.

I-55 Stevenson Express Toll Lanes

The southbound Stevenson Expressway from I-355 to the Dan Ryan Expressway ranks among the ten most congested expressway segments in the region. The reconstruction of the Stevenson in the 1990s left much of the expressway with wide inside shoulders with mostly full-depth pavement that can withstand regular use. Thus, there is a major opportunity to convert this shoulder cost-effectively to an express toll lane, which would cut travel times (Figure 1), improve reliability, and benefit transit services already using the corridor. Per unit cost, building an express toll lane on the Stevenson Expressway from I-355 to the Dan Ryan would have the highest economic impact and second highest congestion reduction of any of the projects CMAP studied.

For several years Pace has operated a successful program running express buses on the shoulder, but buses must merge with regular traffic at several narrow points and travel at limited speeds when on the shoulder. CMAP funded this project through a Congestion Mitigation and Air Quality Improvement grant. The express toll lane is envisioned to upgrade this service, allowing continuous travel in a lane with minimal congestion from I-355 to the Dan Ryan. The Stevenson is also a freight-rich corridor with access to intermodal facilities. For safety and operational reasons, multi-unit trucks would not be able to use the express toll lanes, however any new capacity on the expressway will improve travel times and reliability for all users, including trucks.

CURRENT

AFTER CAPACITY ADDITION ON EXPRESS TOLL LANES

The blue base on a typical trip on I-55 a green bars is construction estimated the roughly \$2.7 assumes the mph.

Figure 1. Travel time savings on a typical trip on the Stevenson and Eisenhower express toll lanes (AM peak)

The blue bars represent current travel times on a typical morning commute for a 23-mile trip on I-55 and an 11-mile trip on I-290. The green bars indicate travel times with the construction of express toll lanes. CMAP estimated the tolls for these two trips to be roughly \$2.75 and \$3.50, respectively. This assumes the toll is set to keep traffic at 55 mph.

Source: Chicago Metropolitan Agency for Planning analysis

I-355 TO DAN RYAN ON I-55 MANNHEIM RD. TO

DOWNTOWN ON I-290

IDOT has begun Phase I Engineering for the project but has not allocated specific funding for further engineering and construction. CMAP's work on congestion pricing suggests that pricing could reduce the constrained cost of the new lane by nearly 20 percent, making it critical to implement pricing to help fund the project. Perhaps the most significant challenge with this project is the lower priority that IDOT has placed on it relative to its other projects.

I-290 Eisenhower Express Toll Lanes

The Eisenhower Expressway was one of the earliest expressways constructed in the Chicago region and has been the vanguard for a number of innovations, including the first use of ramp metering and the construction of rapid transit in the expressway median. The Eisenhower Expressway is generally in the top five most congested expressway segments in the region. It also suffers from major geometric deficiencies, including narrow shoulders, short weaving distances between ramps, and especially the left-hand exits at Austin and Harlem Avenues. Moreover, it has what is probably the most severe bottleneck in the region, where the number of lanes drops from four to three west of Central Avenue. As a result of these problems, the western portion of the expressway has a significantly higher crash rate than comparable expressways in the region (Figure 2).

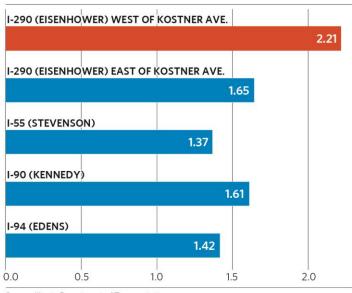


Figure 2. Crash rates on select Chicago-area expressways, per million vehicles per mile

Source: Illinois Department of Transportation.

Adding an express toll lane to the Eisenhower will significantly improve speeds and travel time reliability on the facility. Reconstruction and modernization of the facility will help improve safety. IDOT is currently in Phase I Engineering for this project and has narrowed its study to four alternatives, all of which involve adding a lane to the Eisenhower. However, the Department has not allocated specific funding in the near term for further engineering and construction. CMAP's work on congestion pricing suggests that pricing could reduce the constrained cost of the new lane by about a quarter, making pricing a key part of funding the project.

While this project has significant engineering challenges relating to the availability of right-of-way and railroad coordination, perhaps its biggest obstacle is the potential for community impacts. The expressway is in a dense urban corridor. One important mitigation approach is the improvement of the pedestrian and transit station environment along the Blue Line, which the Chicago Transit Authority (CTA) has been considering in its Blue Line Forest Park Branch Feasibility/Vision Study.

Expressway Additions: Interchanges and Improvements

The projects proposed here either reconstruct and modernize older highway infrastructure or correct major deficiencies. While they provide some additional capacity, this is modest relative to the contribution that these projects make to achieving the overall goal of maintaining and improving the existing highway system. CMAP treats interchanges between expressways as major capital projects.

Circle Interchange

The Circle Interchange project will reconstruct and modernize an interchange that has not had a major rehabilitation since it was first built more than a half-century ago. While it is mostly a reconstruction project, new capacity will be added in the form of an additional lane on the east-north and north-west ramps, as well as three new flyovers. A new through-lane will also be added on I-90/94, correcting a deficiency that forces drivers to make lane changes when entering the interchange. The new ramp configurations and added lanes are expected to significantly reduce crashes for all users. The Circle Interchange is the busiest interchange in in the region, and is typically among the most congested interchanges in the country. For several years the FHWA has identified the Circle Interchange as the worst freight bottleneck in the U.S. Rehabilitation of the interchange will support the region's competitive position in freight, manufacturing, and other industries.

FHWA issued a Finding of No Significant Impact for the project in late 2013, allowing it to proceed to construction. Since the project is in a dense, urban area with older buildings, noise walls will be needed in certain areas as well as special attention to the potential for structural damage to adjacent buildings during construction. Particular attention is expected to be given to improving the pedestrian environment around the interchange and at the Halsted/UIC Blue Line station.

I-294/I-57 Interchange

The crossing of I-294 and I-57 is the only place in the region, and one of very few locations in the country, where two interstates cross but do not have an interchange. The Tri-State Tollway links the region's suburban communities in an arc from the south suburbs to Lake County, providing access to O'Hare International Airport and several commercial and industrial centers, as well as intermodal freight terminals. The I-294/I-57 interchange project will provide a full connection of these two interstates for improved accessibility to and from the south suburbs and for improved north-south regional travel. The Tollway included this project in its Move Illinois capital program. Construction of Phase 1, which is anticipated to provide the largest congestion reduction benefits, will be complete in 2014. It involves construction of new ramps to connect

northbound I-57 to northbound I-294 and southbound I-294 to southbound I-57, as well as an entrance and exit ramp from I-294 to 147th Street. Phase Two is planned for completion in 2024 and will provide the remaining interchange connections.

I-190 Access and Capacity Improvements

The I-190 Access Improvements project consists of reconfiguring arterial access to I-190 and O'Hare International Airport to improve mobility and reduce collisions, as well as ultimately reconstructing and adding capacity to mainline I-190. Project planning is advancing; several elements have already been funded through IDOT, Chicago Department of Transportation (CDOT), and the Chicago Department of Aviation, using Passenger Facility Charge funds. O'Hare International Airport and its surrounding freight and manufacturing development are a significant economic engine for the region. But, the area experiences significant congestion and unreliable travel times. The I-190 project will improve access to the O'Hare area and reduce congestion in a high-traffic corridor.

Jane Addams Tollway (I-90)

As part of the Move Illinois program, the Illinois Tollway is reconstructing the Addams Tollway from Rockford to I-294, given that most of the roadway is more than a half-century old. A new lane will also be added in each direction to accommodate current and future traffic. The Addams experiences congestion within the Chicago region, although not to the same degree as the Stevenson and Eisenhower. As part of the project, the Tollway is making major strides in modernizing the Addams by including active traffic management technology that warns drivers of upcoming congestion and closes lanes well ahead of a stalled vehicle or wreck (Figure 3). This technology would also permit the use of variable speed limits (speed harmonization), which has been shown to reduce crashes and increase roadway capacity by stabilizing traffic flow.

While the Tollway has studied the use of congestion pricing on the new lane, it has elected not to implement the policy on the Addams when the reconstruction and widening is complete in 2016. The ITS infrastructure will be in place to support a future decision to use congestion pricing, but converting to congestion pricing later may present a challenge for public acceptance. The Tollway is also working closely with Pace to operate a bus-onshoulder program along the Addams, which is partly funded by CMAP through the Congestion

Figure 3. Example of active traffic management from Washington State



Source: Washington State Department of Transportation.

Mitigation and Air Quality Improvement program.

Transit Improvements

Projects that rehabilitate transit lines to improve asset condition and that add service to accommodate greater ridership are major elements of GO TO 2040's focus on maintaining and modernizing existing infrastructure. These projects add capacity by making improvements to track, platforms, and stations for the purpose of increasing the number of riders that can move through the system. Some of these investments are part of the CREATE program or involve operational improvements that make the freight and passenger rail system work more efficiently. This enhances the region's economic competitiveness.

The transit improvement projects recommended in GO TO 2040 support existing communities and also create new opportunities for transit-supportive development. Considerable planning has been completed both for the stations and broader communities around these investments, although plans are not yet in place for all stations proposed as part of the major capital projects. Completing and implementing these plans is a priority. The plans should seek to foster livable communities and support the region's substantial investment in new and proposed transit infrastructure by promoting land use patterns that allow transit access.

CTA North Red/Purple Line Modernization

This project envisions a modernization of the 100-year old "El" lines serving the north side of Chicago and near north suburban communities. The Red and Purple Line modernization will provide significant reinvestment in existing communities and upgrade the CTA's most heavily used rail line. Dilapidated viaducts and crumbling infrastructure will be replaced or improved, building a new elevated structure and providing a quieter, more livable environment. The improved facility is also expected to experience significantly lower operating and maintenance costs once it is brought to a state of good repair. A Brown Line flyover at Clark Junction, which would decrease travel time for riders by allowing Brown Line trains to cross above the Red and Purple Line tracks, is also being considered for the project.

The CTA is analyzing traditional and innovative funding options. The project recently received authorization to apply for funding under the new Core Capacity Program of the Federal Transit Administration's New Starts transit funding program. The Core Capacity Program allows existing systems to apply for New Starts funds if they expand capacity by at least 10 percent in transit corridors that are currently at or above capacity. The project also has the potential to use innovative funding methods like value capture or obtain innovative financing through the federal Transportation Infrastructure Finance and Innovation Act (TIFIA) program, which provides low-cost loans to transportation projects. CMAP's financial plan assumes value capture will provide approximately five percent of the project's total cost.

West Loop Transportation Center Phase I Improvements

The West Loop Transportation Center is envisioned as a new transportation hub that would reconfigure Chicago Union Station and ultimately lead to greatly improved connections between rapid transit, bus, commuter rail, and intercity rail services, supporting the GO TO 2040 goal of seamless coordination between transit modes. The <u>Union Station Stage 1 Master Plan</u> determined that work on the project should take place in two key phases: Phase 1

improvements to existing facilities east of and within Union Station, and Phase 2 development of a new underground transitway in the West Loop.

In the GO TO 2040 plan update, only Phase 1 is included in the fiscally constrained project list. Phase 1 will increase capacity within the existing footprint of Chicago Union Station by creating new platforms and tracks and by repurposing currently inactive tracks and platforms formerly used for mail handling. It will also expand the passenger-carrying capacity of existing platforms used by commuter trains, reconfiguring the station's internal spaces to increase passenger capacity. Finally, the project will create the capability to through-route some intercity trains and improve traffic circulation around Union Station. CMAP has funded a portion of this work through the Congestion Mitigation and Air Quality Improvement Program.

Metra Rock Island Improvements

Metra's proposed improvements to the Rock Island District (RID) Line will enhance coordination between freight traffic and Metra trains as well as allow for eventual connection of the SouthWest Service (SWS) with LaSalle Street Station. This connection and other improvements will improve rail freight movement through the region, reduce congestion, and improve access at Union Station. Proposed improvements include adding a third track to the nine-mile double-track portion (between Gresham Junction and a point north of 16th Street Junction) of the RID Line. The proposed upgrade also includes the CREATE P1 Project, new bi-directional signals, centralized traffic control to integrate with existing RID operations, several new or rehabilitated bridges over city streets, and an expanded and modernized 47th Street Yard. CREATE Project P1 is a rail flyover expected to eliminate conflict between 78 Metra Rock Island trains and approximately 60 freight and Amtrak trains that presently cross at grade through the Englewood Interlocking each day. This portion of the RID project is fully funded and under construction.

Metra SouthWest Service Improvements

The SouthWest Service Improvements project will reduce congestion at Union Station and improve freight movements within and through the region. As part of the CREATE 75th Street Corridor Improvement Project, it will address the most congested rail chokepoint in the Chicago Terminal District. As part of this project, the SouthWest Service will be rerouted to terminate at LaSalle Street station, relieving congested operations at Union Station. The improvements also include constructing a two-mile segment beginning west of Belt Junction to carry trains over the parallel Norfolk Southern service along 74th Street to the Rock Island District Line tracks to provide improved reliability with fewer operating conflicts.

Metra UP North Improvements

The Union Pacific (UP) North Improvements will improve the operating capacity and reliability of the line between Ogilvie Transportation Center and Kenosha through installation of additional crossovers and track improvements. A new outlying coach yard will allow for more efficient servicing of equipment and accommodate expansion of service. Additional upgrades to existing stations will accommodate an expected increase in passengers in both the traditional commute and reverse commute direction. A new station at Peterson and Ridge Avenues is also

proposed, and improvements to the existing Hubbard Woods Station are proposed to expand transportation options for these communities.

Metra UP West Improvements

The Union Pacific (UP) West Improvements will provide track, signal, safety, and infrastructure improvements to increase passenger service and coordinate with freight traffic. Specifically, a third track will be added to an existing double-track portion of the line east of Elmhurst. Also proposed is moving the current crossing with the Milwaukee District and North Central lines at Western Avenue to a new location one mile east. These improvements will enable the UP West to better serve as an alternative to the Burlington Northern Santa Fe (BNSF) line and also to operate more effectively in coordination with freight rail movements. In combination, these improvements would allow for an increase in service from 59 to 80 trains per day, nearly doubling estimated passenger miles traveled on the line. Part of the project involves upgrades to signal systems, crossovers, pedestrian safety improvements, and new triple track. Most of the pedestrian diversion construction was completed in summer 2011, and construction of signals and crossovers is currently proceeding.

New Projects and Extensions

The focus of GO TO 2040 is first on maintaining and modernizing the existing system, then strategically adding capacity to existing facilities, and only then building entirely new projects. GO TO 2040 recommends a small number of critically important new projects, discussed below.

CTA Red Line South Extension

The CTA Red Line currently terminates at the 95th Street/Dan Ryan station, which through the 1990s and most of the 2000s was the busiest CTA station outside of downtown Chicago because of its numerous connecting bus lines. South of 95th Street, residents struggle with long commute times and multiple transit transfers required to reach work, school, medical appointments, and services. By extending the Red Line south to 130th Street, the area it serves would see improved access to jobs and services, reduced travel times by streamlining CTA and Pace bus-to-rail connections, and enhanced livability and economic impact in distressed neighborhoods.

The Red Line south extension would be approximately 5.3 miles in length and add new stations at 103rd Street, 111th Street, and Michigan Avenue (115th) before terminating at 130th Street. The investment would cut transit travel time from 130th Street to the Chicago Loop by 21 minutes or 34 percent. It would also dramatically increase access to a variety of services and amenities for residents of the greater Roseland area to be served by the project (Figure 4). This access would offer residents significantly more employment opportunities and contribute to an improved quality of life. Because of its proximity to an interchange with the Bishop Ford Expressway, the large (2,300-space) park-and-ride lot to be constructed at the 130th Street station will provide new commute options for southern Cook County as well.

While there is a large stock of affordable housing in the greater Roseland area, residents experience longer and more expensive commutes than the rest of the region. In particular, Roseland commuters drive to work alone at a rate 10 percentage points higher than the City of Chicago as a whole and spend a higher proportion of their income on transportation costs. By

making transit use more viable, the Red Line Extension will improve overall affordability in the area it serves. Furthermore, the Red Line Extension has the potential to spur revitalization of the area around the proposed stations.

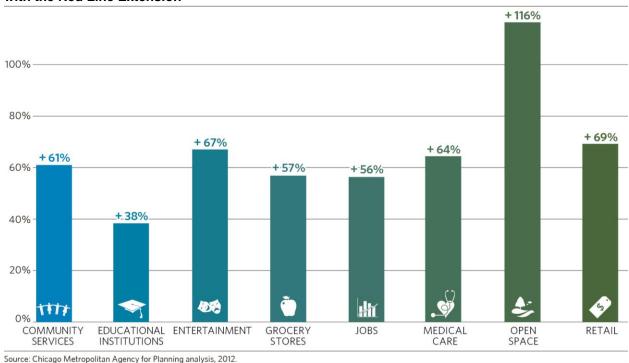


Figure 1. Increase in number of services and amenities that can be accessed within 60 minutes with the Red Line Extension

Perhaps the biggest challenge for the Red Line Extension is the specific allocation of funding to this project relative to other investments. Current CTA efforts are focused on reconstruction of the existing system, and this is appropriate given GO TO 2040's emphasis on modernization. However, the project has significant local support and substantial planning efforts have been undertaken by stakeholders in the community to lay the local groundwork for the facility.

Elgin O'Hare Western Access

While the area around O'Hare International Airport owes its economic vitality to its unique convergence of air, road, and rail infrastructure, the same assets have also led to significant congestion problems for truck and passenger traffic. The Elgin O'Hare Western Access (EOWA) project will provide a new, limited-access facility to reduce congestion and improve access to the airport. The project includes three main components: reconstructing and widening the existing Elgin O'Hare Expressway, extending the expressway east to O'Hare International Airport, and adding an expressway around the western side of O'Hare from I-90 to I-294 (the western bypass). All three components will be tolled. The first two components are expected to be complete in 2018, while the western bypass is planned for 2025. Federal approval for the EOWA was given on January 24, 2013, and construction is now underway. Portions of the interchanges and grade separations required to support the project are being funded through CMAP's Congestion Mitigation and Air Quality Improvement Program.

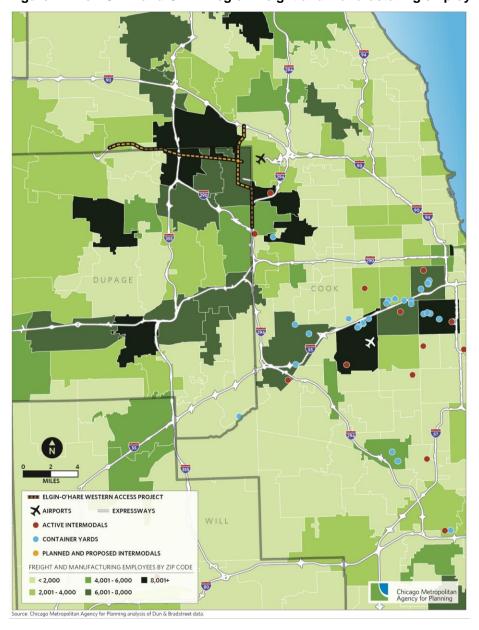


Figure 2. The EOWA and CMAP region freight and manufacturing employment

The EOWA provides critical support to the most significant cluster of freight and manufacturing employment in the region (Figure 5). It would also eventually provide access to the planned western terminal of O'Hare. In addition, the EOWA provides meaningful travel time savings (Figure 6) and yields the highest increase in access to jobs by automobile of any of the projects considered. While the project does reserve right-of-way for future transit improvements, there are no specific commitments to providing this service. Planning for and implementing enhanced transit service that improves access to this regional employment center will be critical over the long term. Consideration should be given to implement congestion pricing on the EOWA as well.

CURRENT WITH CONGESTION PRICING ON NEW FACILITY

TO mins
60

40

30

20

BEST CURRENT ON IL 53/120 BEST CURRENT ON EOWA ROUTE
WAUKEGAN TO SCHAUMBURG US 20 TO 1-90

Figure 3. Travel time savings on an example trip using IL53/120 and EOWA (AM peak)

Note: EOWB = Elgin O'Hare West Access.
Source: Chicago Metropolitan Agency for Planning analysis.

IL 53/120 Tollway

As development in central Lake County in recent decades has led to severe arterial traffic congestion, several attempts have been made to plan and build a north-south route through central Lake County. Those efforts were stalled by strong concerns over negative community and environmental impacts as well as funding challenges. In the past two years, the project has made significant progress via the Tollway's 53/120 Blue Ribbon Advisory Council (BRAC), which developed consensus among communities, environmental groups, and other key stakeholders to build a "21st Century modern boulevard" in the corridor. In line with BRAC recommendations, the project is envisioned as a limited-access, four-lane, 45-mph tolled facility that uses congestion pricing to help manage demand. It would utilize a context-sensitive design that protects Lake County's communities and environmental assets. The project would extend the existing, limited-access IL Route 53 from its terminus at Lake-Cook Road to join IL Route 120 to the north. Additionally, an extension of the limited-access portion of IL Route 120 is proposed. This project would offer significant travel time savings over travel on the arterial network (Figure 6).

Beyond the BRAC's effort, work is still needed to finalize the roadway design, plan for supportive land use, and develop a funding plan. As part of its <u>Illinois 53/120 Feasibility</u> <u>Analysis</u>, the Tollway has convened a Finance Committee comprised of local officials and stakeholders to develop a financing strategy for the facility. The Committee will evaluate both traditional and innovative revenue sources for the facility, including congestion pricing and value capture. The expectation is that toll revenue from the facility will be used to help fund its construction.

Of all the capital projects considered in the GO TO 2040 update, the IL 53/120 Tollway would have the highest congestion reduction benefits for both automobile and freight traffic. It would also have the largest economic impacts of any project. Although the environmental impacts from a conventional road design would also be high, work by the BRAC and furthered by CMAP in the corridor land use plan strongly suggests that the road can be designed to protect

environmental assets and local community character. Planning for supportive land use will be critical to meet the mobility and livability goals of the project. In March 2014, CMAP, Lake County, and the Tollway initiated development of the <u>Illinois Route 53/120 Corridor Land Use Plan</u>. This multi-year effort will engage relevant municipalities, the environmental and economic development communities, and other stakeholders in a facilitated, open process to create a plan for land use, open space, local transportation, and economic development within a two-mile buffer of the proposed IL 53/120 right of way.

Illiana Expressway

Metropolitan Chicago maintains a significant competitive advantage over other freight hubs in intermodal operations, which facilitate the transfer of goods between truck and rail freight. Well-chosen investments in transportation infrastructure will be critical to maintain that competitive position over the long term. The Illiana Expressway is designed to support the region's growing freight cluster.

The proposed 47-mile, four-lane Illiana Expressway is envisioned as a bypass of I-80 for long-distance truck freight, as well as an alternative for heavy truck travel that is currently utilizing local roadways in Will County. Over the last decade, three new intermodal facilities have been developed in the western portion of Will County, and several additional intermodal facilities are proposed (Figure 7). This growing concentration of intermodal activity in Will County has driven an increase in truck traffic on local roads that are not configured for heavy truck use. In fact, modeling suggests that about 50 percent of the traffic on the facility would be heavy trucks.

The Illiana is on an accelerated timetable. The <u>Tier 2 Environmental Impact Statement</u> for the project is nearing completion, with the expectation of beginning construction in 2015 and opening to traffic in 2018. IDOT is pursuing use of a public-private partnership (P3) for the Illiana Expressway. GO TO 2040 supports the use of P3s as an innovative and efficient public finance tool, and also states that these arrangements must be handled with a high degree of transparency and care. IDOT has indicated that it intends to pursue an <u>availability payment P3 model</u> for the Illiana Expressway, an approach that may transfer risk in achieving projected toll revenues to the public sector.

A significant implementation challenge for the project is planning for growth that meets the tenets of GO TO 2040. The alignment for the Illiana is well to the south of the urbanized area. GO TO 2040 supports reinvesting in existing communities, pursuing opportunities for more compact, walkable, and mixed-use development, and providing a range of housing options. Local planning to meet these goals should be seen as a key part of the overall project.

LAKE MCHENRY KANE DUPAGE KENDALL **X** AIRPORTS == EXPRESSWAYS MAJOR CAPITAL PROJECTS ■ NEW, EXTENDED, OR IMPROVED HIGHWAY PROJECTS ++ NEW, EXTENDED, OR IMPROVED TRANSIT PROJECTS ACTIVE INTERMODALS CONTAINER YARDS Chicago Metropolitan Agency for Planning PLANNED AND PROPOSED INTERMODALS Source: Chicago Metropolitan Agency for Planning analysis.

Figure 4. CMAP region intermodal and container facilities

Metra UP Northwest Improvements and Extension

Two improvements are proposed on the UP Northwest line: infrastructure upgrades and a 1.6 mile extension to Johnsburg from McHenry. Infrastructure upgrades include improvements to the existing signal system and additional crossovers and other track improvements to increase operating capacity and reliability. Two additional stations will be added to the line at Prairie Grove on the McHenry branch and Ridgefield on the Woodstock branch. In addition, new yards are planned for the Woodstock and Johnsburg areas. These combined improvements, the extension, and new stations are estimated to considerably increase passenger miles traveled on the line. This project serves a substantial population of 2.8 million residents within 5 miles, and 1.6 million jobs. The full line travels through a major employment corridor in the Northwest suburbs, and the extension would increase access to jobs there and in downtown Chicago. Planning for transit-supportive development at new stations and for feeder bus service will increase access along the line.

Costs

The major capital projects in the GO TO 2040 update come to \$12.33 billion in year-of-expenditure dollars with reconstruction costs of \$8.50 billion for a total of \$20.83 billion. In the original plan, \$10.5 billion was budgeted for major capital projects, with an equal amount set aside for reconstruction costs, totaling \$21.00 billion. Thus, the overall expenditure on these facilities is nearly the same. Project cost information is provided in Table 1.

Since the March 2014 memo to the Transportation Committee, additional contributions from value capture have been assumed for the Red/Purple Line Modernization and the IL 53/120 Tollway projects. Initial meetings of the IL 53/120 Finance Committee suggest that stakeholders look most favorably on value capture out of the available options to help close the funding gap on that project. After discussion with the Tollway, IL 53/120 is also assumed to be open to traffic earlier than in the previous memo.

Overall, the major capital projects are a very small part of meeting the region's travel needs. The financial plan prepared as part of the GO TO 2040 update indicated that approximately \$371 billion (in year of expenditure dollars, or YOE\$) in funding from existing or reasonably expected sources is likely to be expended on transportation capital and operating expenses between now and 2040.

Other Projects

Please note that while they are not itemized in this memo, numerous other projects continue to be priorities for GO TO 2040. These include bus rapid transit (BRT) projects such as the CTA's Ashland BRT, arterial rapid transit projects, elements of the CREATE program, and others. These projects are included, but not specifically listed, in the systematic enhancements budget of the financial plan. This overall approach is discussed in a previous memo. Similarly, the Metra Milwaukee District North Improvements project is considered a strategic enhancement and so can proceed at any time without being itemized in the financial plan. They should be eligible for federal funding and be allowed to proceed through the federal project development process.

Table 1. Costs of major capital projects recommended for fiscal constraint

Project	Project information				Costs for new capacity in YOE\$b					E\$b
	Sponsor	Year	Capital cost, 2014\$b	Percent of cost for new capacity	Capital cost, YOE\$b	Operating costs to 2040, YOE\$b	Total project cost, YOE\$b	Cost offset by new project-specific revenue	Constrained cost, YOE\$b	Associated reconstruction costs, YOE\$b
Elgin O'Hare Western Access	Tollway	2020	2.15	99%	2.52	0.20	2.72	52%	1.11	0.03
I-90 Reconstruction and Widening	Tollway	2016	1.27	17%	0.23	0.07	0.30	0%	0.30	1.11
Illinois 53/120 Tollway	Tollway	2020	2.10	88%	2.78	0.08	2.87	30%	1.63	0.32
I-294/I-57 Interchange	Tollway	2024	0.35	75%	0.35	0.01	0.36	0%	0.36	0.12
I-55 Express Toll Lanes	IDOT	2020	0.40	80%	0.38	0.03	0.41	19%	0.33	0.10
I-290 Express Toll Lanes	IDOT	2020	1.60	20%	0.38	0.01	0.39	24%	0.30	1.53
Illiana Expressway	IDOT	2016	1.00	100%	1.06	0.46	1.52	53%	0.71	-
I-190 Access Improvements	IDOT	2020	0.38	20%	0.09	0.00	0.09	0%	0.09	0.36
Circle Interchange Reconstruction	IDOT	2015	0.41	20%	0.08	0.00	0.09	0%	0.09	0.34
Red Line Extension (South)	CTA	2020	1.70	82%	1.66	0.23	1.90	0%	1.90	0.37
Red/Purple Line Modernization	CTA	2020	4.20	64%	3.21	(0.06)	3.15	5%	2.99	1.81
UP Northwest Extension	Metra	2020	0.58	50%	0.35	0.19	0.54	0%	0.54	0.35
SouthWest Service Improvements	Metra	2020	1.03	25%	0.31	0.16	0.47	0%	0.47	0.92
UP North Improvements	Metra	2020	0.45	25%	0.13	0.07	0.21	0%	0.21	0.40
UP West Improvements	Metra	2020	0.52	25%	0.16	0.08	0.24	0%	0.24	0.47
Rock Island Improvements	Metra	2020	0.05	25%	0.02	0.01	0.02	0%	0.02	0.05
West Loop Trans. Center: Phase 1	CDOT	2020	0.84	75%	0.75	0.30	1.05	0%	1.05	0.25
Total for all projects									12.33	8.50

ACTION REQUESTED: Discussion

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