

# **MOVING BEYOND** CONGESTION



## 2007 - The Year of Decision Regional Transportation Strategic Plan

Final Report

February 8, 2007

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## EXECUTIVE SUMMARY

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### ***Investing in Transit Strengthens Our Economy and Our Quality of Life***

Public transit is essential for our region's economy, our ability to compete in a global economy, our quality of life, our environment and to address congestion and maintain mobility throughout the region. Public transportation provides an important link between employers and their staff. It reduces pollution and reduces the use of oil. It cuts travel times and reduces traffic congestion. For people who do not drive or own a car, transit is a lifeline, enabling people to get around safely, conveniently and affordably. Are we prepared to make the needed investments to create jobs, reduce traffic, cut pollution and significantly improve our quality of life?

That's the question facing Illinois today as the CTA, Metra and Pace work to meet rising costs on an aging system that provides two million rides every day. The Regional Transportation Authority helps these three public transit agencies plan together, balance their budgets, raise revenues and coordinate activities. This comprehensive strategic plan contains a five-year proposal that clearly describes the investment in transit that we must make in order to remain a strong and growing region.

### ***The Challenge: An Underfunded, Aging System in a Changing Market***

Our transit system includes over 3800 buses and vans and 2300 train cars serving Chicago and hundreds of suburbs spread across six counties. Some parts of the system are newer and they work well. Other parts of the system are more than a century old and are in need of a major overhaul. For safety reasons, we have slow zones on several city and suburban train lines throughout the system causing delays for everyday commuters. Some of the busiest train lines are so crowded during rush hour that people cannot board. Many of our buses, trains and passenger vans are well-past their useful life, leading to frequent breakdowns. At the same time, we have added needed new train and bus service to growing suburban communities and new transit options for important segments of our population, such as people with disabilities and senior citizens. Looking to the future, we want to do a better job of enabling people to transfer seamlessly between Metra, Pace and the CTA. Some of this work has already begun but much more needs to be done.

Now consider these facts:

- Despite adding service and the rising cost for fuel, security in the post-9/11 era, health care and pensions, operating costs have been held constant since 1986 (when controlling for inflation), while revenues have declined.
- The State of Illinois has historically supported public transit with hundreds of millions each year for new capital projects, but has not provided capital funding since 2004 causing us to defer maintenance resulting in slowdowns and breakdowns.
- The problem is made worse because we have been forced to divert limited capital dollars to help pay for operations. Our current budget is \$226 million short for this year. We need approximately \$400 million more in operating funds each year to

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keep our trains and buses running on time, and address the growing demand for transit.

- The region must invest \$10 billion in the next five years to get the entire system into good working order, replace older trains and buses, add service where it is critically needed, and plan and design a transit system worthy of our reputation as one of the great metropolitan regions of the world.
- Over the next 30 years, \$57 billion must be invested throughout the region in order to create the public transit system Northeast Illinois really wants and needs to meet population projections, development patterns, travel demands, and air quality goals.

### ***Our Five Year Investment Lays the Foundation for the Future***

Numbers like these are overwhelming until you see what is behind them, so here's what the five-year plan means for you. We divide our capital investments into three categories:

- ***Maintain*** – meaning repairs and upgrades that keep our existing systems in good working order so that there are fewer delays and other problems.
- ***Enhance*** – meaning more and better and faster service without building any major new city or suburban train lines.
- ***Expand*** – meaning new train and bus routes requiring major investments that will cost billions of dollars and take years to complete.

**Maintain – \$7.3 billion:** As any homeowner knows, you need to fix up your house before you build out and that's especially true of public transit. Here are the highlights:

- **Rolling Stock:** For safety reasons and to modernize the fleet, funds are needed to replace aging trains, buses and vans that are beyond their useful life.
- **Track and Structure:** Train tracks, railroad ties, bridges and viaducts need repairs. Metra has 1200 miles of track and 800 bridges; CTA has 290 total miles of track — including 50 miles of track on elevated structures and 24 miles of track in subway tunnels — as well as 115 bridges and viaducts. To speed travel times and avoid slow zones, we need to invest in order to fix rails and ties, bridges and structure and repairing signals, electrical systems and communications.
- **Passenger and Support Facilities and Equipment:** Significant funds are needed to improve train stations and parking lots serving riders as well as repair facilities for trains and buses both in the city and the suburbs.

**Enhance – \$1.1 billion:** As the travel market changes, so do the demands on the system, warranting over \$1 billion in added service throughout the system.

- **Off-Peak and Weekend Service:** While the weekday commuter is the biggest segment of the market, more and more people are using transit outside the rush hours and all three agencies are under pressure to serve this growing demand.



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- **Faster service and more seats:** At the same time, both commuters and non-commuters want faster service, less crowding and more seats and that requires more drivers and more buses and trains.
  - **Vans and van pools** are an increasingly popular public transit option for people with disabilities, seniors, and people living in low density communities. Demand rose 22% since 1980 and will climb higher as baby boomers retire.
  - **More Reverse Commuting Options:** One look at outbound highways in the morning shows growth in reverse commuting. Service options include shuttle buses from suburban train hubs to job centers and express bus routes.
  - **Suburb to Suburb:** With six of the top 10 cities in the state located in the collar counties, inter-suburban travel is on the rise. Pace is looking at new services to meet this growing market.
  - **Passenger Efficiencies:** Providing better customer information, easier transfers between trains and buses, coordinated schedules, and better pedestrian connections are among a broad range of improvements.

**Expand – \$2 billion:** An attached appendix outlines 11 major suburban and city projects currently in the planning or design phase, 15 more in the proposal phase, and another two dozen projects suggested by various transit advocates and community leaders. Together these projects represent a solid return on our investments because local funds are often matched with federal dollars, making our money go further. These projects offer a bold and exciting vision for public transit in the coming decades.

### ***Funding: The Wisdom and the Will to Invest***

**Capital:** The federal government makes billions of dollars available each year for public transit projects and challenge state and local governments to provide matching funds. The State has provided no capital money since 2004 forcing local governments to provide the entire match. Our hope is that the State will pass a capital plan this year that gets us the \$10 billion we need over the next five years.

**Operating:** The RTA's goal is to generate \$400 million more per year without overburdening passengers. Revenue proposals, including a review of revenues currently collected in the RTA region, must be considered. We appeal to state lawmakers and the Governor to craft a comprehensive proposal and have offered a summary of revenue options used across the country and around the world to generate funds for public transportation.

### ***Conclusion: Our Future Is At Stake***

We welcome an open, honest and vigorous debate on the subject of transit investments and funding. We encourage everyone who cares about our quality of life, our economy and our long-term health to participate. The future of our region is at stake and this is no time for half-measures. We all live, work and play in a highly mobile society and if we want it to grow and meet our future needs, now is the time to invest in public transit.

From the central city to the farthest suburbs the Chicago region is poised for growth and greatness, bidding for major international events like the Olympics and securing its global

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reputation as one of the most progressive, vibrant and culturally integrated metropolises in the world. At the heart of this vision is a modern, efficient public transit system that will leverage our economic assets and to help realize our individual dreams and collective hopes in the years and the decades ahead. Today's sound investment yields tomorrow's infinite promise.

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## 1.0 INTRODUCTION

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Public transportation is an investment in serving the public — residents, businesses and communities in our region. Chicago's regional public transit network, the second largest in the nation, represents a \$27 billion investment that generates an estimated \$12 billion in annual economic benefits and 120,000 jobs, creating prosperity for everyone in the region. Our transit system fueled the renaissance of downtown Chicago and enables suburban residents to leave their cars at home and utilize transit for their daily commute.

Through improved mobility, safety, economic opportunity and environmental quality, public transportation benefits every segment of American society — individuals, families, businesses, industries and communities — and supports important national goals and policies. Public transportation is the quickest way for individuals to escape the high cost of gasoline and makes the U.S. less dependent on oil. It is also an effective strategy by which to combat the traffic congestion that plagues our region.

Providing over 2 million rides per weekday, transit is vital to the mobility of the region — but it is also underfunded. More than two years have gone by since the last state capital funding program for transit expired, and more than 23 years have passed since the state restructured operating funding. As a result, the immediate future of transit is in question: without additional funding service reductions will be required to balance operating budgets, possibly before the end of 2007. If transit is not convenient or is too expensive, then people will turn to their cars, resulting in more traffic congestion and pollution for the entire region.

Although funding shortfalls cloud transit's immediate future, there is also a growing recognition that investing in transit is vital to sustaining the region's economy and quality of life. The region faces a choice of whether to allow transit to deteriorate or to strengthen it — 2007 is the Year of Decision.

### RTA OVERVIEW

Originally established in 1974 by a referendum in the six-county Northeastern Illinois region, the Regional Transportation Authority (RTA) provides funding, planning and fiscal oversight for regional bus and rail operations. The RTA is authorized to impose taxes in the region and issue debt, and is responsible for the allocation of federal, state and local funds to finance the operating and capital needs of public transportation in the region. The RTA system, which is comprised of the three operating agencies — the Chicago Transit Authority (CTA) rapid transit and bus, Metra commuter rail and Pace suburban bus — carries over two million trips every day, and its service area spans approximately 3,700 square miles.

The three operating agencies have operational responsibility (setting fares and providing service) for public transportation within the six-county region and are governed by their own boards of directors. The CTA provides bus and rapid transit rail service in the City of Chicago and neighboring suburbs; Metra provides commuter rail service throughout the region; and Pace provides bus service in the suburbs and between the suburbs and the City of Chicago, as well as paratransit service in the entire region.



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Yearly, the RTA Board of Directors must adopt an annual budget, a 2-year financial plan and a 5-year capital program for each Service Board. The 2006 budget included \$1.8 billion to operate the system's 3,830 buses, paratransit vehicles, and vans, and 2,300 rail cars and locomotives. The 2006 capital program totaled nearly \$600 million, well below the system's investment needs. In addition, RTA operates several programs that directly support riders, including the RTA/CTA Transit Benefit (TransitCheck) Program, the Reduced Fare Eligibility Program for seniors and disabled riders, the Americans with Disabilities Act (ADA) Paratransit Certification Program, and the Traveler Information Center.

## **RECENT INVESTMENTS AND TRANSIT BENEFITS**

The Illinois Fund for Infrastructure, Roads, Schools and Transit (FIRST) program provided RTA with the ability to issue a total of \$1.6 billion in capital investment bonds, increasing the size of the capital program to \$3.8 billion from 2000 to 2004. The combination of state and federal funding enabled the system to make considerable progress in recent years in improving the existing infrastructure and expanding service. Capital programs included:

- Expansion and rehabilitation of three portions of the CTA rail system: the Douglas branch of the Pink and Blue Lines (\$483 million); the Dan Ryan branch of the Red Line (\$294 million); and the Brown Line (\$530 million).
- Substantial investment to add service, improve tracks and rehabilitate or replace equipment on Metra's North Central Service, Union Pacific West Line and SouthWest Service.
- Replacing and refurbishing rolling stock, including hundreds of Pace and CTA buses and vans, and 326 new Metra bi-level railcars.

The capital investments funded between 2000 and 2004 helped to boost public transportation's effectiveness, which, in turn, provides numerous benefits.<sup>1</sup> The benefits of this investment are evident, with new buses on the streets, new stations enhancing communities, and trains moving faster. However, there are other benefits to maintaining the transit system that are less visible, but equally important. The benefits of this investment also include the jobs, and resultant wages, from rebuilding and maintaining the transit system; the jobs, wages and tax revenues that spin off from increased economic activity; the savings in congestion and fuel expenses; and the improvement to air quality.

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<sup>1</sup> U.S. Academy of Sciences, Transit Cooperative Research Program Report 35, "Economic Impact Analysis of Transit Investments: Guidebook for Practitioners," 1998.

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## ECONOMIC BENEFITS OF THE RTA SYSTEM<sup>2</sup>

- ☑ Transit capital investment is a significant source of job creation.

**2005 Capital Expenditures = \$0.7 billion**  
**Jobs Created = 23,187**

- ☑ Transit operations spending provides a direct infusion to the local economy.

**2006 Operating Expenditures (est.) = \$1.0 billion (CTA) + \$0.5 billion (Metra) + \$0.2 billion (Pace) = \$1.7 billion**  
**Jobs Created = 99,380**

- ☑ Business would realize a gain in sales three times the public-sector investment in transit capital.

**2005 Capital Expenditures = \$0.7 billion**  
**Increase in Business Sales = \$2.2 billion**

- ☑ Businesses also benefit from transit operations spending.

**2006 Operating Expenditures (est.) = \$1.7 billion**  
**Increase in Business Sales = \$5.6 billion**

- ☑ The additional economic benefits from the transportation impacts of transit investment in major metropolitan areas are substantial. These costs include operating costs, fuel costs, and congestion costs.

**Total Transit Investment = \$1.7 billion + \$0.7 billion = \$2.5 billion**  
**Savings in Transportation Costs = \$3.7 billion**

- ☑ Business output and personal income are positively impacted by transit investment, growing rapidly over time. These transportation user impacts create savings to business operations and increase the overall efficiency of the economy, positively affecting business sales and household incomes.

**Total Transit Investment = \$ 2.5 billion**  
**Short Run Increase in Business Output = \$0.5 billion**  
**Long Run Increase in Business Output = \$7.7 billion**  
**Short Run Increase in Personal Income = \$0.2 billion**  
**Long Run Increase in Personal Income = \$4.5 billion**

- ☑ Transit capital and operating investment generates personal income and business profits that produce positive fiscal impacts. On average, a typical state/local government could realize a 4 to 16% gain in revenues due to the increase in income and employment generated by investments in transit.

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<sup>2</sup> Cambridge Systematics with Economic Development Research Group, "Public Transportation and the Nation's Economy, A Quantitative Analysis of Public Transportation's Economic Impact," October 1999.

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Everyone in the region benefits, whether they use public transportation or not. Freight movements by truck, an essential component of our industry supply chains, and personal automobile drivers benefit as a result of vehicles taken off our roads. Imagine the consequences if the 2 million trips now carried on the RTA system every day were to switch to private vehicles. Our already congested roadways would be in complete gridlock.

In environmental terms, an increase in ridership on the existing transit network benefits the region by decreasing per capita air pollution. A 2002 study<sup>3</sup> estimates that based on passenger miles transit produces only 5% of the carbon dioxide and 8% of the volatile organic compounds (an ozone precursor) that private vehicles produce. Transit also produces 45% less carbon dioxide and 48% less nitrogen oxide (another ozone precursor) than private vehicles. As such, the RTA system accounts for annual reductions of 1,840 tons of volatile organic compounds, 750 tons of nitrous oxides, and 10 tons of fine particulate matter — the equivalent of pollutants emitted by 3 billion automobile vehicle miles.

In terms of energy resources, transportation is the largest end-user of petroleum in the U.S. Using passenger miles of travel, public transit is approximately twice as efficient as private vehicles, because transit vehicles are estimated to have 10 times the average vehicle occupancy of private vehicles. Assuming an average fleet fuel efficiency of 20 miles per gallon, the gasoline savings attributable to the RTA system is 150 million gallons per year.

## **2007 – THE YEAR OF DECISION**

Although we take great pride in these accomplishments, we are now at a critical juncture. We cannot sustain current service levels because of escalating costs and insufficient operating and capital resources.

As the region continues to evolve, commuting patterns and mobility needs continue to change. The region's population and economy have grown considerably, with a corresponding increase in land consumed by commercial and residential development. This has increased traffic congestion, heightened environmental issues in the region and placed additional needs on the public transit system. It

**Although we take great pride in our accomplishments, we are now at a critical juncture.**

is projected that the region will need to accommodate an additional 2.3 billion total trips a year by 2030. Use of the regional transit system currently saves the region \$1.8 billion annually by reducing the costs of traffic congestion<sup>4</sup>; yet the region's roads remain among the most congested in the country, costing residents more than \$4.9 billion each year.

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<sup>3</sup> Shapiro, Robert J., Hassett, K. and Arnold F., *Conserving Energy and Preserving the Environment: The Role of Public Transportation*, American Public Transit Association, Washington, DC, July 2002.

<sup>4</sup> Texas Transportation Institute, "2005 Urban Mobility Report," Texas A&M University, College Station, Texas.

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This is the situation our region faces in 2007:

- Overall, from 1985 to 2006 growth in operating costs has been managed and held close to the rate of inflation.
- However, recent increases in costs such as fuel, security, health insurance, claims insurance and ADA paratransit have caused operating costs to outpace sales tax revenues and this has resulted in budget shortfalls which have grown to \$100 million.
- CTA, Metra and Pace have had to resort to raiding capital funds for the past 3 years to finance operations — leading inevitably to reliability problems.
- Everybody loses from a weaker transit network — a small budget cut leads to large service cuts and residents are forced to drive.
- The regional system is short roughly \$600 million this year just to maintain the existing transit infrastructure in its current condition.

Failure to address these issues will result in service cuts and declining reliability in 2008 or sooner. Unsustainable transit budgets will lead to a contraction of the network.

***This is no way to sustain and grow a world-class transit system.***

## **THE CHALLENGES AHEAD**

Regional public transportation ridership has experienced recent increases, but public transportation has not kept pace with changing demand from regional growth. Our inability to keep up with these demands stems from inadequate investment in the upkeep and enhancement of service. If we intend to maintain Northeastern Illinois' century-long role as America's Transportation Hub, with a world-class transit network at its center, we need new and bold ideas that will prepare us for the 2.3 billion additional annual trips predicted by 2030; and that will address the overwhelming traffic congestion those trips will breed.

**Northeastern Illinois  
must overcome the  
threat to our  
economic vitality and  
quality of life  
represented by  
traffic congestion.**

Rising fuel, power, construction, healthcare, pension, and security costs have major impacts on the CTA, Metra and Pace. All three transit operators are facing funding shortfalls and are left with little choice but to transfer capital funding to operations. Without a solution, disinvestment in the system and the downward spiral from unfunded needs will soon result in large service cuts, increased fares, and declining reliability. As stated in a joint statement on the 2007 transit budgets by the RTA, CTA, Metra, and Pace, transit faces a "large operating and capital shortfall, because there has not been any new state capital funding for transit since Illinois FIRST, and because operating funding has not kept pace with 21st Century demand." The system is at a critical crossroads.

The RTA's vision for the region is a world-class public transportation system that is convenient, affordable, reliable and safe, and that is the keystone of the region's growing business opportunities, thriving job market, clean air and livable communities. To achieve

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this vision, the Chicago area must overcome the threat to our economic vitality and quality of life represented by traffic congestion. The Chicago region is the second most congested area in the nation, according to the Texas Transportation Institute, and the costs of that congestion are enormous.

Service reductions would hit existing riders hard, and would force a large number of transit riders to use automobiles. Those shifts, in a congested metropolitan area such as Chicago, result in very substantial increases in direct user costs (higher driving and parking costs), vehicle emissions, highway accidents, and roadway congestion. Impacts on roadway congestion would be dramatic — based on Texas Transportation Institute’s estimates of highway congestion cost reductions associated with public transportation in the Chicago metropolitan region, a prorated increase in those costs (on the basis of lost transit ridership) would result in an \$11.8 billion increase in congestion costs on a 30-year present value basis.

To meet our vision for transit, the region and state need to invest \$57 billion to maintain, enhance and expand the regional transit system over the next 30 years. And to continue to operate current services and an enhanced and expanded system will require additional operating funding averaging \$300 million per year in today’s dollars, plus an additional \$100 million to provide ADA-compliant paratransit.

The immediate need — for the next 5 years — is a \$16.1 billion capital program, of which \$10 billion would be new funds. During that same 5-year period, to address estimated operating shortfalls of the maintenance component of the plan, and to fund the operation of the initial 5-year enhancement and expansion components of the plan, an additional \$300 million for Service Board operations and \$100 million for region-wide paratransit will be required for each year.

This investment will be returned many times over in the form of congestion relief, expanded travel choices, environmental and air quality improvements, job creation and economic stimulus. But every day we are falling behind in our financial support of the system as the costs of fuel, construction, insurance and security rise. The last state investment in the capital program, Illinois FIRST, ended more than 2 years ago, and the Service Boards have had to transfer capital funds to operation of the current system to keep up with rising costs.

## **PURPOSE OF THE STRATEGIC PLAN**

This Regional Transportation Strategic Plan was developed by RTA, CTA, Metra and Pace, and our Partners for Transit (business, government, civic and religious organizations that have joined us in their commitment to transit and this initiative) to guide the region in achieving a world-class public transportation system that is the keystone to growing business opportunities, a thriving job market, clean air and livable communities over the coming decades.

The development of this strategic plan allows us to address critical questions about the condition and adequacy of our public transportation system, as well as the external forces and factors, such as growing traffic congestion — the greatest challenge to mobility, with which we must contend to ensure the region’s continued prosperity and quality of life.

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What kind of additional investments in the system are needed to address the region's current and future needs? Where might the resources come from? How should these resources be distributed to assure that they are used creatively, effectively and responsibly to serve the region's future? The Strategic Plan addresses these questions.

## **DEVELOPING THE MOVING BEYOND CONGESTION PLAN**

The Strategic Plan is intended to provide a full picture of the region so that residents can make an informed decision on what path to take. It is not intended to solve specific routing and maintenance challenges, but will rather address the broader issues facing the region as a whole.

Over the past year, RTA has reached out to explain the immediate risks of not investing in our public transportation system, and to lay out the long-term choices facing the region, as part of the strategic planning process. As a result, almost 400 municipalities, counties, labor organizations, chambers of commerce, civic organizations, service providers, educational institutions and others have joined the RTA as Partners for Transit to achieve the vision of a world-class transit system for Northeastern Illinois.

This past year the Office of the Auditor General (OAG) conducted a management and performance audit of the RTA and its Service Boards. As we stated at the beginning of our planning process, we expect that the OAG's report will complement the strategic planning work we have undertaken. The Moving Beyond Congestion Project is the first step in an on-going effort to improve coordination, reduce redundancy as well as improve fare and service integration. Our proposals included in this report are the launching pad for better long-term planning and coordinated budgeting. We hope the OAG findings will help us build on these concepts.

## **VISION AND GOALS**

The development of a vision is the first step in developing a strategic plan. A vision is a compelling statement or image of what the organization should be and look like in the future. The vision drives the strategic planning process, serving as the basis for developing goals and strategies for the alignment and coordination of improvements and other actions to achieve the strategic plan.

The first step in the development of the public transportation vision for Northeastern Illinois was the review of existing strategic plans and long-range plan documents prepared by the RTA, the Service Boards, the counties, transportation agencies, and other regional planning and citizens' organizations, including:

- The Illinois Department of Transportation (IDOT) State Transportation Plan, 2005, and Illinois Public Transportation Association (IPTA) Top Priority Issues for 2005
- The Northeastern Illinois Planning Commission (NIPC) Common Ground 2040 Regional Framework Plan and the Chicago Area Transportation Study (CATS) 2030 Regional Transportation Plan and Shared Path 2030



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- The City of Chicago Central Area Plan, DuPage County Area Transit Plan 2020, Kane County 2030 Transportation Plan, Lake County 2020 Transportation Priority Plan, McHenry County Transit Plan, and Will County 2020 Transportation Framework Plan
  - Other local organizations, such as the Metropolitan Planning Council (MPC), Metropolis 2020, Center for Neighborhood Technology (CNT) Connecting Communities Summits/Changing Direction: Transportation Choices for 2030, and the Neighborhood Capital Budget Group (NCBG)/Campaign for Better Transit

With examples of how other cities, regions and transit agencies have conducted similar strategic plans, executives and senior staff of the RTA and the Service Boards held an initial workshop with their consultant team to consider:

- Key stakeholders and desired outcomes of the strategic planning effort
- Key requirements and resources for the future regional transit system
- Key values and principles to attract public interest and support
- Critical areas for cooperation and collaboration
- Regional and stakeholder benefits that would be gained if an improved regional public transit system were achieved

That effort resulted in an initial statement of vision and goals, reviewed by the Boards of Directors of the Service Boards and with additional input and changes from the RTA Board of Directors that was distributed to stakeholder groups throughout the region for review and comment.

The resulting regional strategic vision and goals is shown on the following pages.

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## VISION

**A world-class public transportation system that is convenient, affordable, reliable and safe, and is the keystone of the region's growing business opportunities, thriving job market, clean air and livable communities.**

## GOALS

### ***1. Provide Transportation Options***

- ☑ Provide public transportation choices that link to jobs and deliver cost-effective, dependable and on-time commutes.
- ☑ Reduce regional dependence on peak-period automobile use, the resulting congestion and impediments to goods movement, and national dependence on oil by increasing the use of public transportation.
- ☑ Facilitate the use of public transportation for medical, shopping, cultural, educational, and recreational purposes.
- ☑ Connect communities within Northeastern Illinois and beyond, and facilitate connections among different modes of transportation.
- ☑ Ensure that the passenger experience is of a seamless public transportation system.

### ***2. Ensure Financial Viability***

- ☑ Ensure the sustained financial viability of public transportation as intrinsic to the region's multimodal transportation system.
- ☑ Seek investments in public transportation that maximize beneficial returns.
- ☑ Demonstrate measurable achievement in the provision of clean, attractive, affordable, safe, reliable and convenient public transportation services.
- ☑ Continually enhance efficiencies through effective management, innovation and technology.

### ***3. Enhance Livability and Economic Vitality***

- ☑ Provide a public transportation system that protects the environment and supports the livability and economic vitality of the region.
- ☑ Look for new opportunities to:

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- ☑ Encourage growth in corridors that support existing and planned vibrant and interconnected centers, discourage sprawl, and reduce the cost of new infrastructure.
  - ☑ Provide employers with access to a broader workforce, enhancing their competitiveness.
  - ☑ Support opportunities to realize economic development goals and plans.
  - ☑ Provide mobility to aging populations and people with disabilities.
  - ☑ Preserve and provide access to open space and natural resources.

#### ***4. Demonstrate Value***

- ☑ Create and sustain public understanding of the benefits of public transportation to individual health and well-being, regional economic vitality and sustainability, and as a catalyst for new opportunities for users and non-users alike.

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## ***Situation Analysis***

With the preliminary vision in hand, the RTA and the Service Boards conducted a situation analysis. The first stage of this assessment involved characterizing the current situation through data collection, documentation of the impacts of past and current transit funding programs, review and characterization of the condition of RTA system assets and performance, and analysis of other external factors such as land use, socioeconomic issues, and regional travel patterns. A peer comparison with other transit systems was conducted using a variety of performance measures. Using this information, the RTA and the Service Boards were able to evaluate the degree to which regional services and facilities matched the vision, and to identify significant gaps or shortfalls. RTA also determined the short-term impact of maintaining current levels of funding.

The next stage of the situation analysis involved defining the major issues, threats, and opportunities for future transit, including revenues and capital needs, demographic and development trends, public expectations and perceptions, and planned system improvements. The analysis provided an in-depth understanding of the current situation and how it relates to each of the strategic goals, and was presented before stakeholder groups and posted on a new public website, [www.MovingBeyondCongestion.org](http://www.MovingBeyondCongestion.org). Additionally, the Illinois Auditor General commissioned financial, compliance, and performance audits of the RTA and Service Boards. The RTA and its Service Boards worked cooperatively with the Auditor General's office and will work to implement recommendations into future activities.

## ***Development and Evaluation of Future Scenarios***

In this stage, the RTA and Service Boards developed and evaluated potential scenarios for improving or expanding the transit system in accordance with the vision and goals. During the summer of 2006, while continuing to meet with and receive input from regional stakeholder groups, RTA and Service Boards management and senior staff worked with their consultant team to determine the eventual parameters of the needed capital and operating program. By the fall, the *Moving Beyond Congestion* scenario for the future was identified. It was then compared to the baseline scenarios of maintaining the existing system at its current size and operating levels at current funding levels. This scenario identified three categories of needed investments — **Maintain, Enhance and Expand:**

- **Invest to Maintain:** Investments to continue operating existing levels of service and maintaining the current system in a state of good repair, including replacement of equipment and facilities as they reach their usable service life.
- **Invest to Enhance:** Current system with some improvements or enhancements.
- **Invest to Expand:** Major capital expansion projects that had already been or were currently in the planning process with the federal government and authorized under the federal SAFETEA-LU multi-year funding program. Other projects include desirable and longer range capital expansion projects to address growth. Investments would also include ongoing operating funding to provide day-to-day service on these expansions.

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## ***Moving Beyond Congestion*** **Core Commitments**

### **MAINTAIN**

- ☑ Assure reliability
- ☑ Improve energy efficiency and provide cleaner burning engines and alternative fuel vehicles
- ☑ Maintain access to jobs, recreation, shopping
- ☑ Provide affordable commuting
- ☑ Provide benefits for all, such as less roadway congestion, better air quality, livable communities, and a competitive regional economy

### **ENHANCE**

- ☑ Better commuting options
- ☑ Service enhancements
- ☑ Seamless transit services

### **EXPAND**

- ☑ Reduced congestion
- ☑ New and expanded service to city and suburb markets, including the collar counties
- ☑ Reverse commute, suburb-to-suburb, cross-town travel options
- ☑ Minimized commuter/freight conflicts
- ☑ More express and weekend service
- ☑ Increased capacity in congested corridors
- ☑ Increased use of private funds, promoting sound investment of local tax dollars

After further consideration by the Service Boards and RTA, and based on the public input received to date, the general parameters of the ***Moving Beyond Congestion*** program and a list of potential projects were publicized through distribution of the ***Moving Beyond Congestion Draft Vision and Strategy***, released November 9, and via the established website. Thirteen community meetings were held throughout the region in December 2006 to brief the public on the proposed 2007 budget and the ***Moving Beyond Congestion*** program.

### ***Development of Funding and Financing Approaches***

Component projects associated with the program were further defined by the Service Boards and RTA, including additional policies, programs and bold ideas that would support improved regional public transit, and RTA set out to develop funding and financing approaches that could potentially make the ***Moving Beyond Congestion*** scenario a reality. Focusing on system preservation, enhancement and expansion, a short-range 5-year program and long-range 30-year program were devised. The projects had to be defined at a level of detail sufficient to support future legislative and financial strategies,

and RTA developed high-level order-of-magnitude capital and operating cost estimates for each component project.

The financial analysis assessed the long-term viability of projected funding resources for operations and capital investments in future timeframes under existing authorities and determined the financial gap that is predicted to exist between total revenue and total cost for those timeframes. Funding mechanisms and financing instruments used by other transit systems were reviewed to identify potential new revenue sources and ways to leverage them. These sources were evaluated in terms of revenue yield, stability and reliability, and a menu of options was developed. This information will be provided to policy-makers together with this Strategic Plan to determine the eventual funding and financing strategies for the short- and long-range elements of the ***Moving Beyond Congestion*** plan.

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## ***Public Input into the Strategic Planning Process***

A goal of the strategic planning process has been to achieve unprecedented public outreach and dialogue. The RTA and its Service Boards have engaged in conversations and presentations throughout the six-county region with varied constituencies. With almost 400 Partners for Transit, including municipalities, counties, labor organizations, chambers of commerce, civic organizations, service providers, educational institutions and many others, the debate about the future of transit has begun in earnest.

The first months of the public outreach program involved numerous presentations by RTA leadership on the status of the ***Moving Beyond Congestion*** project and created opportunities for ongoing input. RTA Board Chairman Jim Reilly, Executive Director Stephen E. Schlickman, and RTA senior staff and consultants conducted more than 300 in-person presentations and interviews throughout the summer and fall of 2006. In addition to presentations to organizations throughout the region, the project launched a website, [www.MovingBeyondCongestion.org](http://www.MovingBeyondCongestion.org), a monthly newsletter and a toll-free number to allow residents to request project materials and information. The website has received almost 700,000 hits, and more than 3,000 telephone messages have been received to date. A Transit Improvement Feedback Form was created to collect comments from across the region (available online and in a paper version) as well as a PowerPoint presentation and information packets.

The feedback received from Partners and others are reflected in the proposed ***Moving Beyond Congestion*** capital program and additional strategies (Chapter 3), and will inform future outreach efforts as the project seeks to expand the scale and scope of the public debate — including the 13 community meetings that took place in December 2006, the continued scheduling of dozens of community dialogues with our Partners and others, and continued efforts to seek input from residents of the region through the Transit Improvement Feedback Form.

Because of the success the RTA enjoyed at the public meetings, it has committed to an ongoing outreach effort that will continue to inform its work.

A table listing information on each of the public meetings is included in the Appendix.

## **OVERVIEW OF THE STRATEGIC PLAN**

As you've just read, Chapter 1 discusses the RTA and its relationship to the public transportation systems operated by the CTA, Metra and Pace. It describes the nature of the strategic planning process, why that process was undertaken at this time, the public input received during the process and how that input has been incorporated into the plan. It also presents the long-term strategic vision and goals for the role of transit in the region.

Chapter 2 discusses the primary public transportation issues facing the Chicago region, such as congestion, changing travel market needs, service coordination and integration, system funding and the risks of inadequate funding.



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Chapter 3 presents the recommended capital investment plan and the strategies that together constitute the core *Moving Beyond Congestion* program. It discusses how the plan addresses the primary issues facing the Chicago region, the strategic vision and goals, and the comments received from the public during the planning process. It also details the 5- and 30-year capital improvement programs, and lays out additional strategies for making Northeastern Illinois the home of a world-class transit system.

Chapter 4 provides an overview of the investment required to fund the Moving Beyond Congestion program. It also examines public transit funding strategies that exist both nationally and internationally, comparing RTA system funding to peer transit agencies and presenting a summary of potential funding sources.

Chapter 5 discusses the immediate action items and continuing planning activities necessary to successfully implement the strategic plan. Additionally, it presents Moving Beyond Congestion as our first step in an on-going strategic planning process that will be updated in the future to reflect and address changing realities in the region.

The Appendices section includes additional information, such as the complete 30-year project list, a summary of public input, operating agencies' proposed service enhancements, information on public-private partnerships, and other material.

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## 2.0 KEY ISSUES FACING TRANSIT IN NORTHEASTERN ILLINOIS

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### CONGESTION AND MOBILITY

Traffic congestion increases the cost of travel by increasing the time required to travel. Trucks sitting on the expressways mean lower profits and ultimately fewer jobs for the businesses that depend on free-flowing transportation. Buses that operate in traffic also suffer from road congestion, and when traffic congestion grows, bus travel times grow as well.

The most referenced data source in measuring congestion is the Texas Transportation Institute's Urban Mobility Report, which generates a number of performance measures that attempt to quantify the cost of traffic congestion. For Chicago, average annual delays total 58 hours (seventh ranked) per peak-period traveler, which in dollars is approximately \$1,000 per traveler. With an estimated 4.4 million peak-period travelers, this is a significant cost to the region's productivity and quality of life. The Chicago region has more than 5.5 times more travel delays than it did 20 years ago.<sup>5</sup>

For the average metropolitan Chicago traveler, it takes 57% longer during the peak period to travel the same distance as when roads are not congested. The Chicago region experienced 253 million hours of traffic delay, and wasted over 150 million gallons of fuel due to traffic congestion. This equates to nearly \$5 billion attributed to traffic congestion.

In another national study<sup>6</sup>, an analysis identified congested roads in Northeastern Illinois in 2000 and 2030 (see Figure 1). Travel model results from the Chicago Area Transportation Study (CATS) were used to identify those roads that had excess vehicle miles of travel (VMT), which means that the travel model is assigning traffic to the road in excess of its capacity. In 2000, practically all of Cook, DuPage, and Lake counties had congested roads. Southeastern McHenry, eastern Kane, and northern Will also have congested roads. The greatest concentration of highly congested roads is in the City of Chicago and close-in suburbs.

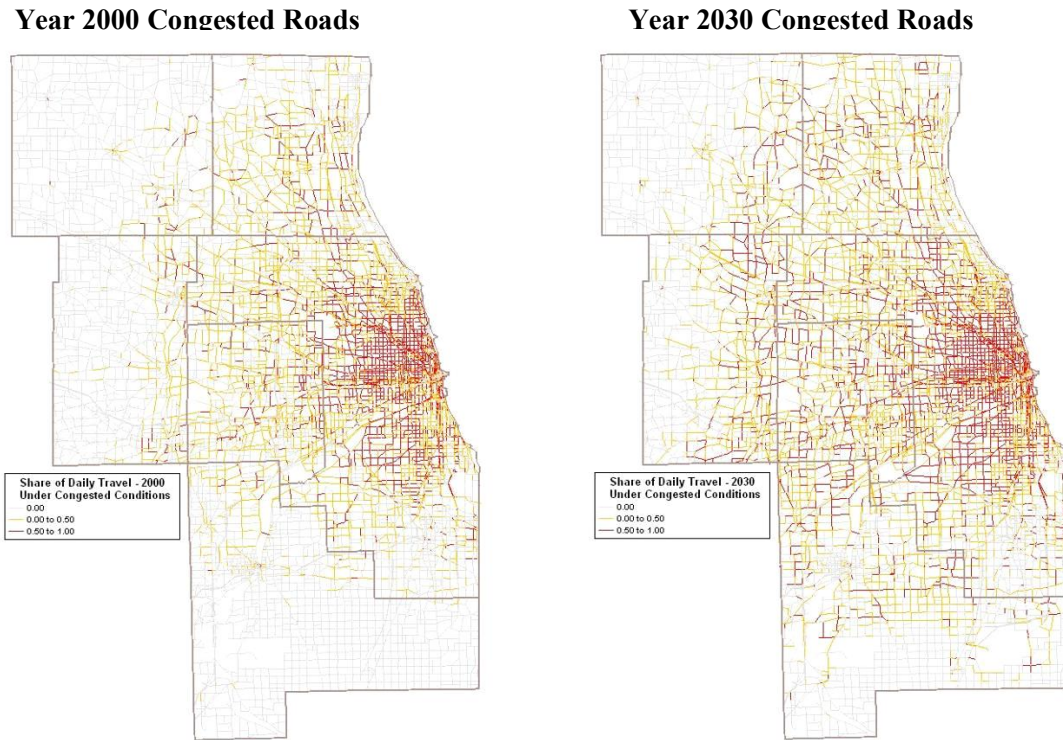
**It takes 57% longer during the peak period to travel the same distance as when roads are not congested.**

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<sup>5</sup> In 1982, the Texas Transportation Institute estimated 44.5 million total hours of delay for the Chicago metro region; in 2003, TTI's estimate for the Chicago metro region was 252.8 million total hours of delay.

<sup>6</sup> Federal Transit Administration Working Paper on Transit Benefits.

**Figure 1: Roadway Congestion 2000 and 2030**



**NOTE:** Roads with the most congestion are indicated in red, followed by the roads indicated in yellow.

In 2030, almost the entire region, except for the outlying portions of McHenry, Kane, and Will counties, will be congested, and highly congested roads will be situated throughout the region. Other general areas of highly congested roads include the Fox River Valley area, the Naperville area, south-central Lake County, and north-central Will County.

Transit is a cost-effective strategy to address congestion growth. However, in order to be more competitive with the auto and not be delayed in the same traffic congestion, transit-only and transit-priority treatments are required. This would include exclusive guideways for bus or rail, high occupancy vehicle lanes, shoulder-riding treatments on freeways, traffic signal priority for buses, and bus-only queue jumps.

## **CHANGING TRAVEL MARKETS**

One of transit's major challenges is adapting to changing travel markets. The most concentrated demand for transit travel remains within the City of Chicago and along the CTA and Metra rail lines, where the region's current transit system most effectively serves traditional transit markets. However, changing travel patterns in our growing region have produced emerging market opportunities for transit travel on CTA, Metra and Pace.

Commuting trips for work or school comprise the overwhelming majority of transit travel. Combining that fact with transit's contribution to congestion relief in peak travel periods leads to a focus on work trips. However, regional transit ridership statistics show that much of the recent growth in ridership has occurred during off-peak or non-traditional

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commute periods. This has been especially true at the CTA where non-peak periods have accounted for most of the growth in ridership. In the past 10 years, over 85% of CTA's ridership growth has occurred outside of the weekday peaks. On CTA buses, all of the ridership gains have occurred outside the peak. Off-peak ridership on CTA rail has grown three times as rapidly as it has during the peak. Metra and Pace have also experienced higher growth rates during non-traditional time periods, such as the reverse peak and on weekends.

These trends may reflect the growth of service sector employment, which less closely adheres to traditional commuting times, the resurgence of downtown Chicago as a regional recreation and entertainment destination that is increasingly generating off peak travel demand, the growth in reverse commuting, or the growth in transit use for non-work travel. Non-traditional and off-peak service is increasingly recognized as a growth market for transit travel in the region.

Examining Census data on work travel by all modes, the region added 257,000 commuters from 1990 to 2000. Two-thirds of this growth occurred wholly within the collar counties. Travel within the City of Chicago declined during the 1990s and reverse commuting increased. In 2000, 30% of Chicago's workers traveled to work outside the city, up from 24% in 1990. Reverse commuting also increased from suburban Cook, growing from 14% to 18% of workers. Overall, reverse commuting increased at a rate 1.75 times as large as inbound travel.

The biggest change in work trip mode shares from 1990 to 2000 was an increase in the share of people driving alone. The drive alone mode took share from bus and carpools. Rail work trips increased during the 1990s, holding the rail share steady. In 1990, rail and bus carried equal shares of work trips in the region, but in 2000 rail carried 60% of transit work trips.

Employment in the central area, transit's strongest market, grew during the 1990s. Transit maintained its share of these trips at over 50% and transit work trips to the CBD increased from all parts of the region. However, there was a large swap between bus and rail mode shares, with bus declining by 4.7 points and rail increasing by a similar amount.

The second largest transit commute market is trips within the City of Chicago, excluding trips to the central area. This is where the decline in bus work trips during the 1990s was largest. The largest part of this decline was associated with a decline in total work trips in this market, but bus also lost mode share to auto.

Transit work trips within the collar counties grew during the decade of the 1990s on both bus and rail. However transit's very small share of this rapidly growing travel market resulted in a small growth in transit trips.

Overall, these trends present a mixed picture of the strengths, opportunities and challenges for transit. Growth in the central area and increases in transit ridership outside of the peak period are strengths. The increase in reverse commuting represents an opportunity to utilize existing infrastructure to capture a larger share of this travel market. The dramatic growth in intra-suburban commuting is a major challenge for transit, given the automobile-centric orientation of many suburban developments.

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## ***2000–2030 Projected Travel Market Change***

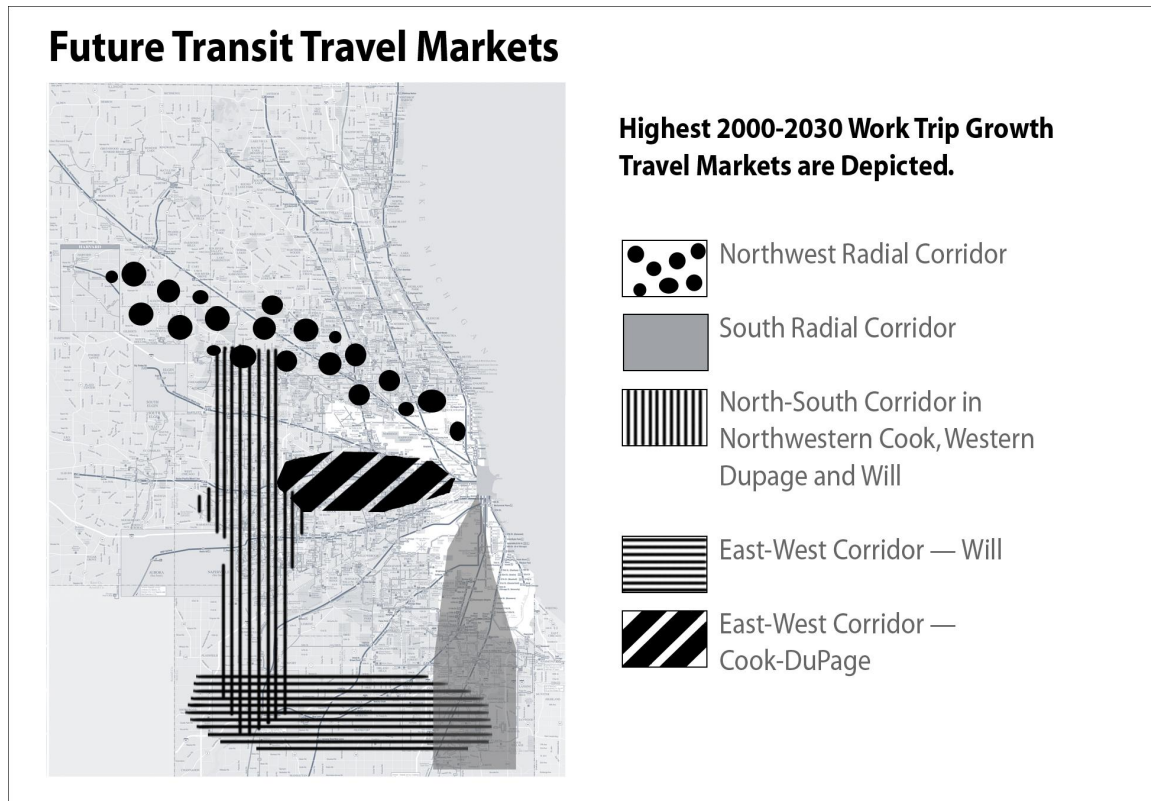
The CATS travel model was used to analyze the growth in trip making from 2000 to 2030 in the region. Population and employment growth in the region, sprawl, and demographics show continued growth in core transit markets (the Central Area, satellite cities, City of Chicago and adjacent suburbs), and large growth in suburb-to-suburb commutes and reverse commutes that require a family of services (fixed route, express, dial-a-ride, paratransit, vanpool, and other flexible services) to meet growing demand.

Significant growth (28%) between 2000 and 2030 is projected for total daily person trips and work person trips. Over 6 million more person trips are expected to occur every day by 2030. Total person trips are projected to grow from 22.9 million in 2000 to 29.3 million in 2030, and work trips are projected to grow from 2.7 million in 2000 to 3.5 million in 2030.

The analysis also looked at work trip destinations, because of their strong relation to potential transit travel markets. The fastest growing townships are dispersed throughout the region — including the City of Chicago, southern and northwest Cook, several townships in DuPage and Will, as well as Kane and Lake. The Chicago Central Area is projected to have the greatest growth in total work trips between 2000 and 2030 at nearly 100,000 trips.

The general pattern of work trip flows for these high growth townships is highlighted in Figure 2. In this figure, several general corridors emerge based on the work trip flows for the high growth townships. These general corridors include radial northwest and south corridors; a north-south corridor extending from northwestern Cook, western DuPage, and western Will; and a smaller east-west corridor in Will. The Service Boards are currently evaluating the potential for new or improved services for these general corridors, but the lack of funding has kept our transit system from being able to respond successfully to such emerging markets.

**Figure 2: High Growth Travel Markets**



As noted above, transit is very dependent upon development patterns. Transit works best when there are large concentrations of potential users and significant concentrations of destinations where those potential users want to travel. This fact is independent of the type of travel market transit is trying to serve. For example, CTA’s service coverage, service span and service frequency are generally good, given the dense urban environment that it serves. Suburban employment centers are less dense and not as pedestrian friendly as those found in the central city. As a result, it is difficult for Pace and Metra to offer convenient service for reverse commuters and off-peak travelers.

Employment densities vary throughout the region. The existing transit system provides service to most of the areas of high employment density. High levels of transit service are provided to Chicago’s CBD and other older employment concentrations. In newer suburban areas, Pace and Metra provide service to the majority of those with high employment densities. Pace’s traditional high ridership routes have good service levels and spans but, given funding and demand for service, in many areas service only operates for limited hours and on select days of the week.

Another factor affecting transit service is population density. The existing transit system covers the vast majority of the areas with medium to higher density. There are significant areas where the density of population is insufficient to support regular service. Traditional transit service to these areas would be less cost effective. Pace, which operates in the suburbs, is adapting to this challenge. Pace’s Vision 2020 established a framework for providing feeder buses and shuttles to connect with commuter rail stations and demand-response service in areas of low demand. However, the region’s



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municipalities will need to continue to encourage and support transit-oriented development (TOD) and policies that will make their communities more attractive to — and less expensive for — transit operations before transit becomes an important mode of transportation for the non-work trip.

As the situation analysis highlighted, we have a growing region. But as we look regionally we see that the “region” is larger than the 6 counties served by the RTA. Areas just beyond the six counties must be considered as we plan our future. During the Moving Beyond Congestion planning process we heard from many of the areas beyond our immediate region, both in Illinois and neighboring states, about their mobility needs. The 2000 census reported that 5% of the jobs in the six-county region are held by workers living outside the six counties; and this number is growing. We must continue to work with our more distant neighbors to talk about integration and coordination. Additionally, the RTA Act already anticipates such issues and their impact on the RTA region by laying-out provisions for either joining the RTA or paying for services provided.

## **SERVICE COORDINATION AND INTEGRATION**

The region’s three Service Boards each have different markets and services to respond to their customers needs. The RTA, as coordinating agency for the region’s transit service, works with the Service Boards so that transit riders — existing and potential — see the system as a whole rather than three separate entities.

One way that the RTA has effectively stitched together the varied services is through the use of its TripsWeb service, a transit trip-planner. Available through a web site or by telephone, the service helps transit users go from point A to B, calculates the best route, estimates cost and trip time, and provides directions for walking and transfers between services.

However, a recent survey of transit users showed that transfers between the different services is declining, and the decline is attributed to a number of factors. These factors include the desire for one fare card to pay for all services, the distance between service connections, and the time between transfers, either due to uncoordinated schedules or potential missed connections. These factors present opportunities for the RTA and the Service Boards to improve service coordination and integration.

In terms of transfer locations, the Service Boards usually consider interagency needs when making facility enhancements at their stations or terminals. Pace and CTA share space at seven of ten CTA rail terminals, and at many CTA bus turnarounds. CTA and Metra have integrated stations at Jefferson Park in Chicago, Davis Street in Evanston, and in the suburban downtown of Oak Park. Metra is in the process of reconstructing the Jefferson Park station on the UP Northwest line to provide ADA-compliant connections with existing CTA, and Pace services. Thoughtful design of interagency facilities permits easy transfers among services. RTA’s 2001 “Regional Transit Coordination Plan: Location Study” found nearly 300 locations where customers could make interagency transfers between two or more of the region’s transit providers. The RTA’s 2004 “Service Coordination Study” concluded that, in general, the Service Boards provide a cost-effective transit system with supportive interagency transfer locations.

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Currently, integrated regional fare media are focused on serving regular riders. Although CTA fare media is used extensively on Pace, Metra's fare structure and fare collection system differ dramatically from that of CTA and Pace. Metra monthly pass holders have integrated fare options but nothing is currently available for occasional transit riders using Metra. CTA's January 2006 fare structure revisions eliminated paper transfers for cash-paying customers (including those from Pace) and the \$1 cash shuttle fare at downtown Metra stations. This reduced fare integration for occasional users of these systems.

There is schedule coordination between CTA and Pace buses, and between buses (CTA and Pace) and rail stations (CTA and Metra). With its relatively high frequency (every 10-20 minutes or better on most routes at most times of day) and grid-based route structure, CTA generally provides good connections between its own services and with less frequent Pace and Metra services. When CTA connections are lacking it is generally due to limited span of service (a connecting bus may not operate at a late hour or Saturday/Sunday) caused by insufficient operating funding to provide service at those times. During recent service improvements, such as when earlier and later service was added to the Purple Line Express in 2002, CTA has scheduled the added service in a manner that facilitates transfers with connecting Metra and Pace suburban services.

Likewise, Pace and Metra have made extensive efforts to coordinate bus-rail connections in suburban areas at times the Pace buses operate. However at many times of day and on weekends and holidays, Pace does not currently have sufficient operating funding to provide connecting services to all Metra trains. With expanded regional resources for transit service, CTA, Pace, and Metra alike can begin to address the remaining opportunities for adding regional connecting services where they are now limited.

There are a number of corridors in the region where there appears to be service overlap but, in many cases, the services are serving different markets. CTA, Pace, and Metra consider each other's services when planning service changes in corridors with multiple services. Services in these shared corridors are usually designed to address multiple transit markets and improve the overall level of service, rather than simply compete for the same customers.

Such mixed conditions represent opportunities for more extensive integration to eliminate confusion and unnecessary complications for passengers. Providing a seamless regional transit system from the perspective of the rider can increase the competitiveness of public transit and lead to growth in ridership. This is a major opportunity area for the RTA.

## **FUNDING ISSUES**

The fundamental issue facing the RTA and its Service Boards is insufficient funding to meet capital and operating needs.

### ***Capital Funding***

The RTA's capital program for 2007-2011 will differ substantially from that of 2002-2006. Average annual capital investment will decrease from \$944 million in 2002-2006 to about \$606 million in 2007-2011 based on the 2006 budget and program. This overall drop is caused primarily by the expiration of the Illinois FIRST program and no new state capital program. The RTA is unable to expand its capital program with further borrowing

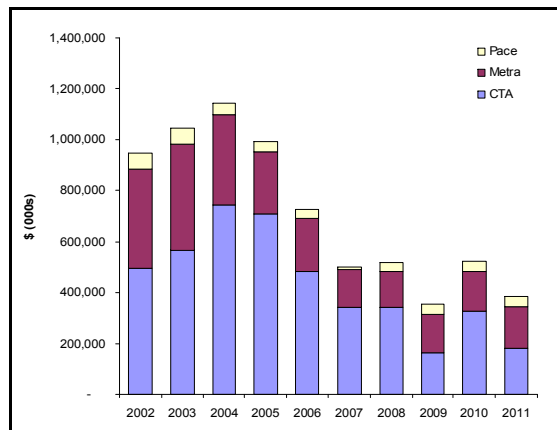
because the RTA has insufficient revenue to service the debt for any new bond offering. The 2007 capital program will be at its lowest level since 1998 — less than 50% of the amount programmed in 2004.

As Table 1 shows, the amount of capital funds transferred to cover operating expenses has increased to over \$102 million in 2006 and, absent new funding, the need to transfer capital funds to operating continues in 2007. In 2008, the Service Boards will not be able to continue this transfer of capital funds to operating due to the adverse impacts on their capital renewal projects.

**Table 1: Capital Funds Used for Operating Expenses**

<b>Capital Money used for Operating (000s)</b>				
	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Total</b>	\$26,655	\$26,858	\$59,964	\$102,773

**Figure 3: 2002-2011 Capital Program**



While the amount received each year in federal grants is not expected to change dramatically, the contribution of federal grants as a proportion of the total capital program will increase from less than 50% to over 75% of the total capital program. That is because the State is no longer providing capital funds through its bonding programs. Federal grant awards also require local matching (typically 20%), for which the RTA depends on state support. Without state cash support, there has been greater reliance on tollway credits, which count toward the local match for the federal funds, but do not provide additional real dollars for transit. For a \$100 million project, of which \$80 million is federal funding and \$20 million in tollway credits are used for the local match, only \$80 million in funding is available. Thus, tollway credits represent, at best, a temporary stop-gap measure to ensure the continued flow of federal funds.

Currently, major unfunded capital needs for each Service Board include:

**CTA:**

- Vehicle (buses and railcars) replacements/rehabilitations

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- Station/bus passenger facility rehabilitations
  - Archer and Forest Glen bus garage replacement
  - West Shops replacement
  - Substation equipment replacement
  - Red (North Main Line), Brown, Blue (Jefferson Park to O'Hare), Green (south) Line signal upgrades
  - Structural rehabilitation (North Main Line)
  - Rail and tie replacement

**Metra:**

- Diesel electric locomotives re-manufacturing
- Purchase of 160 Highliner cars for Metra Electric District (MED)
- New MED Yard to service and support the new Highliner cars
- Rebuild MED Weldon Yard
- New MED Substations
- Rebuild Rock Island District 47<sup>th</sup> Street Yard
- Rebuild Union Pacific California Avenue Yard
- Rock Island third track for Southwest Service Relocation
- Union Pacific North Line bridge replacements

**Pace:**

- Replacement and expansion of bus vehicles
- Garages/facilities expansion/improvements
- Park-and-ride facilities expansion/improvements
- Farebox system replacement
- Radio system systemwide replacement

The capital funding for these needs is crucial for bringing the RTA system to a state of good repair. In addition, capital funding is needed to address new security requirements and unmet transit demand.

At the same time, the rapid escalation in construction costs affects the Service Boards' capital program. Increased construction costs result in more costly capital projects. Overall, construction costs have been increasing at a faster rate than the consumer price index for the Chicago region (CPI-U). From 1995 to 2005, the CPI-U increased 27%. During the same time period, the national construction cost index<sup>7</sup> increased by 38%. As seen in Figure 4, the Chicago Construction Cost Index (CCI) has been increasing at a

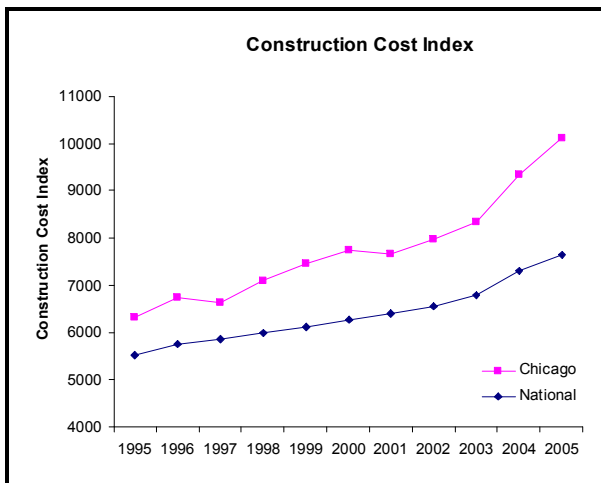
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<sup>7</sup> *Engineering News-Record.*

faster rate than the national CCI, with a 60% increase between 1995 and 2005, compared to the 38% for the national CCI. From 2003 to 2005, the Chicago Construction Cost Index increased 21.3% compared to a 12.8% increase nationally.

The bottom line: construction costs are rising faster than inflation, and the longer we wait to make improvements, the more they will cost.

**Figure 4: Construction Cost Index 1995-2005**



### ***Operating Funding***

Available operating funds are no longer keeping pace with rising costs for existing service, let alone growing demand for expanded services. In 2006 alone, the Service Boards transferred over \$100 million from capital to operating to help cover operating shortfalls. In 2007, the operating shortfall is expected to be \$226 million. The operating shortfall reflects increased costs for security, fuel, healthcare, insurance and claims, and paratransit costs that are affecting all three Service Boards. For example:

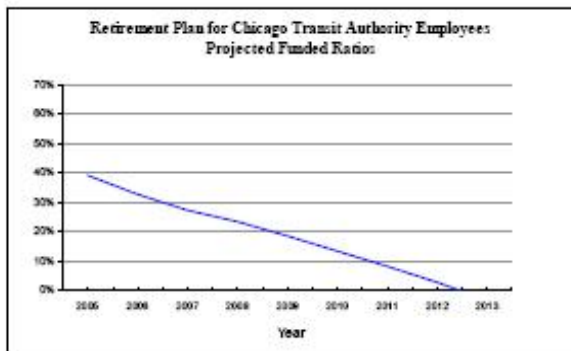
- **CTA's security costs in 2007 (\$35.3 million) are expected to be 28% higher than in 2004 (\$27.6 million).** In addition to these purchased services, the Chicago Police Department provides security services at an estimated cost of \$22 million, paid for by the City of Chicago. The combined annual security budget for CTA exceeds \$55 million.
- **CTA's 2007 fuel expenses (\$61.2 million) are projected to be more than double 2004 expenses (\$30.1 million),** and power costs are expected to rise significantly starting in 2007 as the decade-long rate freeze ends.
- **Metra is projecting a 188% increase in the per-gallon price of fuel** compared to 2004.
- **Metra health insurance expenditures are projected to increase \$10 million** from \$48.5 million in 2004 to \$58.5 million in 2008.
- **Pace expenditures on insurance and claims increased 16%** between 2004 and 2005.

- **Pace saw 7.3% of its total operating budget absorbed by fuel**, totaling \$11.5 million for an estimated 6.1 million gallons of fuel.
- **Pace ADA paratransit service costs will increase to \$80.4 million in 2007.**

And there currently is no state funding program available to fill the gap in the operating needs of the current system, let alone an expanded one.

According to CTA’s 2006 budget, the Metropolitan Transit Authority Pension Fund has a “current funding ratio of 39%; the actuary projects that the fund will deplete its assets by 2012 without additional funding and substantial changes to the plan.” The CTA pension fund is under-funded by \$2.1 billion as of January 1, 2005, with assets of \$1.4 billion and liabilities of \$3.5 billion. According to an RTA February 2006 briefing, “the 8,900 people collecting benefits from the Plan will receive an estimated \$190 million per year in benefits and approximately \$78.0 million in health care costs.” These costs would be offset by \$54.0 million in employee and CTA contributions, leaving \$214.0 million to be made up by investment returns, etc. Based on the RTA’s analysis, “the Plan would have had to earn almost 18% to break even.”

**Figure 5: Projected Funded Ratios for CTA Retirement Plan**



In June 2006, the Illinois General Assembly passed and signed into law a bill that requires the CTA to make annual contributions to the pension fund beginning on January 1, 2009. The minimum contribution to the retirement plan made by the CTA for fiscal years 2009 through 2058 shall be an amount determined jointly by the CTA and the trustee of the retirement system to be sufficient to bring the total assets of the

retirement system up to 90% of its total actuarial liabilities by the end of fiscal year 2058. It is estimated that an annual payment of nearly \$160 million will be required by the CTA, starting in 2009, to fulfill pension and retiree healthcare obligations.

**SYSTEM AT RISK**

The progress of the past 16 years of improving system conditions and today’s level of service are at risk because of funding issues. Federal authorization (Transportation Equity Act for the 21st Century or TEA-21) and the Illinois Fund for Infrastructure, Roads, Schools and Transit (FIRST) enabled the system to make considerable progress in recent

**System deterioration has a spiraling effect that can be even more costly to reverse once it begins.**

years in improving the existing infrastructure and expanding service. However, numerous unfunded capital needs have been identified for bus, rail car and locomotive replacements and overhauls; bus garage, rail yard and shop replacements and upgrades; rail system structure/bridge rehabilitations/replacements; signal upgrades; and passenger facility and station upgrades. The lack



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of funding to meet these needs is a real and immediate threat to current transit service. If more funding is not provided, the region will be faced with shrinking the system or letting it deteriorate. Current operating funds are insufficient to continue present service this year.

Even with the aid of TEA-21 and Illinois FIRST legislation, there continues to be a cumulative, systemwide shortfall of capital to maintain and bring our existing system infrastructure to a state of good repair, and to service expanding market needs. Capital funding shortfalls will take longer to impact system conditions, but they need to be dealt with now.

A decrease in available capital funds, combined with a potentially large operating shortfall in the next 5 years, will most likely lead to large unfunded needs that will cause less reliable service and, ultimately, service reductions. And that, in turn, will result in a decrease in ridership.

A primary goal of the capital program is to assist the Service Boards in keeping their assets at a state of good repair. However, the capital program must be balanced and responsive to a changing customer base in a growing region by planning and investing in service enhancements and system expansion. The 2007-2011 capital program provides funding for both existing assets and planning new service, but it does not address significant unmet needs.

## **CONCLUSION**

The key transit issues discussed above — congestion and mobility, travel market needs, service coordination and integration, funding issues, the threat of system deterioration, and the operating budget situation — are not without potential solutions, but such solutions can best be developed with a clear focus and an overarching vision for how to approach the problems. These issues make it clear that the current value of the public transportation investment must be protected to meet the needs of the traveling public, and that regional growth will require that the system continue to expand while sustaining service quality. That will require increased levels of capital investment and an increased commitment of operating funds if the strategic vision and goals are to be achieved.

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## 3.0 MOVING BEYOND CONGESTION

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*Moving Beyond Congestion* includes a capital program to modernize and expand the transit network and an operating component to address budget shortfalls and provide funding to increase service levels. It is estimated that this vision and strategy will require a \$57 billion (in 2006 dollars) capital investment over the next 30 years to maintain, enhance and expand the region's transit system. Approximately \$19 billion in federal capital funding are anticipated to be available during that time, which leaves an unfunded capital investment of \$38 billion. Additional operating funding averaging \$400 million per year in current dollars will be required to address sharp increases in fuel, security, health insurance, claims and ADA paratransit costs, and to operate the enhanced and expanded system.

To date, almost 400 Partners for Transit, including municipalities, counties, labor organizations, chambers of commerce, civic organizations, service providers, and educational institutions have joined the RTA, CTA, Metra and Pace to help achieve this 30-year vision and strategy for Northeastern Illinois.

Transit projects to meet the 30-year vision are included in the 30-Year Project List Appendix. The 30-year project list released on November 9, 2006 presents a broad vision and is the foundation of the five-year program laid out below.

### 5-YEAR MOVING BEYOND CONGESTION PROGRAM

The RTA, in conjunction with Metra, Pace and the CTA, launched *Moving Beyond Congestion* in July 2006 to address the future of our region's transit network. The proposal includes both capital and operating needs.

#### *Operating Program*

In addition to the capital investments required to upgrade the region's transit system to a state of good repair and expand to meet growing demand, there are immediate operating funding investments that are needed to sustain day-to-day service. In 2007, CTA, Metra and Pace do not have enough operating resources to maintain existing service, let alone enhance or expand transit. RTA's approved 2007 operating budget indicates that an estimated \$226 million in "New Transit Funding" (\$143 million for mainline service and \$82 million for paratransit) is required to avoid service reductions.

CTA, Metra and Pace currently provide 2 million trips on an average weekday. With growing traffic congestion, it would be counterproductive if current transit riders were forced to drive because buses and trains come less often or if routes have been discontinued. The federal government will also be less inclined to fund major capital projects outlined in the 5-Year Capital Program if operating funding is not sufficient to support existing transit services.

RTA's five year operating program includes an annual average of \$300 million in new funding to maintain, expand and enhance service as well as \$100 million for paratransit services. This funding level is contingent upon legislative changes that restructure and/or

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reduce CTA retiree cash flows by an estimated \$64 million in 2008, \$159 million in 2009, \$166 million in 2010, and \$173 million in 2011.

With the additional operating funding,

- The top priority will be to provide each service board with enough funding to maintain existing service, consistent with the "New Transit Funding" amounts in the 2007 RTA Budget.
- The next priority will be to fund operations of system enhancements. Examples of enhancements, which were outlined earlier under the 5-Year Capital program, include more off-peak and weekend service, reduced crowding and improved seat availability, more reverse commuting options and expanded suburban bus service.
- After enhancements are made, the next priority will be to fund the operations of expansion projects outlined in the 5-Year Capital Program. Since these are largely long-term projects that may not open for many years, large amounts of operating funding are not immediately required but will become necessary as new projects are completed.

### ***Capital Program***

An initial 5-year capital improvement program was developed as the first step to realizing the ***Moving Beyond Congestion*** Vision and Strategy. This 5-year program has three main components:

- **Invest to Maintain** focuses on protecting the existing regional transit services and keeping this system operating in good repair, so that current service levels are maintained, buses and trains run on time and do not break down, and stations and facilities are well-maintained and safe, including the costs of replacing vehicles and other parts of the system that wear out over time.
- **Invest to Enhance** focuses on improvements to the existing system, including additional bus routes and other bus, rail, and paratransit services that make the transit system more efficient, more responsive and more user-friendly; associated capital investments including rolling stock and other relatively lower-cost facility improvements, such as reserved bus lanes on arterial roadways, new technologies, projects to make transfers between bus and rail, and among the CTA, Metra, and Pace components of the regional system, easier.
- **Invest to Expand** focuses on major new capital investments of regional impact, benefit and significance, such as those associated with Federal Transit Administration "New Starts"-type projects, including upgrades and expansions of the rail network and Bus Rapid Transit.

The 5-year capital program requires a total investment of \$16.1 billion, and that will require the infusion of \$10 billion in additional funds to maintain, enhance, and expand the system from 2007 through 2011.

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### 3.1 INVEST TO MAINTAIN

The region's first investment priority must be the Invest to Maintain component, which addresses the region's need to maintain and modernize the RTA's \$27 billion transit network. Significant capital investment is necessary to keep Northeastern Illinois' transit system in a state of good repair. The total capital needed in the region to maintain the transit system over the next 5 years is \$10.3 billion. The breakdown of this capital requirement by operator is as follows:

<b>Operator</b>	<b>Capital Need</b>
CTA	\$6.3 billion
Metra	\$3.7 billion
Pace	\$0.3 billion

#### *Rolling Stock*

The RTA system has more than 6,100 vehicles available for service. The CTA rolling stock includes 2,106 buses and 1,172 active rail cars; Metra has 1,156 available vehicles (821 bi-level commuter cars, 144 locomotives, and 191 powered electric cars); and Pace has 680 buses, 364 paratransit vehicles, and 670 vanpool vehicles.

A typical service life is 12 years for buses and 25 years for rail cars. Therefore, there is an ongoing need to replace and rehabilitate vehicles in order to provide reliable and safe service. While CTA is receiving 265 "New Flyer" low-floor buses, there remain 652 buses that are older than 12 years. There are 322 CTA railcars older than 25 years; 592 railcars are 20 to 25 years old. In May 2006, the CTA Board approved a contract to purchase 406 new rail cars, but the need for additional replacement railcars still exists.

Metra recently received 26 individually powered Highliner electric railcars to replace cars in service for 35 years, and received the last of 300 new coaches/cab cars purchased with Illinois FIRST funding. Metra still needs to replace the rest of its Highliner cars, and continue its remanufacturing/rehabilitation programs for its locomotives and cars. The new Highliner cars are replacing carbon-steel Highliner cars, now reaching the end of their useful life. They feature stainless-steel construction and state-of-the art propulsion, restrooms, larger windows, better seats, brighter lighting, reversible seatbacks for more flexible seating arrangements, non-skid floors and an improved public address system.

Pace has 119 buses that are beyond their expected 12-year service life, in addition to its vanpool and paratransit vehicle replacement needs (these vehicles typically have a 4- to 7-year service life), and its ongoing vehicle rehabilitation programs.

Over the next 5 years, the total capital needed in the region to maintain the rolling stock is \$2.9 billion. The breakdown of this capital requirement by operator is as follows:

#### **CTA**

CTA needs to invest \$1.4 billion in maintaining its rolling stock in both its bus and rail projects over the next 5 years, of which it has \$854.0 million in its current funded program. CTA's 5-year MBC capital program for maintaining rolling stock includes:

<b>Bus</b>	
Bus Maintenance Activities	\$25.4 million
Perform Mid-Life Bus Overhaul	\$195.0 million
Replace Buses	\$141.0 million
<b>Rail</b>	
Perform Rail Car Overhaul & Mid-life Rehabilitation	\$237.7 million
Rail Car Maintenance	\$29.8 million
Purchase Rail Cars	\$319.1 million
Rail Car Overhaul	\$454.2 million

### **Metra**

Metra needs to invest \$1.3 billion in maintaining its rolling stock over the next 5 years, of which it has \$188.3 million in the current funded program. Metra's 5-year MBC capital program for maintaining rolling stock includes:

New Locomotives	\$263.7 million
Locomotive Rehabilitation	\$57.2 million
New Bi-Level Cars	\$208.8 million
Highliner Car Replacement	\$578.4 million
Life Extension & Mid-Life Car Rehabilitation	\$123.5 million
Miscellaneous Rolling Stock Activities	\$76.8 million

### **Pace**

Pace's capital needs in maintaining its rolling stock over the next 5 years is \$156.7 million, \$103.2 of which Pace already has in the existing funded program. The 5-year MBC capital plan includes the following:

<b>Pace</b>	
Fixed Route Buses Replacement	\$71.8 million
Vanpool Equipment Replacement	\$24.3 million
Paratransit Vehicles Replacement Sub Dial-A-Ride	\$11.5 million
Oak Park Earmark Vehicles	\$0.6 million
Associated Capital	\$7.0 million
Bus Overhaul	\$5.0 million
<b>Regional ADA</b>	
Paratransit Vehicles for Suburban ADA (144)	\$12.3 million
Paratransit Vehicles for Chicago ADA (125)	\$10.1 million
Minivans for Chicago ADA (250)	\$11.3 million
Sedans for Chicago ADA (125)	\$2.8 million

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## ***Track & Structure***

The rail system operated by CTA and Metra includes nearly 1,500 miles of track and hundreds of structures, such as bridges, elevated structures, viaducts, and retaining walls. The CTA rail system includes 290 miles of track with over 50 miles of track on elevated structures, 24 miles of track in subway tunnels and 115 bridges/viaducts. Much of the system was built around the turn of the 20th Century, with recent reconstruction of portions of the Green Line, the Cermak branch of the Blue Line (now the Pink Line), the Dan Ryan branch of the Red Line, and the ongoing Brown Line expansion project. CTA track and structure needs include structural rehabilitation of the North Mainline (including Red, Purple, and Yellow Lines); upgrade of the subway ventilation and fan systems, as well as ongoing replacement needs for track, ties, ballast, contact rail and footwalk; and rehabilitation of structures (bridges, viaducts, flange angles, retaining walls) and foundations.

Metra has 1,200 miles of track, 800 bridges, and hundreds of signals/switches. The Metra Electric District (MED) has 102 miles of track equipped with an overhead catenary system that distributes 1,500-volt DC traction power. Extensive grade separation was performed throughout the Chicago area around the turn of the 20th Century, with many of these structures in poor condition when Metra assumed operating responsibility (a 1989 study rated 66 bridges in critical condition). As of March 2006, 30 new replacement structures were in service, 9 replacement bridges were under construction, 22 replacement structures were designed but not yet constructed, and 5 replacement bridges had yet to be designed and constructed. Metra's capital track and structure needs include track infrastructure improvements (rail, ties, ballast and surfacing), new pedestrian bridges and bridge rehabilitation, catenary structure rehabilitation, retaining wall rehabilitation, and new grade separations and grade crossing renewals.

Over the next 5 years, the total capital needed in the region to maintain the track and structure of the system is \$2.1 billion. The breakdown of this capital requirement by operator is as follows:

### **CTA**

Over the next 5 years, CTA needs to invest a total of \$1.3 billion in maintaining the track and structure, of which it has \$62.7 million in the current funded program. The MBC capital program covers the following:

Track & Structure	\$27.0 million
Infrastructure Renewal Program	\$35.7 million
Rail Structures	\$740.4 million
Rail Track	\$522.7 million

### **Metra**

Metra needs to invest \$795.1 million in maintaining its track and structure over the next 5 years, of which it has \$ 239.4 million in the currently funded existing program. Metra's 5-year MBC capital program for maintaining track and structure is as follows:

<b>Track</b>	
Rail	\$77.2 million
Ties & Ballast & Surfacing	\$95.6 million
Other Upgrades	\$49.6 million
<b>Structure</b>	
Renew Bridges North Line UPR	\$336.5 million
Other Structures	\$69.1 million
Bridge Construction & Renewal	\$167.1 million

### ***Signals, Electrical, and Communications***

The RTA system encompasses an extensive set of signal, electrical, and communications infrastructure, including signals, automatic block signals, track switches, signal relays, interlockers, substations, supervisory control and data acquisition (SCADA) systems for power supply and network systems, fiber optic cable systems, grade crossing and pedestrian crossing signals, power distribution, radios, and communication systems. CTA and Metra have begun upgrading their early 1950s-vintage wayside block signals to modern cab and communication-based signal equipment.

CTA’s capital needs for signals, electrical, and communications include signal and electrical upgrades of the North Mainline (including Red, Purple, and Yellow Lines) and south branch of the Green Line, Brown Line–Loop Connector signal upgrades, Blue Line (Jefferson Park to O’Hare) signal upgrades, Brown Line and subway substation upgrades, as well as systemwide upgrades of fiber optic and cable systems, radio and antenna systems, communications and control center and back-ups, substation equipment replacement, SCADA upgrades and replacements, subway lighting improvements, and bus and rail station camera systems.

Metra has similar capital needs for signals, electrical, and communications, including interlockers; signal system upgrades, including communications-based train control, switch heater replacements, grade crossing and pedestrian crossing upgrades, SCADA upgrades and replacements, substation upgrades and replacements, catenary wire and transmission wire replacement, fiber optic and cable system replacement, a new train information management system, and communications and control center improvements.

Pace’s capital needs for signals, electrical, and communications include replacement radio systems for its buses and Chicago ADA paratransit systems, new real-time passenger information, and upgrade of rideshare software.

Over the next 5 years, the total capital needed in the region to maintain the electrical, signal and communications system is \$1.4 billion. The breakdown of this capital requirement by operator is as follows:

#### **CTA**

Over the next 5 years, CTA needs to invest \$1.0 billion in maintaining its electrical, signal and communications systems, of which it has \$106.2 million in its current funded program. CTA’s 5-year MBC capital program for maintaining the systems include:



Replace/Upgrade Power Distribution & Signals	\$106.2 million
Traction Power	\$316.0 million
Signals	\$596.0 million

**Metra**

Metra needs to invest a total of \$307.4 million to maintain its signal, electrical and communications systems, of which it has \$183.4 million in the current funded program. Metra’s 5-year MBC capital program for maintaining the systems will account for the following:

Signal Improvements	\$181.0 million
Electrical & Power Upgrades	\$65.8 million
Communications Systems Upgrades	\$60.7 million
New Substations	\$59.3 million

**Pace**

Over the next 5 years, Pace needs to invest \$19.9 million in maintaining the electrical/signals and communications systems. Pace currently has \$18.1 million in the existing funded program. The breakdown of the use of capital in the MBC 5 year program is as follows:

<b>Pace</b>	
Systemwide Radio System Replacement	\$18.1 million
Rideshare Software Upgrade	\$0.3 million
<b>Regional ADA</b>	
Purchase Radio System-Chicago ADA	\$1.5 million

***Support Facilities & Equipment***

Some of the RTA system support facilities were built around the turn of the 20th Century. The CTA operates its bus service out of eight bus garages, plus the South Shops overhaul facility. The Archer and 77th Street garages were adapted from streetcar barns built around 1908, and the North Park and Forest Glen garages were built in 1950 and 1955, respectively. On the rail side, CTA has ten rail terminals and yards, plus the Skokie Shop overhaul facility and the 61st Street non-revenue maintenance facility (built in the early 1890s), and the West Shops (built in the early 1900s). Other facilities and equipment in this asset category include bus turnaround facilities, automated fare collection (AFC) equipment, passenger counters, and park-and-ride equipment. CTA’s capital needs for support facilities & equipment include replacement of the 77th, Forest Glen, and Archer bus garages; replacement of the West Shops; capacity expansion of the 98th Street Shop; AFC equipment upgrades and replacements; bus turnaround improvements and rehabilitation; and non-vehicular equipment replacement.

Metra has 25 shops, yards and overhaul facilities. The Richton Park facility on the Metra Electric District (MED) and Barrington, Harvard and West Chicago on the Union Pacific lines (UP) have not had either a complete or a partial reconstruction since the inception of

the agency. The capital needs for Metra for support facilities and equipment include the replacement of the A2 California Avenue M19A (Union Pacific Railroad) and 47th Street (Rock Island District) yards and shops; a new Peotone Yard (MED); the rebuilding of Weldon Yards (MED); Joliet Yard (Rock Island District) improvements; other yard, shop, crew facility, fueling facility, and HVAC improvements; as well as the replacement of computer and office equipment.

Pace owns 11 bus garages and one administrative headquarters, and operates out of two municipal garages. Pace’s capital needs for support facilities & equipment include the replacement of systemwide fare collection equipment, improvements to garages, replacement of office and computer equipment, maintenance/support equipment, mobile data terminals and an upgrade to the scheduling dispatching system for the Chicago ADA paratransit service.

Over the next 5 years, the total capital needed in the region to maintain the support facilities and equipment is \$1.8 billion. The breakdown of this capital requirement by operator is as follows:

**CTA**

CTA needs to invest \$753.6 million in maintaining support facilities and equipment of which it has \$108.9 million in its current funded program. CTA’s 5-year MBC capital program for maintaining the facilities includes:

Improve Facilities — Systemwide	\$108.9 million
Non-revenue Vehicle & Equipment	\$123.4 million
Bus Garages & Center	\$254.5 million
Rail Facilities	\$169.5 million
Bus Turnarounds	\$32.8 million
Automatic Fare Collection Equipment	\$64.5 million

**Metra**

Metra needs to invest a total of \$1.1 billion to maintain its support facilities and equipment, of which it has \$240.0 million in the existing funded program. Metra’s 5-year MBC capital program for maintaining the facilities and equipment will include the following:

Major Yard Rebuilds	\$597.5 million
New MED Yard & Track Extension to Yard	\$266.0 million
Upgrade Yards	\$67.6 million
Other Buildings, Shops & Equipment	\$130.1 million

**Pace**

Pace needs to invest \$111.1 million in maintaining its support systems and equipment over the next 5 years, of which it has \$61.8 million in the current funded program. The 5-year MBC capital program is slated to cover the following:

<b>Pace</b>	
Farebox System Replacement	\$23.0 million
Maintenance/Support Equipment/Vehicles	\$9.0 million
Interactive Voice Response Software	\$1.3 million
Computers/Databases/Computer Systems	\$5.0 million
HPe3000 Computer System Replacement	\$20.0 million
Office Equipment/Furniture/Print Equipment	\$5.0 million
Improvements to Garages/Facilities	\$33.4 million
<b>Regional ADA</b>	
Systemwide Farebox System — Chicago ADA	\$1.5 million
MDT-Chicago ADA	\$1.5 million
Scheduling Dispatch System-Chicago ADA	\$3.4 million
County Dispatch Centers	\$8.0 million

### ***Passenger Facilities***

The RTA system has more than 370 rail stations and thousands of bus stops. The CTA system includes 144 rail stations, several off-street bus facilities, and bus stops on more than 150 bus routes. CTA’s capital needs for passenger facilities include the reconstruction of Red Line subway stations, Loop elevated stations, many North Side Red Line stations, and the Main and Dempster stations on the Purple Line, as well as ongoing replacement of station elevators and escalators.

Metra has 238 stations, of which 200 have park-and-ride access. Metra’s capital needs for passenger facilities include the ongoing reconstruction of major stations, ADA station work, station upgrades, and station parking expansion and rehabilitation.

Pace has 9 passenger transportation and transfer facilities, 8 park-and-ride facilities, 18 boarding and turnaround facilities, and bus stops for its 242 bus routes. Pace’s capital needs for passenger facilities include passenger and transportation center upgrades, shelters/signs/passenger amenities, and ADA stop upgrades.

#### **CTA**

CTA needs to invest \$880.7 million in a variety of station projects to keep the transit system in good repair over the next 5 years. Currently, CTA has \$134 million in the existing funded program. Its 5-year MBC capital program includes:

Reconstruct Rail Stations Howard, Wilson & Washington	\$133.9 million
Reconstruct/Replace Stations	\$746.8 million

#### **Metra**

Metra needs to invest a total of \$130.9 million to maintain its stations and parking facilities, of which it has \$65.1 million in its existing funded program. Metra’s 5-year MBC capital program for maintaining such facilities cover the following items:

Rehabilitate & Upgrade Stations	\$98.4 million
Parking Expansion & Rehabilitation	\$32.6 million

### ***Acquisitions & Extensions***

#### **CTA**

CTA will invest \$219.4 million to complete the expansion of the Brown & Blue/Pink line projects over the next 5 years. CTA has already covered that investment requirement in the current funded program. The breakdown of the capital program is as follows:

Expand Capacity — Brown Line	\$217.8 million
Blue/Pink Line — Cermak Branch	\$1.6 million

### ***Miscellaneous & Systemwide Activities***

A variety of support activities are required to operate the system, including homeland security, administration and engineering, project and program management, and training facilities. The needed funding, broken down by operating agency, is as follows:

CTA	\$721.5 million
Metra	\$121.8 million
Pace	\$4.5 million

#### **Metra**

Metra needs to invest \$121.8 million in maintaining its support activities, of which it has \$117.1 million in the current funded program.

#### **Pace**

Pace needs \$4.5 million over the next 5 years for capital program administration, of which it has only \$1.2 million currently funded.

#### **CTA**

CTA needs to invest \$721.5 million in a variety of miscellaneous systemwide projects to keep the transit system in good repair over the next 5 years and provide for debt service. Currently, CTA has \$385 million in the existing funded program. Its 5-year MBC capital program for miscellaneous activities includes:

Data & Control Infrastructure	\$105.7 million
Security & Communications	\$230.7 million
Bond Repayment & Interest	\$385.1 million

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## 3.2 INVEST TO ENHANCE

The Invest to Enhance component of *Moving Beyond Congestion* comprises capital and operating improvements to make the current transit system more reliable, responsive to user needs, and better prepared to serve existing and new transit markets.

The total capital needed in the region to enhance the transit system over the next 5 years is \$1.1 billion. These projects are not included in the current funded program. The breakdown of this capital requirement by operator is as follows:

<b>Operator</b>	<b>Capital Need</b>
CTA	\$328.9 million
Metra	\$405.6 million
Pace	\$348.4 million

### *Rolling Stock*

#### **CTA**

CTA needs to invest \$178.9 million for rolling stock to enhance services over the next 5 years. The breakdown of this investment is as follows:

Purchase Buses	\$56.7 million
Purchase Rail Cars	\$122.2 million

#### **Metra**

Metra needs to invest \$69.6 million for rolling stock to enhance service over the next 5 years. Metra's 5-year capital program for increasing rolling stock includes:

New Bi-level Cars for Ridership Growth	\$53.6 million
New Locomotives for Ridership Growth	\$16.0 million

#### **Pace**

Over the next 5 years, Pace needs to invest \$105.2 million to acquire rolling stock for service enhancements. The 5-year MBC capital program includes the following:

Arterial Rapid Transit Vehicles Expansion (70)	\$38.5 million
Express Bus Network Vehicles Enhancement (40)	\$16.0 million
Fixed Route Buses Enhancement (20)	\$7.4 million
Fixed Route Buses Expansion	\$11.7 million
Vanpool/Community Circulator Vehicle Enhancement (496)	\$24.8 million
Paratransit Vehicles Expansion Sub Dial-A-Ride (85)	\$6.8 million

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## ***Support Facilities & Equipment***

### **CTA**

Over the next 5 years, CTA needs to invest \$150 million in the enhancement of the support facilities and equipment of the current transit system. This capital will go towards the development of bus garages and the Training Center.

### **Pace**

Pace needs to invest \$137.5 million in enhancing its support facilities and equipment over the next 5 years. This 5-year capital program includes:

Expansion of Facilities-existing system	\$36.6 million
Bus on Shoulder Lanes Enhancement	\$8.0 million
Queue Jump Lanes	\$2.9 million
ART Core Expansion	\$90.0 million

## ***Track & Structure***

### **Metra**

To enhance its track and structure, Metra needs to invest a total of \$276.6 million over the next 5 years. Metra's 5-year capital program for enhancing track and structure includes:

Crossover, Track & Signal Upgrades	\$35.0 million
Various Line Upgrades	\$144.7 million
Grade Separations	\$77.0 million
CREATE Program	\$20.0 million

## ***Signal, Electrical & Communications***

### **Metra**

Over the next 5 years, Metra needs to invest \$59.3 million on signal, electrical and communications systems. This investment covers the Metra Electric District augmentation efforts — the development of new substations.

### **Pace**

Pace needs to invest \$29.8 million for the enhancement of its electrical, signals and communications systems over the next 5 years. These investments will deploy signal priority treatments in multiple corridors. This investment will include the following:

Grand Avenue Transit Signal Priority	\$0.3 million
Lincoln Highway Transit Signal Priority	\$0.5 million
Roosevelt Road Transit Signal Priority	\$0.3 million
Cermak Road Transit Signal Priority	\$1.1 million
Rand Road Transit Signal Priority	\$0.5 million
Cicero Avenue Transit Signal Priority	\$0.6 million
South Suburban Transit Signal Priority	\$1.1 million

Golf Road Signal Priority	\$0.4 million
Systemwide Signal Priority*	\$17.0 million
Real-Time Passenger Information	\$8.0 million

\*Includes Phase I of "J-Line"

## ***Passenger Facilities***

### **Pace**

Over the next 5 years, Pace needs to invest \$75.9 million for enhanced passenger facilities. This capital investment will cover the following activities:

Park and Ride Locations Enhancements	\$17.0 million
Transit Center Expansion	\$14.0 million
Community Transit Center Expansion	\$10.0 million
ADA Waiting Area Enhancements	\$16.6 million
Passenger Shelter Enhancements	\$3.3 million
Pedestrian Improvement Expansion	\$15.0 million

## ***Service Enhancements***

### **More Off-Peak and Weekend Service**

Off-peak ridership has grown by 1.8% on CTA bus (3.3 million annual rides) and 11.5% on CTA rail (11.6 million annual rides) between 2004 and 2006. While system-wide peak ridership on CTA has generally remained stable over the past decade, off-peak ridership over the same period has accounted for 96% of CTA ridership growth. Metra has experienced increased off-peak ridership, with an increase of 6.6% for weekday off-peak periods between 2004 and 2005. Overall Pace weekday bus ridership grew 7.8% between 2004 and 2005. Public and Partner for Transit comments have been received regarding the increasing need for more frequent bus and train service and longer hours of bus service.

Based on the Situation Analysis, CTA, Metra, and Pace show strong growth in weekend ridership. Between 2004 and 2005, CTA bus routes exhibited 2% Saturday and 5% Sunday bus ridership growth. CTA Saturday rapid transit service ridership increased 7% and Sunday ridership increased 11%; Metra exhibited ridership growth of 4.4% Saturday and 12.5% Sunday; and Pace had 5.9% ridership growth on Saturdays and 12.6% on Sundays. Public and Partner comments have been received regarding the need for additional weekend service. Service Boards will develop concepts for additional service where opportunities exist.

### **Faster and More Reliable Service**

Based on the Situation Analysis, service speed and reliability issues continue to be significant. Between first quarter 2005 and first quarter 2006, CTA rail showed a 15% increase in the number of trips with a delay of more than 10 minutes, and an increase in the percentage of track under rail slow zones from 8% to 17.9%. CTA bus on-time departures improved slightly to 77%, but traffic congestion continues to slow average bus speeds to 10 mph on average. Metra has continued to exhibit excellent on-time performance (over 96%), but freight railroad conflicts are causing periodic delays. Metra average speeds have declined approximately 1.1 mph between 2001 and 2004. Pace bus



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on-time performance was 72%, but cannot be compared to previous years due to the implementation of its Intelligent Bus System (IBS), which provides more accurate real-time data. However, average Pace bus speeds on many routes have declined to an average of approximately 14 mph since 2002 due to increased traffic congestion. Several Public and Partner comments have been received regarding the need for faster and more reliable service. Transit enhancements that can contribute to faster and more reliable service include bus signal priority at traffic signals; exclusive bus facilities, such as queue jumps and lanes; railroad-highway grade separations; and improved operations to avoid bunching of vehicles.

We must continue to work with our railroad partners on the Chicago Region Environmental and Transportation Efficiency (CREATE) program, that has identified a number of improvements designed to reduce delay and its negative impacts and improve safety, on both rail and road networks. Chicago is the nation's busiest rail gateway. The region accounts for one-third of the nation's freight rail traffic, with 1,200 trains each day passing through the region. Freight traffic is forecasted over the next 20 years to nearly double from what it is today. Improvements in the region's rail infrastructure must be addressed to accommodate this growth in rail freight traffic.

The federal surface transportation bill, SAFETEA-LU, included an earmark of \$100 million for the CREATE program, with additional funding being provided by the other partners. However, to fully implement the program, additional funding is needed. The Moving Beyond Congestion program includes funding for some of these projects that will reduce passenger and freight rail conflicts. Metra's proposed projects includes funding for grade separations and their share of the CREATE Program.

### **Reduced Crowding and Improved Seat Availability**

Public and Partner comments have been received regarding the need to reduce crowding and improve seat availability, particularly on CTA. The most recent tabulation of CTA bus loadings and maximum load points at the time of analysis was for Winter 2003-04. CTA's service standards set a maximum scheduled passenger load of 60 passengers per standard bus (93 passengers per articulated bus). There were eight routes that reported AM or PM peak-period loads per bus in excess of 60 passengers (of these routes, five may have some portion of their service provided by articulated buses). Another 22 routes reported peak-period passenger loads (either AM or PM) between 50 and 59 passengers, very close to the maximum load standard. As overall CTA bus ridership and service levels in these corridors have remained relatively stable since this analysis was performed, it may be assumed that overall opportunities for increased peak CTA bus service continue. More frequent service and/or the use of more articulated buses can reduce crowding and improve seat availability. However, CTA's eight existing bus garages are currently operating near or slightly over their design capacities. In order to effectively accommodate the additional fleet that would be needed to increase peak CTA bus service, CTA would first need to build a ninth bus garage.

For CTA rail, the maximum passenger load standard is 90 passengers per car (or a load factor of approximately 2.0). Based on Spring 2002 ridership data (the most recent available at the time of this analysis), AM peak load factors on the Red and Brown Lines were 1.73 and 1.96, respectively. Other high load factors in the AM peak included the Blue-O'Hare Branch at 1.56 and the Purple Line Express at 1.53. Substantial rail ridership

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growth on these routes since 2002 has only increased the need for additional capacity. One major initiative to address crowding is the Brown Line Capacity Expansion Project, which will result in a capacity increase of one-third as station platforms are extended to accommodate eight-car trains instead of six-car trains. In the immediate future, the project will require the closing of one out of four tracks between Belmont and Fullerton — ultimately improving service in the long-run while temporarily inconveniencing riders. CTA will look for additional similar opportunities to provide more service and reduced crowding.

### **Expanded Suburban Bus Service**

The growing suburban market has created demand for transit service connecting suburban and city of Chicago residents with widely distributed suburban employers and activity centers. Expanded suburban and inter-community bus service was a recurring theme of Public and Partner comments. The Situation Analysis also documented existing and expected future year-2030 service coverage deficiencies for Pace based on its service standards for population and employment density. Pace has also undertaken a series of regional route restructuring studies to better rationalize where and when service is provided and to better address travel market needs. However, due to funding constraints, Pace has not been able to make any significant net additions to overall service levels. Funding new service enhancements will permit implementation and allow a full complement of bus services to be tailored to meet demand throughout the region.

### **New Paratransit and Dial-a-Ride Services**

The Situation Analysis documented a 22.3% increase in the senior population in the Chicago region between 1980 and 2005, and an expected doubling of the senior population nationally by 2050, with the most dramatic growth between 2010 and 2030 as the “baby boom” generation enters their older years. The RTA Regional Paratransit Plan for Persons with Disabilities forecasts an average growth in ADA paratransit ridership of 9% per year based on historical trends for the Pace ADA service area since 2002. Pace is proposing to add regionwide basic mobility services to seniors and those with limited mobility. For the CTA ADA service area, an average growth of 10% per year in ADA paratransit ridership was forecasted, based on historical growth of 15.4% per year since 2002. These growth projections — along with Public and Partner comments regarding the need to meet the needs of the transit-dependent — support the continued expansion of these services beyond minimum ADA levels for seniors and persons with disabilities.

Additionally, efficiencies could be created with coordinating services at the county level, with programs such as Ride DuPage and other similar concepts being developed by Kane and Lake Counties. Better coordination of the many services, centralized dispatch facilities (with Pace’s assistance), and possible shared/coordinated funding efforts could improve coordination and break down current operating barriers.

### **Expanded Vanpool and Ridesharing**

The Situation Analysis documented the rapid growth in population of the collar counties, led by Will and Kane counties. Much of this growth occurred in lower density developments that are difficult to serve with traditional fixed-route transit services. Consequently, there is a growing need for flexible transit services, such as vanpools, dial-a-ride, and ridesharing. The RTA Regional Transit Coordination Plan Service Coordination Study found that major regional activity centers outside of the Chicago Central Area were

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not well served by transit. Since many of these suburban activity and job centers — such as the Northwest Corridor, the I-88 Corridor, the Lake-Cook Road Corridor, and the emerging north-south corridor between I-294 and I-355 — draw trips from around the region, these types of flexible services are needed as part of the full family of transit services that address suburban mobility needs.

### **Potential Implementation**

CTA, Metra, and Pace will have to subject these proposed enhancements to their own service standards and service planning process in order to make specific, cost-effective project recommendations for these enhancements. In some cases, such as commuter rail, there may be only limited opportunities for improving service without major capital investments due to infrastructure capacity restraints and freight railroad conflicts. Assuming funding becomes available, the boards of each of these operating agencies must approve the transit enhancement projects.

## ***Better Commuting Options***

### **More Reverse Commute Options**

There is projected growth for the demand for reverse commute travel based on the Chicago Metropolitan Agency for Planning travel simulations. The region's transit systems work well to bring commuters from outlying areas into the center of the City of Chicago, the region's primary business district and job hub, during the morning and evening rush. However, with the increased development of suburban employment centers during the past decades, each of the three Service Boards have taken some steps to improve reverse-commute options and, should funding become available, are prepared to continue serving the needs of these non-traditional markets.

CTA's service is largely bi-directional in nature, which assists in serving reverse-commute trips. In fact, peak-period travel to and from the job-rich O'Hare area on CTA's Blue Line already rivals the peak ridership of some bus and rail routes serving Chicago's traditional central business district. Where track capacity permits, Metra has revised schedules to increase reverse commute services on several commuter rail lines. CTA and Pace have both introduced special bus services targeted to specific employers and institutions and connecting these traffic generators with city and inner-suburban neighborhoods and major transit facilities such as CTA and Metra rail stations. Future service expansion needs will include improved reverse commute service to and from various locations in the city, in suburban Cook County and in the collar counties in order to truly connect the communities of the region consistent with strategic goals.

There are numerous challenges associated with reverse commute service. Development is less dense in the outlying areas than in the central business district. Therefore, transit is less efficient. In many cases it is necessary to add new bus service in outlying areas at additional cost to operating the reverse rail service. Other challenges are related to capacity constraints on the existing transit systems. Particularly with commuter rail, it is not a simple matter to insert reverse commute service into existing schedules without adversely impacting existing inbound service or service on the freight railways with which Metra often shares tracks.

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Since demand is not as concentrated on these services, the cost per trip may be significantly higher than with traditional commutes if the same vehicles are used. However this is a growing market and a range of creative solutions, including rail and bus, should be explored.

The more  
"obstacles," the  
more often  
travelers opt for  
the automobile  
over transit.

It is difficult for transit to compete with the automobile for these trips, given the perception of the "seamless" nature of the automobile trip, and ample free parking at reverse commute destinations.

RTA and the Service Boards propose the following solutions to these challenges:

- **Feeder Buses and Employee Shuttles Connecting with Commuter Rail.** Feeder bus service at commuter rail stations could be coordinated with existing bus service providers or could be a stand-alone service, and it could be operated by non-RTA systems or by the private sector. A successful feeder-bus system will coordinate with the commuter rail schedule; it will have buses waiting when passengers arrive at the station and bring passengers back to the station minutes before a scheduled departure. Lake-Cook TMA has successfully created several such routes. This model could be replicated with strong support from businesses. Another option for feeder buses is to encourage large employers to provide shuttles to and from the train station. The RTA and its Service Boards can demonstrate the numerous benefits that such a system could provide to large, suburban corporations, such as expanding the workforce pool, reducing the cost of parking, delivering workers on-time, and furthering environmental protection by reducing car trips. Several suburban corporations use shuttles to retain their staff and attract a larger labor pool. Pace already has vanpool infrastructure in place to support employer shuttles or a shuttle by a group of employees. A formal feeder bus system has the advantage of not requiring employees to take the same train to and from work on the same schedule and allows the bus to serve several neighboring employers.
- **Express Buses.** Express buses generally use the highway system to quickly connect centers of residence and employment and have a limited number of stops at each end of the route. The routes proposed by Pace would have better vehicles with more amenities. These buses charge a premium above standard bus fares to compensate for the higher per-trip cost of the service.
- **Ridesharing/Demand-Responsive Service.** Since the demand for reverse commute trips is relatively low, this market may be better served with smaller buses, coordinated ridesharing or vanpooling. Pace currently serves this market through its vanpool program. However, this program requires that employees share a similar schedule, which is not conducive to many work environments. Guaranteed Ride Home Programs, like the one operated by Pace and applying to emergency situations, are an essential effort to serve the reverse commute transportation market by convincing users that car access is not essential even for unexpected changes in commute routines.
- **More Suburb-to-Suburb Commute Options.** As documented in the Situation Analysis, between 2000 and 2005 the collar counties grew in population by almost

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13%, adding 345,000 residents, and by 7%, or 110,000, in jobs. The collar counties also have five of the ten most populous municipalities in the state (Aurora, Naperville, Joliet, Elgin, and Waukegan), each with over 80,000. These satellite cities and major suburban employment centers (including the I-90 Northwest Corridor, the I-88 Corridor, the Lake-Cook Road Corridor, and the new north-south corridor between I-294 and I-355) need improved transit access. We will explore Bus Rapid Transit (BRT) concepts for shoulders and/or medians on the area's highways.

Pace is proposing a full family of services including fixed-route services, alternative modes such as flexible routes/route deviation, and ride sharing or demand-responsive service. Given the dispersed nature of suburban homes and jobs, a flexible route system may be more cost-effective and better serve potential riders. Metra is planning a Suburban Transit Access Route, or STAR line, between Joliet and O'Hare. This innovative new rail service recognizes that a hub-and-spoke system is not sufficient for all transit needs. Pace's arterial rapid transit network program (PARTNER) aims to connect the region's suburban centers and serve the growing, non-traditional north-south and east-west travel demand. It details a full complement of services, ranging from taxi, vanpools, dial-a-ride and flexible routes to the larger line-haul, fixed-route options and bus rapid transit. CTA's cross-town Circle Line would provide opportunities for new and growing travel markets.

Efforts to bring more transit to the suburbs should be combined with plans to increase transit-oriented development around these stations and stops. By increasing connectivity between suburbs and encouraging development around suburban stations, RTA would further its goal of increasing transit choice. Metra should continue evolving toward more of a multi-market rail system, in addition to providing traditional Loop-bound commuter rail service.

- ***Faster Service and Customer Information.*** The Service Boards have been implementing new technology to improve operations, such as new signal systems for CTA and Metra rail lines to improve throughput and reduce delays. Pilot projects for bus signal priority technology have been conducted by both CTA and Pace, demonstrating reductions in delays at signalized intersections, resulting in faster bus travel times. The Service Boards are also using automated vehicle locator (AVL) systems on their vehicles so they can monitor their location and improve operations. Using the AVL information from its Intelligent Bus System, Pace has implemented its Pace WebWatch Precision Real-Time Bus Monitor system that provides estimated arrival and departure times for bus routes via the internet. The CTA pilot program, CTA Bus Tracker, provides estimated arrival times and location information via the internet for the #20 Madison bus route. A message sign that displays estimated arrivals for the westbound Jefferson stop has been installed at the westbound Madison and Jefferson bus shelter as part of this pilot project. Next train arrival signs were installed at four CTA rapid transit stations as part of a demonstration project. The RTA and Metropolitan Planning Council installed transit kiosks at several locations in the region to provide transit route and activity information as part of a demonstration project. RTA and Pace are also upgrading their transit trip planning, vanpool, and ridesharing software to improve accessibility and customer friendliness. For example, travel information can be

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obtained via web-enabled PDA or phone at [www2.RTAmobile.com](http://www2.RTAmobile.com). Use of these new signal systems, bus signal priority, and real-time customer information systems must be expanded in the region to provide faster and more convenient transit service.

- ***Employer Commute Incentives.*** As of January 1, 2005, federal law allows individuals to set aside up to \$105 in pre-tax earnings each month to pay for transit costs through the RTA/CTA Transit Benefit Program. Pace offers support for employers in developing rideshare programs, employer rideshare coordinator training, promotional assistance and materials, coordination with other transportation service providers, real-time internet accessible carpool and vanpool matching, and carpool public information and promotion. An emergency ride home pilot program for ridesharing and transit users, particularly for suburb-to-suburb and reverse commuters, is also available.
- ***Transit-Oriented Development (TOD).*** As the Northeastern Illinois region continues to expand and develop, it is important to continue to promote TOD so that these new developments can be better served by transit. TOD includes good urban design that provides a pedestrian-friendly environment with convenient access to transit, a mix of land uses, and higher densities or concentrations of development. The RTA, Service Boards, and other organizations such as the Chicago Metropolitan Agency for Planning, the Metropolitan Planning Council, the Campaign for Sensible Growth, and the Urban Land Institute have been active in encouraging and assisting in construction of TOD. It is important to continue to encourage and expand the use of TOD and smart growth principles in the region.

### **Potential Implementation**

CTA, Metra, and Pace will have to subject these proposed enhancements to their own service standards and service planning process in order to make specific cost-effective project recommendations. Assuming funding becomes available, the boards of each of these operating agencies must approve transit enhancements. In some cases, such as commuter rail, there may be only limited opportunities for improving services without major capital investments due to infrastructure capacity restraints and freight railroad conflicts.

### ***Seamless Transit Services Proposed in Initial 5-Year Program***

#### **Customer-Oriented Trip Planning**

The RTA's *TripsWeb* has been active since 2000. Available through a website or phone call, the service helps potential transit users determine what transit route is best for them, based on location, time of travel, accessibility needs, walking distance, and other factors like willingness to transfer. The service provides a number of routing choices and times and calculates fares. Pace provides a slightly different type of route-finding service, using a map to show the different bus options available to a user based upon a location. This service is helpful in that the Pace data is supplemented with visual information on the region's airports, colleges and universities, hospitals, libraries, and retail centers and both CTA and Metra rail services.

Pace also offers a vanpool finder, if a customer is interested in more long-term, specific travel arrangements. Starting with questions on the origin and destination, the service

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checks to see if an existing vanpool is available; if not, the option exists to register and start a vanpool. The user can also reference a map to see where and when existing vanpools travel.

CTA and Pace, through the use of GPS and AVL technology, are able to predict the next arrival or departure time for a bus along a specific route. This is helpful for users familiar enough with the system to know what route and stop they want information on, and should reduce rider uncertainty as to if and when the next bus will arrive.

These services will continue to be implemented and enhanced throughout the 5-year program.

### **Coordinated Fares**

Currently, integrated regional fare media are focused on serving regular riders. Although CTA fare media is used extensively on Pace, Metra's fare structure and fare collection system differ dramatically from that of CTA and Pace. Metra monthly pass holders have integrated fare options but nothing is currently available for occasional transit riders using Metra. CTA's January 2006 fare structure revisions eliminated paper transfers for cash-paying customers (including those from Pace) and the \$1 cash shuttle fare at downtown Metra stations. This reduced fare integration for occasional users of these systems.

### **Improved Pedestrian Intermodal Connections**

The RTA's extensive coordination study resulted in nearly 300 potential interagency transfer sites with a maximum walk distance of one-quarter mile that could benefit transit users. Further analysis narrowed the list to 76 priority sites, with 12 seen as being able to be implemented through the RTA 2003–2007 Capital Program. The 64 remaining sites were suggested to be enhanced in later years.

Standardized costs were estimated for physical improvements, using 2002 dollars, and applied to 75 priority sites. Total costs for improving pedestrian connections — including lighting, signage, platform improvements, and improving walkway conditions — at decision points and for the connections amounted to about \$4.6 million. Additional improvements, such as station reconstruction, will increase the costs, as evidenced by the five concept designs developed during the study. These costs ranged from \$1.7 million for CTA and Pace connections at 95th and Western to \$8.3 million for a new Metra BNSF station at Cicero Avenue.



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### 3.3 INVEST TO EXPAND

An initial set of federally authorized projects that expand the region’s transit system are moving forward. These projects are beginning the required federal New Starts process in order to be eligible for federal funding. They are further described in the 30-Year Project List Appendix.

The total capital needed in the region to expand the transit system over the next 5 years is \$4.7 billion. The breakdown of this capital requirement by operator is as follows:

<b>Operator</b>	<b>Capital Need</b>
CTA	\$655.2 million
Metra	\$4.0 billion
Pace	\$70.0 million

#### **CTA**

Over the next 5 years, CTA will need to invest \$655.2 million in acquisitions and extensions to enhance its existing transit system. This 5-year capital program is an initiation of projects that will continue beyond this 5-year window. CTA’s 5-year capital program will cover the following:

Alternative Analyses	\$14.1 million
Circle Line, Red, Orange & Yellow	\$641.1 million

#### **Metra**

Over the next 5 years, Metra will need to invest \$4.0 billion to expand its existing service network. Metra anticipates programming all of its proposed New Starts projects during the 5-year period. Metra’s 5-year capital program will cover the following:

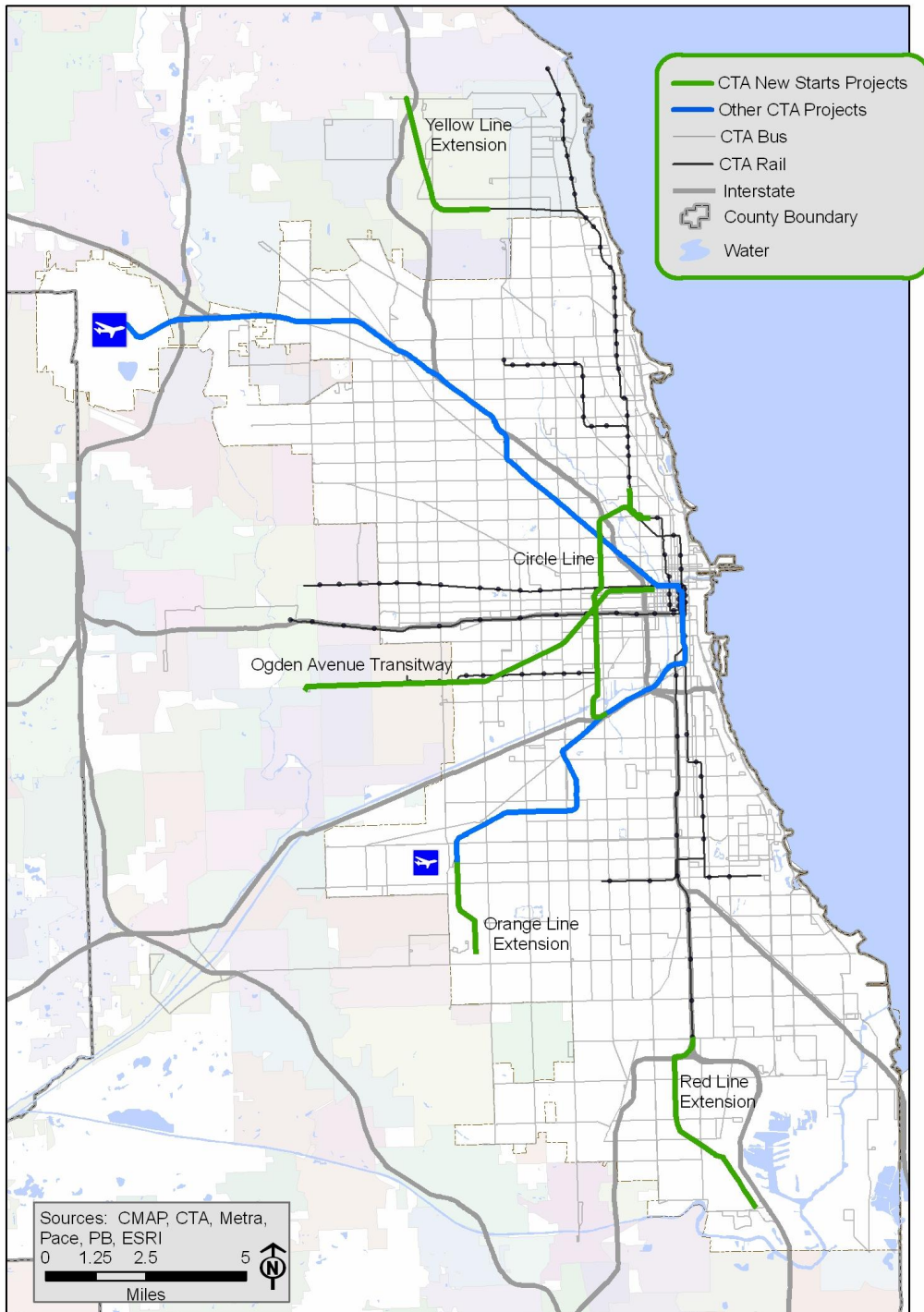
UP West Line	\$595.8 million
UP Northwest Line	\$223.4 million
SouthEast Service	\$940.9 million
STAR Line	\$2.0 billion
Engineering for New Starts Projects	\$226.3 million

#### **Pace**

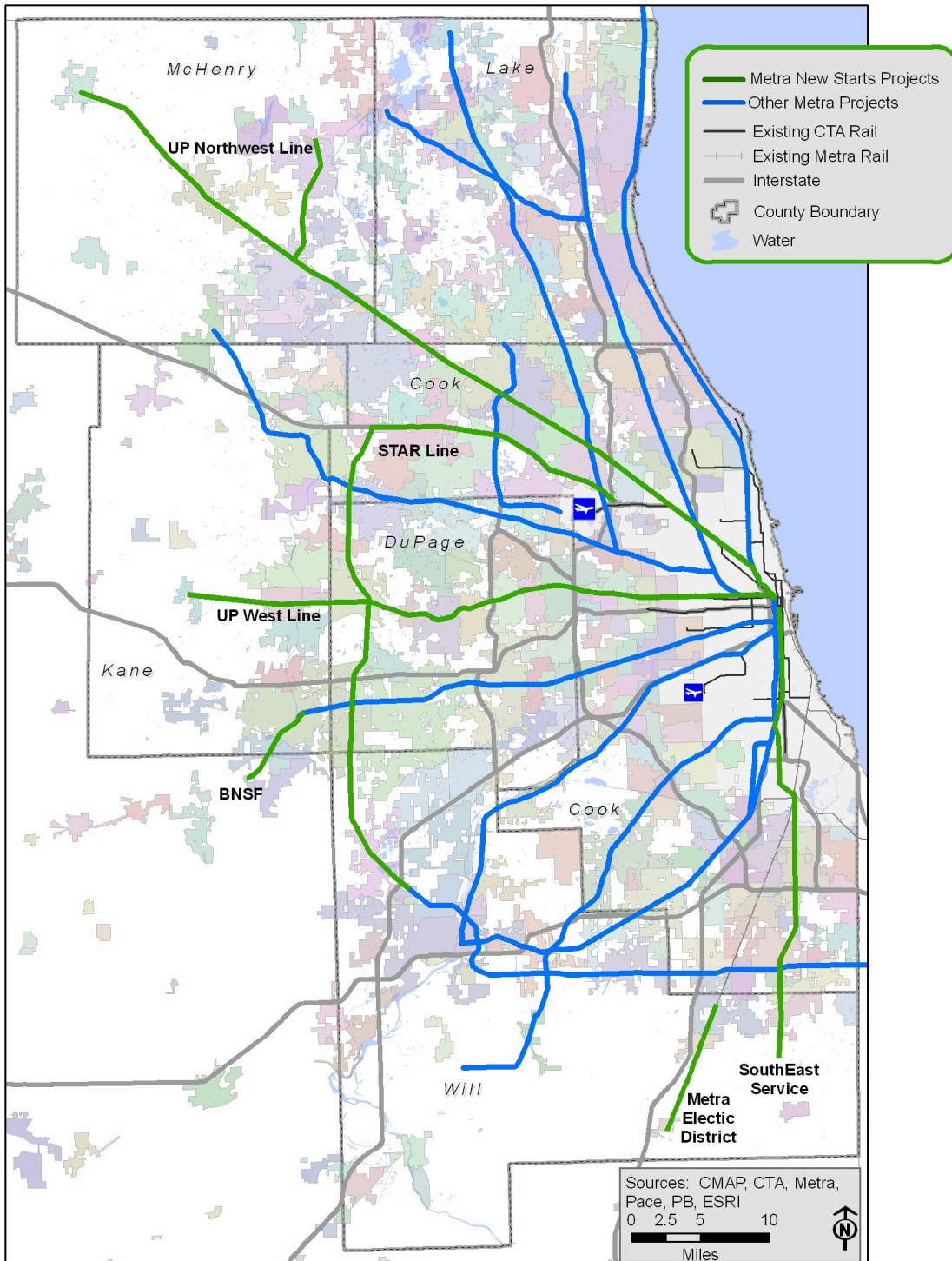
Pace needs to invest \$70 million to expand its support facilities and equipment over the next 5 years. This capital will go towards Arterial Rapid Transit (ART) Core Expansion.

The following maps depict the expansion projects of the next 30 years as proposed by the Service Boards and others:

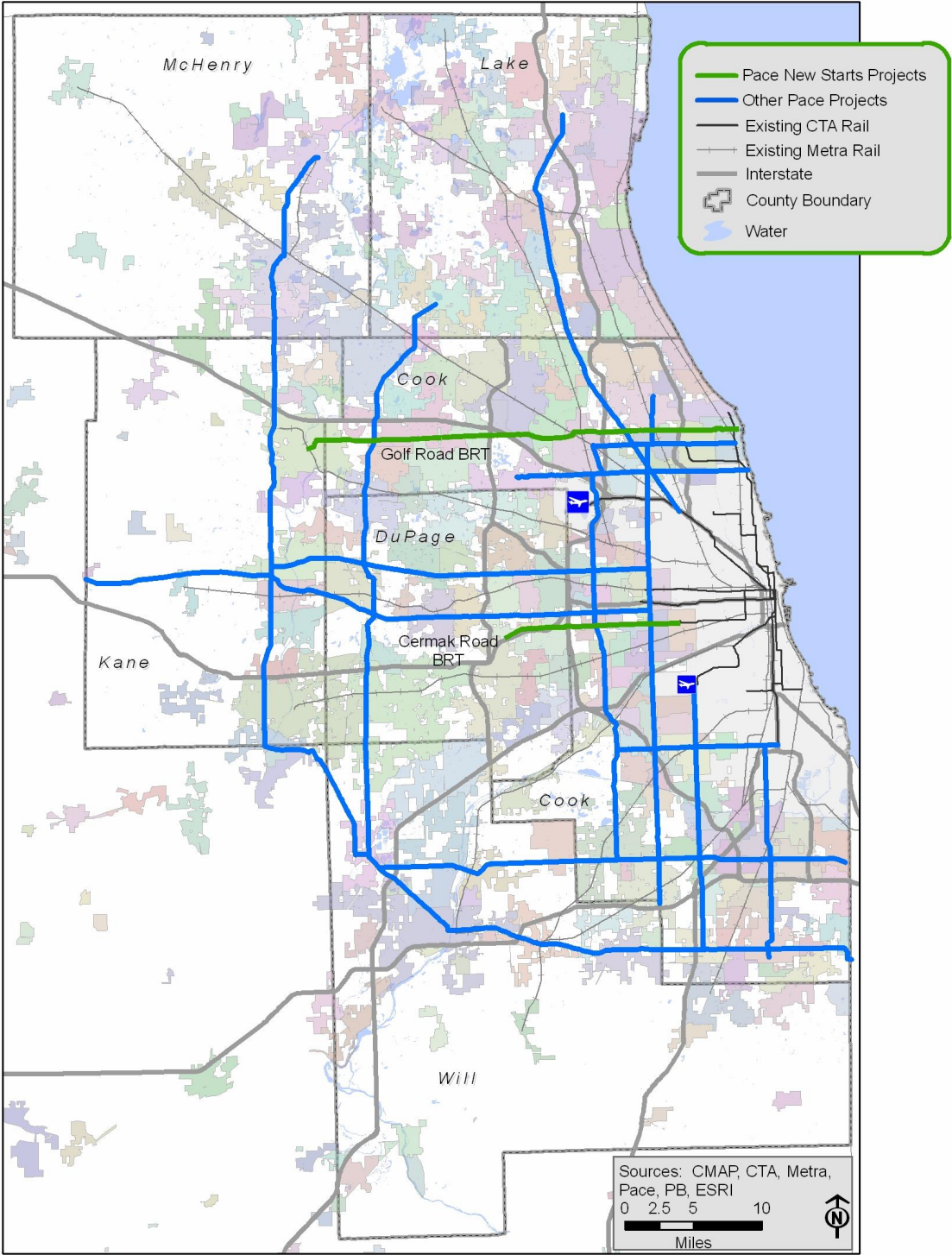
**Figure 6: CTA Proposed Projects**



**Figure 7: Metra Proposed Projects**

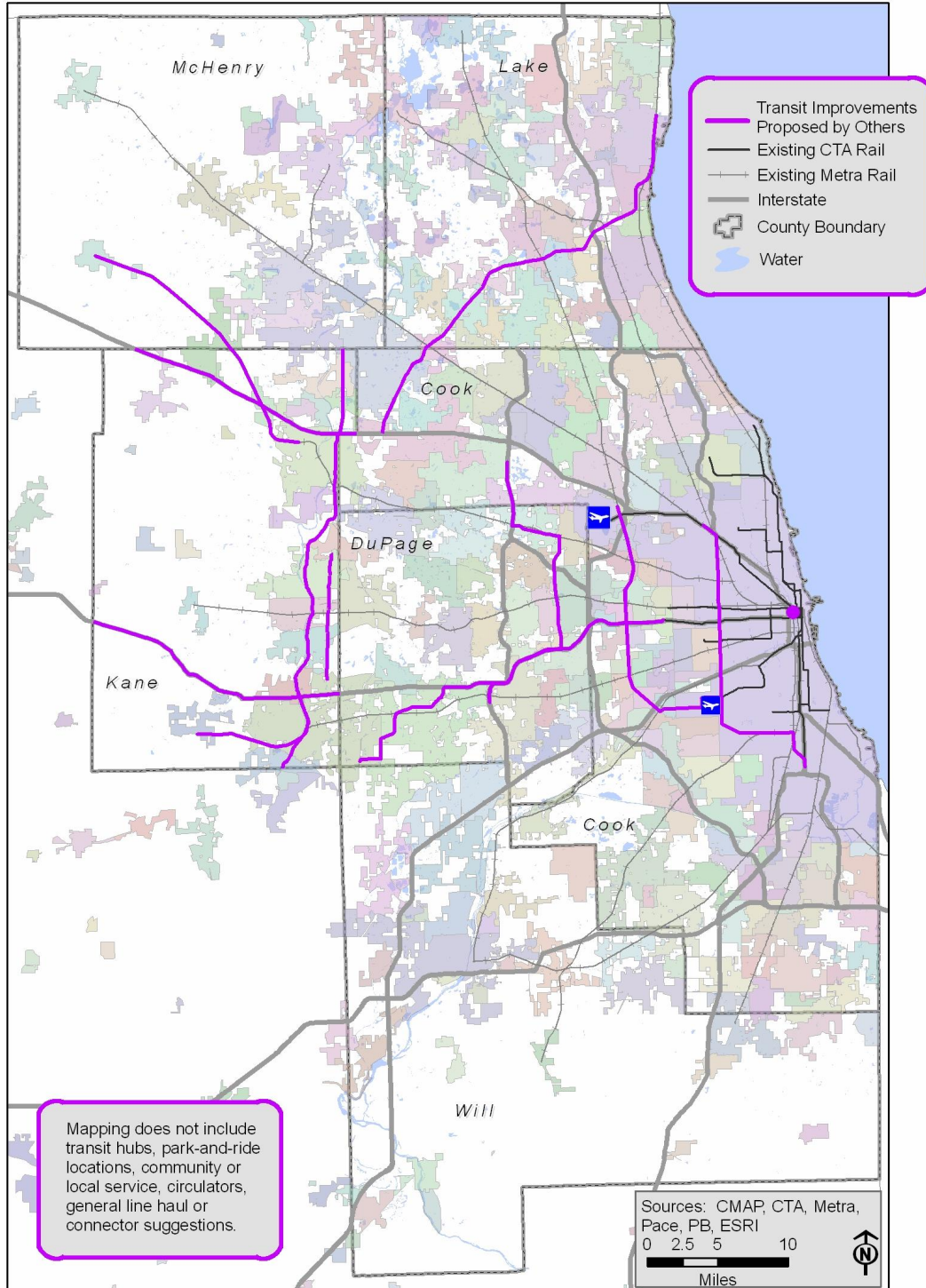


**Figure 8: Pace Proposed Projects**





**Figure 9: Projects Proposed by Others**



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### ***RTA Proposed Evaluation Process***

Ideas, demand and the need for transit far exceed available resources at both the regional and federal level. The Federal Transit Administration uses specific evaluation criteria to prioritize projects so that its funds are committed to those projects with the greatest potential. In the Chicago metropolitan area, the RTA is proposing a similar evaluation process for community identified projects. Transit projects generally need federal funding for implementation, so the RTA's process will serve as a screening tool to make community proposals more competitive throughout the entire development process.

The RTA emphasizes two criteria: land use and cost-effectiveness. Land use assesses the physical environmental conditions for transit operations, along with any steps being taken by land use decision makers to facilitate transit success. Cost-effectiveness is the return that the transit project provides for the investment, similar to a cost-benefit analysis. Benefits are measured as benefits to all transportation users (new and existing as well as non-users), while cost is measured as capital and operational costs. RTA's planned evaluation process will ensure that choices are financially viable and consistent with its strategic regional goals.

### ***Need for Additional Operating Funds***

The Service Boards will face an operating budget shortfall before the end of 2007, leaving few options but to reduce service and raise fares unless additional funding is secured. For several years, the Service Boards have been diverting capital funding to cover operating deficits, an unsustainable practice that has resulted in the delay of critical capital projects. An estimated \$400 million per year is needed to maintain current fixed-route and paratransit service levels and operate the enhancements proposed in the Moving Beyond Congestion 5 year program. One quarter of this, \$100 million per year, is for continued operation of ADA paratransit service.

Another element of wise regional planning and a key way to ensure that scarce infrastructure funds are most effectively used is making investment decisions based on established, regionally adopted criteria, both quantitative and qualitative. RTA's planned Evaluation Process will ensure that choices are financially viable and consistent with RTA's strategic regional goals.

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### 3.4 ADDITIONAL STRATEGIES: NEW IDEAS AND INITIATIVES

Northeastern Illinois is a global center of transportation and commerce. The RTA, CTA, Metra and Pace make up one of the largest and most complex public transit systems in the world. This presents a challenge not only for the region but also for the nation: our transportation system is one of national significance. During the past few decades, we have done a good job of restoring our rail and urban transit systems to a state of good repair within our available means. However, that is not good enough in order for this region to compete in the global economy. The regional transit system must be enhanced and expanded to respond to the changes in local work-trip patterns that have resulted from, and in anticipation of, the growth in jobs and residences in the suburban area. The changes in demographics are also generating demand for non-work trips in low-density areas.

In the late 19th Century, this region was a leader in preparing for the challenges of the industrial age. It must be ready to continue this tradition and achieve further distinction as a national and global leader in transit innovation in response to the challenges of the information age. The RTA and its Service Boards propose to develop and implement policies and strategies to do just that. The ***Moving Beyond Congestion*** program endeavors to make those goals a reality.

The program has three major themes:

1. The transit system must be **people friendly**.
2. The transit system must **serve markets**.
3. The transit system must be supported by **land use and transportation policies**.

#### **People Friendly**

- The system must provide sufficient information for passengers to plan a trip.
- The system must allow passengers to pay for transit using common methods of payment.
- The system must provide en-route information so that passengers can feel comfortable during the trip.

#### **Serving Markets**

- The system must serve the traditional suburb-to-city and intra-urban markets.
- The system must provide travel options for the city-to-suburb market.
- The system must provide travel options for the suburb-to-suburb market.
- The system must provide a minimum level of coverage across the entire region for senior citizens and people with disabilities.



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## **Land Use and Transportation Policies**

- The system must integrate transit investments with local and regional planning processes.
- The system must integrate funding with transit-oriented development (TOD).
- The system must evaluate transit projects of regional significance.

## ***Sub-Regional Planning***

RTA has begun studies on the Cook-DuPage Corridor and the Northwest Corridor. CMAP's 2005 "Common Ground Regional Framework Plan" identifies corridors where connectivity can be improved. By looking at a corridor in a regional context, and not through the lens of a single mode or service board, the RTA can ensure that it invests scarce infrastructure funds wisely. RTA can develop a timeline to evaluate all of the region's corridors in coordination with the Service Boards and CMAP.

The RTA is proposing comprehensive, region-wide planning in partnership with the Service Boards and local entities. This sub-regional effort would coordinate and bring together the many stakeholders in transit planning. Currently, each Service Board, as well as many counties and municipalities, performs similar work independently of each other. This collaborative effort will provide a forum for coordinating and consolidating sub-regional planning into one integrated and comprehensive process that analyzes transit concepts. Together, within a 24-month timeframe, RTA and its partners would work to complete three successive study phases:

- Travel market analysis
- Options feasibility study
- Concept analysis

CTA's approach to corridor (sub-regional) planning has led to ridership increases in the North Lakeshore, South Lakeshore, Far North and West sub-regions of CTA's service area through a thoughtful and systematic application of its service standards. CTA expects that a continuation of this process throughout its service area will lead to continued success.

The three major study phases will seek to identify and establish land use/community development opportunities, local financing strategies, and sub-regional planning standards for mobility improvements in that area.

Sub-regional planning studies will:

- Provide useful data and analysis to support informed transportation investment decisions.
- Ensure that regional and local governments understand mobility needs, transportation system deficiencies, and existing and emerging travel markets within the sub-region.
- Explore and assess a range of corridor transportation options and their impacts.
- Identify alternatives that offer the best net advantage to corridor communities and the region.

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Findings and analysis will be used to develop and evaluate transit proposals for future consideration. This information will shape the proposed Project Evaluation Process described below.

### ***Integrating Development and Land Use with Transit Service***

A key element in RTA's vision for the future includes developing a transportation system that contributes to increasing livability in the region. In order to enhance livability, planning for expanded transit service must be closely coordinated with land use planning and development.

#### **TOD and the Regional Technical Assistance Program (RTAP)**

Northeastern Illinois has been on the forefront of TOD throughout the region. To that end we should expand and promote RTAP. Implementing an evaluation process that includes criteria related to smart growth development principles will further promote TOD.

Metra has actively participated in every station area RTAP study and has worked with many other communities (both through RTAP and outside of RTAP) moving its stations, platforms and parking facilities in order to facilitate TOD near its stations.

Other transit authorities around the country have taken a more direct role in guiding land use around transit stations. San Francisco's Bay Area Rapid Transit (BART) system only builds new service in municipalities that agree to encourage TOD. Portland's Tri-Met takes a leading role in advocating TOD and plans light rail extensions and bus route expansion in coordination with progressive land use planning. The RTA will be developing recommendations in 2007 to expand the RTAP program.

Northeastern Illinois, like many regions, does not have regional governing bodies as in Portland. As a result, the RTA must act as a regional unifying force and work to ensure that transit investment encourages livability throughout the region. RTA is working closely with the Chicago Metropolitan Agency for Planning (CMAP) as well as local governments to ensure that its transit investments further livability in the Chicago region. CMAP is committed to furthering the integration of land use and transit planning, and is therefore a natural partner for the RTA in its efforts to further TOD in the region.

### ***Congestion Pricing***

For many years, economists and transportation planners have advocated "congestion pricing," charging vehicles a toll based on the level of congestion on a roadway, as a solution to traffic problems. Recent trends worldwide have demonstrated increasing acceptance for various forms of congestion pricing. This, combined with recent technological innovations that can make pricing seamless, has turned this widely accepted theory into an increasingly popular reality.

**Worldwide trends have demonstrated increasing acceptance of congestion pricing.**

London has probably taken congestion pricing further than any other city. The London charge consists of a flat rate for all vehicles entering the city center during peak hours. The Port Authority of New York and New Jersey has implemented a limited congestion pricing scheme on its bridges and tunnels leading to New York from New Jersey,

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charging a higher toll during peak hours. Neither of these plans are examples of variable congestion pricing, which is the most effective form. In a variable pricing scheme, fees for a road vary in real time based on demand for that road. This ensures free-flowing traffic at all times while maximizing the utility of a given facility.

Some regions have gone as far as implementing variable pricing on their facilities. SR-91 in Orange County, California, charges tolls that vary by time of day for use of an express lane. The facility is fully automated and thus does not require vehicles to slow down at all in order to collect the toll. High occupancy vehicles (HOVs) may use the lane at a discounted rate. I-15 in San Diego County also has a fully automated toll lane and varies the charge by time of day. The I-15 facility was created with the help of a federal surface transportation pilot program that allows for congestion tolling on interstates under certain circumstances. This pilot program is part of a trend in federal legislation towards the encouragement of such practices.

The Illinois Tollway has made some initial steps with congestion pricing with 2 actions. The first action was the implementation of Open Road Tolling and a price differential between cash and electronic forms of payment. This has resulted in 86% of all peak hour drivers paying by I-PASS. The I-PASS system is also part of the EZ-Pass network allowing seamless payment from the east coast states to Illinois (except for Ohio). The second strategy was the implementation of a variable pricing structure for trucks based on time of day of travel. These simple steps lay the foundation for further expansion of congestion pricing opportunities not only on the Tollway system, but also for future partnerships such as parking payment, transit payment or even variable pricing lanes on other expressways.

### ***Demand Management Tools: HOT Lanes***

The most recent legislation, SAFETEA-LU, allows setting up high occupancy toll (HOT) lanes using variable congestion pricing, and continues and expands several other tolling and pricing programs. The lanes are “managed” through pricing to maintain free-flow conditions even during the height of rush hour. This approach is appealing for two reasons:

1. It expands mobility options in congested urban areas by providing an opportunity for reliable travel times to users prepared to pay a significant premium for this service.
2. It generates a new source of revenue, which can be used to pay for transportation improvements, including enhanced transit service.

The trend towards increased acceptance of congestion pricing is clear. The potential for this application in the Chicago area is high. The congested expressways leading into the Loop could be prime candidates for HOT lanes or other forms of congestion pricing during peak hours. Charging variable tolls on these facilities would serve to improve traffic flow in both the tolled and untolled lanes. Moreover, the tolls could encourage increased transit use in the corridor if the new tolled lanes could be used by transit express buses.

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## ***Seamless Public Transportation***

Consistent with the strategic goals, actions will be taken to make trips involving more than one Service Board as easy as possible for the customer. The objective of seamless travel is that users do not see a difference among operating agencies when moving from one system to the next. In a customer-focused regional public transportation system, the customer should be able to get from point A to point B without having to understand different timetables or fare structures, or having to pay multiple times. These are all obstacles, and the more obstacles, the more often travelers will choose to take what seems more like a seamless trip in a car.

**Travelers should not perceive a difference among operating agencies when moving from one system to the next.**

The RTA has been working toward improving integration among the CTA, Metra and Pace systems. As part of the Strategic Plan, the RTA and Service Boards will launch a program for system integration and a seamless travel experience. This will provide benefits for passengers and all three transit systems, including improved efficiency and greater ridership.

### **Integrating Information Systems**

The RTA, in association with IDOT and other transportation agencies, has launched the *Drive Less. Live More* campaign and website that highlights our trip planning system. The RTA's Trip Planner system, which allows users to plan trips among all three systems using an interactive website, is an example of successful integration of information systems. All three systems intersect at various points. By integrating information, riders of each system can have the information they need to transfer or use one of the sister systems.

We have made significant strides in this area that we must build and expand upon. The RTA's Regional Transit ITS Program established the framework for coordinated development of transit technologies through deployment of the Illinois Transit Hub (ITH), which collects transit information from the real-time vehicle location and scheduling systems implemented by CTA, Pace and Metra. The ITH will enable communications between transit, highway and other transportation agencies to support multimodal operations, emergency management and traveler information services.

Additionally, improvements under development by the RTA include new products such as wayfinding signs and local area maps for interagency transfer locations, as well as a systemwide rail-to-rail transfer map. Existing information products, such as route maps and schedules, will also be refined to better indicate transfer opportunities. The RTA has obtained a federal grant to develop standards for and implement prototypes of these information products related to interagency travel.

### **Schedule Coordination**

Coordination of schedules, particularly at locations with less frequent service, facilitates transfers between routes. The effort will coordinate schedules to the extent possible by CTA among CTA routes and by Pace among Pace routes, and some initial coordination of schedules has occurred not only among the Service Boards but also between the Service Boards and other systems outside the region to which RTA systems provide access.

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Additional efforts should be made to enhance this aspect of a seamless public transportation system.

### **Fare Integration**

The RTA has had only limited success in fare integration, which is an important factor in creating a seamless travel experience. Fare integration can encourage transit use by those who are unfamiliar or uncomfortable with other systems and, therefore, can lead to increased public transit ridership.

Fare integration between the CTA and Pace has had some success. Pace and CTA fare cards are accepted across the two systems. Metra already provides a CTA Link-up sticker for monthly ticket users. The BusPlus sticker is also available for connections between Metra and Pace.

Some initial steps to greater fare integration should be pursued. One simple step is to allow fare payment with major credit cards. This cannot replace smart cards in the near term, as they do not allow transfers. However, it makes boarding easily accessible to those without access to a smart card vending machine or retail outlet. Some credit card companies are moving toward a "touch and go" payment system. Credit cards are likely to be the "new smart cards." We want to plan for the next generation of technology rather than investing in existing technologies that will quickly be obsolete. As this technology spreads, credit cards can be used like smart cards to pay fares, as Citicard MasterCard users can already do at at least one New York subway station. Additionally, we should learn from good examples of fare integration from around the world, including those in Europe and Seoul, Korea. The CTA would like to replace its fare-boxes, but has made the decision to wait until the credit card technology is further developed to do so.

Fare integration comes along with several challenges. To the extent that one system already provides multi-ride fare purchase incentives through special discounts, those discounts would need to be continued and coordinated among systems. The costs of such incentives are a trade-off for increased ridership as well as reduced fare collection costs. With multi-system fare integration, the benefits and costs, particularly relative to ridership gains and distribution of revenues, would need to be apportioned appropriately. This could be modeled and ultimately coordinated with the I-Pass and EZ-Pass tollway technology.

Other challenges include legacy computer software systems, as revenue processing may currently be performed using older systems that would not integrate with new, integrated systems, and the cost of replacing the legacy systems may be substantial. Those cost trade-offs will need to be evaluated as part of a fare integration program among the RTA Service Boards. Fare integration is an integral element to achieving seamless travel within the region. The RTA should lead demonstration/pilot programs to develop and implement systemwide fare integration across all modes, possibly as part of a wider congestion pricing strategy.

The RTA, CTA, Metra and Pace commit to implementing an Integrated Fare Program. CTA and Pace must replace their present farebox systems and move toward a more "open farebox system architecture." We want to implement a system that allows for seamless use for the user and better "back-room" accuracy, timeliness and flexibility to accommodate future farebox changes and policies. To that end, the Executive Directors

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have joined to form an executive group and appointed staff to a working group. Together we will establish the overall implementation schedule.

### ***Modal Integration***

Northeastern Illinois has an extensive network of park-and-ride facilities that are an important element of modal integration. The RTA can develop and expand on this system. CTA has moved forward in this area as evidenced by transit hubs at Block 37, 130th/Stony Island, Old Orchard, Ford City, Chinatown/Bridgeport, North/Clybourn and on the Near West Side (among others). CTA and Metra recognize the value in strengthening the links among transit modes and across other transportation modes such as bikes, shared cars and pedestrian access.

### **Transit Hubs**

Transit hubs are a key way to integrate different modes of transportation. These hubs can become regional or neighborhood transportation centers. O'Hare's Western Access proposes a major regional facility connecting bus and rail transit, intercity rail, auto, air travelers and freight. Other smaller centers will be proposed throughout the region in Waukegan, Naperville, Aurora, Elgin, Rondout, Prairie Crossing, Joliet, St. Charles, and the West Loop on Clinton Street.

### **Station Access**

The RTA could partner with car sharing organizations, such as ZipCar or iGo, and allocate a number of parking spaces for shared cars at station parking lots. The arrangements for the car sharing could be made through an RTA-affiliated website, and the cost could be paid for using a transit fare card.

Bicycles are popular among some residents, especially in the warmer months. Our transit already accommodates bicycles on its bus and train routes to some extent. However, the system could improve modal integration simply by adding and improving bicycle parking facilities. With further innovation, the RTA could offer bike rentals at transit stations. As with car-sharing, the cost of the bike rental could be paid using the transit fare card.

### **Transit Accessibility**

Walk access to stations and bus stops is vital. One of the major obstacles to using transit is pedestrian access to stations and bus stops. Municipalities need to work with transit to ensure there are no barriers (lack of sidewalks, fences, etc.) that limit access to the transit system.

The RTA and the Service Boards will work establish a capital program to expand access to Service Board passenger facilities. This program will focus primarily on access to mainline service by improving transit service for everyone, including riders with disabilities. The program concept will partner with local jurisdictions to fund small capital projects such as sidewalk enhancements and other pedestrian-oriented improvements in areas near to passenger facilities.

### **Station Parking**

Lack of adequate station parking is an impediment to riding transit. The RTA should work with the Service Boards and local governments to plan for future station and parking

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expansions. The price of parking is an impediment to shuttle service, at many locations it is cheaper to park all day than it is to do a round trip daily on the bus.

### ***Suburb-to-Suburb Services***

Northeastern Illinois recognized early on that changing land use patterns necessitates suburb-to-suburb transit. However, the RTA can still learn from other cities in expanding its service using innovative methods. In line with TOD objectives, parking should be also planned to maximize mixed-use development near train stations.

#### **Alternative Modes**

Pace is proposing a full family of services across our region including fixed route services, alternative modes such as flexible routes/route deviation, and ride sharing or demand-responsive service. Given the dispersed nature of suburban homes and jobs, a flexible route system may be more cost-effective and better serve potential riders.

#### **Suburb-to-Suburb & Cross-town Transit**

Metra is planning a Suburban Access Transit Route, or STAR line, between Joliet and O'Hare. This initiative concept recognizes that a hub-and-spoke system is not sufficient for all transit needs. Pace's PARTNER Program details the full complement of services that includes taxis and vanpools, dial-a-ride and flexible routes, larger line-haul fixed-route options, express buses, arterial rapid transit, and bus rapid transit. CTA's cross-town Circle Line would provide additional opportunities for new and growing travel markets.

Efforts to bring rapid transit to the suburbs should be combined with plans to increase TOD around these stations and stops. By increasing connectivity between suburbs and encouraging development around suburban stations, RTA would further its goal of increasing transit choice. Metra should continue evolving toward more of a multi-market rail system, in addition to providing traditional Loop-bound commuter rail service.

### ***Technology Applications for Transit***

Transit agencies are concerned for the lives and well-being of its passengers, and safety initiatives are of prime importance. The RTA agencies are making efforts to use technology to improve safety and security.

#### **Operational Safety**

By using technology in preventive maintenance, transit agencies can improve safety and efficiency. For example, Metra's Electronic Train Management System will automatically stop trains if safety regulations are violated. Another example is CTA's integration of its bus Automatic Vehicle Monitoring systems with its Maintenance Management Information System to ensure that potential problems are discovered early.

#### **Passenger Security**

Transit agencies can look to FTA guidelines to develop plans to improve passenger security. The CTA is in the early phases of planning a rehabilitation of its bus emergency communications system. Similar plans, also not yet in an implementation phase, include the installation of security cameras in rail stations.



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### **Estimated Arrival Time Technology**

The CTA has begun a pilot program of a bus tracking system that uses a global positioning system (GPS) and automatic vehicle locator (AVL) technology to track the estimated arrival time of the next bus and relay this information to riders. This information will be available through the internet and internet-enabled hand-held devices. Similarly, Metra is progressing toward a program of Automated Platform Messages that will use the GPS train tracking system to provide audible announcements of train arrival information. Along the same lines, Metra awarded a contract to have real-time passenger information displays on trains showing train status and stops. Metra is also considering a program that would provide real-time alerts to passengers through e-mail, cell phones or other technology. Pace utilizes a real-time internet application known as WebWatch that enables riders to find the estimated arrival times of the next three buses. Pace is currently working with the RTA and a technology partner to test a phone-based information system for transit riders.

This type of technology significantly enhances the transit experience since it removes the uncertainty that makes transit riders feel uncomfortable. This is especially valuable for suburb-to-suburb or reverse commute trips, where intervals between buses or trains are longer.

### **Broadband Wireless Communications in Transit Vehicles and Commuter Rail Stations**

Internet access is key to using time productively. The Service Boards could provide wireless internet service for commuters on all modes and at transit stations. With this technology, commuters will be encouraged to use transit because it enables them to use laptop computers, whereas driving does not allow travel time to be used productively.

The CTA has performed a study of the feasibility of installing WiFi on the Blue Line to O'Hare. Several transit agencies have begun installing WiFi services, especially on the west coast. Amtrak has WiFi on its Oakland-San Jose commuter rail corridor. CalTrain has 16 miles of WiFi service on its Palo Alto area route. Sound Transit in Seattle has piloted WiFi on buses. Several technologies are available for providing this service, and further research is necessary to determine which methods have worked best in pilot projects around the country. Additionally, RTA can investigate the potential of revenue generation either via licensing private WiFi installation and operation or by selling homepage advertising sufficient to meet or exceed RTA system installation and maintenance costs.

### ***Public-Private Partnerships***

The RTA and its Service Boards have begun using public-private partnerships. For example, the CTA has an adopt-a-station program in place that allows private companies or organizations to sponsor a transit station. Pace has existing public-private partnerships with a number of organizations, including specialized bus service to a major United Parcel Service facility in Hodgkins. Additionally, the CTA has negotiated an agreement with the University of Chicago in which the University subsidizes some bus routes that cater primarily to its students and employees.



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Metra has worked with the communities, developers, IDOT and others in building joint-use parking structures and station facilities. While the two-way nature of CTA's rail and bus service levels strongly supports reverse-commute markets, it has further strengthened this with its subsidized services (for example, to the University of Chicago, UPS and, most recently, Goose Island). These services also provide excellent examples of public-private cooperation in matters of transit operations. Pace has had public-private partnerships during the past 20 years with a number of organizations, most notably UPS.

CTA airport train service proposes nonstop service on CTA's Blue and Orange lines between O'Hare and Midway airports and the Chicago central area. The proposal includes a new downtown terminal that could potentially provide air passengers with flight information and other related amenities. This project would likely be developed in conjunction with a private-sector partner.

Businesses today understand that they need to focus on their core competencies and outsource functions that private providers can perform more efficiently. Careful financial analysis is necessary for any "make or buy" decision with respect given to existing collective bargaining agreements.

Private service providers have been present in transit for decades, especially in bus service. The Service Boards already contract with private providers. For example Pace uses private contractors in its paratransit and some of its fixed route services. Service on four of Metra's lines are provided directly by the private railroads, while Metra has many other agreements with the freight railroads related to service operations, trackage rights, and infrastructure. However, RTA and the Service Boards may consider other areas where outsourcing may provide benefits. For example, the London transit system, in addition to contracting out most bus service, has recently privatized the maintenance and renewal of its underground subway infrastructure system. It has two 30-year contracts with private organizations that maintain the tracks and other infrastructure as well as conduct capital improvement projects. While the UK's rail privatization efforts have been met with mixed reviews, the RTA has the advantage of learning from the mistakes of others while building on successful policy decisions.

### ***Administration Coordination***

The RTA and its Service Boards are always looking for improved efficiencies. The strategic planning work has fostered unprecedented cooperation with the RTA and CTA, Metra and Pace. We want to build on that. Administrative efficiencies could include joint procurement, marketing coordination and other shared administrative functions. Presently, the Service Boards are investigating joint purchasing of fuel and power. We will pursue additional priorities as we work toward implementing the Moving Beyond Congestion program.

### ***Performance Measures***

The RTA, CTA, Metra and Pace recognize the need to ensure monies are spent efficiently and effectively. To that end, we propose developing performance measures that track our performance and operations as they relate to Moving Beyond Congestion vision and goals. The RTA will work with the service Boards to develop similar and related measures

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that can highlight our performance over time. We will develop key indicators that link performance for all agencies and establish an interagency “Best Practices” working group.

### ***Improved Budget Process***

This improved budget and financial plan process will provide a more comprehensive and transparent assessment of the RTA system’s existing and anticipated financial and physical condition, it’s existing and anticipated financial obligations, as well as a comprehensive and transparent near-term and long-range plan that addresses ongoing financial stability, continuity of service delivery, and responsiveness to future mobility needs of the region.

### ***Economic Opportunity***

Investment to maintain and expand the regional transportation system will create jobs for the region’s citizens. The RTA is committed to assuring that Disadvantaged Business Enterprises, including minorities and women, participate in this growth through equal access to both contracting and employment opportunities.

### ***Environmental Protection/Sustainability Measures***

One of the ***Moving Beyond Congestion*** goals is to provide a transit system that protects the environment. While improving transit and increasing ridership positively, we can impact the region’s environment and decrease the region’s dependence on fossil fuels. Opportunities with new technologies and the potential to become a leader in “green” transit will further these benefits. The RTA should partner with one of the numerous environmental advocacy groups in the Chicago area to develop a plan that can serve as a national model.

Sustainability options and goals could include:

- Building new maintenance and other facilities to LEED™ standards
- Increasing recycling opportunities for riders and employees, including in the maintenance facilities
- Landscaping using native species and water-efficient technologies
- Powering trains with renewable energy sources
- Studying ways to reduce energy consumption at agency facilities
- Publication of annual sustainability goals and end-of-year measurable results
- Use of low VOC paints in transit facilities

Other ideas for increasing sustainability include:

- Illuminating bus shelters through power generated by solar panels. The light in the bus shelters will provide a perception of safety after dark, thereby increasing rider comfort and ridership. At the same time, the program could be a model for the potential of solar power in transit.

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- Planting green roofs and rainwater collection facilities at rail stations. Additionally, park-and-ride lots can be built or refurbished using permeable paving or other technologies to reduce the damages of storm water runoff.
  - Using renewable energy sources to power buses and other vehicles. The CTA and Pace have already embarked on efforts to incorporate cleaner buses that use fuel cell or hydrogen technologies. Additionally, the use of corn-based ethanol fuels, and eventually cellulosic ethanol and biodiesel, are steps in the right direction toward reducing bus fleet carbon emissions. The RTA can take the bold step of setting a goal of converting the entire Chicago public bus fleet to clean-burning technologies by 2030.
  - Printing on transit tickets the amount of greenhouse gases reduced by the purchase and use of that service.
  - Encouraging bicycle use and walking through incentives and programs.

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### **3.5 EXPECTED RESULTS OF THE *MOVING BEYOND CONGESTION* INVESTMENT PROGRAM**

An analysis of the economic benefits of the Strategic Plan investment program examined two major sub-components: 1) the regional transportation benefits of capital improvements proposed by the Service Boards over the next 5 years (2007-2011); and 2) the regional economic benefits (avoided costs) of the additional operating funds required to alleviate operating shortfalls projected for the next 5 years and beyond.

The combined total Present Value attributable to the direct transportation user benefits, highway safety, emissions reductions, reduced parking requirements, and reduced roadway congestion resulting from the 5-Year capital investment program is estimated to be approximately \$13.6 billion. The Present Value of ongoing benefits resulting from the required annual additional investment in operations over the 30-year period is estimated to be an additional \$28.8 billion.

When combined, a comparison of these economic benefits with the cost of the necessary capital and operating investments provides a ratio of benefits to costs of about 1.9 — extremely high for transit expenditure programs of any kind.

#### ***Capital Program***

The benefits assessment of the 5-year (2007-2011) capital improvement program involved many individual projects, both small and large. Because detailed travel demand model outputs were not available for most individual projects included in the plan (the standard basis for benefits assessment), an aggregated analysis was necessary allowing extrapolation of benefits based almost exclusively on pooled conceptual capital cost estimates for the bus, rail, and demand response service improvements and New Starts projects. Capital program and cost estimates, including specific projects and their timing, were provided by the individual Service Boards. The total 5-year capital investment program includes expenditures to maintain current service, or state-of-good-repair spending (unfunded portion only), service enhancements, and major expansion projects authorized under SAFETEA-LU. For purposes of the benefits assessment, major expansion project expenditures were treated “as if” they occur in the 2007-2011 period, although actual capital expenditure outlays would actually extend beyond those years due to the long development and construction periods required for projects of this magnitude.

A two-step elasticity-based methodology was employed that permitted estimates of new ridership stemming from service improvements made possible by additional capital expenditures: Step 1 — estimate service increases (measured in terms of vehicle miles of service) given increases in capital expenditures, and Step 2 — estimate ridership increases based on the additional service levels from Step 1. Given levels of capital spending, elasticities of service with respect to expenditures were applied to the increased spending, and elasticities of ridership with respect to service were applied to the derived service level increases. Together, this chaining of expenditure and service elasticities

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allowed for estimates of new transit ridership based on capital expenditures. This methodology has been employed elsewhere in similar analytic circumstances.<sup>8</sup>

For major New Starts investments (i.e., projects authorized and funded all or in part under SAFETEA-LU), a somewhat different approach was employed, which made use of former FTA cost-effectiveness criteria for New Starts. Utilizing the FTA cost-effectiveness standards, which set minimum targets for new ridership for given levels of (annualized) cost, it was possible to estimate new ridership for this type of expansion investments.

Finally, new riders were disaggregated into induced riders, defined as entirely new travelers who did not make the trip previously, riders attracted to transit from autos or taxis, and riders who were previously traveling on other transit modes or different routes. The distribution of new riders into these categories was based on ridership surveys conducted by the CTA for the Orange Line, and a Metra survey of the North Central Service.

Once these steps were completed, different categories of benefit were estimated based on the new ridership, using various unit estimates of travel costs, congestion costs, parking costs, vehicle emissions costs, and motor vehicle accident costs.<sup>9</sup>

### **Capital Program Results**

All results are reported on a Present Value (PV) basis, reflecting the discounting of annual benefit streams at a real discount rate of 3.5%.

Six benefit categories were estimated:

- 1) Direct transportation user benefits: Benefits to “new transit riders” who are attracted to improved or new transit services. Such riders would include a combination of riders attracted to transit from autos or taxis; induced riders, defined as entirely new travelers who were not making the trip previously, and riders to improved or new transit services who were traveling on other transit modes or different routes.
- 2) Highway safety: The reduced social costs of highway accidents, resulting from diversion of trips from auto and taxi. Accidents and their costs are typically, as here, disaggregated into fatal, injury, and property-damage only categories.
- 3) Emissions reductions: The economic value of reduced emissions, such as NO<sub>x</sub>, particulates, and hydrocarbons. Values per unit of emission are based on epidemiological studies of the health effects of pollution, as well as markets for emissions trading.
- 4) Reduced parking requirements: Assumes that for every round trip removed from the highway system, one less parking spot is required. Based on the average cost of providing a parking spot, including structure and surface parking.

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<sup>8</sup> Wisconsin DOT, “The Socio-Economic Benefit of Transit in Wisconsin: Phase II Benefit Cost Analysis, Final Report”, HDR/HLB. May, 2006. Expenditure and service elasticities derived from this study.

<sup>9</sup> Todd Litman, Victoria Transport Policy Institute, “Evaluating Public Transit Benefits and Costs: Best Practices Guidebook”, August 31, 2006

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- 5) Reduced roadway congestion: Based on the marginal contribution to delay associated with each vehicle mile under congested conditions.
  - 6) Construction employment and income: Direct construction labor, as well as induced and indirect employment and income resulting from additional construction workers' salaries and associated spending, as well as the chain of business-to-business purchases that are required to support direct purchases of materials, supplies, and other construction-related services.

Results for all categories, with the exception of construction employment and income, are summarized in Table 2. The combined total PV for all five categories (in 2006 dollars) is estimated at approximately \$13.6 billion. As explained below, these benefits are confined to ridership gains associated with 1) increased capital spending to cover currently unfunded system preservation projects, 2) service enhancement projects, and 3) major New Starts expansion projects (SAFETEA-LU authorized).

**Table 2: User, Safety, Congestion, Parking, and Emissions Benefits**

<b>BENEFIT STREAMS</b>		
<b>I. DIRECT USER BENEFIT STREAMS</b>		
Total Out of Pocket Cost Savings for Transportation System Users	Present Value (2006)	\$3,976
Total Consumer Surplus - Induced Riders	Present Value	\$2,947
Total Consumer Surplus - Former Transit Users	Present Value	\$923
<b>TOTAL DIRECT USER BENEFITS FROM 5-YEAR CAPITAL PROGRAM (30 YR. NPV)</b>		<b>\$7,846</b>
<b>II. SAFETY BENEFITS (FROM REDUCED AUTO USE)</b>		
TOTAL VALUE OF REDUCED ACCIDENTS (FROM REDUCED AUTO USE)	Present Value	\$858
<b>III. EMISSIONS BENEFITS (REDUCED AUTO USE)</b>		
TOTAL EMISSIONS BENEFITS	Present Value	\$642
<b>IV. REDUCED PARKING REQUIREMENTS</b>		
	Present Value	\$3,411
<b>V. REDUCED HIGHWAY CONGESTION COSTS @ \$0.10/ vehicle mile</b>		
	Present Value	\$856
<b>TOTAL PRESENT VALUE OF BENEFITS: USERS, SAFETY, EMISSIONS, PARKING, ROADWAY CONGESTION</b>		<b>\$13,613</b>

Employment and income benefits associated with construction spending were also estimated. Total ***employment and income, including multiplier effects, are estimated to equal 736,000 person years and \$18.4 billion, respectively, over a 30-year period.*** While these levels of employment and income are tangible and clearly of benefit to many individual economic sectors (particularly the construction industry), they should ***not be included*** in a formal benefit-cost analysis, since construction spending represents a resource transfer from other public investment purposes. Nonetheless, the economic “jolt” that such concentrated construction spending may deliver to a region’s economy can be significant, and ought not to be understated. From a regional benefits perspective, some analysts have restricted their impact analyses to the impact of non-local (i.e., federal) capital funds.

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## ***Operating Program***

Using the same basic methodologies and assumptions as the capital program analysis, the economic costs (disbenefits) of a “current operating funding” scenario (i.e., no additional funds beyond the current baseline operating funding) were also estimated. These focused on the economic costs (disbenefits) of the very substantial operating shortfalls that are projected over the next 5 years and thereafter.

The basic assumption underlying this analysis is that operating budget shortfalls would be made up by service cuts, which are reflected in this analysis as reductions in vehicle miles of service for each of the Service Boards. Alternative approaches to closing operating budget shortfalls are also available to the RTA and its Service Boards, including fare increases, reductions in regular maintenance, administrative cost reductions, reduced borrowings to finance capital projects, or some combination of each of these strategies. However, the simplifying assumption has been made that cost reductions would be effectuated by service reductions which, in turn, would result in ridership losses. The other cost reduction strategies would also entail substantial costs to riders and the general public, such as increased out-of-pocket transportation costs for users, lost ridership due to increased fares, and deteriorated maintenance conditions and service failures in the long run.

As in the capital program analysis, the basic methodology is to apply expenditure-service elasticities to the cost cuts, and to then apply service-ridership elasticities to the estimated reductions in vehicle miles to arrive at decreases in transit ridership for each of the Service Boards. It has been assumed that a 1% reduction in operating costs will result in a 1.5% reduction in vehicle miles of service. Because service cuts result in lost ridership and revenue, service cuts may need to be deeper than a one-for-one basis to compensate for the additional lost ridership and revenues.

### **Operating Program Results**

Percentage reductions in service vary across Service Boards due to the differences among them in projected operating shortfall. The largest ridership losses, in excess of 100 million annual rides, would occur at CTA. Ridership reductions would be less in absolute terms for the other Service Boards, but in relative terms, Pace ridership service cuts and ridership losses would be more dramatic.

The resulting economic impacts are summarized in Table 3. The benefits to be gained from additional funding to eliminate projected operating shortfalls are substantial — the Present Value, over a 30-year time period, amounts to about \$29 billion, far larger than the present value of the additional operating funding (about \$10.1 billion). Service reductions would hit existing riders hard, and would result in substantial ridership losses. Those losses, in turn, would force a large number of transit riders to use auto and taxi modes. Those shifts, in a congested metropolitan area such as Chicago, result in substantial increases in direct user costs (higher driving and parking costs), vehicle emissions, highway accidents, and roadway congestion. Impacts on roadway congestion would be dramatic — based on Texas Transportation Institute’s estimates of highway congestion cost reductions associated with public transportation in the Chicago metropolitan region, a prorated increase in those costs (on the basis of lost transit



ridership) would result in an \$11.8 billion increase in congestion costs on a 30-year present value basis.

**Table 3: Present Value Costs of Failure to Fund Project RTA Operating Shortfalls**

<b>I. DIRECT USER COSTS</b>		
<b>Increased Out of Pocket Costs for Transportation System Users</b>		
Trips diverted from bus to auto		
Trips diverted from rail to auto		
Trips diverted to taxi from bus and demand response		
<b>Total Out of Pocket Cost Increases for Transportation System Users</b>	<b>Present Value (2006)</b>	<b>(\$5,338)</b>
<b>TOTAL DIRECT USER COSTS</b>		<b>(\$5,338)</b>
<b>II. INCREASED MOTOR VEHICLE ACCIDENTS</b>		
Increased auto VMT (millions)		
Increased accidents		
fatal (@ 1.1/100 million VMT)		
injury (@ 53.3/100 million VMT)		
property only (@106/100 million VMT)		
Economic cost of increased accidents ( millions \$s)		
fatal		
injury		
property only		
<b>TOTAL COST OF INCREASED AUTO ACCIDENTS</b>	<b>Present Value</b>	<b>(\$2,096)</b>
<b>III. INCREASED EMISSIONS COSTS</b>		
Increased auto VMT (millions)		
Economic cost of increased auto emissions (6 cents / vehicle mile)		
<b>TOTAL EMISSIONS COSTS</b>	<b>Present Value</b>	<b>(\$1,256)</b>
<b>IV. INCREASED PARKING REQUIREMENTS</b>		
Increased parking costs (millions)		
	<b>Present Value</b>	<b>(\$8,335)</b>
<b>V. INCREASED HIGHWAY CONGESTION COSTS</b>		
Increased congestion cost		
	<b>Present Value</b>	<b>(\$11,751)</b>
<b>TOTAL PRESENT VALUE OF COSTS (DISBENEFITS): USERS, SAFETY, EMISSIONS, PARKING, ROADWAY CONGESTION</b>		<b>(\$28,776)</b>

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## ***Combined Results – Costs vs. Benefits***

While a formal benefit cost analysis was not performed, it is useful to “scale” the economic benefits of the entire 5-year program by comparing these to their cumulative costs in order to formulate some idea of the relative economic merits of the program.

### **Benefits**

1. \$13.6 Billion — the Present Value of ongoing benefits of capital program investments programmed between 2007 and 2011. While the expenditures are assumed to occur within the 5-year time frame, the benefits continue over an extended period of time. (This analysis assumes that the service improvements continue throughout the 30-year analysis period, although these benefits are phased in as the capital projects come on line.)
2. \$28.8 Billion — the Present Value of ongoing benefits extending over the 30-year period, resulting from increased operating expenditures to close projected operating shortfalls. Benefits result from avoidance of lost ridership, which would be substantial as a result of service reductions.
3. \$42.4 Billion — total 30-year Present Value of benefits (not including construction employment and income.)

### **Costs**

1. \$12.4 Billion — the Present Value of 2007-2011 capital program spending (to maintain the system in a state of good repair, service enhancements, and major New Starts projects.)
2. \$10.1 Billion — the 30-year Present Value of sustained increases in operating spending, to eliminate projected operating shortfalls and the service improvements that would be required in the absence of additional operating funding.
3. \$22.5 Billion — total 30-year Present Value of costs.

As seen, the figures above produce a ratio of benefits to costs of about 1.9 — extremely high for transit expenditure programs of any kind.

### ***Understatement of Benefits***

Because of data and methodology limitations, the benefits of the combined strategic investment program (capital and operating) reported above almost certainly understate — probably significantly — the total benefits.

Foremost among the benefits that could not be included are travel time savings for existing and continuing regional transit riders. The benefits analyzed were restricted to those that stem from increased transit ridership i.e., new riders who would be attracted to improved or wholly new services, and riders who would not be driven from the transit system as a result of service cuts. However, many, if not most, of the current service/state-of-good-repair, enhancement and expansion projects would benefit *existing and continuing* riders, because the capital improvements would cascade throughout the system and lead to improved and more efficient service systemwide. While it was not possible to estimate these additional travel time benefits for existing and continuing

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riders, it is not unreasonable to assume that total benefits would be a multiple of those estimated from increased ridership alone.

Additional benefits that were not included in the analysis include:

- Real estate impacts — increased property values and new development resulting from improved accessibility
- Expanded access to labor markets for existing regional employers, and expanded access to consumer markets
- Potential for increased employment and business activity, resulting from improved accessibility
- Reduced need for new highway construction resulting from reduced VMT relative to future conditions without having made these investments

Overall, it is not unreasonable to assume that the benefits of the RTA program would be many times the program's costs.

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## **4.0 FUNDING THE INVESTMENT**

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The following chapter provides an overview of the investment required to fund the Moving Beyond Congestion program described in earlier sections of the Strategic Plan. The first two sections describe the RTA's current funding resources and the magnitude of the need associated with the Moving Beyond Congestion program. This chapter then goes on to detail how public transit is typically funded in both the United States and internationally. This chapter describes sources, presents a menu of options that could be used to enhance revenues for transit investments, and discusses cost recovery and cash flow implications.

### **EXISTING FUNDING RESOURCES**

Passenger fares and other system-generated revenues pay for approximately 50 percent of the operating budgets of the CTA, Metra, Pace and the RTA. Revenues for the remainder of the operating budgets are provided through a sales tax of 1 percent in Cook County and ¼ percent in the collar counties plus a 25 percent state match of these sales tax revenues. These revenues are distributed to CTA, Metra and Pace through a fixed formula based on where sales tax revenues are collected, as well as by RTA discretion.

The primary source of capital funding for vehicles, facilities and infrastructure for the CTA, Metra and Pace is provided through annual federal formula grants. A separate New Starts program also provides federal matching grants for system and capacity expansion; individual transit agencies or project sponsors must complete a multi-year process to secure these limited funds, in competition with other projects throughout the United States. Until the end of 2004, Illinois FIRST also provided as much as \$340 million annually in State funding for transit capital projects in Northeastern Illinois. This program provided debt service reimbursement for \$1.3 billion in bonds as well as \$80 million per year in general revenue funds.

### **SCOPE OF THE INVESTMENT**

The RTA and Service Boards are currently facing large operating and capital funding shortfalls just to maintain the current level of service provided to its regional customers. Operating costs, however, are forecasted to increase faster than the total of the Service Boards' system-generated revenues and the RTA's available resources for deficit funding. Rising fuel, power, construction, healthcare, pension, and security costs have major impacts on CTA, Metra, and Pace, and have recently required a transfer of capital sources to cover operating shortfalls. Additionally, capital funding sources between 2007 and 2011 are estimated to be significantly lower than the prior five years due to conclusion of the Illinois FIRST program. In order to maintain the current level of service, the capital program requires a large amount of additional funding.

The decrease in available capital funds, combined with a potentially large operating shortfall in the next five years, will most likely lead to large unfunded needs. This will then cause less reliable service ultimately resulting in service reductions. Average ages of the RTA's vehicle fleets are on the rise, service levels are deteriorating, and service

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expansion is limited. This deterioration has a spiraling effect and will be even more costly to reverse once it begins. Whenever service is less reliable or reduced, a certain percentage of riders will be lost. Lost riders translate into lost revenue, and the lost revenue must be made up in the budget, so further deferred maintenance and service reductions would be needed.

The Moving Beyond Congestion Vision and Strategy requires an even larger investment through a 5-year program that includes bringing the system to a state of good repair, enhancing the current service, and expanding services to meet the changing needs of the travel markets. There should not be a question of “if” the investments should be made for the good of the region, but rather “how” those investments should be financed.

The initial 5-year term of the Moving Beyond Congestion program requires \$10 billion in capital assistance and \$400 million in annual operating support above current funding levels. The RTA has examined the funding sources used by several other major public transit agencies in comparison with the RTA system, as well as current government services funding sources in Illinois and elsewhere that could produce significant funding for transit.

## **FUNDING PUBLIC TRANSPORTATION**

Public transportation in the U.S. is generally funded by a combination of fare revenues, federal grants, and state and local subsidies that include dedicated tax revenues. In 2005, the top 50 agencies received 37 percent of operations funding from fares, 27 percent from local sources, 24 percent from states, 6 percent from the federal government, and 6 percent from other sources. The majority of capital funding (53 percent) was received from local sources, 35 percent from federal funds, 12 percent from states, and less than 1 percent from other sources. States provided \$9.5 billion in funding, while the Federal Transit Administration (FTA) contributed \$7.3 billion.

### ***Federal Funding***

Federal grant programs are available to fund primarily capital investments for transit agencies. These programs may also fund certain operations or operations-related needs, such as preventive maintenance and the capital cost of contracting. Most of these programs are commonly referred to by the number that correlates to the section number of Title 49 of the United States Code. Several of the major programs that apply to large metropolitan areas are outlined below:

- **Major Capital Investments (5309 New Starts & Small Starts)** provides funds for construction of new fixed guideway systems or extensions to existing fixed guideway systems. These funds are distributed based on a competitive FTA evaluation process.
- **Rail and Fixed Guideway Modernization (5309 FG)** funds are distributed to regions on urbanized area formula. The 5309 fixed guideway funds can be used for capital purposes on fixed guideway transit services such as rail, ferry, cable cars, and other guideways, including buses operating in exclusive lanes.

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- **Large Urban Cities (5307)** funds are distributed to regions based on urbanized area formula. For areas with populations of 200,000 and more, the formula is based on a combination of bus revenue vehicle miles, bus passenger miles, fixed guideway revenue vehicle miles, and fixed guideway route miles as well as population and population density. Large urbanized area formula funds can be used for transit capital purposes and to cover certain operating costs.
  - **Transportation for Elderly Persons and Persons with Disabilities (5310)** funds are distributed to the states to provide transit capital grants to non-profit agencies that provide transportation services to the elderly or persons with disabilities. Funds are obligated based on the annual program of projects included in a statewide grant application.
  - **Metropolitan Planning Program (5303)** funds are distributed to regions based on urbanized area population and a Federal Transit Administration administrative formula to address planning needs in the larger, more complex urbanized areas.
  - **Congestion Mitigation and Air Quality Program (CMAQ) and Surface Transportation Program (STP)** funds are flexible funds that are legislatively-specified funds that may be used for transit or highway purposes. Transit agencies must compete for these funds through a regional competitive process.

### *State and Local Funding*

Funding from state and local governments takes the form of revenue from a variety of general fund contributions, dedicated taxes, grants, and subsidies.

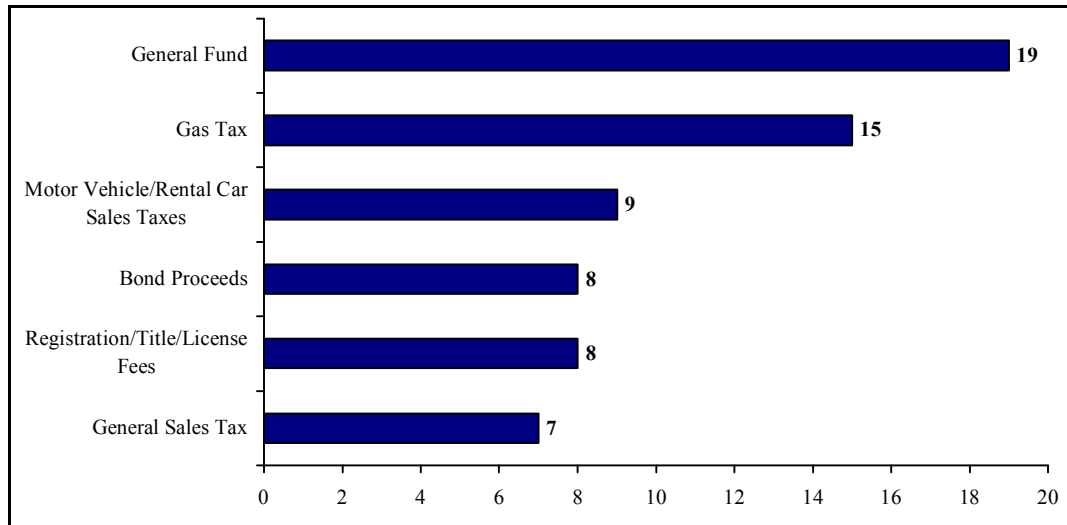
- **General Fund** – State and local governments provide local transit agencies with annual appropriations from their general fund, which are supported by tax revenues and a variety of other sources, such as the following.
  - ☑ **Grants** – Program-specific or matching funds for capital projects, revenue to help fund operations, or debt financing (See also discussion of tollway credit use in Chapter 2).
  - ☑ **Subsidies** – Funding that typically enables a public transportation agency to keep fares low or allow certain group of customers, such as students or senior citizens, to ride at a discounted rate or for free.
- **Dedicated Tax Revenue** – Most large transit agencies leverage statewide or locally dedicated sales tax revenues that are sometimes supplemented with other tax revenue such as property tax-based subsidies, mortgage recordation fees, parking taxes, or payroll taxes. In 2005, dedicated revenues from sales tax accounted for 66 percent of the \$10.6 billion in total U.S. dedicated transit funding for operations and capital expenditures. Sales tax was followed by revenues from gasoline taxes (6 percent), property taxes (5 percent), income taxes (4 percent), and other taxes (19 percent).<sup>10</sup>
- **Bonding** – Issuing debt backed by dedicated taxes, passenger revenues, grants or general fund contributions.

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<sup>10</sup> Federal Transit Authority National Transit Database

The following graphic provides an overview of the most common state and local funding sources used by U.S. transit agencies.

**Most Common State/Local Funding Sources (# of States)**



Source: U.S. Department of Transportation Bureau of Transportation Statistics

### ***International Perspective***

One of the largest differences between funding transit in the United States and other countries is farebox recovery. While the average farebox recovery ratio in the United States is 28 percent for bus systems and 40 percent for commuter rail systems, those of many international cities are much higher. In Helsinki, Finland, for example, Helsinki City Transport obtains approximately 55 percent of its income from its farebox. Copenhagen, Denmark’s farebox recovery ratio is slightly above 50 percent, and Stuttgart, Germany’s farebox recovery ratio is 80 percent, which includes debt service. The higher farebox recovery ratios in Europe reflect how much more robust these systems are, with heavier ridership, more convenient service levels, transit-supportive land use, and other policies which make auto travel less attractive. It also indicates that public transportation, even in regions where it is very strong, does not earn a profit, and still requires public funding to provide a high level of service.

Another significant difference from the United States funding perspective is how much less national funds are utilized. Many public transit agencies internationally rely only on local governments to subsidize capital and operating needs. Helsinki, Finland and Stockholm, Sweden are just two examples of cities that do not rely on any national funds — only local governments and privatized investments.

Unlike with U.S. agencies, public-private partnerships (PPPs) are more prevalent internationally for transit and are utilized in cities such as London and Hong Kong. Transport for London (TfL), London’s transit provider, has outsourced the maintenance and upgrades of the subway infrastructure to two private firms through PPPs. The operations of London’s buses are also maintained through several private firms. TfL

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collects fare revenue and makes payments to the contractors per the negotiated agreements. Hong Kong's railway system was built and is operated by two companies; the Mass Transit Railway Corporation (MTRC) and the Kowloon-Canton Railway Corporation. Seoul has created a Special Purpose Corporation to manage the fare collection process. PPPs offer the public sector the opportunity to share certain risks of providing transit with the private sector and tap into the private sector's desire to provide high quality service in order to earn a profit, but also create risk due to the public sector's relinquishment of complete control. For additional information on existing transit applications of PPPs please see page 65 of this report. Also see the "Public-Private Partnerships" appendix beginning on page 129.

Another transit funding mechanism that is used outside of the United States is congestion pricing. London is also at the forefront of this practice where automobiles are charged £8 (about \$16) per day to enter Central London. Instituted in 2003, congestion charging is projected to raise more than £2.6B over 10 years of operation, which must, by law, be re-invested in London's transport infrastructure. The project has been so successful that the Mayor of London has approved plans to extend the central London Congestion Charging zone westward. The extended zone will become operational in February 2007. In light of London's experience, other major cities, including New York City, are in the process of evaluating the feasibility of congestion charging.

Some international cities have found more innovative ways to fund their public transportation. In Berlin, German, for example, the transport enterprise rents out space in subway stations to retailers, operates an intercity coach company, gives incentives for using season tickets, and obtains revenues from sports and other cultural event organizers. Hong Kong recently privatized ownership over Hong Kong Mass Transit by finalizing the sale of shares on the Hong Kong stock market over the next two years. Authorities hope to raise HK \$30 billion (US \$3.8 billion) through this sale.

### ***Innovative Funding Methods***

Public transportation agencies in the U.S. are primarily funded through debt financing and pay-as-you-go funding, including obtaining dedicated revenues and raising fares. Historically, any financing mechanisms termed "innovative" have primarily been debt instruments. Today, however, due to situations where agencies are seeking to reduce costs by accelerating project delivery, some public transportation agencies are looking to both innovative techniques for debt financing and non-traditional financing sources to maintain or expand their systems. It is worth noting that many innovative financing techniques are not actually "new" sources of revenues; they are more a means to expedite capital investment that can, ultimately, save money. Transit finance managers in the Chicago region and around the country employ the methods described below to leverage available funding, with the potential to realize cost savings, on capital investments.

The federal government is encouraging the use of innovative financing techniques and innovative applications of existing revenues to support transit. The introduction of the ***Transportation Infrastructure Finance and Innovation Act*** (TIFIA) by the federal Government as a viable option for transportation projects greatly increases the availability of lower-cost capital to transit providers. TIFIA, which provides \$2.5 billion in annual



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credit assistance, improves access to capital markets, employs flexible repayment terms, offers potentially more favorable interest rates than can be found in the private capital markets, and facilitates earlier completion of large capital intensive projects due to the market's uncertainty over the timing of revenues.

***Flexible repayment terms*** on conventional debt instruments do offer some flexibility to better accommodate periodic cash flow constraints than would be possible under a fixed amortization schedule. They can be used to allow for flexible principal repayment that can provide a cushion to absorb short-term cash shortages. Additionally, they can allow for variable interest rates or limit the debt structured in certain years to better match cash flow. Similar to TIFIA, flexible repayment terms can provide very low cost of capital and flexible principal and interest repayment provisions that can be used in conjunction with an agency's traditional debt management program.

***Leveraging federal funds*** is also a significant opportunity for transit agencies to accelerate project delivery and increase the pace of capital investment. Several agencies, including the CTA, have successfully securitized against FTA Section 5309 New Starts funds through this issuance of Full Funded Grant Agreement (FFGA)-backed bonds. A major difference between FFGA-backed and 5307-backed debt is that Section 5307 funds are allocated on a formula basis and not discretionary appropriations.

***Alternative methods for delivering projects***, such as design-build, provide even more opportunities to accelerate project completion and to limit cost uncertainty.

***Constructing and operating alternative services***, such as bus rapid transit (BRT), also provide cost-effective approaches and can meet current and forecasted demand, even as population and employment centers may shift. Outsourcing of operations and maintenance functions, as appropriate, should also be considered to allow agencies to focus on core services as efficiently as possible.

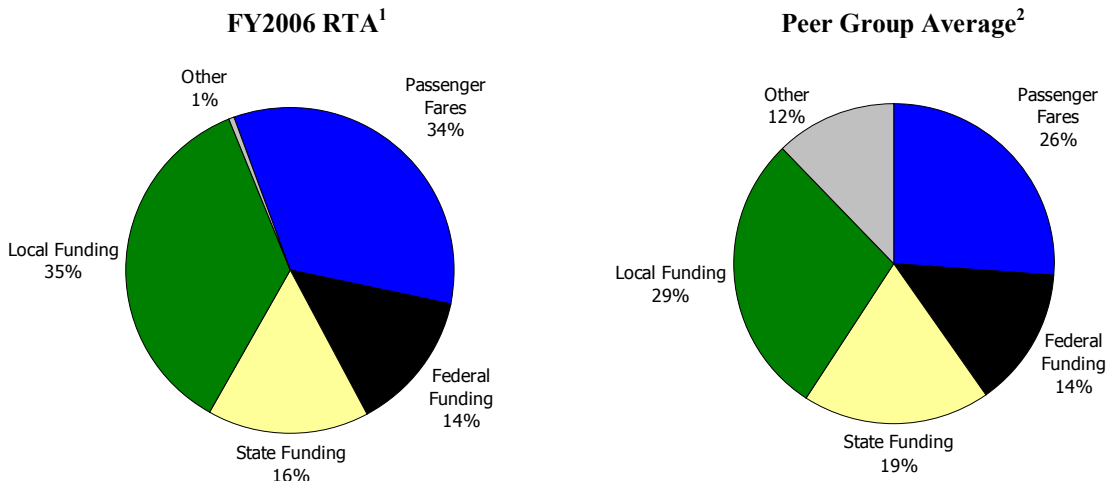
***Public-private partnerships*** for development and operation of transit service (as opposed to assets, which is already typically utilized by transit agencies) are also an area worthy of considerable consideration. PPP activity in the roads sector is quite strong currently, and several transit systems are also under consideration by state/local and private entities. As policymakers and stakeholders become more comfortable with PPPs in the US, transit should see additional activity.

***Transit-oriented development and partnerships with land owners and developers*** should also be considered as a means to create value for public transportation agencies at and around transit stations.

## COMPARISON OF RTA SYSTEM FUNDING TO PEERS

A review of other large U.S. transit agencies highlights the many subtleties that exist with regard to means employed to fund operations and capital programs. As seen below, the RTA depends more on passenger fares and local funding, such as its dedicated sales tax, than its peers.

### Combined Capital and Operating Funding of RTA vs Peers



<sup>1</sup> Based on estimated FY 2006 operating data from FY 2007 Proposed Budget and proposed capital marks.

<sup>2</sup> Weighed average based on total operating and capital funding breakdown for five selected peer agencies.

Some agencies, such as Los Angeles Metro, rely heavily on a dedicated portion of sales tax revenues, while others achieve greater diversification by leveraging a host of taxes in addition to funding they receive from the federal, state, and local government. In addition to government assistance and sales tax funding, New York MTA receives revenue from mortgage recording taxes, a portion of the motor fuel tax on gasoline and diesel fuel, and a portion of certain motor vehicle fees. In Boston, the MBTA looks to local governments to add to dedicated revenue that MBTA receives in the form of sales tax. A total of over \$100 million in local assessments is dedicated to the MBTA by Massachusetts state law with local governments contributing a portion based on their share of population in the MBTA service district. The table below displays funding by category for the most recent fiscal year available.

## Combined Operating and Capital Funding Peer Comparison

Funding Source	RTA	MTA – N.Y.	MTA – L.A.	NJT – N. Jersey	MBTA – Boston	SEPTA – Phila.
Passenger Fares	34%	30%	11%	29%	18%	24%
Federal Funding	14	10	18	26	12	26
State Funding	16	16	16	41	1	38
Local Funding	36	25	51	1	67	8
Other	1	18	4	4	3	4
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Note: Totals may not add to 100 due to rounding.

The New York MTA presents a good example of how a large organization, which is comprised of numerous transit agencies, has funded capital and operating investments and maintained a state of good repair over the past 25 years. In the early 1980s, when the New York transit agencies were in a financial crisis and their system assets were deteriorating, reliability was declining, and the quality of service was diminished, the MTA Board initiated a campaign to improve the transportation system. A new system of capital planning was instated, with 5-year planning periods and new dedicated funding sources. The MTA was authorized to issue its own bonds, which created a new source of capital, and the agency was given the right to raise fares and tolls.

Four mechanisms dedicate taxes to the MTA: the Mass Transportation Trust Fund (MTTF), the Metropolitan Mass Transportation Operating Assistance Fund (MMTOA), the Mortgage Recording Tax, and certain New York City taxes. The MTTF includes state taxes and fees that are dedicated to highway and mass transit. Some of its sources include petroleum business taxes, motor fuel excise taxes, motor vehicle registration fees, and various drivers license fees. While revenues for the MMTOA are authorized by State legislation, these taxes are only imposed in New York City and seven surrounding counties. They include a sales tax, a corporate franchise tax, business taxes, and petroleum business tax. Other NY MTA revenues include the mortgage recording tax, a real estate transfer tax, and state and local general fund subsidies.

## SUMMARY OF POTENTIAL FUNDING SOURCES

In the United States and throughout most of the developed world, public transportation receives public funding to pay for a large portion of its operating expenses. Operating subsidies to transit are justified by region-wide benefits, which include (1) reduced congestion, (2) improvements in air quality, (3) more efficient use of energy, roadway capacity, and land, (4) enhanced economic competitiveness, and (5) accessibility for non-drivers and drivers alike. Several options have been identified as potential new sources of dedicated revenue for RTA. These sources fall into the categories of sales tax, motor fuel tax, property tax, tax on paid parking, congestion pricing, and airport passenger facility charges. These sources are described below, followed by a summary table.

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## ***Sales Tax***

1. **Increase in Existing RTA Sales Tax Funding** – At present, CTA, Metra and Pace operations are primarily funded through a sales tax of 1% in Cook County and ¼% in the collar counties. Currently, the State of Illinois and many counties and local jurisdictions charge a sales tax on all tangible property for use or consumption. “Sales tax” is the combination of all state, local, mass transit, water commission, home rule occupation and use, non-home rule occupation and use, park district, and county public safety taxes. Additional ¼% sales tax increments are charged on top of the base 6.25% state sales tax rate that funds the State General Fund. While a portion of the funds generated by the sales tax increments goes to the RTA already, the potential exists to increase the overall sales tax rate or to increase the RTA’s portion of the existing state tax revenue or the revenue generated by the increments.
2. **Extend Sales Tax on Services** – Extending the Illinois sales tax to untaxed services could become a source of funding for RTA. Illinois currently taxes a handful of services, including electricity, hotels, and telecommunications; however, that is a very small portion of the potential taxable base. Potential taxable services include the broad array of personal and professional services individuals and businesses use every day. Since the U.S. is shifting to a more service-based economy, it is logical to extend the sales tax in a similar fashion. Texas, Michigan, Minnesota, and Hawaii are among the many states that are currently taxing services.
3. **Extend Sales Tax on Currently Exempt Goods** – Currently in Chicago and the State of Illinois, food, drugs and medical appliances are subject to a far lower sales tax rate (in Cook County, 2% instead of 9%). In addition, some goods are exempt from sales taxes, and all goods purchased for use by churches, public sector agencies, schools, universities and other non-profit entities (e.g., not-for-profit hospitals) are also exempt from sales tax.

Regarding internet sales, the RTA loses about \$9 million of sales tax revenue due to internet sales. Illinois — as is the case for the other jurisdictions that impose sales tax — imposes a parallel use tax. Residents that purchase goods from out-of-state vendors owe Illinois a use tax equal to the sales tax on purchases in the state. However, there is no mechanism for collecting this tax other than self-reporting by the purchaser — hence the lost tax. A possible solution lies in the Streamlined Sales Tax Initiative (SSTI) — which Illinois is just now joining — basically simplifying the sales tax structures between all the state and local governments as a prerequisite to getting Congress to allow or impose collection of inter-state sales tax.

## ***Motor Fuel Tax***

4. **Per Gallon Tax** – A motor fuel tax is a fixed dollar charge for each gallon of motor fuel purchased. Currently, the federal government, the State of Illinois, and a few Illinois counties impose a motor fuel sales tax based on gallons purchased. These taxes result in Illinois motorists paying an additional 42 to 46 cents for each

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gallon. A portion of the federal gas tax revenue goes to mass transportation and, thus, to RTA.

5. **Increase in Sales Tax on Motor Fuel** – A dedicated motor fuel sales tax would require an additional sales tax on only the total revenue on motor fuel sales. Currently, the collection mechanisms are in place for all motor fuel distributors throughout Illinois, since the State and certain counties already require a tax on all goods. However, there is no separate sales tax on just motor fuel gross receipts.

### ***Property Tax***

6. **Applied to Commercial and Residential Property** – In Illinois, commercial property taxes are imposed on real property based on the estimated value of the land and any permanent improvements (e.g., structures). Total property tax is made up of a number of rates that can include portions for the county, cities, local schools, and various types of other public services. A dedicated RTA property tax could be introduced with the creation of a special taxing district that might consist of the six collar counties or a subset of that area. Alternatively, the counties of the region could allocate a percentage of their property tax revenues to the RTA system.
7. **Real Estate Transfer Tax** – A real estate transfer tax is imposed upon a transfer of title to real estate. The State of Illinois charges \$0.50 for each \$500 of value or fraction thereof and Counties are given the option of imposing a tax of \$0.25 per \$500 of value. Home rule municipalities may also impose an additional real estate transfer tax. Notably, the City of Chicago charges \$3.75 for each \$500 of value or fraction thereof.
8. **Applied to Property Associated with Unpaid Public Parking** – One type of property tax is a fee associated with land used for unpaid parking on commercial or retail property. The structure of this tax could be based on the assessed value of the land, the number of spaces available, or the square footage of the parking area. The tax is charged to the owner and the owner has the option of how to pass this tax through, when applicable, to retail or commercial tenants.

### ***Income Tax***

9. **Income Taxes** – Income taxes are levied on the incomes of individuals, corporations or other legal entities. In addition to state income taxes, cities or counties have the authority to impose an income tax on their residents. In the State of Illinois, the personal income tax rate is 3%, and the corporate income tax rate is 7.3% (2.5% of which is the property replacement tax). To generate funds for transit through income taxes, the RTA could adopt one of two methods: i) divert a portion of the current income tax revenues to fund transit related projects, or ii) levy an additional increase to income taxes at the local or regional level.

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## ***Vehicle-Related Taxes***

- 10. Tax on Paid Public Parking (Also, see Number 8 above)** – Parking taxes are fees imposed on all motorists occupying a paid parking spot. If imposed, the parking operator, whether public or private, must collect an additional fee from the motorist. A parking tax can be structured to be a percentage of the parking cost or a fixed dollar amount. Revenues generated from a parking tax vary depending on business activity, parking rate increases, and the tax structure. The tax could be structured to achieve public purpose/transit goal, e.g., a higher tax on long-term/all-day commuter parking, as opposed to short-term parking.
- 11. Vehicle Registration Fees** – Vehicle Registration Fees are usually a fixed rate charged periodically for every registered vehicle. In 1999, Illinois vehicle registration fees were increased from \$48 per vehicle to \$78 along with a 25 percent increase in the annual commercial vehicle registration fee. The revenues generated from those increases were directed to road construction and maintenance programs.

## ***Tolling/Congestion Pricing***

- 12. Congestion Pricing** – Congestion pricing is a transportation control measure that allows the government to charge drivers to use roadways depending on location, time, or vehicle occupancy. The State of Illinois could create congestion pricing programs on the Illinois State Toll Highway with all or part of the revenue going to the RTA.
- 13. Expansion of Roadway Tolling System** – Roadway tolling in Illinois could be expanded beyond the Illinois State Tollway system. The largest costs associated with this option would be setting up toll collection mechanisms and enforcing payment, which could involve significant capital and operating investments.

## ***Airport Passenger Facility Charges***

- 14. Airport Passenger Facility Charges** – In 1991 and in later amendments, the U.S. Congress passed legislation that would allow airports to charge all enplaning revenue passengers an additional \$1.00 to \$4.50 for every leg of their trip (up to two legs per one-way trip and four legs per roundtrip). Airports must receive permission from the Federal Aviation Administration (FAA) to impose this fee and use these revenues for FAA-approved projects. Projects are selected based on their ability to enhance safety, security, or capacity; reduce noise, or increase air carrier competition. Currently, O'Hare International Airport charges \$4.50 and Midway International Airport charges \$3.00 per passenger. While O'Hare uses these revenues mostly for runway enhancements and sound mitigation and Midway uses these revenues for home and school sound proofing, none of these revenues are currently used to support bus or rail transit in the Chicago region.

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## ***Business Taxes***

15. **Increase Corporate Franchise Taxes** – Illinois corporations are also subject to a franchise tax. The tax is based on the share of a corporation's paid-in capital in Illinois. The initial franchise tax, imposed at the beginning of the corporation's first year doing business in Illinois, is 0.15% of the share of paid-in capital in Illinois. After a corporation's first year, the franchise tax rate is 0.10%. A corporation's minimum and maximum annual franchise tax liability are \$25 and \$2 million, respectively.
16. **Increase Payroll Taxes** – Payroll taxes are taxes that employers are required to withhold from employees' payroll, or taxes directly related to employing a worker and are paid from the employers' own funds. These can either be calculated by taking a percentage or fixed value from the monetary value of the payroll (e.g. 5% of all payroll or \$2 per \$1,000 of payroll) or employing a per capita fee (\$2/employee/month).

## ***Sin Taxes***

17. **Increase Sin Taxes** – *Cigarette Taxes* - Chicago currently has the highest cigarette taxes in the nation, with combined federal, state, county and city taxes of \$4.05. Currently, cigarette tax proceeds go to the General Fund, School Infrastructure Fund, Common School Fund and Long-Term Care Provider Fund. *Casino Taxes* - There are three ways in which a casino tax can be applied. One option is a charge on the overall casino's revenues. A second way would be to tax the customers by enforcing an "entrance fee". And, finally, a third way of raising casino taxes would be to apply the tax to individual slot machines and tables.

## ***Paratransit***

18. **Paratransit** – Paratransit has been included because of its need for greater funding. Paratransit typically recovers little, if any, of its costs from farebox revenue, and is heavily subsidized by the State. Funding currently going to subsidize paratransit could be used elsewhere if paratransit needs are taken care of by dedicated sources.

The table below provides some examples of how these revenue sources have been utilized in the United States and internationally.



## Non-Illinois Funding Sources & Uses

Funding Source	Transit Agency	Use of Funds
Real Estate Transfer Tax	MTA, New York, NY	Receives a mortgage recording tax at the rate of .625 of 1 percent of the debt secured by certain real estate mortgages and through a property transfer tax at the rate of 1 percent of assessed value.
Tax on Unpaid Parking	Translink, Vancouver, BC	Receives parking tax of \$0.78 per square meter on all non-residential parking properties.
Tax on Paid Parking	Muni, San Francisco, CA	Parking operators collect an additional 25 percent fee on parking and Muni receives 40 percent.
Income Tax	NYC DOT	Income tax comprises 21.4 percent of the total State's transit operating funds and 2.7 percent of the capital funds.
Vehicle Registration Fees	Delaware Transit Corporation	30 percent of the cost of Wilmington Transit Connector is proposed to be provided by Delaware Transportation Trust Funds comprising revenues from vehicle registration fees and other sources.
Congestion Pricing	Transport for London, England	Receives revenues from motorists entering the Central London area during set hours.
Passenger Facility Charges	Newark, NJ	Provided \$357 million for Newark Airport's monorail system between the airport and the new Northeast Corridor rail station.
Corporate Franchise Tax	SEPTA & NYC DOT	Constitutes one of many components of "Other" revenue sources in both budget books.
Payroll Tax	Tri-Met (OR)	The tax revenues covered 52 percent of O&M costs.
Cigarette Tax	Tri-Met (OR)	Cigarette tax accounted for 0.4 percent of operating revenue in 2004. Proceeds used for elderly and disabled services.
Casino Tax	Oregon	Uses a casino tax to fund a part of the bus service for seniors.

The feasibility of the potential dedicated revenue sources and their effects on key policy issues within the region should be evaluated based on the following criteria:

- **Stability and Sustainability** – It is important that the new revenues track the funding needs over time and not fluctuate unpredictably. Some revenue options may produce high levels initially but diminish over time due to economic, technological, or other forces.
- **Ease of Collection/Implementation** – It is important to determine how complex and costly it might be to collect the funds associated with the new revenue streams. In some cases, the revenue source is already in existence, so there is no added burden in increasing that tax or charge. In other cases;

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however, the cost to collect new revenues might outweigh or detract from the full potential of a revenue source. The associated administrative costs and implementation steps must also be considered, since some new revenue sources will have to be adopted by a variety of jurisdictions, preferably in a uniform way.

The table below provides an overview of the estimated yield of potential revenue sources, as well as an assessment of revenue stability and ease of implementation for each potential source.

## Revenue Sources Comparison

	Annual Revenue Yield	Stability/ Sustainability	Ease of Collection/ Implementation
<b>Sales Tax</b>			
Increase Existing Rate / Increase RTA Share	A 0.25% increase in the RTA sales tax across the region would yield \$270 million.	Relatively stable year-to-year.	Collection mechanism already in place.
Include All Services	A 0.25% RTA sales tax on personal services, entertainment, and other consumer services in RTA region would yield \$85 million.	Relatively stable year-to-year.	Additional collection mechanisms needed.
Include Currently Exempt Goods	Few goods are exempt from the RTA sales tax.	Relatively stable year-to-year.	Collection mechanism already in some places.
<b>Motor Fuel</b>			
Add per Gallon Tax	A \$0.01 per gallon RTA tax on gasoline would yield \$35 million.	Gallons purchased dependent on world oil prices, gas demand, vehicles' fuel efficiency, etc.	Collection mechanism already in place.
Add Sales Tax	An additional 1.0% RTA sales tax on gasoline would yield \$65 million.	Amount sold dependent on world oil prices, gas demand, vehicles' fuel efficiency, etc.	Collection mechanism already in place.
<b>Property Tax</b>			
Applied to Commercial Property	A 1% increase to existing County property tax in each County would yield \$10 million across the region.	Relatively stable year-to-year.	Collection mechanism already in place. Special taxing district would need to be created.
Applied to Residential Property	A 1% increase to existing County property tax in each County would yield \$10 million across the region.	Relatively stable year-to-year.	Collection mechanism already in place. Special taxing district would need to be created.
Transfer Tax	An RTA fee of \$0.50 per \$500 (0.01% ) of the value of transferred property within the region would yield \$93 million.	Subject to real estate market development and sale patterns.	Collection mechanism already in place.
Applied to Unpaid Parking	An assessment of \$100 per year per parking space would yield \$100 million.	Relatively stable year-to-year.	Implementing tax could be difficult. Unlikely to pass burden of tax onto drivers.
<b>Income Tax</b>			
Income Tax	An additional 0.1% personal income tax in the RTA region would yield \$250 million. An additional 0.1% corporate income tax in the RTA region would yield \$20 million.	Relatively stable year-to-year.	Collection mechanism already in place.
<b>Vehicle-Related Taxes</b>			
Applied to Paid Parking	A 10% tax on parking facility receipts would yield \$36 million.	Relatively stable after initial introduction.	Besides Cook County, counties do not have collection mechanism in place. Can be costly to implement.
Additional Vehicle Registration Fees	A \$10 increase in vehicle registration fees yields \$50 million in the RTA region.	Relatively stable revenue; however, can be impacted by economic downturn or increases in interest rates.	Collection mechanism already in place.

	<b>Annual Revenue Yield</b>	<b>Stability/ Sustainability</b>	<b>Ease of Collection/ Implementation</b>
<b>Toll/Congestion/ Passenger Facility Revenues</b>			
Congestion Pricing	A 10% surcharge on ISTHA tolls collected during peak travel periods would yield \$46 million.	Relatively stable after initial introduction. Can be affected by economic downturns or increased fuel prices.	Collection mechanism already in place (if using existing toll system).
Expand Tolling to Additional Roads	Expanding tolling to an additional 10% of roads would yield \$58 million.	Depends on which roads are tolled, travel demand forecasts, and toll elasticity.	Collection mechanism and enforcement mechanisms would be costly to set up.
Passenger Facility Charges	A \$1 charge for each revenue passenger departing O'Hare and Midway Airports would yield \$23 million.	Typically stable year-to-year.	Collection mechanism already in place. However, needs FAA-approval for a transit-related airport project.
<b>Business Taxes</b>			
Increase Corporate Franchise Taxes	A 0.1% franchise tax in the RTA region would yield \$145 million.	Typically stable year-to-year.	Collection mechanism already in place.
Increase Payroll Taxes	A regional payroll tax of \$10 per head would yield \$37 million.	Typically stable year-to-year.	Collection mechanism already in place.
<b>Sin Taxes</b>			
Increase Cigarette Taxes	A \$0.10 per pack tax on cigarettes would yield \$33 million.	While cigarettes are not affected by economic downturns, consumption is declining nationwide.	Collection mechanism already in place.
Increase Casino Taxes	10% of state gaming revenues would yield \$69 million. 10% of state lottery revenues would yield \$67 million.	Amount varies depending how tax is applied (i.e., revenues, profits, or as an "entrance" fee).	Collection mechanism already in place.

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## **COST RECOVERY IMPLICATIONS**

The RTA Act requires that the RTA system cover at least 50% of its operating costs with revenues, with a separate 10% (going to 12% in 2009) requirement for ADA paratransit service. The RTA Act prescribes the calculation of this ratio — excepting certain costs such as depreciation, some security costs, and others. The RTA Act includes other revenues, such as advertising, along with fares as revenues in the ratio for services other than ADA paratransit.

Additional operating funds will permit the RTA to expand service, as well as maintain existing service in the face of rapidly increasing costs such as for fuel, security, power, healthcare, and pensions. However, to continue to meet the cost recovery requirements of the RTA Act, system revenues must increase at the same rate as operating costs. For example, an increase in mainline service (i.e. excluding ADA paratransit service) annual operating costs of \$300 million requires a \$150 million increase in revenues. Currently the RTA system generates \$930 million in revenue — \$710 million of which represents fares. An increase in advertising and other 'non-farebox' revenues of 2.5% per year (in line with inflation) would leave — to continue to cover 50% of operating cost with revenues — a requirement that fare revenues increase at the rate of 12% per annum (assuming such increases start in 2008) — about a 60% increase in fare revenues by 2011. Some of this revenue would come from increased ridership due to service enhancements and some would need to come from increased fares.

Good public policy requires an appropriate balance between one or more fare increases and consideration of modifying the cost recovery level or calculation (such as further exempting some costs) to moderate the rate of required fare increases.

Two notes related to the above discussion: Traditionally, fare increases have an adverse affect on service demand. Past experience has been that large fare increases may lead to significant ridership losses. The fare increases associated with the RTA financial crises of the early 1980s contributed to a 113 million decline in annual ridership. However, modest or targeted increases have been able to mitigate this effect. Metra and the CTA saw ridership increases in 2006 even though both operators increased fares (5% across the board at Metra and various pricing changes, which increased cash fares while freezing pass prices, at the CTA which had the net effect of increasing its average fare by 11%). Also, note that the cost recovery ratios of the transit systems from around the country collected by the federal government in the "national transit database" use only fares. As such, this database will show a lower ratio than 50% for the RTA system.

## **CASH FLOW IMPLICATIONS**

The 5-year Moving Beyond Congestion capital program requires \$10 billion in capital assistance and \$400 million in annual operating support. The capital assistance will require a lesser amount of cash outlay, as projects typically spend out over a number of years. For example, assuming spending for projects follows a historic seven-year implementation pattern, it would result in cash outlays totaling \$3 billion during 2007–2011. Financing 25% of the projects with long-term bonds further reduces the required

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cash outlay for 2007–2011 to \$2.5 billion. The remainder of the projects would be funded on a “pay-as-you-go” basis.

Consequently, a “package” of funding sources would need to address our \$2.5 billion near term cash need for projects (assuming bond financing for 25% of the projects) and a \$400 million annual operating need (assuming that fares are not significantly increased to mitigate the operating need). Note that the capital projects cash-needs increase as implementation unfolds.

## **CONCLUSION**

Considering the current operating and capital shortfall, as well as the need for a large investment to fund the *Moving Beyond Congestion* program, it is imperative that state and local elected officials identify new funding for RTA and its Service Boards through existing or new revenue sources. While there are a wide range of options, the final mix of revenue will be determined through the legislative process in the Illinois General Assembly and by public opinion.

It is vital that stakeholders are aware of the implications related to revenue sources. Through the Strategic Planning process, a menu of options available in Illinois, and in use around the world, has been developed for the consideration of elected officials and the public. These options have pros and cons and produce varying levels of revenue. Our hope is that the legislative process will serve to educate the public on these implications and forge a consensus on the most appropriate mix of new revenue.

Several principles should guide this debate. First, revenue options must be stable and predictable. Fluctuations in revenue can have significant impact on long-term planning and financing programs. Stable, consistent revenue sources that are more resistant to economic cycles are favored over sources with heightened sensitivity to the general economy.

Second, revenue sources should be diverse. Diversification helps to stabilize funding, but it also avoids placing an unfair burden on any one sector of the economy or taxpayers. Because of the significant capital and operational needs, it is extremely unlikely a single source could produce enough revenue to address the needs of the system.

Third, revenue sources tied to transportation uses, congestion mitigation and the promotion of transit use should remain as a vital component of transit funding.

Finally, new, innovative methods of financing, including a close examination of public-private partnerships, unique financing methods in place around the world, flexible debt repayment terms, and the leveraging of federal funds, should all be included in proposed funding programs. While these innovative finance methods do not necessarily produce “new” revenue, they are a means to expedite capital investment which can, ultimately, save money and accelerate the implementation of new projects and programs.

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## 5.0 ACTION ITEMS AND CONTINUING PLANNING PROCESS

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2007 is the year of decision for Chicago in terms of our future transit investment. Transit is central to Northeastern Illinois — America’s Transportation Hub — and is one of the assets that make the region globally competitive. As described in the previous chapters of this Strategic Plan, the quality of life and standard of living in the region are significantly enhanced by our transit network. And while demand for transit is up throughout the region, thanks in part to high gas prices, funding for transit has not kept pace.

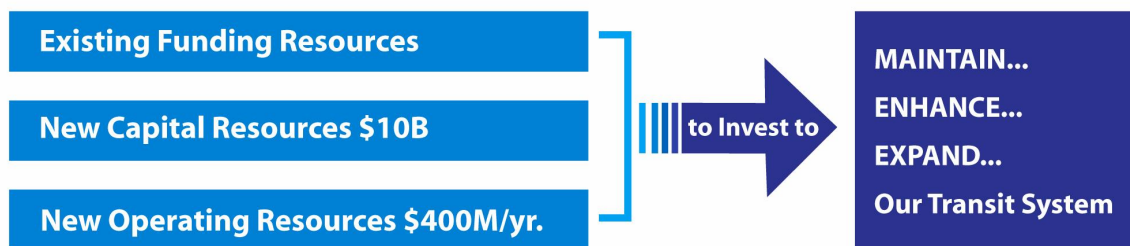
Moving forward from the springboard of this Strategic Plan towards its implementation consists of two major elements. The first is a set of the initial key action items necessary to implement the Strategic Plan. The second is the use of the Plan as a living document, continually being updated and refined to reflect changing realities. Both of these elements are described below.

### ACTION ITEMS

The Strategic Plan presents an overall capital funding strategy and multiple ideas for improving transit in Northeastern Illinois and solidifying our economic base. Direct action that can be taken in the pursuit of these goals include expanding funding, taking the necessary first steps in pursuing the additional strategies presented in Chapter 4, and securing stakeholder and legislative support.

#### *Expanding Funding*

The future economic progress, prosperity, and livability of Northeastern Illinois depend upon the provision of adequate funding for CTA, Metra, and Pace so that they can maintain, improve, and expand their networks. The Strategic Plan requests \$57.0 billion over a 30-year period. However, the first 5 years of the plan are crucial because these set the stage for future needs. The total 5-year capital needs can be summarized as follows:



Admittedly, these needs are neither modest nor easily met. Finding the capital to support these systems will be an enormous challenge, laden with political and financial obstacles. However, meeting this challenge is not a goal — it is a necessity. The total amount needed by all three agencies is \$16.1 billion, but 64% of that need is just to maintain the system. In other words, the system cannot survive in its current state — a state that is clearly inadequate to serve the needs of the region through 2011 — without meeting these funding needs.



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Although RTA needs \$16.1 billion, it expects at least \$3.1 billion and has the potential of obtaining an additional \$3.0 billion, primarily in federal funding. The remaining unfunded need is \$10.0 billion. The RTA will also need another \$400.0 million per year in operating costs during this period.

Riders are hardly the only ones who will benefit from these improvements. There are huge economic benefits for everyone in the region. Each new rider moved out of a single occupant vehicle and on to transit helps reduce fuel consumption and emissions. Each new job that is created via greater mobility helps to feed a family and the economic engine of the region. Finally, each passenger who can reach his or her destination more rapidly, on any form of transportation, saves valuable time that can be used for more productive activities. All of these benefits add up to far more than the cost of this capital program.

Expanding funding for Northeastern Illinois is ultimately not a choice, but a necessity. The mobility, vitality, and economic prosperity of the region depend on the existence of a well-maintained, efficient and effective public transportation system. The region is fortunate to count as one of its assets the second-largest public transportation system in the nation. For the region to prosper, it must invest in and improve its greatest assets, or else it risks losing its competitive advantage.

### ***Implementing Initiatives***

In Chapter 3, the Strategic Plan presents some additional strategies, beyond major investments, for improving transportation in Northeastern Illinois. Each of these strategies must be explored in order to further the cause of creating innovative initiatives in public transportation. Some possible next steps for these strategies include the following:

***Sub-Regional Planning*** – Establish contacts at all relevant local agencies and arrange for an initial meeting with those contacts wherein consensus can be reached on a 2-year schedule for completing the three phases of the study.

***Integrating Development and Land Use with Transit Service*** – Analyze potential ways to expand and improve the RTAP program, sketch out possible evaluation processes that include transit-oriented development criteria, and develop a timeline to evaluate regional corridors in coordination with the Service Boards and Chicago Metropolitan Agency for Planning.

***Seamless Public Transportation*** – Analyze the remaining barriers to schedule coordination, fare integration, and information system integration, and develop strategies for overcoming these obstacles.

***Reverse Commute Service*** – Explore opportunities where feeder bus and employee shuttle services could potentially help increase reverse-commute ridership, and create a list of potential markets for new express-bus and demand-responsive services.

***Modal Integration*** – Examine possible opportunities throughout the region for new transit hubs, partnerships with car-sharing programs, improvements to station bicycle facilities, expanded accessibility, and station parking enhancements.

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***Suburb-to-Suburb Services*** – Work with the Service Boards to encourage and explore opportunities for increasing transit-oriented development in plans for the STAR line, Metra’s UP-NW, UP-W, and SES lines, and Pace flexible bus route improvements.

***Technology Applications for Transit*** – Analyze Federal Transit Administration guidelines for improving transit security, work with the service boards to ensure successful implementation of estimated arrival time technology, and investigate the potential for revenue generation through provision of WiFi technology on transit vehicles.

***Public-Private Partnerships*** – Explore opportunities for partnering with private companies including the possibility of outsourcing infrastructure maintenance.

***More Off-Peak and Weekend Service*** – The service boards will expand service opportunities during these periods.

***Faster and More Reliable Service*** – With projects aimed at faster and more reliable service that will include bus signal priority at traffic signals; exclusive bus facilities, such as queue jumps and lanes; railroad-highway grade separations; improved operations to avoid bunching of vehicles; and reduced construction delays.

***Reduced Crowding and Improved Seat Availability*** – Being primarily a city service issue, projects like the Brown line will ultimately reduce crowding and help alleviate Red and Purple line crowding too. Vehicle fleets will be expanded to reduce crowding.

***Expanded Suburban Bus Service*** – Through route restructuring, developing flexible service options and new concepts like BRT in high travel corridors.

***New Paratransit and Dial-a-Ride Services*** – Pace will expand paratransit and dial-a-ride services across the region and provide a minimum level of service coverage for the entire 6 county region.

***Expanded Vanpool and Ridesharing*** – Will be implemented as part of Pace’s expanded and flexible, “full-family” of services.

***Fare Integration*** – An RTA/Service Board Policy Committee will define and implement an approach for an integrated fare system for Northeastern Illinois.

***Performance Measures*** – We propose developing performance measures that track our performance and operations as they relate to Moving Beyond Congestion vision and goals.

***Environmental Protection/Sustainability Measures*** – Establish contacts with local environmental advocacy groups and arrange for an initial meeting to discuss the development of a regional environmental plan.

### ***Stakeholder and Legislative Support***

The program for capital investment and the additional strategies above represent the core of a future plan for Chicago transit. However, this plan is not intended to be the end of the process. On the contrary, this Strategic Plan is intended to be a living document that

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provides a framework for future plans and investments. The refinement of the plan should be ongoing, with the scope of the years covered progressing as time goes by.

A large part of this continued refinement will be ongoing dialogue with the general public. The plan is intended to be responsive to input from stakeholders, elected officials, and all citizens of the region. The RTA and the Service Boards do not operate in a vacuum, and such plans are intended to reflect the needs and will of the entire region. As the RTA receives input on its proposals, it will continually update the plan to reflect this input.

Keeping the plan in accordance with public needs will be an essential element of maintaining not only stakeholder support, but the support of legislators as well. Ultimately, the state and federal governments are the primary source of funding for transit in the region, and particularly for capital improvements, and they must be on-board with any major RTA expenditure. Part of the challenge RTA faces is the cultivation and maintenance of that support, to be accomplished through the support of stakeholders informed as to the substantial benefits to the region, and the nation, that result from this plan.

## **CONTINUING PLANNING PROCESS**

This Strategic Plan is just the beginning. As mentioned above, RTA, CTA, Metra and Pace are committed to an ongoing strategic planning process to guide future investment choices. Some of the specific methods for continuing this process are outlined below.

### ***Performance Measures***

Necessary funding for transit in the region will be an essential part of the economic progress of Northeastern Illinois. However, in order to ensure that these funds are accomplishing stated goals, the RTA and the Service Boards will develop a set of performance measures that will successfully evaluate the results of investments. Some commonly used transit performance measures that can be used for comparison purposes include the following:

- Farebox recovery ratios
- Operating costs per passenger trip and per passenger revenue mile
- Passenger trips per vehicle mile
- Revenue miles between failures
- Passenger miles traveled

RTA and the Service Boards together with relevant and stakeholders, will develop specific criteria to be met based on such performance measures. The performance measures, as well as the overall goals of the plan, will be adjusted based on performance over time. This is an essential part of the living Strategic Plan document.

RTA will also need to track its own performance in terms of advancing the Strategic Plan. This will help RTA to make adjustments during the process to become more effective at implementation. Some potential performance measures for this evaluation could include:

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- Strategic vision and goals fulfilled
  - Funding acquired versus funding requested
  - Level of success with each of the additional strategies

Although two of these measures are necessarily subjective, they can be developed further by RTA to enhance objectivity. For example, each goal can be assessed using sub-criteria, some of which may have objective measures. Similarly, each additional strategy has elements that can be easily assessed. Using a combination of objective and subjective measures, RTA can accurately evaluate its progress on the implementation of the Strategic Plan.

### ***Service Board Strategic Plans***

This Strategic Plan is but one element of the region's comprehensive transit plans. Having jointly produced this plan, each Service Board will want to revisit its own strategic business plans, capital and operating plans, to ensure that they are aligned with the region's strategic vision and goals for public transit. RTA will take the lead in working with each Service Board on the first steps of developing such a plan. This will help to continually build the regional consensus for significant improvement and expansion of transit that will pay large dividends for years to come in increased economic activity, less road congestion and increased consumer savings from the transit network.

### ***Regional Coordination with MPO***

The RTA is a regional transportation planning body, but it is not the only such body in the region. The Chicago Metropolitan Agency for Planning (CMAP) was formed by merging the staffs of the Northeastern Illinois Planning Commission (NIPC) and the Chicago Area Transportation Study (CATS). CMAP is responsible for developing regional transportation plans, including all modes of transportation — over short and long time period in conjunction with the CATS Policy Committee, the currently designated MPO for the region.

In its 2040 Regional Framework Plan, NIPC developed a system of corridors and supportive land uses meant to connect the region's centers and improve residents' quality of life by making it easier to get around their communities. The core "themes" of the 52 goals developed for the Framework Plan were: Livable Communities, Diversity of its People, Healthy Natural Environment, Global Competitiveness, and Governed Collaboratively. The Framework is designed to strengthen the link between land-use planning and investment in transportation and other infrastructure in the region. This Strategic Plan now provides the sixth core theme — a Convenient, Affordable, Reliable and Safe World-Class Public Transportation System — to complement the other core themes of the Framework Plan. RTA must proactively coordinate its planning process with CMAP so that RTA transit plans fit appropriately into the NIPC regional land use strategy. This will be an essential element of the success of the RTA plan.

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## CONCLUSION

Our history has been shaped by people with the vision to think big and the courage to realize that vision. That's how the Chicago area became the nation's transportation crossroads, a showcase of modern architecture, a manufacturing and financial colossus, and a center of innovation in industries as diverse as retailing, higher education, and health care. Today, public transportation stands at a critical juncture with a proud past that brought us the Loop elevated system, new train lines parallel to major highways, direct links to airports, and a suburban train and bus system that rivals any other in the country. The question is what does our future hold?

Will it become the model transit system for the new century, serving commuters in both directions with equal facility and finding new and better ways to move small groups from place to place efficiently and conveniently? Will it be a proud and productive asset that helps attract international events to the area and boosts the region's visitor industry by providing easy access to attractions throughout the collar counties? Will it continue to spur economic investment, job growth and housing development in Chicago and in the suburbs? Will it continue to offer us all a better quality of life by protecting our air quality and insuring that everyone can move freely and comfortably throughout the region? Will it help manage and minimize traffic congestion?

***Moving Beyond Congestion*** offers answers to these questions. This strategic report builds regional consensus and coordination by outlining priorities and a framework that local leaders can rally around. This unprecedented regional planning process has positioned us well as we engage the legislative process. With this report as our guide, we will be able to make sound proposals in support of reform, operating funding and capital investments. We can show strong, grassroots support from throughout the region to strengthen our case for public transit.

We welcome an open, honest and vigorous debate on the subject of transit investments and funding. We encourage everyone who cares about our quality of life, our economy and our long-term health to participate. The future of our region is at stake and this is no time for half-measures. We all live, work and play in a highly mobile society and if we want it to grow and meet our future needs, now is the time to invest in public transit.

From the central city to the farthest suburbs, Northeastern Illinois is poised for growth and greatness, bidding for major international events like the Olympics and securing its global reputation as one of the most progressive, vibrant and culturally integrated metropolises in the world. At the heart of this vision is a modern, efficient public transit system that will leverage our economic assets and help us realize our individual dreams and collective hopes in the years and the decades ahead.

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## 6.0 APPENDICES

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### SOURCES

#### CTA

<http://keepchicagolandmoving.com/200501funding.pdf>

#### Major Transit Agencies

<http://www.mwco.org/uploads/committee-documents/ol1ZXVw20041015144346.pdf>

#### Alameda-Contra Costa Transit District (AC Transit), Oakland, CA

<http://www.actransit.org/aboutac/budget.wu>

#### San Mateo County Transit District (Samtrans), San Francisco, CA

<http://www.smcta.com/pdf/Budget/FY2005.pdf>

#### Metra Commuter Rail, Chicago, IL

<http://metrarail.com/Budget/2007BudgetBook.pdf>

#### NY MTA

[http://www.cbcny.org/CBC\\_HowToBalanceMTA.pdf](http://www.cbcny.org/CBC_HowToBalanceMTA.pdf)

#### FTA NTD

<http://www.ntdprogram.com/ntdprogram/>

#### Recovery Ratio information

[http://www.pacebus.com/pdf/2007\\_percent20Budget\\_percent20Book/Suburban\\_percent20Service/Appendix\\_percent20E\\_percent20-\\_percent20Performance\\_percent20Comparisons.pdf](http://www.pacebus.com/pdf/2007_percent20Budget_percent20Book/Suburban_percent20Service/Appendix_percent20E_percent20-_percent20Performance_percent20Comparisons.pdf)

<http://www.co.dane.wi.us/rail/report/appende.htm>

<http://www.heritage.org/Research/SmartGrowth/wm717.cfm>

#### International Information

<http://www.apta.com/services/intnatl/intfocus/berlin.cfm>

<http://www.apta.com/services/intnatl/intfocus/hkmtrc.cfm>

<http://www.cfit.gov.uk/docs/2001/ebp/ebp/stage2/02.htm>

[http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rrd\\_27.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rrd_27.pdf)

[http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rrd\\_31.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rrd_31.pdf)

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## 6.1 SUMMARY OF PUBLIC INPUT

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The RTA conducted an extensive outreach effort to further define the components of *Moving Beyond Congestion*. The program's outreach included more than 300 in-person presentations and interviews, a website, [www.MovingBeyondCongestion.org](http://www.MovingBeyondCongestion.org), a monthly newsletter and a toll-free number to request project materials and information. The website has received more than 700,000 hits; more than 3,000 telephone messages have been received; and more than 2,500 people have shared their ideas through an online survey. The public involvement process also included 13 community meetings throughout the region and dozens of community dialogues.

Each comment received has been reviewed. There were nine main areas of concern or interest mentioned by 20% or more of those tracked:

1. Expand regional/inter-community service: 46%
2. Create better access to jobs: 35%
3. Better meet needs of the transit-dependent: 30%
4. Improve connections between Metra, Pace and CTA: 28%
5. Provide realistic/practical/efficient alternatives to driving: 24%
6. Extend bus routes: 24%
7. Provide more frequent bus or train service: 24%
8. Provide longer hours of bus service: 22%
9. Improve planning to address current and potential user needs: 20%

The information summarized here should serve as issues for further consideration rather than a comprehensive or scientific evaluation of regional need. There were many positive comments, and many who responded felt they had a good working relationship with the Service Boards. It is noteworthy that safety, cleanliness and cost were not frequently mentioned as problems. The need for system coordination and integration was a recurrent theme. It was stated repeatedly that lack of connectivity makes it impossible or prohibitively burdensome to choose transit for those who have the option of driving. Whether it is an inability to efficiently get to another community or to get from a train stop to a work site, these barriers keep people in their cars.

**Transit options need to be as convenient, timely and flexible as driving.**

Other comments included the need for greater north-south mobility in the higher density areas, and a need for direct access to airports, particularly O'Hare. Timing and connectivity were an issue for those who move between multiple destinations, e.g., from work to classes or from work to child care.

In too many areas, decision makers, businesses and residents look to road improvements rather than transit as solutions. While transit is unlikely to be the sole means of mobility for large portions of the population in the collar counties, as it is for many in Cook County, transit can become a more frequently used alternative if strategic improvements and linkages are made, combined with effective marketing and assistance to new users. In suburban areas, buses were viewed as less desirable than



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trains, and it will require aggressive efforts to change these attitudes and reach a new user population.

Transit-dependent populations, including those who use paratransit, have strong opinions about the quality of service, responsiveness to their specific needs, inefficiencies in scheduling, and the importance of timely service. While there have been recent improvements, particularly in Cook and DuPage counties, there remain many issues of coordination and efficiency throughout the paratransit system. While higher education organizations report widespread satisfaction with the U-Pass program, which provides discounted passes to full-time students, they wish to see the program expanded to include Metra and part-time students.

Public Meeting promotion summary:

- Newspaper notices and display ads were placed in the following newspapers to promote the public meetings:
  - *Chicago Defender*
  - *Chicago Sun Times*
  - *Daily Herald*
  - *Hoy*
  - *Joliet Herald*
  - *Kane County Chronicle*
  - *Lake County News-Sun*
  - *Northwest Herald*
  
- Over 300 radio announcements were aired in advance of the meetings on the following outlets and websites:
  - WLIT-FM
  - WLIT.com
  - WGCI-FM
  - WKSC-FM
  - WLS-AM
  - WGRB-FM
  - WVAZ-FM
  - WNUA-FM
  - WDRV-FM
  - WSRB-FM
  - WXRT-FM
  - WCKG-FM
  - WILV.com
  
- All members of the Illinois General Assembly from the RTA service area were invited to attend the public meeting via U.S. post mail and telephone.
  
- Nearly 400 Partner for Transit organizations, representing thousands of members from across the region, were notified in advance of the meetings and encouraged to participate. A specific Partners meeting was also held on December 12, 2006.

## ***Public Meeting Schedule (December 2006)***

<b>Region</b>	<b>Location</b>	<b>Date of Briefing</b>	<b>Time</b>	<b>RTA Board &amp; Staff</b>
<b>Will County</b>	Joliet Historical Museum	Monday, December 4th	6:00pm-7:30pm	Fred Norris Leanne Redden Diane Palmer Sidney Weseman John DeLaurentiis
<b>DuPage County</b>	DuPage Co. Building (Auditorium)	Tuesday, December 5th	6:00pm-7:30pm	Patrick Durante Leanne Redden Andrew Gruber Joe Voccia.
<b>Lake County</b>	University Center of Lake County	Tuesday, December 5th	6:00pm-7:30pm	Dwight Magalis Steve Schlickman Paul Neuhauser
<b>McHenry County</b>	Woodstock Village Hall (Board Room)	Wednesday, December 6th	6:00pm-7:30pm	Dwight Magalis Steve Schlickman Gary Kirkman Audrey MacIennan
<b>Cook (West)</b>	Westchester Village Hall (Board Room)	Wednesday, December 6th	6:00pm-7:30pm	Patrick Riley Joe Costello Phil Shayne
<b>Cook (North)</b>	Pace Headquarters (Board Room)	Thursday, December 7th	6:00pm-7:30pm	Patrick Riley Leanne Redden Sidney Weseman
<b>Chicago (South)</b>	Sheldon Heights Church of Christ	Thursday, December 7th	6:00pm-7:30pm	Rev. Addie Wyatt Diane Palmer Sam Smith
<b>Chicago (Central)</b>	Bilandic Building (Room C500)	Monday, December 11th	9:00am-10:30am	Jim Reilly Michael Rosenberg Steve Schlickman Andrew Gruber Diane Palmer
<b>Kane County</b>	Kane Co. Building (Auditorium)	Monday, December 11th	6:00pm-7:30pm	Fred Norris Joe Costello Bill Lenski
<b>Cook (Southwest)</b>	Village of Chicago Ridge	Monday, December 11th	6:00pm-7:30pm	Doug Troiani Diane Palmer Milton Stanley Sidney Weseman
<b>Chicago (North)</b>	Loyola University - Lakeshore Campus (Quinlain 112)	Tuesday, December 12th	6:00pm-7:30pm	Michael Rosenberg Steve Schlickman Diane Palmer
<b>Chicago (West)</b>	Garfield Park Conservatory	Thursday, December 14th	6:00pm-7:30pm	Armando Gomez Andrew Gruber Yanzi Mendez
<b>Cook (South)</b>	South Suburban Mayors & Managers (Room C)	Thursday, December 14th	6:00pm-7:30pm	Jim Reilly Steve Schlickman Diane Palmer

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## 6.2 30-YEAR PROJECT LIST

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An initial list of projects has been developed as part of the *Moving Beyond Congestion* Consensus Framework. These projects represent a 30-year vision of this region’s transit system. All projects will not necessarily be included in the final proposed MBC program — that is where we need your input. Over the next few months, the project list will be refined based on further analysis and public input.

The project list, developed from a large variety of sources, includes projects specific to the RTA service boards (CTA, Pace, and Metra) along with other projects obtained from county and local plans, the CMAP Regional Transportation Plan and input from Partners and the region’s residents. Service Board projects include the adopted 5-year capital programs, documented unfunded needs, federally authorized major expansions, and proposals for future expansions.

Projects are organized in the three building blocks of the *Moving Beyond Congestion* vision

- ***Invest to Maintain.*** We must preserve our current system and maintain the services we have. This requires reinvestment to maintain our current assets and continue the progress we have made since 1989 in addressing the backlog of unfunded capital needs. Additional funding is required to continue to operate our present level of service.
- ***Invest to Enhance.*** We propose investing to enhance the system with improved and new service. This will improve existing service and expand service into new transit markets in the mid-term future.
- ***Invest to Expand.*** To meet the region’s growth and to support existing and expected demand for transit we need to plan for longer-term future system expansion. This category includes the major expansion projects identified in federal legislation, and project concepts proposed by the transit agencies, other government agencies, Partners and the public.

### Capital Costs (billions, 2006\$)

Invest to Maintain	\$34.0
Invest to Enhance	\$5.0
Invest to Expand	\$17.9
<b><i>Total Cost</i></b>	<b>\$56.9</b>
<b><i>Anticipated Federal Funds</i></b>	<b>\$19.4</b>
<b><i>Additional Funding Required</i></b>	<b>\$37.5</b>

### Operating Costs

Additional operations funding of \$300 million per year will be required to continue to provide current service, support enhanced services and operate major expansion projects. In addition, approximately \$100 million per year will be required to support regional paratransit operations.

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## ***INVEST TO MAINTAIN***

The region's transit investment priority is maintaining the current infrastructure in a state of good repair and providing current service. Significant capital investment is necessary to keep Northeastern Illinois' transit system in a state of good repair in order to provide a convenient, affordable, reliable, and safe public transit service. In addition, the region's transit agencies face a growing operating shortfall in excess of \$200 million in 2007 to provide current transit services. This shortfall is attributable to rising costs for fuel and power, security, health care, insurance claims, and ADA paratransit services that have been rising faster than inflation.

### ***Rolling Stock***

- Replace fixed-route buses
- Replace vanpool vehicles
- Replace rail cars
- Replace locomotives
- Perform vehicle overhauls/rehabilitations

### **Examples**

- ☑ New Metra Electric District Highliner cars with bathrooms
- ☑ Mid-life overhauls of the CTA 3200 Series rapid transit cars
- ☑ New Pace and CTA replacement fixed-route buses

### ***Track & Structure***

- Replace rails, ties and ballast
- Rehabilitate embankments/retaining walls
- Rehabilitate and renew bridges/structures/ foundations

### **Examples**

- ☑ Structural rehabilitation for CTA North Mainline (Red Line) rapid transit
- ☑ Rebuild Metra UP-North Line bridges

### ***Electrical, Signals and Communications***

- Replace/upgrade rail car power distribution
- Upgrade rail system train control and signal systems
- Upgrade rail grade crossing signals
- Replace/upgrade radio and communication systems
- Upgrade fiber optics and cables
- Upgrade operations centers
- Upgrade passenger information

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**Examples:**

- ☑ Pace Systemwide Radio System replacement
- ☑ Upgrade Metra Grade Crossing Protection and Signals
- ☑ Upgrade CTA Green Line (south) rapid transit signals

***Support Facilities & Equipment***

- Renew/replace bus garages
- Renew/replace rail yards and shops
- Replace/upgrade fare collection system
- Upgrade fueling facilities
- Reconstruct bus turnarounds and terminals

**Examples**

- ☑ Replace CTA 77th, Archer and Forest Glen bus garages
- ☑ Renew Pace bus garages
- ☑ Rebuild/construct new commuter rail yards: Metra Rock Island District 47<sup>th</sup> Street, Metra Electric District, and Union Pacific California Avenue

***Passenger Facilities***

- Reconstruct/upgrade rail stations/transit centers
- Replace passenger shelters
- Add station/transit center parking
- Upgrade bus stops/pedestrian access
- Replace station elevators/escalators

**Examples**

- ☑ Metra, Pace, and CTA parking expansion
- ☑ Reconstruct CTA and Metra stations

***Support Activities***

- Homeland security
- Capital project security
- Engineering
- Program management

**Examples**

- ☑ CTA, Metra, Pace security cameras

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## ***INVEST TO ENHANCE***

Enhancements to current service include capital and operating improvements that will make the current transit system more efficient and responsive to user needs, and better serve existing and new transit markets. These enhancements to current service are outlined below. However, it should be recognized that, in some cases, such as with the rail system, there may be only limited opportunities for improving services without major capital investments due to infrastructure capacity restraints and freight railroad conflicts. The region's transit providers continue to explore ways to use the existing fleet in order to expand service, but additional capital and operating funding will be necessary to provide these enhancements.

### ***Service Enhancements***

- More reliable service
- More off-peak and weekend service
- Reduced crowding
- Improved seat availability
- New paratransit and dial-a-ride services to meet the needs of disabled and growing aging populations
- Expanded vanpool and ridesharing

### **Examples:**

- ☑ Phase I of the "J-Line" with limited stop bus service and traffic signal priority
- ☑ Expanded service hours and weekend service by Pace in the region's satellite cities
- ☑ Additional Metra trains where feasible to serve growing demand
- ☑ Increased frequency of service for CTA bus routes in heavy demand corridors

### ***Better Commuting Options***

- Employer commute incentives
- Connecting with new developments and job centers
- More reverse commute and suburb-to-suburb commute options
- Expanded vanpool and rideshare options
- New technology that provides faster service and customer information

### **Examples**

- ☑ New technology for CTA, Metra, and Pace passenger information
- ☑ New employer shuttles to connect to Metra and CTA rail stations and Pace transit centers

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### ***Seamless Transit Services***

- Customer-oriented trip planning
- Coordinated schedules
- Better links via improved pedestrian intermodal connections
- Fully integrated transit hubs
- Integrated fare technology

### **Examples**

- ☑ New technology that supports fully integrated fares for CTA, Metra, and Pace
- ☑ Improved pedestrian and non-motorized access to Metra and CTA stations
- ☑ New technology for more user friendly trip planning

### ***INVEST TO EXPAND***

#### ***Federal Transportation Bill (SAFETEA-LU) Authorized New Start Projects***

#### **Transit Expansion Projects Currently in the Planning Process by Service Boards**

An initial set of federally authorized projects that expand the region's transit system are moving forward. Eleven of these projects are beginning the required federal New Starts process in order to be eligible for federal funding.

- **CTA Circle Line:** New rapid transit service that provides improved connections to existing CTA and Metra lines connecting nearly all of the city's major employment and special event destinations. The Circle Line project is designed to provide convenient shortcuts for CTA and Metra customers making crosstown trips, while also improving access to neighborhoods on the periphery of Chicago's central area.
- **CTA Red Line Extension:** Rapid transit extension from current Red Line south terminus at 95th Street to vicinity of 130th Street will streamline bus-to-rail connections for 13 CTA bus routes and 6 Pace routes, and would connect with the South Shore commuter rail line.
- **CTA Orange Line Extension:** Rapid transit extension from current Orange Line south terminus at Midway Airport to the vicinity of Ford City Shopping Center will complete the original Orange Line plan to provide improved access to downtown from the far Southwest Side and from the central city to the strong employment corridor along South Cicero Avenue.
- **CTA Yellow Line Extension:** Rapid transit extension from current Yellow Line north terminus at Dempster Street to the vicinity of Old Orchard Road, a major retail and commercial concentration, will strengthen the reverse-commute flow along both the Yellow and Red Lines, and make better use of CTA's existing service capacity.
- **CTA Ogden/Carroll Street Transitway:** New transit service from the vicinity of Navy Pier to the West Loop commuter and passenger rail terminals and extending to the west.



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- **Metra Suburban Transit Access Route (STAR) Line:** Proposed STAR Line would be the first of its kind suburb-to-suburb commuter line extending from Joliet to O'Hare International Airport. The STAR Line will connect a larger suburban community.
  - **Metra SouthEast Service:** This new line provides commuting opportunities for a fast growing, underserved corridor of the south suburbs. Connecting residents of the south suburbs to downtown employment is very important as population growth in this area has consistently outpaced job growth. The line will spur economic growth in the corridor and provide opportunities for reverse commuting.
  - **Metra Union Pacific - Northwest Line Extension and Service Improvements:** Track and signal improvements and two new rail yards in Johnsburg and Woodstock are proposed to provide more train capacity and consolidation of maintenance operations. These improvements will give Metra more flexibility allowing more express and reverse commute trains in eastern McHenry and northwest Cook counties.
  - **Metra Union Pacific - West Line Service Improvements:** Significant infrastructure and service upgrades are proposed to enhance the line's capacity and speed and improve reliability by minimizing commuter/freight conflicts. Adding a third track east of Elmhurst will allow new express and reverse-commute service for the counties of Cook, DuPage and Kane.
  - **Metra BNSF Line Extension:** The proposed extension would offer the opportunity to extend service on Metra's busiest rail line from the current terminus in Aurora to Oswego. This extension would bring service closer to riders' residences and service communities in fast-growing Kane and Kendall Counties.
  - **Metra Electric District Extension:** A commuter rail extension to the proposed South Suburban Airport in Peotone.
  - **Pace Cermak Road Bus Rapid Transit:** New BRT regional service, including exclusive bus lanes, new vehicles, and BRT stations along Cermak Road.
  - **Pace Golf Road Bus Rapid Transit:** New BRT regional service, including exclusive bus lanes, new vehicles, and BRT stations along Golf Road.

### ***Beyond Federal Transportation Bill (SAFETEA-LU) Authorized New Start Projects***

#### **Transit Expansion Projects Proposed by Service Boards**

Beyond the initial set of projects in the Federal Transportation Bill (SAFETEA-LU) Authorization, which is currently under study for federal funding, the Service Boards have proposed other expansion projects. These projects will be considered in the future and will require additional study and authorization in future transit legislation.

- **CTA Airport Express Service:** This proposal is for limited stop service on the CTA's Blue and Orange lines between O'Hare and Midway airports and the Chicago central area. The proposal includes a new downtown terminal providing air passengers with boarding passes and baggage check-in. This project would be developed with a private partner.

- 
- **CTA Sub-Regional Transit Improvements:** CTA is continuing its program of sub-regional service reviews that will result in new routes and options that enhance service to traffic generators resulting in improved travel times and better transit connections. Sub-Regional Bus and Rail Service Improvements will be recommended for:
    - ☑ Central Area
    - ☑ Far South Side and South-Suburban areas
    - ☑ Far Southwest Side and Southwest-Suburban areas
    - ☑ Northwest Side and Northwest-Suburban areas
    - ☑ Continue to build on success of the North and South Lakeshore Corridors, Far North Side and North Suburban Area as well as the West Side and West Suburban Area
  - **Metra STAR Line - East Segment:** This proposed commuter rail service is a future phase of the STAR Line and forms the southern east-west segment connecting with the STAR Line in Joliet using the EJ&E railroad right-of-way from Joliet in Will County to Lynwood in Southern Cook County.
  - **Metra STAR Line - Western O'Hare Access:** This proposed commuter rail service is a future phase of the STAR Line. The service would utilize Elgin-O'Hare and IL53 highway rights-of-way to provide new transit service for southern Lake County and northwest Cook County to O'Hare Airport.
  - **Metra Milwaukee District North Extension and Service Improvements:** A proposed commuter rail extension from Rondout to Wadsworth. Track and signal improvements will allow for increased express and reverse commute service.
  - **Metra Milwaukee District West Extension and Service Improvements:** A proposed extension of the MD-W line from existing Elgin/Big Timber terminus to Huntley in McHenry County. Track and signal improvements will allow for increased express and reverse commute service.
  - **Metra SouthWest Service Extension and Service Improvements:** Proposed service improvements include upgrades to the infrastructure, full service levels (weekday and weekend), and an extension from the current terminus in Manhattan to the Midewin National Tallgrass Prairie. Improvements also include a new connection to the RID line at 75<sup>th</sup> Street to reroute the SouthWest Service into LaSalle Street Station.
  - **Metra Union Pacific North Line Improvements:** Proposed track and signal improvements to allow for increased express and reverse commute services.
  - **Metra BNSF Improvements:** Proposed track and signal improvements to allow for increased express and reverse commute services.
  - **Metra Rock Island District Service Improvements:** Service improvements include upgrading tracks, bridges, and signals to enhance service levels on the Rock Island District allowing additional express and reverse services. A third track is proposed between Gresham Junction and the LaSalle Street station to accommodate routing SouthEast Service and SouthWest Service into LaSalle Street Station.

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- **Metra North Central Line Improvements:** Proposed service improvements include upgrades to the infrastructure to allow full service levels (weekday and weekend) along the line.
  - **Metra Heritage Corridor Service Improvements:** Future plans include upgrading the infrastructure, signals and rail-to-rail grade crossings on the Heritage Corridor. The improvements will provide for more frequent peak and off-peak service on the Heritage Corridor line.
  - **Pace Arterial Rapid Transit Network for the Region (PARTNER):** Regional arterial corridors with existing service will be upgraded with transit signal priority, stations and transfer facilities and increased frequencies as part of their route structure. Corridors include:
    - ☑ Harlem Avenue: Tinley Park to Glenview
    - ☑ 159th Street: Joliet-Orland Park to Hammond, Indiana
    - ☑ Halsted Street: 95th CTA to Chicago Heights
    - ☑ North Avenue: Oak Park to DuPage County
    - ☑ Cicero Avenue: Midway CTA to Matteson
    - ☑ Dempster Street: Evanston to O'Hare Airport
    - ☑ Milwaukee Avenue: Jefferson Park to CTA to Gurnee
    - ☑ Touhy Avenue: Howard CTA to Elk Grove Village
    - ☑ Mannheim/LaGrange Road: O'Hare Airport to Orland Park
    - ☑ 95th Street: 95th CTA to Palos Park
    - ☑ Route 59: Joliet to Lake County
    - ☑ Randall Road: Aurora to Crystal Lake
    - ☑ U.S. Highway 30: Joliet to Lynwood
    - ☑ Roosevelt Road: Kane County to Forest Park

### ***Transit Expansion Projects Proposed by Others\****

Project proposals not captured under previous categories are presented here for inclusion in the region's transit network. The community-generated transit project proposals will be evaluated using an evaluation tool created by the RTA. Community-generated transit project proposals that receive a positive evaluation will be further refined by the appropriate Service Board through its detailed review and planning process for inclusion in future plans and programs:

#### **DuPage County:**

- **J-Line High-speed Corridor:** Using express bus or BRT, connect Naperville and Aurora in the south to the I-88 Corridor, Oak Brook, O'Hare International Airport and the Woodfield/ Schaumburg area.

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\* Several of the proposals listed below are considered enhancement projects, which are likely to be completed in the near-term. See also the "Pace Service Enhancement Projects" appendix on the following pages for additional details on proposed service improvements in Suburban Cook, McHenry, Kane, DuPage, Lake, and Will Counties.

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- **West O'Hare Transportation Center:** A multimodal transportation hub providing western access to O'Hare by combining all transportation modes in one location (for example: the STAR Line, "J" Line BRT bus service, CTA Blue Line, the Elgin-O'Hare and West O'Hare By-Pass Expressways, and intercity rail service).
  - **Connector Routes:** 13 connector bus routes east-west or north-south travel throughout the county, connecting to Metra services and other key transit centers in the region (e.g., Bolingbrook, Forest Park).
  - **Circulators:** Series of circulator services (fixed route, flexible route or dial-a-ride) in local communities to facilitate shorter intra-community trips as well as to offer connections to the other transit services.
  - **Transit Hubs:** Network of 30 transit centers ranging from simple park-and-rides to larger intermodal centers.

#### **Kane County:**

- **Milwaukee District West Line Extension:** Extension from Huntley to Marengo and beyond with possible spur to Hampshire.
- **BNSF line Extension:** Extension beyond Montgomery to Sandwich with possible spur to Sugar Grove.
- **Park-and-Rides:** Potential park-and-ride associated with new Metra Stations.
- **Transit Hubs:** Hubs and centers are identified for Elgin, Aurora, Geneva, Hampshire, Montgomery, South Elgin, St. Charles, LaFox and Sugar Grove.
- **Bus Rapid Transit:** BRT service along Kirk Road, Illinois 25, Interstates 90 and 88.
- **Connector Routes:** New connecting bus services between Randall Rd., institutions of higher education, county judicial buildings and central business districts along the Fox River corridor.

#### **Lake County:**

- **EJ&E service:** Proposed commuter rail service to the northeast.
- **Transit Hubs:** Creation of transit hubs and transit enhancements at Waukegan, Rondout, Prairie Crossing, and South Mundelein-Vernon Hills.
- **Milwaukee District North Line Improvements:** Double tracking from Rondout to Fox Lake.

#### **McHenry County:**

- **Community and Local Service:** Expanding local, flexible and demand-responsive transit service.
- **Transportation Hubs:** Creating regional and community transportation centers and connecting them to provide a comprehensive transportation network.
- **Line-Haul Bus Routes:** Longer line-haul bus routes, either on arterial routes or high-speed roads.
- **Bus Service Evaluations:** County-wide study of bus services every 5 years.

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## West Central Municipal Conference

- **Blue Line Extension:** Extension of CTA Blue Line service to DuPage County as part of I-290 corridor improvements.
- **Inner Circumferential Rail Line:** South from O'Hare to Midway

## Will County:

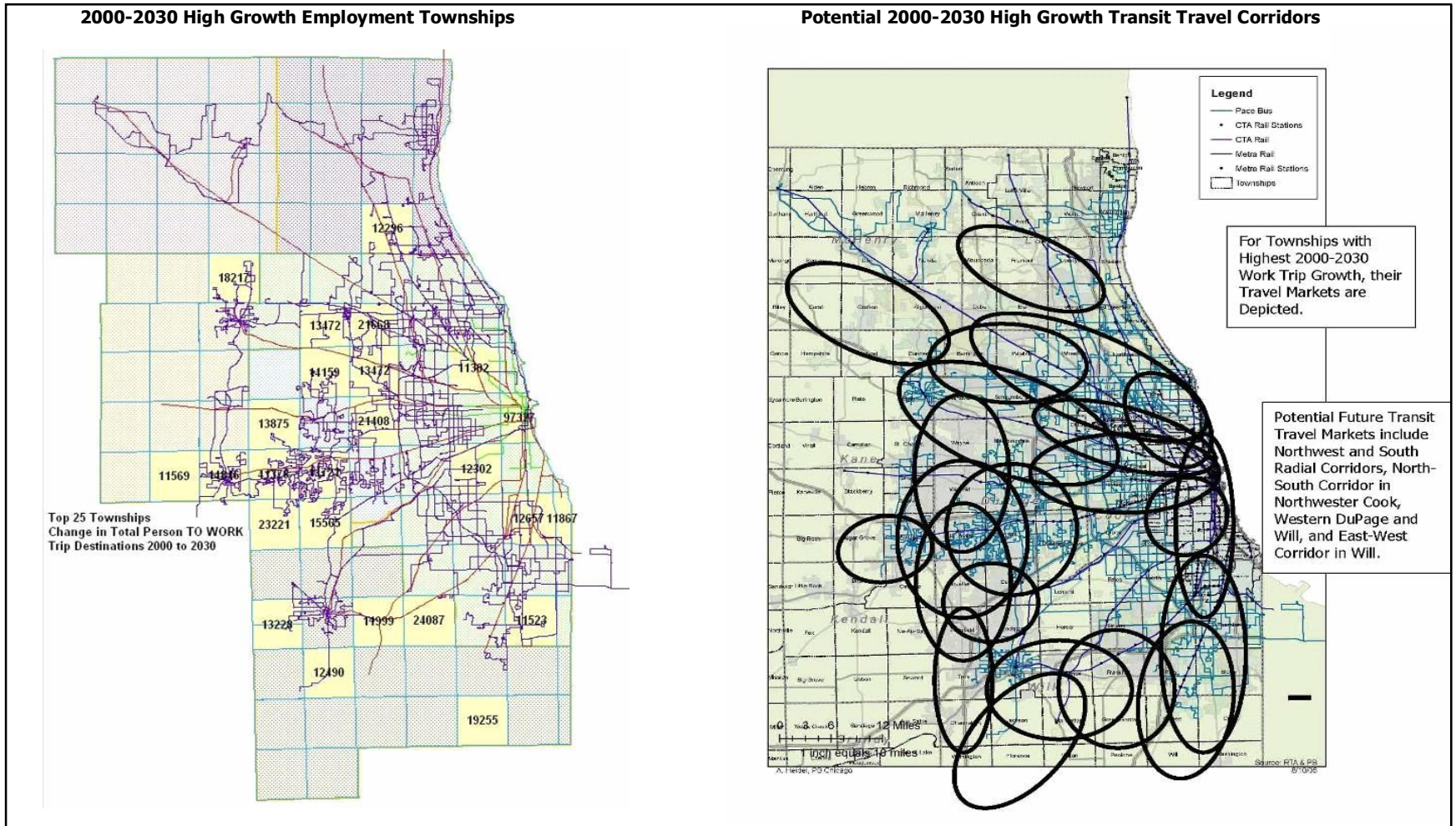
- **High-Speed Rail:** Proposed connection between Chicago and St. Louis with a potential stop at the proposed South Suburban Airport.

## City of Chicago:

- **Mid-City Transitway:** 21-mile circumferential corridor from the Jefferson Park station on the CTA Blue Line south to Midway Airport on the Union Pacific and Belt Railway right-of-way and then southeast and east along the Belt Railway right-of-way to the 87<sup>th</sup> Street station on the CTA Red Line. Alternative services and alignments being evaluated including bus rapid transit, light rail, heavy rail and priority for commercial goods movement.
- **Chicago Transit Hub:** Multimodal facility bringing CTA's Blue Line, Metra and Amtrak services together under Clinton Street with a terminus for the Central Area BRT network.
- **Central Area BRT System:** Creation of priority transit service on existing roads, or by creating dedicated right-of-way, with improved boarding and exiting facilities from the West Loop Transportation Center to destinations east (McCormick Place, the Museum Campus, North Michigan Avenue) with concept routes like the Lower Wacker Drive Express Bus, Carroll Avenue Transitway and East-West Transitway.

## 6.3 HIGH GROWTH AREA MAPS

### High Growth Townships and Corridors



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## **6.4 PACE SERVICE ENHANCEMENT PROJECTS 2007-2011**

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Pace developed Vision 2020 as a way to involve communities in defining community mobility. The following service enhancements reflect that blueprint and represent service enhancements that this region could expect from the *Moving Beyond Congestion* program.

### ***MCHEMRY COUNTY***

Service improvements and expansion are based on the McHenry County Transit Plan:

- Proposed coordinated demand response service and expansion to improve range, distance, dissolve mobility barriers (Flexible DAR for agencies and services) Barrington area, Eastern McHenry, Marengo, Lake in the Hills, Pioneer Center, Woodstock, subsidized taxi program.
- Improved connections and expansion between existing rail and bus services (Routes 806, 807, 808)
- ADA paratransit service
- Vanpool expansion
- Subsidized taxi service
- Coordinating countywide dispatch systems
- I-90 feeder service
- Community transit centers

### ***KANE COUNTY***

Service improvements and expansion are based on the SW DuPage/Fox Valley Restructuring Initiative Recommendations:

#### ***Aurora/Fox Valley Area***

- ADA Paratransit service
- Coordinating countywide dispatch systems
- Restore Pace's Participation in the Dial-a-ride program to its former level
- Implement services in areas where we have no dial-a-ride services
- Encouraging inter-community services promoting the breakdown of borders
- New local service zones covering eastern Aurora and North Aurora
- Implement local service zone Sugar Grove-West Aurora
- Implement local service zone Montgomery/Oswego
- Vanpool expansion



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- Increased Saturday service
  - New Sunday service
  - Frequency increases
  - New arterial route on Route 59
  - New arterial route from Oswego Commons to Yorktown via Ogden
  - Feeder route improvements
  - Community transit centers
  - Express buses from park-and-rides serving all express trains on Metra BNSF
  - Subsidized taxi program
  - Suburban Express Bus Network

***Elgin/River Division Area:***

- ADA Paratransit service
- Restore Pace's participation in the Dial-a-Ride program to its former level.
- Expansion of service hours and days of operation including weekend service in areas underserved and to implement services in areas where we have no dial-a-ride services
- Encouraging inter-community services promoting the breakdown of borders
- Coordinating countywide dispatch systems
- Vanpool expansion
- Subsidized taxi program
- Service improvements as a result of the relocation of the current transit center
- Service delivery modifications to adequately reflect market demand as result of restructuring initiatives
- Additional off-peak service. This off-peak service will consist of later evening and limited Sunday service
- Community transit centers
- Suburban Express Bus Network

***DUPAGE COUNTY***

Service improvements and expansion are based on the DuPage County Transit Plan and Pace Fox Valley/SW DuPage Plan:

- *Dial-a-Ride* – 18 new *Dial-a-Ride* zones in DuPage County.
- Coordinating County-wide dispatch systems.
- Restore Pace's Participation in the Dial-a-Ride program to its former level.

- 
- Expansion of service hours and days of operation including weekend service in areas underserved and to implement services in areas where we have no dial-a-ride services.
  - Encouraging inter-community services promoting the breakdown of borders.
  - Subsidized taxi program
  - Vanpool expansion
  - Phase I of the "J-Line" with limited stop bus service and traffic signal priority
  - Local Circulators – these circulators would operate locally, either with a flex or fixed route system in these communities: Addison, Bensenville, Downers Grove, Elmhurst, Glen Ellyn, Glendale Heights, Lombard, Oakbrook Terrace/Oakbrook, Villa Park, West Chicago, Wheaton. Operating hours are contingent on the communities picked, but are generally between 6:00 am and 7:00 pm, with some weekend service:
    - ☑ 747 Extension – Extension of the 747 west of Wheaton to St Charles via West Chicago and Winfield. Service span is proposed from 5:45 am to 10:15 pm.
    - ☑ 711 Extension to Schaumburg – This envisions a one-seat ride from Naperville to the Northwest Transit Center. South of Stratford Square, this connector is covered by Route 714 (funded for the current year only), and Route 711. The new portion would extend the route north of Stratford Square via Gary-Schick-Roselle-Meacham -Higgins. 9 am to 9 pm span of service every day and 20-30 minute headways.
    - ☑ New Route from Downers Grove to Elk Grove Village – This envisions a one seat ride from Downers Grove to Elk Grove Village. Would involve constructing a park-and-ride at the Elk Grove Village terminus. Route would travel via Main-Highland-Roosevelt-Main-North-Addison-Irving Park-Arlington Heights-Kennedy. The Main-Highland portion is now covered by Route 834; Main between Roosevelt and North is covered by Route 313. There would be a 7 am to 7 pm span of service and 20-30 minute headways.
    - ☑ New Route on Army Trail – A route from central Addison to Stratford Square via Army Trail. There would be a 7 am to 7 pm span of service and 20-30 minute headways.
  - New route on Route 59
  - New route from Oswego Commons to Yorktown via Ogden
  - Service improvements to Metra feeders serving Naperville, Warrenville, Lisle, Woodridge, Bolingbrook
  - Express shuttles from park & ride lots serving all express trains
  - New arterial route on Illinois 53
  - New local service zone covering Bolingbrook/southern Naperville/northern Plainfield.
  - Community transit centers
  - Restructure Route 834

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- New local service connecting Boughton/Weber to downtown Bolingbrook
  - Suburban Express Bus Network

## ***LAKE COUNTY***

Service improvements and expansion are based on the Lake County Transportation Plan:

- ADA Paratransit service
- Restore Pace's Participation in the Dial-a-ride program to its former level.
- Expansion of service hours and days of operation including weekend service in areas underserved and to implement services in areas where we have no dial-a-ride services
- Encouraging inter-community services promoting the breakdown of borders
- Coordinating County-wide dispatch systems
- Expanded vanpools
- Subsidized taxi program
- Waukegan – Lake Cook Expanded Fixed Route Bus Service – Provides service between Lake-Cook Road/Highway 41 in Highland Park and Highways 43/132 in Gurnee. Service is provided along Lake-Cook Road and Highway 43 in Highland Park, Deerfield, Bannockburn, Lake Forest, Lake Bluff, North Chicago, Waukegan, Park City, and Gurnee.
- Green Bay Road Expanded Fixed Route Bus Service – Provides service between Highways 43/176 in Lake Bluff and Highways 131/132 in Waukegan. Service is provided along Highways 176 and 131 in Lake Bluff, North Chicago and Waukegan.
- Gurnee Shuttles between Wadsworth Extension and Industrial/Shopping Areas – Provides service between Gurnee Mills Mall and Washington Street/Interstate 94 in Gurnee. Service is provided along Highways 132/21 and Washington Street in Gurnee.
- Wauconda Shuttle – Provides service between Barrington Union Pacific Northwest Metra Station and Nicole Avenue/Liberty Street in Wauconda. Service is provided along Highway 59 and Nicole Avenue in Barrington, North Barrington, Lake Barrington, Tower Lakes, and Wauconda.
- Lake Zurich Shuttle – Provides service between Highway 22/Main Street at the proposed Metra EJ&E station in Lake Zurich and the Barrington Union Pacific Northwest Metra Station in Barrington. Service is provided along Highways 59/22 and Main Street in Barrington, North Barrington and Lake Zurich.
- IL – 60 transit Corridor Shuttle Service between North Central and UP Metra Lines – Provides service between proposed Multi-Modal Hub at Highways 60/45 in Mundelein and the Union Pacific Lake Forest Metra Station in Lake Forest. Service is provided along Highways 60/41 in Lake Forest, Mettawa, Vernon Hills, and Mundelein.

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- Lake Forest Connection – Provides service between Union Pacific Lake Forest Metra Station and Milwaukee North Lake Forest Metra Station. Service is provided along Deerpath Road, Highways 41/60 and 43 in Lake Forest.
  - Additional off-peak service at North Division service area consisting of later evening and limited Sunday service.
  - Service improvements to fixed route network
  - Community/locally based service expansion
  - Community transit centers
  - Service delivery modifications to adequately reflect market demand as result of restructuring initiatives.
  - Suburban Express Bus Network

### ***WILL COUNTY***

- ADA Paratransit service
- Restore Pace’s Participation in the Dial-a-ride program to its former level.
- Expansion of service hours and days of operation including weekend service in areas underserved and to implement services in areas where we have no dial-a-ride service.
- Encouraging inter-community services promoting the breakdown of borders
- Coordinating County-wide dispatch systems
- Community transit centers
- Vanpool Expansion
- Subsidized taxi program
- Community/locally based service expansion
- Service delivery modifications to adequately reflect market demand as result of restructuring initiatives.
- New service Lincoln Hwy, Joliet - Matteson
- Service improvements to fixed route network
- Suburban Express Bus Network

### ***COOK COUNTY***

#### ***West Suburban***

- ADA Paratransit service
- Restore Pace’s Participation in the Dial-a-ride program to its former level.

- 
- Expansion of service hours and days of operation including weekend service in areas underserved and to implement services in areas where we have no dial-a-ride services
  - Encouraging inter-community services promoting the breakdown of borders
  - Coordinating County-wide dispatch systems
  - Community transit centers
  - Vanpool Expansion
  - Subsidized taxi program
  - Service improvements to fixed route network
  - Community/locally based service expansion
  - Service delivery modifications to adequately reflect market demand as result of restructuring initiatives.
  - Suburban Express Bus Network

### ***Northwest Suburban***

- ADA Paratransit service
- Restore Pace's Participation in the Dial-a-ride program to its former level
- Expansion of service hours and days of operation including weekend service in areas underserved and to implement services in areas where we have no dial-a-ride services
- Encouraging inter-community services promoting the breakdown of borders
- Coordinating County-wide dispatch systems
- Community transit centers
- Vanpool Expansion
- Subsidized taxi program
- Rand Road Route: New route from Des Plaines Metra to Wauconda. 1 hr headways north of Dundee Rd. ½ hour headways south of Dundee Rd. 5am to 10pm weekdays and 8am to 9pm on Saturday and Sunday is the projected span of service.
- Service improvements to fixed route network
- Community/locally based service expansion
- Service delivery modifications to adequately reflect market demand as result of restructuring initiatives
- Suburban Express Bus Network

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## ***South Suburban***

- ADA Paratransit service
- Restore Pace's Participation in the Dial-a-ride program to its former level
- Expansion of service hours and days of operation including weekend service in areas underserved and to implement services in areas where we have no dial-a-ride services
- Encouraging inter-community services promoting the breakdown of borders
- Coordinating County-wide dispatch systems
- Community transit centers
- Vanpool Expansion
- Subsidized taxi program
- Service improvements to fixed route network
- Community/locally based service expansion
- Service delivery modifications to adequately reflect market demand as result of restructuring initiatives
- Suburban Express Bus Network

## ***ARTERIAL BUS RAPID TRANSIT (ART)***

- Implement four ART corridors by 2011. Each corridor will operate approximately 12 miles
- Design and build ART Central Dispatch Center
- Service will coordinate with Pace ART Express Bus System

### ***ART Arterial Corridors:***

Twelve regional arterial corridors have been identified with existing service to upgrade utilizing Arterial Rapid Transit concepts. Transit Signal Priority, stations and transfer facilities, and increased frequencies are components of the route structure.

### ***Pace's ART Extension Express Bus System***

Express Buses will provide regional connectivity as extensions of Arterial Rapid Transit through areas where low density does not warrant high frequency service or uniform stop spacing. Such corridor-based express service will be integrated with the ART service, will be branded as ART service, but will operate as express service; that is, ART extension express buses will run on the ART corridor under ART brand, however, they will stop only at major activity centers and will run less frequently predominantly in the peak hours and peak direction. Their stops will be ART branded stops to give passengers the visual clue of the regional network:

- 
- Connects regional connectivity through low density areas
  - The regional connectivity network includes approximately 300 miles of service connecting the six-county region.

The following corridors are identified for the ART and ART Extension Express Systems:

- Harlem Avenue: Tinley Park to Glenview
- Golf Road: Evanston-Schaumburg-Elgin
- 159th Street: Joliet-Orland Park to Hammond, Indiana
- Halsted Street: 95th CTA to Chicago Heights
- Cermak Road: 54th CTA to Wheaton
- North Avenue: Oak Park to DuPage County
- Cicero Avenue: Midway CTA to Matteson
- Dempster Street: Evanston to O'Hare Airport
- Milwaukee Avenue: Jefferson Park CTA to Gurnee
- Touhy Avenue: Howard CTA to Elk Grove Village
- Mannheim/LaGrange Road: O'Hare Airport to Orland Park
- 95th Street: 95th CTA to Palos Park
- Route 59: Joliet to Lake County
- Randall Road: Aurora – Crystal Lake
- US Hwy 30: Lynwood to Joliet
- Roosevelt Road: Kane County – Forest Park
- IL Hwy 83
- Naperville – Oak Brook
- Il Hwy 19
- IL. Hwy 68
- Il. Hwy 62
- IL. Hwy 120
- US Hwy 12

### ***PACE SUBURBAN EXPRESS BUS SYSTEM***

Point to Point Express Service will provide direct point to point connection between major centers of activities in the regions. Point to Point Express Buses will take the fastest route between origin-destination points independently of corridors or arterials. Such express routes will have a cluster of stops at origin and a cluster of stops at destination without stops in between. This will allow them fast travel between origin and destination nodes.



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Express buses will provide a one-seat ride between the route defining origin and destination centers:

- I-90 Corridor – Rosemont to Huntley
- I-55 Corridor – I-80/Joliet to Chicago
- I-57/Ill-394 – Monee/Crete to Chicago
- I-88/290 Corridor – Sugar Grove to Forest Park
- I-80 Corridor – I-55/Joliet to Lansing
- I-355/IL Hwy 53 Corridor – New Lenox to Lake/Cook
- I-290 Corridor – Forest Park to Schaumburg
- I-294/I-94 Corridor – Lansing to Russell Road
- I-94 Corridor – Dempster to Deerfield
- Elgin – O’Hare Corridor – West O’Hare Terminal to Elgin

Routings will operate on corridor segments based on market demand. Proposed expansion service includes:

**Express South Suburbs – Joliet via I-80**

This service will connect the south suburbs to job locations along the I-80 corridors connecting residents of the south suburbs and Joliet to jobs. Route serves the Homewood Amtrak/Metra Station, the Tinley Park Holiday Inn Select/Convention Center area and Joliet Union Station. Markets include the south suburban residential market, the south suburban hotel and conference centers and provide intermodal passenger connections serving the IDOT sponsored Springfield-St. Louis and Champaign-Carbondale Amtrak Intercity Passenger Rail Corridors.

**Express South Suburbs – NW Corridor**

Express Bus service connecting residents in the south suburban Cook County communities to job locations in the I-90 Northwest Corridor from Rosemont to Elgin.

**Express South Suburbs – O’hare/I-294 Employment Corridor**

Express Bus service between the south suburbs and O’Hare employment areas. This route would provide access to jobs as well serve as a suburb-to-suburb connection.

**Express South Suburbs – Lake County**

Express Bus service between the south suburbs and employment centers in Lake County. This route would provide access to jobs as well serve as a suburb to suburb connection.

**Express South Suburbs – Chicago via I-57, I-394**

Expand express bus service along corridor. Introduce reverse service to employment locations along corridor.

**Express South Suburbs – DuPage I-88 Employment Corridor**

Expand service between the south suburbs and the I-88 employment areas including Oak Brook, Lombard, Downers Grove, Lisle, Naperville, Warrenville. This route would provide access to jobs as well serve as a suburb to suburb connection.

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**Express Shorewood – Chicago via I-55**

Expand service along corridor with expanded hours of operation and increased frequencies. Introduce reverse service to employment locations along corridor. This route would expand service west to Shorewood.

**Express New Lenox/Shorewood – Lake/Cook Road via I-355, IL 53**

Express Bus weekday rush hour service between residential and employment locations along the entire I-355 corridor with a segment originating in Shorewood via I-55 . This service would provide access to jobs along the Lake/Cook and I-355 corridors. The I-355 corridor is not currently served by transit.

**Express Joliet Union Station – Rosemont/O’Hare Airport**

Route serves Rosemont and O’Hare International Airport with connections at the Joliet Union Station serving the IDOT sponsored Springfield-St. Louis Amtrak Intercity Passenger Rail Corridor. Markets include the Rosemont Convention Center, Rosemont Theatre, All State Area, hotel/conference centers, northwest suburban residential and O’Hare Airport.

**Express Joliet Union Station – Schaumburg**

Route serves the Pace Northwest Transportation Center located near Woodfield Mall in Schaumburg. Markets served include the northwest suburban residential areas, Woodfield region’s hotel, office and Schaumburg convention center with connections at the Joliet Union Station serving the IDOT sponsored Springfield-St. Louis Amtrak Intercity Passenger Rail Corridor.

**Express Joliet Union Station – Naperville**

Route serves the Metra Route 59 Station near the Fox Valley Mall, Amtrak/Metra Naperville Station and a designated stop within the Naperville/Lisle I-88 office corridor. Primary markets served include the west suburban residential, Naperville/Lisle office, hotel and conventions with connections at the Joliet Union Station serving the IDOT sponsored Springfield-St. Louis Amtrak Intercity Passenger Rail Corridor.

**Express West Suburban Cook – Itasca/Addison Industrial Areas**

Reverse Commute Express Bus service providing access to jobs from Chicago and west suburban Cook County communities with employment locations near the industrial areas of O’Hare Airport.

**Express West Suburban Cook – Elk Grove/Wood Dale Industrial Areas**

Expand service to provide access to jobs from Chicago and west suburban Cook County communities with employment locations in the heavily industrialized Elk Grove Village/Wood Dale area.

**Express Sugar Grove – Forest Park**

Express Bus service between Sugar Grove and Forest Park CTA serving employment locations along the I-88 corridor such as Naperville, Lisle, Downers Grove, Oak Brook.

**O’Hare Express – Naperville-O’Hare**

Limited-stop route from downtown Naperville to O’Hare, with a stop in Oak Brook.

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**Express Sugar Grove – Lake Cook Road**

Express Bus service between Sugar Grove and Lake Cook Road serving employment locations along the I-88 corridor such as Itasca, Schaumburg, Lake-Cook Corridor.

**Express Skokie Swift – Lake County**

Expand service between Skokie Swift CTA Station and employment centers in northern Lake County. This service would provide access to jobs as an extension of current yellow line service.

**Express Northwest Corridor I-90**

Expand service between Rosemont CTA Station and Huntley serving employment locations along the corridor such as Randall Road, Sears Prairie Stone, Schaumburg, Rolling Meadows, Arlington Heights, Elk Grove Village, O'Hare Airport and connections to the CTA Rail system at Rosemont.

**Express Rosemont – Lake County**

Express Bus service between the Rosemont area and employment centers in Lake County via I-294. This route would provide access to jobs as well serve as a suburb-to-suburb connection.

**Express Northwest Corridor – Forest Park**

Expand Bus service between Forest Park CTA Station and Elgin serving employment locations along the corridor such as Randall Road, Sears Prairie Stone, Schaumburg, Itasca, Hillside.

**Express Hanover Park – O'Hare**

Express bus service between Hanover Park and O'Hare Airport via the Elgin-O'Hare Expressway serving employment locations along the corridor and residential park & ride locations. Route will serve proposed west terminal.

**Express Hanover Park – Lake County**

Express bus service between Hanover Park and Lake County via the Elgin-O'Hare –II. 53 Expressway. Route will serve employment locations along the corridor and residential park & ride locations.

***TRANSIT SIGNAL PRIORITY***

**Regional Transit Signal Priority Program:** This project will provide regional implementation of TSP on designated corridors. Strategies developed through the Harvey demonstration will be deployed as a regional system:

1. Ill 1 (Halsted Street) Chicago Heights to 95th Street
2. Ill 6 (159th Street) Hammond to Orland Park (US 45)- Joliet
3. US 20 (95th Street) Halsted to US 45 (Mannheim Rd)
4. Ill 43 (Harlem Ave) Glenview to Tinley Park
5. Cermak Rd 54th Ave to Wheaton

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6. Ill 50(Cicero Ave) 211th to Midway CTA
  7. US 12 (Rand Rd) US 45 (Des Plaines) to Wauconda
  8. Ill58 (Golf Road) Evanston to Elgin
  9. Ill 38 (Roosevelt Rd) Harlem Ave to Kane County (Geneva)
  10. US 14 (Dempster Street) Evanston to Des Plaines – O’Hare
  11. Ill 21 (Milwaukee Ave ) Gurnee – Niles- Chicago
  12. US 45 (Mannheim) O’Hare to Orland Park
  13. J-Line – DuPage County
  14. Ill 59 Plainfield to Barrington
  15. Ill 64 (North Ave) Harlem Ave to St. Charles
  16. Ill 83 Antioch to Calumet City
  17. Ill 19 (Irving Park Rd) Harlem Ave to Elgin
  18. Ill 68 (Dundee Rd) Waukegan Rd to Carpentersville
  19. Randall Rd McHenry to Aurora
  20. Ill 62 (Algonquin Rd) Ill 83 to Ill 31 (Algonquin)
  21. Ill 120 Waukegan to Woodstock
  22. US 30 (Lincoln Hwy) Torrence Ave to Joliet
  23. Touhy Ave Lincolnwood to US 45 (Rosemont)
  24. Washington Street (Lake County)
  25. Lewis Street (Lake County)
  26. Ill132 Grand Avenue
  27. Lake-Cook Road

Additional corridors and locations will be determined based on restructuring initiatives.  
2007-20011

- Transit Signal Priority (TSP): Implement Regional TSP at 1,000 signal locations (Signal locations already identified with SAFETEA-LU and Federal 06, 07 Appropriations funding will be in addition to these locations)

### ***Passenger Facilities***

These facilities provide comfortable, convenient locations for customers to gain access and make connections between various transit services. Such facilities support the Pace family of services. Facility locations will be determined based on implementation findings from the on-going restructuring initiatives, county transportation plans and local partnerships. The 5-year plan includes:

- Park-and-Ride Facilities: 10 regional locations are planned in conjunction with local partnerships including IDOT, CMAP, counties and municipalities.
- Transit Facilities: 3 regional locations are planned including north Lake County, Western Cook/DuPage and South suburban.
- Community Transit Centers: 12 regional locations are planned.

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- ADA Stop Upgrades: Improving pedestrian accessibility to approximately 1,000 of its current and future bus stops. The ADA standards will be the minimum requirements for Pace bus stops to provide accessibility to all of Pace's passengers.
  - Passenger Shelters: Increase regional program an additional 125 shelters.
  - Regional Pedestrian Improvements: Pedestrian walkways between the bus stop location and passenger destination such as retail, commercial and residential.

### ***Electrical/Signal/Communications***

- Systemwide radio system replacement
- Real-time passenger information at approximately 80 transfer or major generator locations

### ***Support Facilities and Equipment***

- Systemwide farebox replacement
- Administration capital support including computer system replacement
- Garage facilities upgrades
- Bus on shoulder lanes: upgrade up to 80 miles of existing highway shoulder lanes to allow bus access during periods of peak congestion to improve service reliability, cost savings and passenger satisfaction.
- Installation of up to 5 queue jump lanes to improve operating performance on arterial routes. Locations determined through current queue-jump initiative.

### **Future Initiatives will result in additional service improvements:**

- West Cook/DuPage Initiative
- Lake-McHenry County Initiative
- North and Northwest Cook Initiative

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## **6.5 PUBLIC-PRIVATE PARTNERSHIPS**

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Public-private partnerships (PPPs) are used to describe contractual relationships between public sector infrastructure agencies and a private firm or consortium of firms that allow for a sharing in the delivery and operation of infrastructure projects. Public infrastructure has typically been designed, constructed, operated, maintained, and financed through traditional public mechanisms. Expanding these delivery sources to include the private sector, however, brings an entirely new set of perspectives, still with the fundamental aim of delivering projects effectively for public use.

A critical aspect of all PPPs is that to be most effective (regardless of how one defines 'effective' – most financial gain, most productivity gain, faster project delivery, etc.) the project risks must be allocated to the party most reasonably equipped to handle that risk. The entity that has the most control over those activities is best able to manage the process to produce the desired result.

The private sector brings its technical, management, financial expertise, and resources in new and innovative ways to assist public agencies build projects with, among other things, improvements in project cost and timeliness. Private sector firms also bring their operational and managerial expertise to assist the agency in improving operations and increasing the reliance on efficiency saving technologies. Most importantly, the private sector brings new financial resources, including their own capital, and places this equity at risk. Tangible benefits provided by PPPs include the following: accelerated project completion, lower overall project construction and operating costs, increased quality and performance standards, and access to new forms and sources of capital.

Another key aspect of PPPs is that stakeholder objectives often vary. For example, financial objectives on the public side may include minimizing the amount of state/local resources used, while the concession partner seeks a reasonable return on investment. The contract agreement between the public and private sectors will always specify the roles, risks, and rewards for each side.

### ***HOW DO LONG TERM LEASES CREATE VALUE FOR THE FACILITY OWNER?***

From a business perspective, a toll facility's investment value is derived from its relatively predictable long-term cash flows. The ability of the concession partner to operate toll roads further increases the potential value of these facilities, as they can capitalize on efficiencies that are more difficult for the public sector to capitalize on. This allows private sector operators to benefit from typically high operating margins, especially in the latter years of concession agreements, which translates to an increased concession payment to the public owner.

Private companies are also able to extract the intrinsic value from the facility assets themselves by capturing and taking advantage of the tax depreciation, which the public sector owners and operators cannot access. There is also usually an easier landscape and environment for the concessionaire to make more drastic management and technology-

driven improvements to drive operating margins, which yields them a sustainable competitive advantage over public operators.

The long-term potential for revenue growth, both through increased traffic levels and toll rate increases, leads to a significant amount of value being tied up in infrastructure assets, such as toll roads. The private sector has recently, at least here in the US, been willing to 'trade' this long term investment opportunity to the public sector for a sizable up-front (and sometimes ongoing) payment. Capturing this value allows the public sector to recognize and realize these things that are difficult for it to fully capitalize on.

In order for a project to move forward as a PPP, the value to the concession partner must be consistent with the cost established by the public owner. The primary method in which the value is captured by the concession partner is through long-term concession agreements that give the concession partner the right to lease the road from the public owner, operate the road, and collect revenues for a defined period of time. The agreement typically provides for specified toll increases, required capital investments or levels of service requirements, as well as other provisions that protect the public interest.

The value of the lease is driven primarily by three factors: provisions in the agreement, general economic factors, and asset-specific factors. Of these value-drivers, only the provisions in the agreement are under the control of the public owner. When negotiating such provisions, the public owner should be mindful that the agreement's affects on the following factors, each of which is explore below:

- Revenue growth
- Capital investment
- Long-term financial engineering
- Operating efficiencies

An essential component in creating long-term lease value is defining the project so that it is "bankable" and will therefore ensure the largest amount of interest from the private sector. By making projects as attractive as possible to the private sector, they will draw more bids, which drives the price higher.

## ***Revenue Growth***

<b><i>Toll Rate Increases for Recently Leased Facilities</i></b>												
	<b><i>Maximum 2-Axle Toll</i></b>											
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Indiana Toll Road<sup>1</sup></b>	\$8.00	\$8.00	\$8.00	\$8.00	\$8.00	-	-	-	-	-	-	-
<b>Chicago Skyway<sup>2</sup></b>	\$2.50	\$2.50	\$2.50	\$3.00	\$3.00	\$3.50	\$3.50	\$4.00	\$4.00	\$4.50	\$4.50	\$5.00
<b>Pocahontas Parkway<sup>3</sup></b>	\$2.25	\$2.25	\$2.75	\$2.75	\$2.75	\$3.00	\$3.00	\$3.25	\$3.50	\$3.75	\$4.00	-

NOTES:  
 1 - Indiana Toll Road charges on a per-mile basis. The rate seen here is for a trip on the entire length of the road. Increases are not specified beyond 2010, and maximum rates for trucks increase at a much faster rate than those for 2-axle vehicles.  
 2 - If the Consumer Price Index (CPI) increases at a faster rate than these specified tolls, it will be used to determine the rate increases. After 2017, tolls increase at a rate of 2%, or CPI, or nominal per capita GDP, whichever is greatest.  
 3 - The Pocahontas Parkway collects tolls at two "plazas" and this reflects only the cost at the main plaza. Rates for the Laburnum Avenue plaza increase at a similar rate.  
 Sources: FHWA, Virginia DOT, Indiana DOT

The future potential revenue stream is critical to the value the facility can create. The typical drivers of future revenues are allowable toll increases, future enhancements to capacity, technology-enabled throughput gains, and general economic growth. Potentially the most substantial impact on value relates to political considerations, which often lead to submarket toll rate pricing. As the table above shows, both Chicago and Virginia have opted for specific toll rate increases spelled out over the next ten years, while Indiana has only set a maximum increase until 2010. In the Indiana case, most of the expected increases in revenue come from tolls on trucks, which increase substantially over the next few years. Even these increases, however, are only set through 2010.

***Capital Investment***

The public owner may require specific capital improvements in the concession agreement or require the concession partner to maintain certain levels of service throughout the term. Maintaining these levels of service may in turn require capital investment. Capital investment that does not increase capacity to allow additional vehicles (and, therefore, increased toll revenue), but is required under the contract, reduces the value that can be generated for the public owner from the transaction. The table below shows certain capital investments required by the agreements entered into by Indiana, Chicago, and Virginia. In addition, concession agreements often lay out specific measures to ensure the assets are appropriately maintained and rehabilitated.

Note that the City of Chicago reduced capital investment risk for bidders by spending \$260 million on capital renovations prior to the transaction. This likely enabled the City to extract a higher price for the Skyway, and in fact, the accepted concessionaire’s bid was over \$1 billion more than the next highest bid.

Required Capital Investments	
Indiana Toll Road	<ul style="list-style-type: none"> <li>▪ Implementation of electronic tolling</li> <li>▪ Additional lane from Illinois state line to I-80/I-94</li> <li>▪ \$770 million in total upgrades</li> </ul>
Chicago Skyway	<ul style="list-style-type: none"> <li>▪ City can require concessionaire to expand the facility; however, the City must cover the costs</li> </ul>
Pocahontas Parkway	<ul style="list-style-type: none"> <li>▪ Airport Connector - direct connection to Richmond Airport</li> </ul>

***Long-term Financial Engineering***

The US tax-exempt debt market is one of the largest capital markets in the world and provides low-cost capital for projects, with an extensive track record and established investor demand. The municipal market is generally the preferred alternative for large public-sector infrastructure, but the introduction of private capital adds a new twist to the traditional methods of public finance.

Compared to the financial structures supporting the long-term concession agreements, the competitiveness of traditional methods of raising capital may be limited by the following:



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- Constraints on standard maturity terms that may not optimize value.
  - Risk-averse nature of bond investors results in “conservative” coverage ratios reducing leverage, market discounts on revenue growth and increasing margins.
  - Longer term agreements provide the ability for the concession partner to use depreciation to shield income taxes otherwise not available to public-sector owners, which is not available to public owners.

Options exist, however, for private sector developers to tap into the benefits of the municipal markets. Private Activity Bonds (“PABs”) are a mechanism for private companies to access capital at lower rates, closer to those offered in the municipal market. Federal legislators have been pushing for more opportunities, such as PABs, to further entice the private sector to develop projects and to bring more of their own capital for use here in the US.

These factors all contribute to a much more complicated financial landscape with the private sector is involved than if it were a more simple and straightforward municipal financing. The public sector can ultimately benefit from the private sector’s strong financial and investment structuring experience, in the form of an increased concession bid.

### ***Operating Efficiencies***

Implementing operating efficiencies which allow reductions in annual budget decreases are an important part of a concessionaire’s bidding strategy. While the public owners are often faced with labor unions and other mandates governing employee benefits, the private sector is often more able to operate the system as a business. This includes implementing technology that will allow the developer to reduce headcount, such as electronic tolling equipment (“ETC”).

Other ways to reduce operating costs include introducing higher productivity operating techniques, technology, or improved business practices. Optimizing staffing levels and business practices by including flexible job descriptions and technology investments are typical of the methods that have been employed by private toll road operators around the world, and creates value for the concession partner relative to the status quo. Those monetary savings can be discounted back to today and transferred to the project sponsor.

## 6.6 CHICAGO PEERS' FUNDING SOURCES

### HEAVY RAIL TRANSIT AND URBAN BUS SYSTEM PEERS

<b>Chicago Transit Authority (CTA), Chicago, IL</b>
Advertising Contracts
Concessions
Investment income
Required contributions from the City of Chicago and County of Cook
RTA Sales tax
Public Transportation Fund (from state)
<b>Massachusetts Bay Transportation Authority (MBTA), Boston, MA</b>
Advertising Contracts
Concessions
Revenue Bonds
Project Financing
State Infrastructure funds
Property sales
Sales tax
Revenue from real estate transit operations
<b>New York City Transit (NYCT), New York, NY</b>
<b>Metropolitan Transportation Agency (MTA), New York, NY</b>
Vehicle toll revenue
Mortgage recording tax
Regional sales tax
Urban tax subsidies
Revenue bonds
Lease transactions
Petroleum Business Tax
Tax supported subsidies
<b>Southeastern Pennsylvania Transportation Authority (SEPTA), Philadelphia, PA</b>
Tire Fee
Motor Vehicle Lease tax
Motor vehicle Rental fee
Portion of public utility taxes
State bond funds
Portion of state sales tax revenue
<b>Washington Metropolitan Area Transit Authority (WMATA), Washington, DC</b>
No dedicated funding sources except for a small Northern Virginia gas tax

## Suburban Bus System

<b>Pace Bus, Chicago, IL</b>
Sales tax from RTA
Interest Revenue from Investments and Leasing
Paratransit funding from RTA
RTA discretionary funding
<b>Bi-State Development Agency (BSDA), St. Louis, MO</b>
Sales tax
Leasing of Right Of Way (ROW)
<b>MTA Long Island Bus (MTA LI), New York, NY</b>
<b>Metropolitan Transportation Agency (MTA), New York, NY</b>
Vehicle toll revenue
Mortgage recording tax
Regional sales tax
Urban tax subsidies
Revenue bonds
Lease transactions
Petroleum Business Tax
Tax supported subsidies
<b>Alameda-Contra Costa Transit District (AC Transit), Oakland, CA</b>
Sales Tax
Property tax
Interest Income
<b>San Mateo County Transit District (Samtrans), San Francisco, CA</b>
Sales tax
Investment income
Rental Income

## Commuter Rail System

<b>New Jersey Transit (NJT) Corporation, Newark, NJ</b>
Advertising revenue
Lease and rental revenue
Motor fuel tax
Additional funds from petroleum gross receipts
Portion of general state sales tax
<b>Metro North Commuter Rail (MNCR), New York, NY</b>
<b>Metropolitan Transportation Agency (MTA), New York, NY</b>
Vehicle toll revenue
Mortgage recording tax
Regional sales tax
Urban tax subsidies
Revenue bonds
Lease transactions
Petroleum Business Tax
Tax supported subsidies

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<b>Alameda-Contra Costa Transit District (AC Transit), Oakland, CA</b>
Sales Tax
Property tax
Interest Income

<b>Metra Commuter Rail, Chicago, IL</b>
Lease revenue
Advertising revenue
RTA sales tax

<b>Long Island Rail Road (LIRR), New York, NY</b>
<b>Metropolitan Transportation Agency (MTA), New York, NY</b>
Vehicle toll revenue
Mortgage recording tax
Regional sales tax
Urban tax subsidies
Revenue bonds
Lease transactions
Petroleum Business Tax
Tax supported subsidies

<b>Southeastern Pennsylvania Transportation Authority (SEPTA), Philadelphia, PA</b>
Tire Fee
Motor Vehicle Lease tax
Motor vehicle Rental fee
Portion of public utility taxes
State bond funds
Portion of state sales tax revenue

<b>Massachusetts Bay Transportation Authority (MBTA), Boston, MA</b>
Advertising Contracts
Concessions
Revenue Bonds
Project Financing
State Infrastructure funds
Property sales
Sales tax
Revenue from real estate transit operations

## 6.7 RTA CAPITAL NEEDS FOR 5-YEAR CAPITAL PROGRAM

### RTA CAPITAL TOTAL NEEDS 2007-2011 (BILLIONS, \$)

	<b>CTA</b>	<b>METRA</b>	<b>PACE</b>	<b>TOTAL</b>
MAINTAIN*	6.3	3.7	0.3	<b>10.3</b>
ENHANCE	0.3	0.4	0.3	<b>1.1</b>
EXPAND	0.7	4.0	0.1	<b>4.7</b>
<b>TOTAL</b>	<b>7.3</b>	<b>8.1</b>	<b>0.7</b>	<b>16.1</b>

\*The CTA Brown Line and Blue Line projects are included in the "Maintain" category.

### CAPITAL "ASK" (BILLIONS, \$)

	<b>CTA NEW</b>	<b>METRA NEW</b>	<b>PACE NEW</b>	<b>TOTAL NEW</b>
MAINTAIN	4.5	2.7	0.2	<b>7.3</b>
ENHANCE	0.3	0.4	0.3	<b>1.1</b>
EXPAND	0.3	1.3	0.1	<b>1.7</b>
<b>TOTAL</b>	<b>5.0</b>	<b>4.4</b>	<b>0.5</b>	<b>10.0</b>

a joint strategic planning  
project by



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