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# Chicago Transit Authority : Building on 70 Years of Service President's 2017 Budget Recommendations

[Transit Board page]

Chicago Transit Board

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# CTA FY17 Budget

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[Letter from the President]

Dear CTA Customers:

In 2017, the Chicago Transit Authority (CTA) will mark 70 years of service transporting customers to work, school and everywhere else they need to go in Chicago and the neighboring suburbs. Next year will also mark 125 years since rail transit service began operating in Chicago.

Through all of that time, our primary mission has remained the same: Provide the Chicago region with on-time, affordable, convenient transportation that connects people, places and jobs.

Though the core mission of public transit is providing bus and train rides, public transit also plays a vital - and sometimes underappreciated -- role in generating economic growth and connecting communities to opportunity. Transit investment has proven to attract employers and residents to Chicago. With each major investment we make in transit, we are investing in our communities and in the people who live and work here.

For 2017, I am pleased to propose a balanced operating budget of \$1.524 billion. I am also proposing a five-year, \$3.5 billion Capital Improvement Plan (CIP) for 2017-2021.

Our operating budget freezes base fares for an 8th straight year and continues the expanded service we began in 2015 and 2016. We have been able to maintain fares by strategically pursuing additional efficiencies and cost savings, reducing ongoing maintenance needs by modernizing the fleet and pre-purchasing diesel fuel and electricity at historically low levels, while maximizing ways to grow revenue beyond the farebox to support operations and the 1.6 million bus and train rides we provide each day.

CTA continues to face funding challenges to meet our ambitious modernization goals, including a lack of funding from the state for capital projects and sufficient reimbursements for the mandated free and reduced-fare rides we provide to eligible customers. However, our operating budget is balanced for the sixth straight year without diverting capital dollars critically needed for safe and efficient operations. What's more, our capital budget preserves the historic level of transit investment being made under the leadership of Mayor Emanuel -- more than \$5 billion of reinvestment and modernization of our bus and rail system that is building a world-class, 21<sup>st</sup> century transit system that will serve the Chicago region for generations to come.

In 2017, we will continue to pursue our long-term priorities, which focus on improving service to our customers. We're continuing to make extensive investments in our bus and rail system -- including some of the largest station reconstruction projects in CTA history that are modernizing our transportation system, such as the Red-Purple Modernization project, a \$2.1 billion investment to modernize and add capacity to the CTA's busiest rail corridor. We also continue to enhance the overall customer experience by investing in public art at our rail stations. And we have also recently strengthened and updated our passenger code of conduct to make CTA more comfortable, safe, and pleasant for riders.

Leveraging technology for customers also plays an important role in heightening the customer experience. These investments include the release of our popular Ventra fare payment app that recently exceeded one million downloads, the expansion of digital transit tracker displays across our system and providing full 4G wireless communications in our subways.

Safety and security continues to remain a top priority at CTA. CTA continues to work closely with our partners in the federal government to pilot the first Safety Management System Program. By further enhancing CTA's safety culture, our 11,000 employees will continue to focus on safety, so our customers can focus on the important things in their daily lives while using CTA. To further ensure a safe and reliable system, we continue to invest in new security initiatives as well as the modernization of our infrastructure.

To make sure we're delivering the best service possible, it is also important that we as an organization closely monitor our performance. We have developed a series of data driven performance metrics that we review on a daily basis. This analysis has proven critical to ensuring that we are meeting our customers' needs and deploying limited resources in the most efficient way. The process we have implemented has already become a model for our peers and has allowed us to improve operational efficiency while also striving to improve the customer's experience.

Leveraging transit investments to foster economic development has also remained a high priority for the CTA. In our 2016 procurement of new 7000-series rail cars – the largest rail car order in CTA history -- we for the first time included the U.S. Employment Plan to encourage job creation for underemployed Americans. In all CTA construction contracts, we now require bidders to submit a workforce plan that details how they will connect local residents to jobs. And our Second Chance program continues to help hundreds of Chicagoans with significant barriers to employment gain job skills and experience by working as CTA rail and bus car servicers.

The CTA is a vital part of the economic engine that fuels one of the most dynamic cities in the world. We have had a storied history over our first 70 years by connecting people with opportunities, and I look forward to continuing our work to improve service for our customers while exploring new and even better ways to provide vital transit services to the communities we serve.

Dorval R. Carter, Jr.

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[This is the CTA Organizational chart]

The Chairman of the Board and Board Members are at the top of the chart. Under the Chairman are the President and Chief of Staff/Chief Operating Officer. Internal Audit, Security and Equal Employment Opportunity are between the President and the Chief of Staff.

Ten branches are under the President, as follows:

The first branch is Legislative Affairs with ADA below.

The second branch has Planning at the top, with Strategic Planning, Scheduling and Service Planning, and Real Estate & Asset Management.

The third branch has Transit Operations at the top, with Bus Operations, Rail Operations, Control Center, Transit Instruction, Bus and Rail Maintenance and Facilities Maintenance below.

The fourth branch has Law at the top, with Corporate Law and Litigation, Labor Policy and Appeals, Torts, and Claims below.

The fifth branch has Infrastructure at the top, with Power and Way, Engineering and Construction below.

The sixth branch has Administration at the top, with Human Resources, Purchasing and Supply Chain, Diversity and DBE Compliance, Learning and Support and Performance Management below.

The seventh branch has Finance at the top, with Accounting, Budget, Capital and Management, Treasury, Revenue and Grants below.

The eighth branch is Strategy, Data and Technology at the top, with Technology, Data Analytics and Strategic Business Initiatives below.

The ninth branch is Communications.

The tenth branch is Safety.

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Executive Summary

2017: Building on 70 Years of Service

## OVERVIEW

The Chicago Transit Authority's (CTA) \$1.524 billion 2017 budget continues to make smart investments in customer experience enhancements, safety and security and workforce development to ensure our customers are better served through this year's budget. President Dorval R. Carter, Jr. has identified opportunities to improve operations, achieve savings and enhance revenues while maintaining base fare costs for the 8<sup>th</sup> straight year and avoiding service cuts. In fact, the CTA has improved service levels on bus and rail, while holding the line on labor costs. The CTA has achieved over \$3 million in savings for fuel and power expenses by locking in costs at historically low rates. The pre-purchase contracts not only provide a low cost for the commodities, but also provide budget certainty. Finally, the CTA continues to take an aggressive approach to developing non-farebox, system generated revenues. In addition to enhancing advertising revenues, the CTA will undertake new initiatives to market the transit benefit program and increase parking rates at select lots. The transit benefit program presents a significant

opportunity to the CTA to provide unlimited use passes to customers through their employer at a tax-advantaged rate. By doing so, the CTA would attain a higher level of pass-based customers with a stable revenue stream and a more loyal and regular ridership base.

## OPERATING BUDGET

The 2017 budget continues the tight expenditure controls implemented in 2016. It also looks to enhance system generated revenues while experiencing continued growth in public funding primarily due to Expected increased sales tax collections.

|  | <b>Budget 2016</b> | <b>Forecast 2016</b> | <b>Proposed<br/>Budget 2017</b> |
|--|--------------------|----------------------|---------------------------------|
| <b><u>Operating Expenses</u></b>                     |                    |                      |                                 |
| Labor  | \$1,025,634        | \$1,025,988          | \$1,050,436                     |
| Material   | 82,534             | 83,250               | 89,176                          |
| Fuel   | 37,259             | 34,729               | 33,946                          |
| Power  | 31,458             | 29,398               | 31,365                          |
| Provisions for Injuries and Damages                  | 9,500              | 9,500                | 9,500                           |
| Purchase of Security Services                        | 14,698             | 15,584               | 16,838                          |
| Other Expenses                                       | 274,123            | 283,879              | 292,978                         |
| <b>Total Operating Expenses</b>                      | <b>\$1,475,207</b> | <b>\$1,482,329</b>   | <b>\$1,524,239</b>              |
| <b><u>System Generated Revenue</u></b>               |                    |                      |                                 |
| Fare and Passes                                      | \$590,541          | \$580,103            | \$581,250                       |
| Reduced Fare Subsidy                                 | 28,322             | 14,606               | 28,322                          |
| Advertising, Charter & Concessions                   | 32,021             | 33,688               | 35,165                          |
| Investment Income                                    | 883                | 1,515                | 1,121                           |
| Statutory Required Contributions                     | 5,000              | 5,000                | 5,000                           |
| Other Revenue  | 27,945             | 41,604               | 35,489                          |
| <b>Total System Generated Revenue</b>                | <b>\$684,712</b>   | <b>\$676,517</b>     | <b>\$686,347</b>                |
| <b><u>Public Funding</u></b>                         |                    |                      |                                 |
| Sales Tax I  | \$365,121          | \$368,695            | \$386,920                       |
| Sales Tax II and PTF II                              | 126,755            | 128,931              | 135,780                         |
| RETT and PTF on RETT                                 | 79,440             | 91,890               | 80,863                          |
| Total Statutory Funding                              | \$571,316          | \$589,516            | \$603,562                       |
| Non-Statutory Funding (Sales Tax I, PTF I and Other) | 218,178            | 220,297              | 228,200                         |
| Innovation, Coordination and Enhancement Funding     | 1,000              | 1,000                | 6,129                           |
| <b>Total Public Funding</b>                          | <b>\$790,495</b>   | <b>\$810,812</b>     | <b>\$837,892</b>                |
| <b>Total Operating Revenue</b>                       | <b>\$1,475,207</b> | <b>\$1,487,329</b>   | <b>\$1,524,239</b>              |

## *Expenses*

Labor costs are increasing primarily due to the \$24 million pension contribution increase. Material costs are up slightly due to the expiration of the warranty for the 5000 Series rail cars and material costs related to increased service levels. Fuel and Power costs are lower due to the CTA's ability to lock in low prices, which are slightly offset due to the service level increase. Contributions to the Injuries and Damages reserve fund, which offset legal settlements and judgments, are flat to 2016 budget. Security Services are up slightly due to enhanced security efforts. Other Expenses are up primarily due to 2014 Sales Tax debt service (\$14 million) coming online.

## *System Generated Revenues*

Fare and pass revenues are down due to current ridership trends, but CTA is developing a number of strategies to reverse this trend including undertaking a marketing campaign to aggressively promote the system's pass program and pre-tax benefits to reduce commuting costs. Advertising continues to provide substantial benefit for the CTA and we expect to see continued growth through the implementation of large format ads on many of our station houses and other CTA property. Other Revenues will be enhanced through adjustments to the fees charged at select park-n-ride facilities.

## *Public Funding*

Per the Regional Transit Authority (RTA), which sets public funding estimates for the three service boards (CTA, Metra and Pace), sales taxes are expected to grow by 4 percent in 2017. The estimate is in line with Moody's forecasts for sales tax growth in the Chicago area.

## *Ridership*

CTA ridership continues to follow national public transportation trends. Ridership nationally, and locally, continues to see pressure from increased competition from new entrants, such as ride share providers and bike share programs, historically low gas prices and increased walkability of the service area. The CTA is actively engaged in developing a better understanding of its customers through a variety of surveying methods, and the agency is developing a long-term strategy to ensure it continues delivering the highest quality, affordable transit services to the people of Chicago and the surrounding suburbs.

## CAPITAL BUDGET – PLANNING & FUNDING

### *Capital Project Planning*

In addition to the operating budget, the CTA has a robust capital program that addresses State of Good Repair (SOGR) needs as well as new projects. CTA places particular emphasis on projects to rehabilitate or replace vehicles and track, as these are typically the most safety-sensitive assets. As CTA departments recommend projects for inclusion in the Capital Improvement Program (CIP), several specific metrics are considered. One of the metrics that is prioritized is the percentage of slow zones anticipated based on the capital investment planned. Slow zones are areas where trains are required to operate at slower-than-normal speeds, some as low as 15 miles per hour. Slow zones develop along track infrastructure due to

age, regular wear and tear, extreme weather conditions and other factors. Slow zones not only affect train speeds but also the reliability and comfort of service for customers.

Another factor that has been used to prioritize facility projects is the CTA's condition assessment. Transformative SOGR projects include Your New Blue (YNB), gateway terminal projects and Red Purple Modernization (RPM). The CTA also expects to make initial investments in the Red Line Extension (RLE) project in 2017. This project will be the first new rail transit extension project for the CTA since the Orange Line was completed in the 1990s.

### *Capital Project Funding*

Capital projects are financed through multi-year commitments from a variety of funding sources including the State of Illinois, federal formula funds, federal competitive grants, Transportation Infrastructure Finance and Innovation Act (TIFIA) funds, Tax Increment Financing (TIF), CTA revenues and other local funds. In June 2016, the State authorized the creation of TIF districts for redevelopment project areas around transit facility improvement areas, known as Transit TIFs. The first Transit TIF authorized under the State's legislation is currently being established by the City of Chicago and we expect a decision to establish the TIF later in 2016.

CTA also looks for additional innovative ways to fund its capital projects, such as Energy Service Company (ESCO) financing. This type of financing allows CTA to fund projects such as lighting retrofitting and replacing heating and cooling systems by using the savings generated from energy efficiencies to pay for the projects.

### SERVICE EXPERIENCE ENHANCEMENTS

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The CTA, under the leadership of Chicago Mayor Rahm Emanuel and CTA President Dorval R. Carter, Jr., has continued a more than \$5 billion investment in transit modernization that began in 2011. The transformational capital investment includes service improvements, fleet modernization, new technology and station investments, all of which will provide customers with improved safety and customer experience.

### *South Side Service Improvements*

The CTA is undergoing several transformative projects that will make bus ridership throughout the city more convenient, safe and reliable. In late 2016, CTA upgraded bus service on six bus routes and two branches of the south Green Line that serve Chicago's South and Far South Sides. The improvements have increased frequency, extended routes and lengthened service hours to benefit tens of thousands of bus and rail riders each day and improve connections to and from downtown. The service improvements are funded through the operating budget.

### *New Bus Service Pilots (#11 & #31)*

CTA is conducting two pilots to test enhanced service on the #11 route (Lincoln Avenue) and new service on 31<sup>st</sup> Street.



[Photo: The 31 bus at a bus stop unloading passengers]

Both pilots will run for six months and then CTA will examine whether to extend each pilot, eliminate it or make the service permanent based on ridership results and customer feedback. The pilots are funded through the operating budget.

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#### *Loop Link Prepaid Boarding*

In September 2016, CTA began a prepaid bus boarding pilot at the bus station on Madison and Dearborn along the busy Loop Link Corridor.

The modernized bus stations at Madison and Dearborn offer large canopies for weather protection, raised platforms for easier boarding, CTA Bus Tracker screens as well as additional seating for customers. Similar to the prepaid boarding pilot at Belmont, the area will also be staffed by designated CTA employees to assist customers. The project was funded through the Chicago Department of Transportation.

[Photo: Loop Link Bus stop along Madison Street downtown Chicago]

#### *Ashland and Western Express TSP*

CTA, working with Chicago's Department of Transportation (CDOT), made progress on the installation of an innovative Transit Signal Priority (TSP) system on Ashland Avenue from Cermak Road to 95th Street that has already improved bus speeds. The TSP signal improvements allow buses to move more quickly, by communicating with signal controllers to hold green lights longer if the buses are running late and to allow buses to proceed through the light, which improves bus reliability and improves the overall flow of traffic.

This investment complements express service improvements made in late 2015 by CTA President Carter on Ashland and Western Avenues with the reintroduction of the X9 Ashland Express and X49 Western Express, which has led to an increase in bus travel speeds on those streets.

CTA is continuing to work to implement TSP along additional locations on the Ashland and Western corridor. The project will be funded with future federal funds, and not currently reflected in the 2017-2021 CIP.

#### *Fleet Modernization – Bus & Rail Cars*

CTA is modernizing its vehicle fleet by purchasing new and overhauling existing buses and rail cars. These investments will reduce vehicle fleet maintenance costs and improve the customer experience. As part of the modernization, fabric seat inserts will be replaced with new non-absorbent materials. Funding is provided from various sources, including TIFIA, and is shown in detail in the 2017-2021 CIP.

## STATION AND INFRASTRUCTURE INVESTMENTS

Continuing to invest in station and infrastructure is a major priority for the CTA. These assets present the face of the brand to our customers and improvements are critical to achieving President Carter's vision of a safe, reliable and customer friendly experience. The new stations provide enhanced capacity, accessibility, lighting, security cameras, slow zone remediation and more. Projects funded through the 2017-2021 CIP are outlined in the Capital Program section. The projects listed below were included in prior year CIPs.

### *Loop Link/Union Station Transit Center*

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For the first time, downtown Chicago now has a dedicated CTA transit center that links Union Station, which serves 120,000 people per day, with six high-ridership bus lines. The new transit center provides improved customer amenities, such as raised station platforms to provide easier level-boarding; early signal system for buses at key intersections to get ahead of traffic; distinct bus stations with large canopies; bus tracker screens, and ample seating for waiting customers. The project was funded through the Chicago Department of Transportation.

[Photo: New transit center at Union Station]

### *Wilson Station*

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In 2016, the CTA began the third phase of the historic \$203 million Wilson Reconstruction project to modernize the 93-year-old stationhouse and the adjacent more than 100-year-old track structure.

[Photo: Modernized Wilson rail station along Red and Purple lines]

The revitalized station, expected to be completed by the end of 2017, will serve as an economic anchor for the historic Uptown neighborhood by stimulating local business and promoting job growth. The project was funded through federal, state and local sources.

### *95<sup>th</sup> Street Terminal*

In 2016, CTA continued with its \$280 million project to completely rebuild the Red Line South's busiest station, creating a new 95<sup>th</sup> Street Terminal that will provide a safer, more efficient environment for transit riders on the South Side. In June, CTA unveiled finalized renderings that display the station's bold design on what will be a signature station of the CTA system.

[Photo: Artist drawing of the façade of the proposed 95<sup>th</sup> Street Terminal on Red Line]

The 95<sup>th</sup> Street project will expand and greatly improve the terminal, which is one of CTA's busiest, with 24-hour Red Line service and more than 1,000 CTA and Pace bus trips on a typical weekday. This work

will help improve the movement of train traffic in and out of the 98th Street yard and through the 95th Street Terminal.

The new south terminal will be completed in 2017 and the new north terminal building will open in 2018. The project was funded through federal, state, and local funds.

### *Quincy Station Renovation*

CTA will rehabilitate the Quincy Station, one of CTA's oldest stations, built in 1897. The improvements will preserve the original appearance of the Loop 'L' station while upgrading the station with the addition of two elevators to make the station accessible to customers with disabilities.

The station provides more than 2.2 million rides annually on the Brown, Orange, Pink and Purple lines and is a major multi-modal transfer point for 10 CTA bus routes as well as providing convenient connections to Union Station and the LaSalle Street Metra Station.

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[Photo: Artist drawing of proposed renovated Quincy rail station, Brown, Orange, Pink and Purple lines]

The \$18.2 million renovation will also include stair replacement, painting and lighting improvements. It is expected to be completed by the end of 2017. The project was funded with TIF and local funds.

### *Washington/Wabash Loop Station*

The Chicago Department of Transportation (CDOT) continues to make progress on the construction of the new, state-of-the-art Washington/Wabash station.

[Photo: Artist drawing of the new Washington/Wabash Loop rail station]

The project is combining the nearby century-old stations on Wabash at Randolph and at Madison. When the project is completed in 2017, the new fully accessible station will serve as a gateway for Millennium Park and the Loop and feature a wide array of sustainable elements.

The station will include a modern design including faceted skeletal steel and glass structure canopies and LED lighting. The station will serve the Brown, Green, Orange, Pink and Purple lines.

### *Illinois Medical District Station*

Improvements to the popular Illinois Medical District (IMD) station on the Forest Park branch of the Blue Line are expected to begin in late 2016.

[Photo: Artist drawing of updated Ogden entrance to the Illinois Medical District station on the Blue Line]

The project will make improvements to all three entrances of the IMD station, including making the station fully accessible to customers with disabilities.

Additionally, the project includes improving station and platform lighting; installing additional security cameras and CTA Bus and Train Tracker displays, and making repairs to the station platform canopy.

### *Green Line West Track Renewal*

CTA completed the *Green Line West Track Renewal Project* in 2016, marking an important investment for the Green Line and the Austin neighborhood and Oak Park. The project upgraded track infrastructure between the Laramie and Harlem/Lake stations to provide Green Line riders smoother and more reliable commutes and prevent imminent slow zones from developing as infrastructure ages.

The project follows a series of improvements CTA has made to the Green Line including a \$20 million track modernization investment on the Green Line South that was completed in 2013, the 2012 opening of a new Green/Pink Line station at Morgan, and the 2015 opening of the Cermak-McCormick Place station that provides convenient access to the South Loop and McCormick Place. The project was funded with local funds.

### *Ravenswood Connector Signal Project*

Over the summer, CTA began its next phase of work to improve the historic Ravenswood Loop Connector, the century-old Brown and Purple line tracks between Armitage and the Merchandise Mart stations. The Ravenswood Connector Signal project will replace a 40-year-old signal system on those tracks, building off of track rehabilitation work that was completed in 2015. The modern signal system will enhance CTA's ability to move trains more efficiently and safely and reduce congestion issues that arise due to an outdated signal system. The project is funded with federal, state and local funds.

### *Red Line Extension*

In 2016, progress was made on the proposed \$2.3 billion Red Line Extension (RLE) project that would extend the Red Line from 95th Street to the vicinity of 130th Street.

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[Photo: Artist drawing of the proposed station at 130<sup>th</sup> and Michigan Avenue, part of the proposed Red Line extension]

The proposed 5.3-mile extension would include four new, fully accessible stations at 103rd Street, 111th Street, Michigan Avenue and 130th Street. The project would provide a one-seat ride for far South Side residents from 130th Street to downtown, fostering economic development opportunities and improving resident access to jobs and education.

The CTA in fall 2016 published a Draft Environmental Impact Study (DEIS) on the two alignment options for the project. The project will be funded with federal, state and local funds, with \$5 million included in the 2016 CTA bond issue.

### *Slow Zone Remediation*

In early 2016, CTA slow zones hit the lowest total in 18 years following historic investment in upgrading and modernizing the system under Mayor Emanuel. The announcement was the result of multiple, major

improvement projects over the past several years – including, most notably, the 2013 Red Line South Reconstruction Project.

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[Photo: Workers repairing track in on the Red Line in one of the downtown tunnels]

Due to CTA's age, with some tracks and stations dating back to the late 1800s, infrastructural investments are a key priority. While major track improvement projects have been critical to eliminating slow zones across the system, regular track inspection and maintenance work helps prevent slow zones from forming due to track deterioration.

### *Strategic Accessibility Program*

As part of CTA's commitment to improve accessibility throughout the system, the CTA announced in early 2016 a new initiative to establish a blueprint for making the system 100 percent accessible over the next 20 years.

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[Photo: Disabled rider in wheelchair disembarking from rail car at a station]

Throughout 2016, a working group consisting of City of Chicago, CTA, and Americans with Disability Act (ADA) community members, architects and others worked to outline a high-level cost estimate and schedule for achieving the goal of 100 percent accessibility. The CTA expects to complete the framework for achieving this goal, the *All Stations Accessibility Plan (ASAP)*, in 2017.

CTA has made historic progress in recent years to make the system more accessible for customers with disabilities. Nearly 70 percent of CTA's 145 rail stations are currently wheelchair accessible. Of the 46 stations currently not equipped with elevators, many were built well before the 1990 Americans with Disabilities Act and some are well over a half-century old. A number of ongoing projects are working to further that goal of 100 percent accessibility.

## SAFETY AND SECURITY

Since rejoining the CTA in 2015, President Carter has been committed to enhancing safety and the customer experience on the CTA.

### *Safety Management System (SMS)*

Under CTA President Carter, the agency has worked at every level of the organization to strengthen its safety culture and ensure it is following best practices in all aspects of daily operations.

CTA was the first transit agency in the nation to assist in the development of the Safety Management System (SMS), which is being led by the FTA to develop uniform standards to upgrade and ensure safety for transit operations throughout the country.

In general, SMS is an integrated collection of guidelines, policies and processes designed to help identify and mitigate risk in transportation by engaging people, process and technology. The SMS ensures a safety

culture by using a top down and bottom up approach across CTA to promote safety and the understanding of risk.

### *Security*

The CTA is one of the only major transit agencies in the nation featuring system-wide security cameras to improve safety and security for its passengers. With cameras on every bus and rail car and at every rail station, the extensive network containing more than 23,000 cameras has proved to be an invaluable tool for police and their investigations into crimes committed either on or near CTA property.

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[Photo: Inside of bus showing security cameras attached to ceiling]

## TECHNOLOGY

The CTA continues to invest in technological improvements that provide customer enhancements and status alerts.

### *Ventra App*

Developed jointly by CTA, Metra and Pace, the Ventra app provides a “one-stop shopping” experience that essentially puts both a Ventra vending machine and a Metra ticket vending machine in customers’ pockets.

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[Photo: Individual holding cell phone with Ventra App on the screen]

The free app, which launched in November 2015, is the first-of-its-kind to allow customers to pay for rides on all three transit systems. The Ventra app reached its 1 millionth download less than one year after initial launch, and the CTA was awarded the 2016 American Public Transportation Association’s (APTA) Innovation Award, the top award for innovation among North American transit systems.

While the app was an immediate success, CTA and its partners continue to work on future enhancements to the app including a door-to-door trip planning feature and the ability to integrate transit planning with other shared use transportation means.

### *Elevator Status Alerts*

Continuing efforts to provide useful, real-time information to customers, CTA launched a new system in 2016 to notify customers about the status of CTA elevators. Customers are now able to subscribe to alerts about unplanned outages and service restoration of elevators at CTA rail stations system wide, received via text message or email. Customers can choose to receive notifications for individual lines or all rail lines, with information on when elevators are taken out of service for maintenance or repair, and when they resume operation.

### *Bus Tracker at Rail Stations*

2016 marked the arrival of the first-ever Bus Tracker arrival time displays at CTA rail stations. The displays provide estimated information on bus time arrivals to assist customers making transfers from trains to buses.

The CTA placed 66 Bus Trackers displays at 51 stations, some of which have the highest numbers of customers who transfer between trains and buses.

Previously, Bus Tracker signs were only found at bus shelters. On an average weekday approximately 150,000 riders make rail to bus transfers. Each sign provides the estimated arrival time for routes serving that particular bus stop within an approximately 30-minute timeframe.

### ADDITIONAL CUSTOMER ENHANCEMENTS

The customer experience goes beyond just providing transportation. The CTA continues to promote the beauty and history of its system by investing in public art and its heritage fleet. The CTA stations are an anchor to the communities they serve and as such provide a strong community focal point.

#### *Public Art Expansion*

Since 2011, CTA's collection of public art has nearly doubled and currently includes more than 60 works of art across all eight rail lines. Artwork includes mosaics, art glass and sculptures created by nationally and internationally acclaimed artists, many of whom are local.

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[Photo: Picture of abstract mosaic, part of the CTA public art collection]

In 2016, CTA selected two award-winning Chicago artists James Jankowiak and Michiko Itatani to commission new, one-of-a-kind artwork to be installed at the Union Station Transit Center and the new Washington/Wabash Loop 'L' station.

#### *Heritage Fleet Program*

In 2016, CTA established the Heritage Fleet program, designed to preserve and celebrate CTA's history. CTA's fleet currently consists of a handful of retired rail cars and buses that date back as early as 1923. CTA's history through its predecessors dates back as early as the 1850s. The Heritage Fleet program will help maintain the history of the CTA both now and into the future.

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[Photo: Picture of a 1930's era rail car pulling into an elevated rail station]

### WORKFORCE DEVELOPMENT

As an employer of about 11,000 people, CTA is committed to workforce development internally and in the communities it serves. By investing in our employees, we can better

serve our customers. As such, employee recognition is an important motivator and demonstrates that the employees are CTA's greatest assets.

#### *Partnership with City Colleges of Chicago to expand CTA's Second Chance Program*

Mayor Emanuel, CTA Board Chairman Terry Peterson, CTA President Carter and City Colleges Chancellor Cheryl Hyman announced a new partnership in 2016 between CTA and City Colleges of Chicago to expand the CTA's successful Second Chance Program, an innovative initiative that provides valuable job skills and career opportunities to Chicago residents who often face challenges re-entering the workforce.

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[Photo: CTA President Carter standing at podium surrounded by Mayor Emanuel and City College officials]

Under Mayor Emanuel, the Second Chance program has quadrupled in size, becoming one of the largest programs of its kind in the country. The program has grown to 265 positions for bus and rail car servicers who clean and detail the CTA's more than 1,400 rail cars and 1,800 buses, as well as rail station platforms and bus and rail yards.

#### *Vocational Mechanics Program*

CTA is dedicated to developing stronger relationships with the communities it serves and is working with the Chicago Public Schools and the Chicago Vocational Career Academy to develop high school internship programs. The Vocational Mechanics Program provides students an opportunity to be trained on bus maintenance.

#### JOB CREATION

The CTA's operations and capital program are large job creators in the Chicago area. As such, it is important for these programs to reflect the values and diversity of the constituency they serve.

#### *Diversity Programs*

CTA is committed to promoting economic opportunity through encouraging and fostering the development of Disadvantaged Business Enterprises (DBE) and Small Business Enterprises (SBE), encouraging a diverse workforce, preventing discrimination in the workplace and encouraging the highest professional conduct. CTA offers many programs to expand opportunities including the Small Business University, SBE Program and Mentor-Protégé Program.

#### *Workforce Plan*

Because CTA believes in investing in communities, CTA now requires a workforce plan for all construction contract bids.

The workforce plan is a part of the scoring process CTA uses in selecting contractors by asking bidders to demonstrate how they will engage the community to connect local residents with CTA construction jobs.



### *U.S. Employment Plan and Rail Car Purchase*

When CTA announced in 2016 it would purchase up to 846 new rail cars, the agreement was historic for two reasons: It was the largest rail car order in agency history, and it was the agency's first use of the United States Employment Plan in procurement.

The manufacturer has pledged to build a final assembly facility in Chicago and create 169 related jobs, not including construction jobs that will be created to build the plant.

This is in addition to the CTA's commitment to requiring certified Disadvantaged Business Enterprise (DBE) participation in CTA contracts.

### ECONOMIC DEVELOPMENT

When CTA makes decisions on where and how to invest and modernize its system, community investment is an important component in project planning.

Currently, CTA is undertaking a large number of major capital projects that are creating jobs and new development – directly and indirectly – in Chicago. The agency is committed to focusing on ensuring that each large infrastructure project includes some level of community investment, whether we're creating job or contracting opportunities, or helping to attract businesses to areas that lack or enhance economic development. Time and time again, we've seen the returns on transit investment here in our city. Across Chicago, major companies have migrated to the city from suburban communities or other states in order to be more connected physically and culturally to Chicago and its people, underscoring the value of a strong public transportation system. With more than 1.6 million rides provided every day, it is no doubt that CTA is not only a critical mover of people but also a driver of the economy.

Investments in new and existing public transit infrastructure can serve as a catalyst for economic development, as evident by several recent CTA projects:

- Morgan Green Line Station: Since its 2012 opening, the West Loop has undergone a major transformation. Businesses large (Google, McDonald's and Wilson Sporting Goods) and small (internationally recognized restaurants and shops) have opened or plan to open, and new residential growth has exploded. New business licenses issued within a half mile of the station have jumped by 13 percent, while new construction and demolition permits increased more than 400 percent.
- Cermak-McCormick Place Green Line station: Since the station opened near McCormick Place, the largest convention center in North America, and a number of popular destinations in February 2015, commercial rents have increase more than 70 percent, while new construction and

demolition permits jumped more than 80 percent. The station is well-positioned to a planned entertainment district announced by Mayor Emanuel that will include hotels and a new arena.

- Current Reconstruction of Wilson Red Line station: Since CTA began construction in late 2014; there has been a flurry of new private development proposed next to the stationhouse including new multifamily housing and commercial development as well as a number of new businesses opened in the near vicinity.

### *Local Businesses in CTA Stations*

In 2016, the CTA welcomed several new, locally owned businesses to stations across its system. The new concessions, featuring a wide variety of merchandise, are part of CTA's strategy to partner with local businesses and expand offerings to rail customers. Since May 2011, the CTA has partnered with almost 40 local businesses, providing CTA customers with additional options for a more pleasant commute. Local businesses include Flacos Tacos, Gino's North Pizzeria, the Churro Factory and Lupitos Juice Bar among many others.

Revenue generated from retail leases help boost CTA's non-farebox revenue and provide customers and the surrounding neighborhoods with additional amenities and services that help to boost local neighborhood economies. Since 2011, CTA has added nearly \$16 million in new concession leases.

## GOOD GOVERNANCE

### *Federal Transit Administration (FTA) Triennial Review*

CTA announced in 2016 that the Federal Transit Administration (FTA), the top federal oversight agency for transit agencies nationwide, gave the CTA a perfect score on its FTA Triennial Review and found no deficiencies across multiple categories and departments.

A perfect review of "zero findings of deficiencies" is the highest score attainable. The FTA awarded CTA a Certificate of Excellence following an exhaustive review process that included a team of FTA auditors conducting site visits and completing a comprehensive review of CTA procedures and policies in more than 15 key areas. The CTA has never before received a perfect review.

## CONCLUSION

Transportation in the 21st century is increasingly about options. The CTA is committed to moving the agency forward for our customers by making sure public transit is adequately able to continue to play a vital role in keeping the city moving by safely and conveniently helping travelers get from point A to point B.

The CTA's 2017 Budget is balanced and fiscally responsible and takes a holistic approach towards providing good transit services from investing in major capital projects, to making critical state of good repair improvements, to taking a close look at service levels system wide. Through its 2017 Budget, the CTA focuses on improving the customer experience at every level from safety and security to emerging technologies and preserving our rich history.

And it puts the customer first – building on CTA's mission to connect people, jobs and communities.

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Executive Summary

[Photo: Full page photo looking south toward downtown from the Wilson elevated rail station]

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2016 Operating Budget Performance Summary

Overview

The CTA's 2016 \$1,475.2 million Operating Budget contained no fare increases and maintained overall service levels, compared to 2015. During 2016, CTA added the pilot programs for the #11 (Lincoln Avenue) and #31 bus routes and the Far South Side Improvement Plan, to improve service for customers. The 2016 Forecast reflects these changes and is projected to be at \$1,482.3 million, or 0.5 percent higher than budget and 2.6 percent higher than 2015 actuals. Operating revenues are projected to be \$1,487.3 million or 0.8 percent higher than budget and 1.3 percent higher than 2015.

The 2016 Forecast projection reflects CTA's continuous efforts to aggressively manage spending levels and to cover a reduction in State funding for the free and reduced fare mandates. CTA's forecast is estimated to end the year with a \$5 million fund balance, or positive budget variance.

Major operating expense assumptions outlined in the forecast include enhanced service levels, the full year's impact of the 2015 contractual wage increases, the initial \$14.3 million debt service for the 2014 sales tax bonds and higher non-capital grant expenses versus the budget, matched by non-capital grant revenue.

The increase in expenses is projected to be offset by lower than planned fuel expense. Fixed fuel purchases were budgeted at an average of \$2.15 per gallon, versus \$3.00 per gallon in 2015.

The forecasted operating revenues projects system generated revenue to be slightly lower than planned and flat year over year. Reduced fare subsidy is projected to be lower than planned and flat with 2015, based on the State's Stop Gap budget. Other revenue is projected to be higher than planned and prior year, mainly due to higher non-capital grant revenue offset by non-capital grant expense and some property sales. Public funding is estimated to be \$810.8 million and 2.5 percent higher than budget.

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2016 Operating Budget Schedule (Dollars in thousands)

|  | <b>Actual 2015</b> | <b>Budget 2016</b> | <b>Forecast 2016</b> | <b>Forecast Favorable/<br/>Unfavorable vs.<br/>2016 Budget</b> |
|--|--------------------|--------------------|----------------------|--|
| <b><u>Operating Expenses</u></b>                     |                    |                    |                      |  |
| Labor  | \$1,002,486        | \$1,025,634        | \$1,025,988          | (\$354)  |
| Material   | 83,507             | 82,534             | 83,250               | (716)  |
| Fuel   | 49,830             | 37,259             | 34,729               | 2,530  |
| Power  | 28,818             | 31,458             | 29,398               | 2,060  |
| Provisions for Injuries and Damages                  | 13,000             | 9,500              | 9,500                | -  |
| Purchase of Security Services                        | 14,431             | 14,698             | 15,584               | (886)  |
| Other Expenses                                       | 252,054            | 274,123            | 283,879              | (9,756)  |
| Pension Obligation Bonds (Net)                       | 112,281            | 118,043            | 118,050              | (\$7)  |
| Contractual Services                                 | 104,278            | 101,981            | 102,970              | (\$989)  |
| Utilities  | 24,562             | 24,058             | 23,677               | \$381  |
| Non-Capital Grant, Travel, Leases, Other             | 10,933             | 15,743             | 22,517               | (\$6,774)  |
| Other Debt Service                                   | -                  | 14,298             | 16,666               | (\$2,367)  |
| <b>Total Operating Expenses</b>                      | <b>\$1,444,125</b> | <b>\$1,475,207</b> | <b>\$1,482,329</b>   | <b>(\$7,122)</b>   |
| <b><u>System Generated Revenue</u></b>               |                    |                    |                      |  |
| Fare and Passes                                      | \$587,108          | \$590,541          | \$580,103            | (\$10,438)   |
| Reduced Fare Subsidy                                 | 14,606             | 28,322             | 14,606               | (13,716)   |
| Advertising, Charter & Concessions                   | 31,241             | 32,021             | 33,688               | 1,667  |
| Investment Income                                    | 1,123              | 883                | 1,515                | 632  |
| Statutory Required Contributions                     | 5,000              | 5,000              | 5,000                | -  |
| Other Revenue  | 36,439             | 27,945             | 41,604               | 13,660   |
| <b>Total System Generated Revenue</b>                | <b>\$675,518</b>   | <b>\$684,712</b>   | <b>\$676,517</b>     | <b>(\$8,196)</b>   |
| <b><u>Public Funding</u></b>                         |                    |                    |                      |  |
| Sales Tax I  | \$360,575          | \$365,121          | \$368,695            | \$3,573  |
| Sales Tax II and PTF II                              | 123,673            | 126,755            | 128,931              | 2,176  |
| RETT and PTF on RETT                                 | 94,290             | 79,440             | 91,890               | 12,450   |
| Total Statutory Funding                              | \$578,538          | \$571,316          | \$589,516            | \$18,199   |
| Non-Statutory Funding (Sales Tax I, PTF I and Other) | 214,471            | 218,178            | 220,297              | 2,118  |
| Innovation, Coordination and Enhancement Funding     | -                  | 1,000              | 1,000                | -  |
| <b>Total Public Funding</b>                          | <b>\$793,008</b>   | <b>\$790,495</b>   | <b>\$810,812</b>     | <b>\$20,317</b>  |
| <b>Total Operating Revenue</b>                       | <b>\$1,468,525</b> | <b>\$1,475,207</b> | <b>\$1,487,329</b>   | <b>\$12,122</b>  |
| <b>Balance</b>                                       | <b>\$24,400</b>    | <b>\$0</b>         | <b>\$5,000</b>       | <b>\$5,000</b>   |
| <b>Recovery Ratio*</b>                               | <b>56.0%</b>       | <b>55.4%</b>       | <b>54.5%</b>         |  |
| <b>Required Recovery Ratio</b>                       | <b>54.5%</b>       | <b>54.5%</b>       | <b>54.5%</b>         |  |

\*Recovery ratio is calculated by dividing System-Generated Revenue by Operating Expenses. The calculation includes (i) in-kind revenues and expenses for security provided by the City of Chicago, (ii) excludes security expenses and Pension Obligation Bond debt service, and (iii) includes forgone senior free ride revenue and certain grant revenues.

FY16 Forecast - Operating Expenses

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[Picture: Pie Chart of 2016 Operating Expense Forecast in \$ Millions]

| Expense Category                   | \$ in Millions | \$ Percentage |
|------------------------------------|----------------|---------------|
| Labor                              | \$1,026.0      | 69%           |
| Material                           | \$83.3         | 6%            |
| Fuel                               | \$34.7         | 2%            |
| Power                              | \$29.4         | 2%            |
| Provision for Injuries and Damages | \$9.5          | 1%            |
| Purchase of Security Services      | \$15.6         | 1%            |
| Other Expenses                     | \$283.9        | 19%           |

The 2016 labor expense is projected to be \$1,026.0, which is \$23.5 million or 2.3 percent higher than the 2015 actual labor costs and on par with the 2016 budget. Base labor is higher versus 2015 mainly due to the full year impact of contractual wage increases, as well as enhanced service levels. Fringe benefits are higher versus 2015 due to the higher base labor and slightly higher health care costs. Base labor and fringe benefits are flat versus the budget due to proactive management of new hires.

Material spending for 2016 is forecasted to be \$83.3 million or 0.3 percent higher than 2015 and 0.9 percent more than budgeted levels. The 2016 forecast includes the impact of additional maintenance due to the Far South Side Improvement Plan and the pilot program for the #11 and #31 bus routes.

Diesel fuel expenditures for revenue equipment are forecasted to end the year at \$34.7 million. This is \$15.1 million less than 2015 and \$2.5 million below the original budget. Fixed fuel for the budget was purchased at 80% of the projected 2016 usage at \$2.15 per gallon, compared to \$3.00 per gallon budgeted in 2016. The savings versus prior year is mainly due to better pricing. A mild winter and mild summer helped lower consumption because of the reduced need for heating and air conditioning.

Electric (traction) power expenses are projected to end the year at \$29.4 million, a \$0.6 million or 2 percent increase versus 2015 actual expenses and a \$2.1 million reduction versus the budget. CTA used a managed block purchase approach to purchase wholesale power for its base load electricity supply for approximately 80% of the projected usage.

Provision for injuries and damages represents expenses for claims and litigation for incidents that occur on CTA property, as well as incidents involving CTA vehicles. This amount is suggested by the CTA's actuaries and reviewed annually. It is based on actual claims history and future projections. The amount in the injuries and damages reserve exceeds total projected liabilities. The \$9.5 million forecasted reserve remains flat versus budget.

Purchase of Security Services expenses are forecasted to be \$15.6 million, \$1.2 million higher than 2015 actual expenses and \$0.9 million higher than budget. The increase versus 2015 and versus budget is due to the extension of the Quality of Life Mission that addresses continuous riders on our busiest rail lines and the Fare Card Mission, which mitigates fraudulent use of passes. The security services budget

consists of expenditures for intergovernmental service agreements with officers from the Evanston, Oak Park, Forest Park and Chicago police departments, as well as contracts with other private security firms. The Public Transportation Section of the Chicago Police Department also provides services to CTA customers during the course of its regular patrols, at an estimated value of \$22 million. These costs are paid for by the City of Chicago as in-kind services rendered to the CTA.

Other expenses are projected to be \$283.9 million, 12.6 percent higher than prior year and 3.6 percent higher than budget. The increase versus prior year is mainly due to new debt service and higher than planned non-capital grant expenses offset by non-capital grant revenue. The increase versus budget is due to higher non-capital grant revenue and an additional month of debt service due to timing of payment. This category includes interest on pension obligation bonds, utilities, maintenance and repair contracts, advertising, commissions, consulting, insurance, leases and rentals, and other general expenses. Non-capital grant expense represents a pass-through grant which is offset by an equal amount of grant revenue (classified as Other Revenue).

FY16 Forecast - Operating Revenues

*System-Generated Revenues*

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[Picture: Pie Chart showing 2016 System-Generated Revenue Forecast in \$ Millions]

| Revenue Category                   | \$ in Millions | \$ Percentage |
|------------------------------------|----------------|---------------|
| Fare and Passes                    | \$580.1        | 86%           |
| Reduced Fare Subsidy               | \$14.6         | 2%            |
| Advertising, Charter & Concessions | \$33.7         | 5%            |
| Investment Income                  | \$1.5          | 0%            |
| Statutory Required Contributions   | \$5.0          | 1%            |
| Other Revenue                      | \$41.6         | 6%            |

System-generated revenues are projected to be \$676.5 million. This is \$8.2 million lower than the original budget of \$684.7 million, and a \$1.0 million increase over the 2015 actual level.

Regular fares and passes make up the majority of system-generated revenues. Revenue from fares and passes is forecast to be \$580.1 million. CTA base fares have not increased since 2009 and pass prices and other fare categories have not changed since January 2013. Fare and pass revenue is projected to be \$7 million lower than the 2015 actual amount and \$10 million lower than the original 2016 budget. This decrease is due to the drop in ridership in 2016 as gas prices have trended near historic lows, car usage has increased this year and new entrants to the market have increased competition. The average fare paid in 2016, including cross-platform transfers, is projected to be \$1.16.

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[Picture: Vertical Bar Graph of CTA Farebox Revenue 2011-2016 (Forecast). Revenue in \$ Millions]

| Year          | Farebox Revenue |
|---------------|-----------------|
| 2011          | \$527.9         |
| 2012          | \$548.8         |
| 2013          | \$574.0         |
| 2014          | \$583.3         |
| 2015          | \$587.1         |
| 2016 Forecast | \$580.1         |

The reduced-fare subsidy is the State of Illinois' reimbursement to the CTA, Metra and Pace for discounted and free fares given to students, seniors, and people with disabilities. The forecasted total for 2016 is \$14.6 million, reflecting almost 50 percent reduction in the historic funding for this program. The stopgap budget approved by State of Illinois in summer of 2016 maintained this funding at half the anticipated and historic level. The CTA continues to work with the other service boards and the RTA to restore this critical piece of funding to its historic levels for an important federal and state mandate.

Advertising, charters and concessions revenues in 2016 are projected to be \$33.7 million, which is \$1.7 million more than budget and \$2.4 million more than 2015. The year-over-year growth is due to a boost in advertising sales and concession fees. Vehicle and platform advertisements are expected to perform well as demand for digital advertising continues to grow. CTA stations now have more than 100 urban panels for digital advertisement, boosting revenues this year.

Investment income is estimated to be \$1.5 million, which is a significant increase over \$1.1 million in 2015 due to higher yielding securities. Overall, the level of investment income is minimal primarily because of historically low interest rates. Income is also low because the State of Illinois is late in payments of public transportation funds. The delayed payments forces the CTA to keep more cash on hand and thus leaves less available for short-term investments.

Statutory required contributions will meet the budgeted amount of \$5.0 million per the Regional Transportation Authority Act, which requires the City of Chicago and Cook County to contribute \$3.0 million and \$2.0 million, respectively, to CTA operations each year.

Other revenues, which include parking fees, sale of real estate, rentals and sale of CTA merchandise, are projected to be \$41.6 million, which is \$13.7 million higher than the 2016 budget. The main reason for the increase is the schedule of non-capital grant revenue starting mid-2016, offset by related grant expenditures. CTA surplus property sales have also generated more than \$3.5 million in 2016.

## Public Funding

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[Picture: Pie Chart 2016 Public Funding Forecast , \$ in Millions.]

| Funding Category                                     | \$ in Millions | \$ Percentage |
|--|----------------|---------------|
| Sales Tax I  | \$368.7        | 46%           |
| Sales Tax II and PTF                                 | \$128.9        | 16%           |
| RETT and PTF on RETT                                 | \$91.9         | 11%           |
| Non-Statutory Funding ( Sales Tax I, PTF, and Other) | \$220.3        | 27%           |
| Innovation, Coordination and Enhancement Funding     | \$1.0          | 0%            |

Public funding projected for 2016 is \$810.8 million. This funding is comprised of sales tax, discretionary funding from the RTA, and real estate transfer tax (RETT) from the City of Chicago. This is \$19.3 million higher than the original budget, the result primarily of higher than expected sales tax revenues and RETT growth in Chicago due to a higher volume of transactions. Importantly, this number assumes no changes in public funding and the amount the State of Illinois provides to the region and CTA.

## Ridership

Ridership in 2016 is forecasted to be 499.7 million passenger trips, a 3.2 percent decrease from the 516.0 million trips in 2015. The bus ridership forecast is for 259.8 million, a 5.3 percent decrease versus 2015, while rail ridership is projected to be 239.9 million trips, a 0.7 percent decrease.

Consumer gas prices have averaged over \$0.50 per gallon less (24%) in 2016 compared to last year. The low prices encouraged customers to drive more often rather than take transit. Increased bike usage and competition from ride sharing, including Uber, Lyft and Via, have also negatively impacted ridership.



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[Graph of CTA Ridership from 2010 – 2016 Forecast (in Millions)]

| CTA Ridership (in Millions) |       |       |        |
|-----------------------------|-------|-------|--------|
|                             | Rail  | Bus   | System |
| 2010                        | 210.8 | 306.0 | 516.9  |
| 2011                        | 221.6 | 310.4 | 532.0  |
| 2012                        | 231.2 | 314.4 | 545.6  |
| 2013                        | 229.1 | 300.1 | 529.2  |
| 2014                        | 238.1 | 276.1 | 514.2  |
| 2015                        | 241.7 | 274.3 | 516.0  |
| 2016 (Forecast)             | 239.9 | 259.8 | 499.7  |

Average weekday ridership for 2016 is projected at 1.6 million per day, which is 2.9 percent lower than 2015 weekday ridership. Weekday bus ridership is projected to be down 5.1 percent while rail ridership is projected to be down 0.4 percent.

Average Saturday ridership for 2016 is projected at 0.96 million per day, which is a decrease of 6.1 percent from 2015 Saturday ridership. Average Saturday ridership for bus is projected fall to 8.4 percent while average Saturday ridership for rail is projected to fall 3.6 percent.

Average Sunday/holiday ridership for 2016 is projected at 0.7 million per day, which is a 4.0 percent decrease from 2015 Sunday/holiday ridership. This was driven by the 5.2 percent decrease in bus ridership and a decrease in rail ridership of 2.6 percent.

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## President's 2017 Proposed Operating Budget Summary

### Overview

The Proposed 2017 Operating Budget is \$1.524 billion and is balanced between expenses, system generated revenues, and public funding. The 2017 budget does not contain any fare increases and reflects service level improvements. The budget does not contain a transfer of capital funds for operations and supports management initiatives, yielding streamlined operations through aggressive management of hiring and controlled spending.

Major assumptions outlined in the 2017 budget include maintaining the 2016 wage rate, enhanced safety measures including additional security teams, contributing to the injuries and damages reserve, increased pension costs and increased debt service for capital bonds issued in 2014. These increases are offset by modest year over year savings in fuel due to CTA's strategic efforts to pre-purchase fuel.

Expenses are up \$49 million versus the 2016 budget, mainly due to the \$24 million increase in pension contributions, higher material expenses due to service level improvements, art program, safety initiatives, normal escalation of contractual service agreements and additional \$14.3 million in debt service on the 2014 sales tax bonds. The increase in expenses is offset by fuel savings, due to CTA's

strategic fixed price purchase policy, locking in fuel purchases for a portion of the planned consumption for 2017.

System generated revenues are slightly higher than the 2016 budget, due to expanded advertising revenue through large format advertisements, escalation in advertising, charter and concession revenue agreements, and slightly higher non-capital grant revenue. Fare and pass revenue in 2017 is projected to be \$9.3 million lower than 2016 budget, due to lower than expected ridership in 2016 that follows national trends.

More importantly, the budget assumes the historic formulas for State funding to support CTA operations. Nearly 20 percent of the CTA's budget comes from the State Public Transportation Fund which is funded based on continuing appropriation. The reduced fare subsidy, representing 2 percent of the budget, is the only state revenue source subject to annual appropriation. Any reduction in State funding to the CTA would negatively impact the Authority. Due to uncertainty regarding revenue trends, controls on labor, material and other expenses are tightened, with aggressive management of hiring continuing into 2017. CTA also plans to maximize non-farebox revenue opportunities.

Overall, CTA's 2017 budget supports initiatives to enhance the customer experience, safety and security and workforce development. The budget includes public art, diversity programs, a Vocational Mechanics Program that will provide high school students an opportunity to work closely with bus maintenance to gain transit experience and the Second Chance Program. The Second Chance Program continues to provide valuable job skills and career opportunities to Chicago residents who meet with challenges re-entering the workforce. Program participants include non-violent ex-offenders, victims of abuse and others who face barriers to employment.

## Ridership

CTA ridership was at a 20-year high in 2012, but has fallen at a rate of 2.0% per year over the last three years. Rail ridership has grown at a rate of 1.6% per year over the last three years while bus ridership has fallen at a rate of 4.8% per year. Generally, CTA assumes that these trends will continue into 2017. The management initiative to increase participation in the federal pre-tax benefit program is expected to add more than one percent rides to the system total, the majority of which will occur on the rail system.

Overall then, CTA estimates that system-wide ridership will decrease to 496.3 million in 2017, 0.7 percent below the 499.7 million rides forecasted in 2016. Bus ridership is expected to fall 4.2% to 248.8 million in 2017 while rail ridership is expected to grow 3.2% to 247.5 million.

CTA's recent trend of declining ridership is being seen across the country. The 10 largest public transit bus agencies have seen a decline of 5-10% rides compared to 2015 for much of the year. Even the largest rail agencies, which have historically seen strong growth, are seeing small declines of up to 3% compared to last year.

CTA ridership, especially bus, has been heavily influenced by gas prices over the last 20 years, as seen in the chart. Inflation adjusted gas prices are near 100-year lows and are forecasted to remain low in 2017. Slowing bus speeds coupled with increasing competition from Uber, Lyft and Via are also expected to lower ridership.

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[Graph: Trend graph comparing CTA Bus Ridership to Inflation Adjusted Gas Prices for 1996 – 2016. As the inflated gas prices rise, bus ridership also rises]

## Operating Expenses

The proposed operating budget is \$1,524.2 million, a \$49 million or 3.3 percent increase compared to the 2016 Budget.

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[Graph: Pie chart for 2017 Operating Expenses. \$ in millions]

| Expense Category                   | \$ in Millions | \$ Percentage |
|------------------------------------|----------------|---------------|
| Labor                              | \$1,050.4      | 69%           |
| Material                           | \$89.2         | 6%            |
| Fuel                               | \$33.9         | 2%            |
| Power                              | \$31.4         | 2%            |
| Provision for Injuries and Damages | \$9.5          | 1%            |
| Purchase of Security Services      | \$16.8         | 1%            |
| Other Expenses                     | \$293.0        | 19%           |

Labor expenses represent 69 percent of the total operating expense budget at \$1,050.4 million, an increase of \$24.8 million from the \$1,025.6 million 2016 budget. The labor increase is mainly due to the \$24 million pension contribution increase.

Material expenses represent 6 percent of the budget, at \$89.2 million. This is \$6.6 million higher than the 2016 budget and \$5.9 million higher than the 2016 forecast. The increase in material expenses is due to increased service levels generating additional mileage and repairs and maintenance of vehicles due to the 5000-series rail cars coming out of warranty by the end of 2016.

Fuel expenses represent 2 percent of the budget, at \$33.9 million, which is \$3.3 million less than the 2016 budget. The fuel budget will be managed using CTA's strategic fixed price purchasing policy. CTA pre-purchased 50 percent of its fuel needed for 2017 in advance of finalizing its budget and expects to purchase more in the near future to increase budget certainty. Fuel prices in 2017 are budgeted at an average \$2.03 per gallon, representing the average price the CTA has locked in for 2017 at the time of budgeting. This includes the price of supply and delivery combined and represents significant savings compared to the \$2.15 per gallon budgeted in 2016.

The CTA's strategy for purchasing electric power changed in 2017. In previous years, CTA purchased a fixed portion of the forecasted consumption and carried the risk if consumption was higher than forecasted. In 2017, CTA switched to a "load following" strategy, in which the price of a percentage of consumption is fixed, no matter what the consumption ultimately is. This protects against extreme weather that can cause spikes in consumption. The 2017 proposed budget estimates the cost of electric power for revenue equipment at \$31.4 million and flat to the 2016 budget and \$2.0 million higher than the forecast. The increase versus the forecast is due to service level improvements on both bus and rail and regulatory fee increases. The Authority has purchased about 60 percent of its anticipated power usage in advance.

The budget includes a \$9.5 million contribution to the provisions for injuries and damages fund in 2017. The contribution projection is conservative. Recommended levels are determined by the CTA's actuaries based on actual claims history and future projections. It has been determined that the current value of the reserve fund is sufficient.

Purchase of security services is budgeted at \$16.8 million, an increase of \$2.1 million versus the budget and \$1.3 million higher than the 2016 forecast. The 2016 forecast and 2017 budget include additional security services deployed to address continuous riders and to mitigate fraudulent fare practices and evasion of fares. The purchased security services budget covers inter-governmental agreements with the police departments of Chicago, Oak Park, Forest Park and Evanston, plus some contract security services for the protection of bus garages and other CTA facilities.

Other expenses are budgeted to be \$293 million, an increase of \$18.9 million or 6.9% higher than the 2016 budget. This increase is primarily due to \$14.3 million in additional debt service for the 2014 Sales Tax Receipts Revenue Bonds. The increase also covers normal escalation of contractual expenses, including maintenance for CTA's security camera systems, technology efforts and system and safety training programs. Included in the Other Expenses category is the CTA's pension obligation bond debt, contractual and maintenance services, utilities, insurance, debt service and other miscellaneous expenses.

## Operating Revenues

The CTA has two main revenue categories: system-generated revenues and public funding.

## System-Generated Revenues

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[Graph: Pie chart of 2017 System-Generated Revenues. \$ in millions]

| Revenue Category                   | \$ in Millions | \$ Percentage |
|------------------------------------|----------------|---------------|
| Fare and Passes                    | \$581.3        | 85%           |
| Reduced Fare Subsidy               | \$28.3         | 4%            |
| Advertising, Charter & Concessions | \$35.2         | 5%            |
| Investment Income                  | \$1.1          | 0%            |
| Statutory Required Contributions   | \$5.0          | 1%            |
| Other Revenue                      | \$35.5         | 6%            |

System-generated revenues include fares and passes, reduced-fare subsidy, advertising and concessions, investment income, statutory required contributions from Chicago and Cook County, and other miscellaneous revenues. In 2017, system-generated revenue is budgeted to be \$686.3 million, representing a \$1.6 million increase when compared to the 2016 budget and a \$9.8 million increase versus the 2016 forecast.

Revenues from fares and passes are budgeted at \$581.3 million. This is an increase of \$1.2 million over the 2016 forecast. The increase is anticipated based on management initiatives to increase transit benefits participation and marketing of 30-Day Passes to residents and employers. In accordance with state law, the CTA continues to provide free rides to seniors and people with disabilities participating in the state's Circuit Breaker Program, active military personnel, and veterans with disabilities.

The CTA provides approximately ninety-five million reduced and free-fare trips annually to qualified riders based on federal, state, or local mandates. The foregone revenue from these rides is in excess of \$100 million. The state provides partial support for this mandate, with the reduced-fare subsidy. The subsidy is a reimbursement provided to local transit agencies by the Illinois General Assembly. The 2015 and 2016 subsidy was reduced by 50%. Consistent with guidance from the RTA, the 2017 proposed budget assumes the reduced fare subsidy will return to historic levels for the entirety of the 2017 State Fiscal Year, resulting in a total of \$28.3 million for 2017.

Advertising, charters and concessions revenues include advertisements on buses, trains and stations, income from concessions, and other non-farebox revenue. The 2017 budget is \$35.2 million, which is a \$1.5 million increase over the 2016 forecast. The CTA will continue to work to expand digital advertising and increase advertising sales.

Investment income for 2017 is budgeted at \$1.1 million, consistent with 2015 and \$400,000 lower than 2016 forecast. Interest rates hovering near zero percent plus the State of Illinois' continued late payment of public transportation funds mean CTA's conservative cash investments will yield minimal income.

Statutory required contributions remain unchanged in 2017, budgeted at \$5.0 million. The Regional Transportation Authority Act requires the City of Chicago to contribute \$3.0 million and Cook County to contribute \$2.0 million each year toward CTA operations. These required cash contributions are in addition to in-kind contributions from the City of Chicago. The Chicago Police Department's Public Transportation Section provides approximately \$22.0 million of in-kind security services to the CTA as part of its regular patrols. Meanwhile Cook County provides in-kind services through the Sheriff's Work Alternative Program (SWAP). Under the SWAP program, non-violent offenders in Cook County supplement existing CTA employees to clean bus turnarounds and garages.

All other revenue includes non-capital grants, park and ride revenue, rental revenue, third-party contractor reimbursements, and filming fees, among other varied income sources. This category is budgeted in 2017 at \$35.2 million, a decrease of \$6.1 million compared to the 2016 forecast. The decrease is primarily due to non-capital grant revenue. Non-capital grants are provided by external sources and add an identical amount of revenues and expenses to the budget. Park and ride and rental revenue will continue to increase.

*Public Funding*

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[Graph: Pie Chart of 2017 Public Funding. \$ in Millions]

| Funding Category                                     | \$ in Millions | \$ Percentage |
|--|----------------|---------------|
| Sales Tax I  | \$386.9        | 46%           |
| Sales Tax II and PTF                                 | \$135.8        | 16%           |
| RETT and PTF on RETT                                 | \$80.9         | 10%           |
| Non-Statutory Funding ( Sales Tax I, PTF, and Other) | \$228.2        | 27%           |
| Innovation, Coordination and Enhancement Funding     | \$6.1          | 1%            |

The forecasted amount of public funding available for CTA operations is established by the RTA, and is based on the RTA's revenue projection for the year and the approved funding marks of the RTA Board. Public funding has three sources: sales tax revenue, public transportation funds (PTF), and the real estate transfer tax (RETT). The three funding sources are authorized under state statutes passed in 1983 and 2008. A diagram of public funding received by RTA and the way in which it is allocated among the three Service Boards is included in the Operating Funding Summary in the appendices.

The RTA retains 15 percent of the sales tax collections authorized in 1983, leaving 85 cents of every dollar to flow directly to the service boards via the formula established by the state legislature. Of these

remaining funds, the CTA receives 100 percent of the taxes collected in Chicago and 30 percent of taxes collected in suburban Cook County. Of the funding available from the 0.25 percent sales tax and PTF authorized by the 2008 legislation, the CTA receives 48 percent of the remaining balance after allocations are made to fund various programs. Additionally, the 2008 legislation authorized a \$1.50 per \$500 increase in RETT, all of which is collected in Chicago. The CTA receives 100 percent of the increased RETT authorized in 2008 and a 25% state PTF match on the RETT.

Public funding available through the RTA is budgeted to be \$837.9 million in 2017. This includes the \$6 million Innovation Coordination and Enhancement (ICE) funds which are now distributed to the service boards by formula via the RTA and can be used in the operating or capital budget. The total public funding level is a \$27 million increase over the 2016 forecast or 3.3 percent. The increase represents continued improvement in sales tax receipts anticipated over the next year.

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[President's 2017 Proposed Operating Budget Schedule (Dollars in Thousands)]

|  | <b>Actual 2014</b> | <b>Actual 2015</b> | <b>Budget 2016</b> | <b>Forecast 2016</b> | <b>Proposed<br/>Budget 2017</b> |
|--|--------------------|--------------------|--------------------|----------------------|---------------------------------|
| <b><u>Operating Expenses</u></b>                     |                    |                    |                    |                      |                                 |
| Labor  | \$965,868          | \$1,002,486        | \$1,025,634        | \$1,025,988          | \$1,050,436                     |
| Material   | 80,963             | 83,507             | 82,534             | 83,250               | 89,176                          |
| Fuel   | 59,476             | 49,830             | 37,259             | 34,729               | 33,946                          |
| Power  | 33,568             | 28,818             | 31,458             | 29,398               | 31,365                          |
| Provisions for Injuries and Damages                  | 3,500              | 13,000             | 9,500              | 9,500                | 9,500                           |
| Purchase of Security Services                        | 13,628             | 14,431             | 14,698             | 15,584               | 16,838                          |
| Other Expenses                                       | 242,910            | 252,054            | 274,123            | 283,879              | 292,978                         |
| Pension Obligation Bonds (Net)                       | 115,746            | 112,281            | 118,043            | 118,050              | 111,943                         |
| Contractual Services                                 | 94,334             | 104,278            | 101,981            | 102,970              | 109,349                         |
| Utilities  | 23,059             | 24,562             | 24,058             | 23,677               | 24,152                          |
| Non-Capital Grant, Travel, Leases, Other             | 9,771              | 10,933             | 15,743             | 22,517               | 18,938                          |
| Other Debt Service                                   | -                  | -                  | 14,298             | 16,666               | 28,597                          |
| <b>Total Operating Expenses</b>                      | <b>\$1,399,913</b> | <b>\$1,444,125</b> | <b>\$1,475,207</b> | <b>\$1,482,329</b>   | <b>\$1,524,239</b>              |
| <b><u>System Generated Revenue</u></b>               |                    |                    |                    |                      |                                 |
| Fare and Passes                                      | \$583,299          | \$587,108          | \$590,541          | \$580,103            | \$581,250                       |
| Reduced Fare Subsidy                                 | 28,321             | 14,606             | 28,322             | 14,606               | 28,322                          |
| Advertising, Charter & Concessions                   | 27,561             | 31,241             | 32,021             | 33,688               | 35,165                          |
| Investment Income                                    | 422                | 1,123              | 883                | 1,515                | 1,121                           |
| Statutory Required Contributions                     | 5,000              | 5,000              | 5,000              | 5,000                | 5,000                           |
| Other Revenue  | 36,073             | 36,439             | 27,945             | 41,604               | 35,489                          |
| <b>Total System Generated Revenue</b>                | <b>\$680,675</b>   | <b>\$675,518</b>   | <b>\$684,712</b>   | <b>\$676,517</b>     | <b>\$686,347</b>                |
| <b><u>Public Funding</u></b>                         |                    |                    |                    |                      |                                 |
| Sales Tax I  | \$343,087          | \$360,575          | \$365,121          | \$368,695            | \$386,920                       |
| Sales Tax II and PTF II                              | 121,689            | 123,673            | 126,755            | 128,931              | 135,780                         |
| RETT and PTF on RETT                                 | 78,208             | 94,290             | 79,440             | 91,890               | 80,863                          |
| Total Statutory Funding                              | \$542,984          | \$578,538          | \$571,316          | \$589,516            | \$603,562                       |
| Non-Statutory Funding (Sales Tax I, PTF I and Other) | 196,254            | 214,471            | 218,178            | 220,297              | 228,200                         |
| Innovation, Coordination and Enhancement Funding     | -                  | -                  | 1,000              | 1,000                | 6,129                           |
| <b>Total Public Funding</b>                          | <b>\$739,238</b>   | <b>\$793,008</b>   | <b>\$790,495</b>   | <b>\$810,812</b>     | <b>\$837,892</b>                |
| <b>Total Operating Revenue</b>                       | <b>\$1,419,913</b> | <b>\$1,468,525</b> | <b>\$1,475,207</b> | <b>\$1,487,329</b>   | <b>\$1,524,239</b>              |
| <b>Balance</b>                                       | <b>\$20,000</b>    | <b>\$24,400</b>    | <b>\$0</b>         | <b>\$5,000</b>       | <b>\$0</b>                      |
| <b>Recovery Ratio*</b>                               | <b>58.5%</b>       | <b>56.0%</b>       | <b>55.4%</b>       | <b>54.5%</b>         | <b>54.92%</b>                   |
| <b>Required Recovery Ratio</b>                       | <b>54.0%</b>       | <b>54.5%</b>       | <b>54.5%</b>       | <b>54.5%</b>         | <b>54.75%</b>                   |

\*Recovery ratio is calculated by dividing System-Generated Revenue by Operating Expenses. The calculation includes (i) in-kind revenues and expenses for security provided by the City of Chicago, (ii) excludes security expenses and Pension Obligation Bond debt service, and (iii) includes forgone senior free ride revenue and certain grant revenues.



|                         | 2016 Budgeted<br>Positions | 2017 Budgeted<br>Positions |
|-------------------------|----------------------------|----------------------------|
| Total CTA without STO** | 4,345                      | 4,345                      |
| Bus STO positions***    | 3,754                      | 3,775                      |
| Rail STO positions***   | 1,770                      | 1,819                      |
| <b>Total CTA</b>        | <b>9,869</b>               | <b>9,939</b>               |

\*\*Total excludes Capital positions; STO Scheduled Transit Operations

\*\*\*STO Full-Time Equivalents

## 2018-2019 Two-Year Financial Plan

### Budget Highlights

The two-year financial plan continues the Authority's mission to deliver quality, affordable transit service and ongoing efforts to enhance CTA's safety culture. Priorities reflected in the plan include business initiatives to achieve CTA's strategic goals, to improve service delivery, to protect transit riders and employees and continue its investments in bus and rail fleets, stations, track structures and technology. The plan includes no fare increase and no service reductions.

The plan assumes public funding as reported by the RTA and the full level of reduced fare reimbursements from the State of Illinois. Any reduction in State funding to the CTA would negatively impact the two-year plan. The plan shows slight ridership and revenue growth, offset by increased debt service, a standard increase in contractual services and conservative contributions to injuries and damages reserves.

The collective bargaining agreement (CBA) that affects the majority of CTA employees expired at the end of 2015. At the time of the CTA budget development, there was no executed agreement in place. The labor cost trajectory for the 2018-2019 plan years will be determined, in large part, by the outcome of collective bargaining negotiations and continued efficiency gains.

The CTA has built and is continuing to strengthen its management team, policies and procedures and internal controls to ensure attainment of operational efficiencies throughout the agency. The plan reflects fixed fuel purchases, managed block purchases of power and strong efforts to monitor expenses and increase recurring revenue streams.

### Operating Expenses

Total operating expenses are budgeted at \$1,524.2 million in 2017. Operating expenses are expected to grow 3.1 percent to \$1,571.2 million in 2018 and 3.8 percent to \$1,630.7 million in 2019.

Labor expenses, including base salaries, benefits, and payroll taxes, are projected to be \$1,050.4 million in 2017, \$1,071.4 million in 2018 and \$1,092.9 million in 2019. Labor for the two-year plan reflects a 2.0 percent increase year over year, for both 2018 and 2019, respectively. Labor costs are projected to increase based on expected increases in the cost of benefits, such as healthcare.

The financial plan projects material expenses to be \$89.2 million in 2017, \$92.7 million in 2018 and \$95.5 million in 2019. This plan will continue aggressive controls over spending capital investments to keep the fleet in a state of good repair. The materials projection assumes similar weather patterns and an improved cost per mile as newer fleets are deployed.

The proposed financial plan projects fuel costs to be \$33.9 million in 2017, \$35.9 million in 2018 and \$37 million in 2019. The plan assumes the continuation of CTA's strategic fixed price purchasing policy, with conservative growth estimates year over year. CTA has pre-purchased 40 percent of its forecasted consumption for 2018 at favorable prices to increase budget certainty. The plan includes a contingency to protect against an increase in the market price of the floating volume. CTA expects to make further purchases in advance of 2018-2019 to reduce price volatility risk.

The plan projects rail electric power costs to be \$31.4 million in 2017, \$32.6 million in 2018 and \$33.2 million in 2019. As of October 2016, CTA has entered into forward purchase agreements with its power supplier for 60 percent of the estimated consumption for 2017 and 44 percent for 2018 and 2019. The amounts reflected in the financial plan are based on the pre-purchase cost and the market price for the remaining volume. The plan also includes a contingency to cover an increase in market prices for the floating volume.

CTA plans to continue contributions to provisions for injuries and damages, with a \$9.5 million reserve payment planned for 2017. The financial plan projects the reserve payment to increase to \$20.0 million in both 2018 and 2019. The amount of actual deposits to the fund may be adjusted based on the annual actuarial valuation of the fund's liabilities. The amount needed to fund this reserve is based on actual experience, the projected future balance in the reserve, and the liabilities projected for the following year.

Purchase of security services is projected to be \$17.1 million in 2018 and \$17.4 million in 2019. This is a 1.5 and 2.0 percent increase for 2018 and 2019, respectively, due to annual contractual increases built into the contracts with private security firms and police departments. The inter-governmental agreement (IGA) with the Chicago Police Department caps spending at \$10 million per year, limiting the overall growth rate for security expenses.

Other expenses include utilities, advertising, equipment, software maintenance, accounting, engineering, legal fees, banking fees and commissions, interest and principal on the outstanding pension obligation bond, debt service for sales tax revenue bonds, and other consulting services. Other expenses are budgeted to be \$292.9 million in 2017. The financial plan projects other expenses at \$301.4 million in 2018 and \$334.6 million in 2019. The financial plan includes additional debt service in 2019, based on estimated debt service for bonds expected to be issued later in 2016.

## Operating Revenues

Overall operating revenues, including system-generated revenues and public funding, are projected to increase at a modest rate over the two-year financial plan. From the 2017 budgeted level of \$1,524.2

million, operating revenues are projected to increase 3.1 percent in 2018 to \$1,571.2 million and 3.8 percent in 2019 to \$1,630.7 million.

### *System-Generated Revenues*

From a base of \$581.3 million, fare revenue is projected to increase to \$595.9 million in 2018 and \$617.7 million in 2019. These 2.5 and 3.7 percent year-over-year increases are based on stabilization of ridership as gas prices increase and city's transit-oriented population and employment continue to grow. Management initiative to increase transit benefit participation will also contribute to fare revenue increases in 2018 and 2019.

The two-year plan assumes the reduced-fare subsidy will be continued by the State when the fiscal year budget is passed. The plan projects funding will be \$28.3 million in 2018 and 2019. This amount is still a fraction of the nearly \$100 million in actual free and reduced rides provided by the CTA.

The two-year financial plan projects revenue from advertising, charters, and concessions to grow at over 11 percent in 2018 and 10 percent in 2019. This yields a projected \$39 million in 2018 and \$43.1 million in 2019. Advertising revenue continues at a strong pace, with increased digital advertising and growth of concession revenue.

Investment income in 2018 and 2019 is projected to grow based on current trends. Investment income is expected to be \$1.4 million in 2018 and 1.7 million in 2019.

Statutory required contribution revenues are forecast to continue to be \$5.0 million per year. The Regional Transportation Authority Act requires that the City of Chicago contribute \$3.0 million annually and that Cook County contribute \$2.0 million annually to CTA operations.

Other revenue is expected to grow by 20 percent in 2018 and 12.8 percent in 2019 due to management initiatives planned to be executed in 2017. The plan projects increased miscellaneous revenues, parking and rental fees, slight growth in rental properties, third-party contractor reimbursements, fees from filming, non-capital grants from the federal government and other sources. The planned totals are \$42.6 and \$48.1 million in 2018 and 2019, respectively.

### *Public Funding*

The RTA provides public funding marks for the financial plan. The RTA funding plus Real Estate Transfer Tax revenue from the City of Chicago provides the total public funding projections. The RTA marks increase by 2.5 percent in 2018 and 3.3 percent in 2019.

The recovery ratio measures the percentage of expenses that a Service Board must pay against the revenue that it generates. System-generated revenues, operating expenses, and certain statutory exclusions are used in the calculation. The RTA Act requires the region to fund 50 percent of its expenses through revenues generated by the three Service Boards—the CTA, Metra, and Pace. The estimated recovery ratios for the CTA in 2018 and 2019 are 54.75 percent—meeting the regional requirement.

2018-2019 Two-Year Financial Plan Schedule (Dollars in thousands)

|  | Actual 2015        | Forecast 2016      | Proposed<br>Budget 2017 | Plan 2018          | Plan 2019          |
|--|--------------------|--------------------|-------------------------|--------------------|--------------------|
| <b>Operating Expenses</b>                            |                    |                    |                         |                    |                    |
| Labor  | \$1,002,486        | \$1,025,988        | \$1,050,436             | \$1,071,445        | \$1,092,873        |
| Material   | 83,507             | 83,250             | 89,176                  | 92,705             | 95,522             |
| Fuel   | 49,830             | 34,729             | 33,946                  | 35,934             | 37,012             |
| Power  | 28,818             | 29,398             | 31,365                  | 32,592             | 33,244             |
| Provisions for Injuries and Damages                  | 13,000             | 9,500              | 9,500                   | 20,000             | 20,000             |
| Purchase of Security Services                        | 14,431             | 15,584             | 16,838                  | 17,090             | 17,432             |
| Other Expenses                                       | 252,054            | 283,879            | 292,978                 | 301,388            | 334,575            |
| Pension Obligation Bonds (Net)                       | 112,281            | 118,050            | 111,943                 | 115,301            | 118,760            |
| Contractual Services                                 | 104,278            | 102,970            | 109,349                 | 113,108            | 116,502            |
| Utilities  | 24,562             | 23,677             | 24,152                  | 24,876             | 25,622             |
| Non-Capital Grant, Travel, Leases, Other             | 10,933             | 22,517             | 18,938                  | 19,506             | 20,091             |
| Other Debt Service                                   | -                  | 16,666             | 28,597                  | 28,597             | 53,600             |
| <b>Total Operating Expenses</b>                      | <b>\$1,444,125</b> | <b>\$1,482,329</b> | <b>\$1,524,239</b>      | <b>\$1,571,154</b> | <b>\$1,630,659</b> |
| <b>System Generated Revenue</b>                      |                    |                    |                         |                    |                    |
| Fare and Passes                                      | \$587,108          | \$580,103          | \$581,250               | \$595,928          | \$617,740          |
| Reduced Fare Subsidy                                 | 14,606             | 14,606             | 28,322                  | 28,322             | 28,322             |
| Advertising, Charter & Concessions                   | 31,241             | 33,688             | 35,165                  | 39,000             | 43,070             |
| Investment Income                                    | 1,123              | 1,515              | 1,121                   | 1,433              | 1,656              |
| Statutory Required Contributions                     | 5,000              | 5,000              | 5,000                   | 5,000              | 5,000              |
| Other Revenue  | 36,439             | 41,604             | 35,489                  | 42,587             | 48,058             |
| <b>Total System Generated Revenue</b>                | <b>\$675,518</b>   | <b>\$676,517</b>   | <b>\$686,347</b>        | <b>\$712,270</b>   | <b>\$743,846</b>   |
| <b>Public Funding</b>                                |                    |                    |                         |                    |                    |
| Sales Tax I  | \$360,575          | \$368,695          | \$386,920               | \$400,849          | \$414,878          |
| Sales Tax II and PTF II                              | 123,673            | 128,931            | 135,780                 | 138,276            | 140,502            |
| RETT and PTF on RETT                                 | 94,290             | 91,890             | 80,863                  | 83,289             | 85,788             |
| Total Statutory Funding                              | \$578,538          | \$589,516          | \$603,562               | \$622,414          | \$641,168          |
| Non-Statutory Funding (Sales Tax I, PTF I and Other) | 214,471            | 220,297            | 228,200                 | 236,470            | 245,645            |
| Innovation, Coordination and Enhancement Funding     | -                  | 1,000              | 6,129                   | -                  | -                  |
| <b>Total Public Funding</b>                          | <b>\$793,008</b>   | <b>\$810,812</b>   | <b>\$837,892</b>        | <b>\$858,884</b>   | <b>\$886,813</b>   |
| <b>Total Operating Revenue</b>                       | <b>\$1,468,525</b> | <b>\$1,487,329</b> | <b>\$1,524,239</b>      | <b>\$1,571,154</b> | <b>\$1,630,659</b> |
| <b>Balance</b>                                       | <b>\$24,400</b>    | <b>\$5,000</b>     | <b>\$0</b>              | <b>(\$0)</b>       | <b>\$0</b>         |
| <b>Recovery Ratio*</b>                               | <b>56.0%</b>       | <b>54.5%</b>       | <b>54.92%</b>           | <b>54.75%</b>      | <b>54.75%</b>      |
| <b>Required Recovery Ratio</b>                       | <b>54.5%</b>       | <b>54.5%</b>       | <b>54.75%</b>           | <b>54.75%</b>      | <b>54.75%</b>      |

\*Recovery ratio is calculated by dividing System-Generated Revenue by Operating Expenses. The calculation includes (i) in-kind revenues and expenses for security provided by the City of Chicago, (ii) excludes security expenses and Pension Obligation Bond debt service, and (iii) includes forgone senior free ride revenue and certain grant revenues.

## Five-Year Capital Improvement Program

*"All across Chicago, we are investing in our city's infrastructure – from roads to runways to rail so that every Chicagoan is connected to a better future. With this federal grant for CTA's Garfield Station, we are able to build a new transit gateway to propel our vision for the vibrant Washington Park neighborhood,"*  
Mayor Rahm Emanuel, July 26, 2016

The most vital cities in the world provide their communities with leading-edge technology that engages, informs, and empowers. Mayor Emanuel's vision for achieving this is built on a commitment to modern infrastructure, smart communities and technological innovation.

Chicago Transit Authority's (CTA) Fiscal Year 2017-2021 \$3.5 billion Capital Improvement Plan (CIP) furthers this vision by funding capital projects to modernize and improve CTA's transit system, with an emphasis on technology and innovation.

Funding for this plan anticipates a multi-year commitment from multiple sources, including the State of Illinois, federal formula funds, federal competitive grants, local funds, Transportation Infrastructure Finance and Innovation Act (TIFIA) funds, Tax Increment Financing (TIF) and CTA funding.

On December 4, 2015, President Obama signed the Fixing America's Surface Transportation (FAST) Act into law. The FAST Act is the first long-term federal surface transportation authorization enacted in more than a decade. By authorizing \$305 billion over a five-year period for federal fiscal years 2016-2020 for highways, highway and motor vehicle safety, public transportation and other programs, this law provides multiyear funding certainty allowing CTA to plan and implement major capital projects. The FAST Act includes modest annual funding increases over the levels included in the previous transportation authorization called Moving Ahead for Progress in the 21st Century (MAP-21). MAP-21 authorized funding for FY 2013 and 2014, and was extended on a short-term basis numerous times until the FAST Act was enacted.

Meanwhile, the status of the State's prior promised and future capital funding remains uncertain. CTA has not yet received \$221 million of promised State funds from the prior capital program, which was expected in 2015. A new State Capital Transportation program is anticipated at some point. In the meantime, delays in funding have put planned-for-projects at risk of delay.

Despite the challenge of delayed funding, this CIP maintains its aggressive plan to improve the nation's second-largest transit system, which provides 1.6 million rides on an average weekday. CTA's capital program for FY 2017-2021 includes funding that will provide safe, convenient, and affordable transportation options that enhance the quality of life for everyone in the Chicago metropolitan region. CTA believes the region's transit riders should have access to a world-class public transportation system with a variety of choices. Public transportation is critical to increasing economic opportunity throughout the city and region.

CTA will strive to continue providing high-quality transit service. Service improvements within this five-year CIP include new technologies, new transit stations and new public artwork at terminals and stations, which will enhance the customer experience and improve safety. CTA is committed to moving people around the City of Chicago and its neighboring communities efficiently – getting them to and from their destinations safely and on time.

This CIP continues to advance the CTA system toward a state of good repair (SOGR). The investments outlined in the CIP will reduce operating costs in some areas and avoid escalating costs in others. By driving down expenses and avoiding costs, CTA will be able to leverage operating funds to supplement scarce capital funding and continue to further improve the system.

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[Picture: Mosaic of Pictures showing different aspects of the CTA; work being done on the Ravenswood connector, artist rendering of modernized 95<sup>th</sup> Street Red Line rail terminal, Wilson rail station, Electric Bus, Ventra App, persons using cell phones in subway, CTA Art at Thorndale, 35<sup>th</sup> Street and 47<sup>th</sup> stations on the Red Line and Cermak-McCormick on Green line.

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## Sources of Funds

The total projected available funding is \$3.5 billion. A summary of this funding is presented in the following chart:

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[Graph: 2017-2021 CIP Preliminary Marks Capital Improvement Funding Sources. \$ in thousands]

| Sources                               | Funds     |
|---------------------------------------|-----------|
| 5307 Urbanized Formula                | \$667,729 |
| 5339 Bus and Bus Facilities Formula   | \$58,821  |
| 5337 State of Good Repair             | \$787,512 |
| 5339c Disc. Low or No Emission Bus    | \$3,620   |
| Sec. 5307 CMAQ                        | \$133,891 |
| 5309 Core Capacity                    | \$656,000 |
| Department of Homeland Security (DHS) | \$17,592  |
| 2016 TIGER                            | \$25,000  |
| Transit TIF                           | \$622,000 |
| Clean Diesel (EPA)                    | \$1,800   |
| RTA Bonds                             | \$154,000 |
| RTA ICE                               | \$12,922  |
| CTA Funds                             | \$18,750  |
| CTA Bond RPM                          | \$287,249 |



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The following table details the funding sources supporting this CTA Capital Improvement Program.

| <b>CHICAGO TRANSIT AUTHORITY</b>              |                  |                |                |                |                |                  |
|---|------------------|----------------|----------------|----------------|----------------|------------------|
| <b>FY 2017- 2021 CIP Preliminary Marks</b>    |                  |                |                |                |                | (000's)          |
| <b>Sources of Funds</b>                       | <b>2017</b>      | <b>2018</b>    | <b>2019</b>    | <b>2020</b>    | <b>2021</b>    | <b>TOTAL</b>     |
| 5307 Urbanized Formula                        | 128,172          | 130,793        | 133,493        | 136,251        | 139,019        | 667,729          |
| 5339 Bus and Bus Facilities Formula           | 11,279           | 11,515         | 11,759         | 12,009         | 12,259         | 58,821           |
| 5337 State of Good Repair                     | 152,166          | 154,794        | 157,459        | 160,171        | 162,923        | 787,512          |
| <b>Subtotal FTA</b>                           | <b>291,616</b>   | <b>297,102</b> | <b>302,712</b> | <b>308,430</b> | <b>314,202</b> | <b>1,514,062</b> |
| 5339c Disc. Low or No-Emission Bus Program    | 3,620            | -              | -              | -              | -              | 3,620            |
| Sec. 5307 CMAQ                                | -                | 25,000         | 8,891          | 100,000        | -              | 133,891          |
| 5309 Core Capacity                            | 256,000          | 100,000        | 100,000        | 100,000        | 100,000        | 656,000          |
| Department Homeland Security (HLS)            | 5,592            | 3,000          | 3,000          | 3,000          | 3,000          | 17,592           |
| 2016 TIGER                                    | 25,000           | -              | -              | -              | -              | 25,000           |
| Clean Diesel Funding Assistance Program (EPA) | 1,800            | -              | -              | -              | -              | 1,800            |
| <b>Other Federal</b>                          | <b>292,012</b>   | <b>128,000</b> | <b>111,891</b> | <b>203,000</b> | <b>103,000</b> | <b>837,903</b>   |
| <b>AVAILABLE FEDERAL</b>                      | <b>583,628</b>   | <b>425,102</b> | <b>414,603</b> | <b>511,430</b> | <b>417,202</b> | <b>2,351,965</b> |
| RTA Bonds                                     | 75,000           | -              | -              | 79,000         | -              | 154,000          |
| RTA ICE                                       | -                | 6,350          | 6,572          | -              | -              | 12,922           |
| Transit TIF                                   | 622,000          | -              | -              | -              | -              | 622,000          |
| CTA Funds                                     | 1,875            | 1,875          | 15,000         | -              | -              | 18,750           |
| CTA Bond for RPM                              | -                | 287,249        | -              | -              | -              | 287,249          |
| <b>Local</b>                                  | <b>698,875</b>   | <b>295,474</b> | <b>21,572</b>  | <b>79,000</b>  | <b>-</b>       | <b>1,094,921</b> |
| <b>AVAILABLE STATE/LOCAL</b>                  | <b>698,875</b>   | <b>295,474</b> | <b>21,572</b>  | <b>79,000</b>  | <b>-</b>       | <b>1,094,921</b> |
| <b>New Funding Available</b>                  | <b>1,282,503</b> | <b>720,576</b> | <b>436,175</b> | <b>590,430</b> | <b>417,202</b> | <b>3,446,886</b> |
| CTA Share for Competitive Grants              | 27,780           | -              | -              | -              | -              | 27,780           |
| RPM Operating Funds                           | 61,749           | -              | -              | -              | -              | 61,749           |
| <b>TOTAL Programmed Funds</b>                 | <b>1,372,032</b> | <b>720,576</b> | <b>436,175</b> | <b>590,430</b> | <b>417,202</b> | <b>3,536,416</b> |

Federal funding of \$2.3 billion is anticipated from a combination of Formula and Discretionary based programs. Other sources include CTA issued bonds of \$287.2 million-and RTA issued bonds of \$154 million



## Sources of Funds with Legislative Update

### Federal Funding

On December 4 2015, President Obama signed the Fixing America's Surface Transportation (FAST) Act into law. The FAST Act is the first long-term federal surface transportation authorization enacted in more than a decade. By authorizing \$305 billion over a five-year period for federal fiscal years (FY) 2016 through 2020 for highways, highway and motor vehicle safety, public transportation and other programs, this law provides funding certainty for surface transportation infrastructure planning and investment. The FAST Act includes slight annual funding increases over the levels included in the previous transportation authorization called Moving Ahead for Progress in the 21st Century (MAP-21). MAP-21 authorized funding for FY 2013 and 2014, and it was extended on a short-term basis numerous times until the FAST Act was enacted.

The FAST Act continues many of the important programs and streamlining efforts enacted under MAP-21. MAP-21 took important steps to simplify and consolidate federal highway and transit programs, establish a greater focus on asset management and preservation, and articulated principles of goals and performance measurement in the development and implementation of federal surface transportation programs. Together, these laws place emphasis on performance management and in the establishment of the new and consolidated performance programs. MAP-21 required states and metropolitan planning organizations to set targets for transit condition and performance, and it directed the FTA to undertake a rule-making process to establish measures for determining whether the targets have been met.

### Federal Transit Funding Process as Defined by the FAST ACT

Transit agencies receive funds under the provisions of Title 49, Chapter 53, of the United States Code, as amended by the FAST Act. Transit funds for FY 2016 through FY 2020 are authorized by the FAST Act. Each year, new appropriation legislation must be passed to appropriate General Revenues that will fund transit programs and set an obligation limitation that allows expenditure of funds from the Mass Transit Account (MTA) of the Highway Trust Fund (HTF) for transit programs.

Transit funds are distributed through both formula and discretionary programs. After funds are appropriated, amounts that are available for states and urbanized areas (UZA's) under formula programs are published in an apportionment notice in the Federal Register. Amounts for discretionary programs, including amounts specified in legislation or Congressional Reports, are also published in the Federal Register. Discretionary program funds that are not earmarked or distributed by Congress are made available to the Federal Transit Administration (FTA) for distribution, and are published by the FTA.

The three federal formula programs that CTA traditionally receives are 5307 Urbanized Area funds, which provide for public transportation capital and planning projects; 5337 SOGR funds, dedicated to repairing and upgrading rail transit systems along with bus rapid transit systems; and 5339 Bus & Bus Facility funds, which provide funding to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities.

The Regional Transportation Authority (RTA) is the Designated Recipient of the federal formula funds distributed to the Chicago region which is a part of the Chicago/Northwest Indiana Urbanized Area (UZA). The Chicago region's share of the annual apportionment is distributed to the each of the three transit agencies on the following basis: CTA (58%), Metra (34%) and Pace (8%).

In order to obtain federal transit funds each transit agency must submit a grant application to the FTA. When the grant is approved the funds are "granted" or "obligated" to that agency and the agency proceeds with its procurement process or receives reimbursement for expenditures that have already been made. Federal funds pay for a portion, termed the "federal share," of a project's costs. State or local funds, termed "matching funds," must also be expended on a project. The three traditional federal formula programs that CTA receives annually require a 20% local contribution match to the project budget.

Discretionary federal programs require a local match on the basis of each individual program.

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[Flowchart: describes the Federal Transit Funding process based on the Fixing America's Surface Transportation (FAST) Act.

At top of chart is the Appropriations Act of 2016. The act provided \$11.5 billion dollars in funding.

There are two branches flow from the Appropriations Act; Discretionary which is valued at \$2.4 billion and Mass Transit valued at \$9.1 billion.

Discretionary funds are awarded competitively on a project basis

Mass Transit funds are assigned based on the program attributes. There three program types, each with specific attributes. Program 5307 attributes; Urbanized Area, Population Density, Population, Passenger Miles, Vehicle Miles, Discretionary Route. Program 5337 attributes; Tier Funding Heavy Rail Systems, Revenue Miles, Route Miles and Program 5339 attributes; Urbanized Area, Population Density, Passenger Miles, Vehicle Revenue.

The Mass Transit dollars are split between Chicago and NW Indiana UZA.

The Chicago/RTA portion is then divided between Metra receives 34% , PACE receives 8% and the CTA receives 58%.]

### State Funding

Within the State of Illinois, a number of grants are available through the Illinois Department of Transportation (IDOT). Money is available to IDOT through federal funds in order to reduce motor vehicle, pedestrian, and bicycle crashes, fatalities, and injuries, and to increase safety for all users of the State's roadways.

Transportation projects have traditionally been paid for out of user fees such as gas taxes and vehicle fees, those who use the transportation system pay for its construction and upkeep. The state transportation program includes funding from state transportation user fees, the federal gas tax proceeds and the state gas tax of 19 cents per gallon.

The traditional avenue for the state transit funding is through a legislative mandated bond program, generally for a five year period. The current State Transportation Series "B" Bond fund was appropriated under two legislative programs: Illinois Jump Start, which was appropriated in FY 2009 and has been authorized in part, and Illinois Jobs Now, which was appropriated and authorized in FY 2010. CTA's share from both legislative programs totals \$1.4 billion. The State of Illinois Jobs Now includes funding for mass transit agencies to replace, upgrade and enhance infrastructure system wide, and provided state funding over a five-year period, which began in FY 2010 and ended in FY 2014. Through 2016, CTA has been granted \$1.17 billion of funds in total from these programs. The remaining funds of \$220.9 million have not been authorized and funding has been delayed for two years due to state fiscal budget constraints and the lack of a dedicated source of revenue. The delay in the receipt of granted and

programmed (promised) state funds has caused CTA to delay a number of construction projects until receipt of funds are obtained. CTA, over the last several years, provided its own source of funds by issuing bonds; allowing key projects to advance. CTA needs a substantial contribution from the State of Illinois to effectively move forward with various new project initiatives and without a State source of funds, CTA will be severely limited in addressing system SOGR needs.

A new five year state transit bond authorization will be required to provide the match for federal funds anticipated from Federal FAST Act transit authorization from years 2016 through 2020.

**TIFIA Loan Program** – The Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) established a Federal credit program for eligible transportation projects under which the U.S. Department of Transportation (DOT) may provide three forms of credit assistance – secured (direct) loans, loan guarantees, and standby lines of credit. TIFIA was created because state and local governments that sought to finance large-scale transportation projects with tolls and other forms of user-backed revenue often had difficulty obtaining financing at reasonable rates due to the uncertainties associated with these revenue streams. The savings to CTA from TIFIA financing come from two primary sources: (1) CTA draws TIFIA funds on an “as needed” basis during the project, similar to a line of credit, rather than accruing interest on funds before they are used and (2) the interest rate on this borrowing is set at the federal government’s rate, which has been 1.0%-1.5% lower than traditional financing. TIFIA financing is a highly recommended form of government borrowing because it improves the affordability of the debt and maximizes borrowing capacity.

CTA has entered into federal TIFIA financing agreements for three major capital projects. In 2014, CTA received a federal TIFIA loan for \$79.2 million as part of an overall \$280 million funding package to renovate the Red Line’s 95th Street Terminal. In 2015, CTA entered into a \$120 million TIFIA financing agreement to support the \$411 million Your New Blue program. CTA’s most recent agreement in 2016 provided \$254.9 million in funding to contribute to the contract budget totaling \$633 million to purchase four hundred new *7000-Series* railcars.

CTA’s five-year capital plan is funded through a number of sources including local, state and federal funds. The constraints and variability of receipt of these sources limits CTA’s ability to advance projects in the capital plan. By adding TIFIA financing as a source for capital projects, CTA can leverage existing federal, state, and local source funds with TIFIA financing to advance each the identified major projects, while also freeing up funds to be directed to other projects in the capital plan.

**Regional Transit Authority Bonds Funding** – The Regional Transit Authority (RTA) proposes to issue bonds in FY 2017 and 2020 for \$150 million and \$158 million, proceeds will be made available for the three Service Boards – CTA, Metra, and Pace – to program for projects. CTA’s share of the bond proceeds total in FY 2017 \$75 million and in FY 2020 \$79 million. As bonding capacity is made available from retirement of existing capital debt obligations, the RTA policy is to issue new long term capital debt of which the proceeds are meant to fund capital projects for each of the three Service Boards. Bond funds will be allocated as follows: 50% will go to CTA, 45% to Metra, and 5% to Pace. Funding of the debt service for these bonds will be sourced from non-statutory Sales Tax I revenue.

## CTA Bonds

Since FY 2004, when CTA issued its first Series of Capital Bonds, these bonds provided an internally generated source of capital funds for SOGR projects. The CTA bond financing program continues to be a strategically important supplement to the federal program. With a SOGR backlog approaching \$13 billion and the nature of state and local funding, it became incumbent on CTA to obtain a reliable source to fill funding gaps and contribute to federally supported projects in the capital plan. CTA's Bond financing program has enabled CTA to advance key projects that have touched all elements of CTA system.

Later in 2016, CTA expects to issue bonds to generate approximately \$250 million in capital project funds. Major projects to be funded include:

- Overhaul of 258 rail cars, the *3200-Series* cars
- Purchase of 400 new *7000-Series* Rail cars
- Red/Purple Modernization Phase One project
- Major rail line improvements (Brown, Green, Blue, and Red Lines)
- Facilities SOGR Program and Station Renewal Program
- Track & structure renewal (slow zone remediation)
- Traction Power and Signal improvements
- Rehabilitate Signal System – O'Hare Blue Line
- Red Line South expansion - planning

The FY 2017-2021 program includes \$287.2 million in capital bond proceeds. Bond issues are currently planned in 2018, but actual timing of issuances will be determined by the Red Purple Modernization – Phase One project need and schedule. Through the issuance of bonds, CTA can advance critically important projects which otherwise would need to be deferred for years and significantly increase system maintenance costs with continual degradation of assets.

Tax-exempt bond financing offers an efficient and cost effective way to supplement scarce federal funding and accelerate critical projects. By constructing projects on an expedited schedule, CTA can reduce costs, improve service, and better promote ridership on the system. These benefits outweigh the future bond financing costs, particularly in the current historically low interest rate environment.

CTA's customers will experience the benefits of capital investment through improved safety, service quality, speed, and reliability.

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## Uses of Funds by Asset Category

Eighteen project categories comprise CTA's proposed FY 2017-2021 capital plan. Each project within these programs is initially evaluated in an annual review process, and followed by monthly planning meetings where issues and needs are addressed. Evaluation criteria include: customer and employee safety, reductions to travel time, increased customer comfort and convenience, system security, impact on system reliability, compliance with regulations, and community impact.

With the exception of the system miscellaneous category, rail system projects receive a significantly larger portion of the proposed capital program funding than bus projects, due primarily to the need to maintain an exclusive right-of-way while buses operate on streets maintained by other units of government. The capital projects proposed for FY 2017-2021 and beyond are intended to address CTA's most critical needs for the bus and rail system, customer facilities, and system wide support. CTA major projects planned or underway during this period include the Red Purple Modernization, the O'Hare Blue Line improvements, the Garfield rail station, the purchase of up to 846 new railcars, and the purchase of new buses, including a select number of electric buses.

The following figure shows the proposed FY 2017-2021 Capital Improvement Program by general category of asset improved or replaced.

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[Graph: Pie chart depicting dollar allocation for 2017-2021 by Asset category. \$ in thousands.]

| <b>Asset Category</b>                         | <b>Capital Funds</b> |
|---|----------------------|
| Rail Line Improvements                        | \$1,822,282          |
| Systemwide Misc                               | \$942,779            |
| Rail Rolling Stock                            | \$343,448            |
| Bus Rolling Stock                             | \$167,349            |
| Systemwide Facilities                         | \$144,807            |
| Power & Way Track & Structure                 | \$79,085             |
| Powr & Way Electrical, Signal & Communication | \$36,666             |

The following table lists each category of projects in the proposed program. Descriptions of each project are detailed in the following section.

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CHICAGO TRANSIT  
AUTHORITY  
FY 2017-2021 Capital  
Program

CTA Board Ordinance

(in thousands)

| <u>Title</u>   | <u>Funded</u>  | <u>2017</u>    | <u>FY2018-2021</u> | <u>5Yr. Funding</u> |
|--|----------------|----------------|--------------------|---------------------|
| <b><u>Bus Projects</u></b>   |                |                |                    |                     |
| <b><u>Rolling Stock</u></b>  |                |                |                    |                     |
| Perform Bus Maintenance Activities                                   | 2,500          | 10,000         | 12,500             |                     |
| Perform Mid-Life Bus Overhaul  | 14,727         | 60,102         | 74,829             |                     |
| Replace Buses  | 22,654         | 57,365         | 80,020             |                     |
| <b>Sub-Total</b>   | <b>39,881</b>  | <b>127,467</b> | <b>167,349</b>     |                     |
| <b><u>Rail Projects</u></b>  |                |                |                    |                     |
| <b><u>Rail Line Improvements</u></b>                                 |                |                |                    |                     |
| Rehabilitate Blue Line - O'Hare Branch                               | 30,409         | 39,874         | 70,283             |                     |
| North Main Line - RPM  | 939,749        | 812,249        | 1,751,999          |                     |
| <b>Sub-Total</b>   | <b>970,158</b> | <b>852,124</b> | <b>1,822,282</b>   |                     |
| <b><u>Power &amp; Way Electrical, Signal &amp; Communication</u></b> |                |                |                    |                     |
| Replace/Upgrade Power Distribution and Signals                       | 19,666         | 17,000         | 36,666             |                     |
| <b>Sub-Total</b>   | <b>19,666</b>  | <b>17,000</b>  | <b>36,666</b>      |                     |
| <b><u>Power &amp; Way, Track &amp; Structure</u></b>                 |                |                |                    |                     |
| Infrastructure Safety & Renewal Program                              | 17,140         | 61,945         | 79,085             |                     |
| <b>Sub-Total</b>   | <b>17,140</b>  | <b>61,945</b>  | <b>79,085</b>      |                     |
| <b><u>Rolling Stock</u></b>  |                |                |                    |                     |
| Perform Rail Car Overhaul  | 20,712         | 94,196         | 114,908            |                     |
| Perform Rail Car Maintenance Activities                              | 2,500          | 10,000         | 12,500             |                     |
| Purchase Rail Cars   | 39,303         | 176,737        | 216,040            |                     |
| <b>Sub-Total</b>   | <b>62,515</b>  | <b>280,933</b> | <b>343,448</b>     |                     |
| <b><u>Systemwide Projects</u></b>                                    |                |                |                    |                     |
| <b><u>Miscellaneous</u></b>  |                |                |                    |                     |
| Information Technology   | 2,207          | 8,964          | 11,172             |                     |
| Equipment and Non-Revenue Vehicles Replacement                       | 9,800          | 23,975         | 33,775             |                     |
| Rehabilitate Rail Stations   | 60,226         | 12,866         | 73,092             |                     |
| Implement Security & Communication Projects                          | 9,592          | 28,000         | 37,592             |                     |

|  |                  |                  |                  |
|--|------------------|------------------|------------------|
| Program Management                               | 6,090            | 26,760           | 32,850           |
| Bond Repayment, Interest Cost, & Finance Cost    | 142,647          | 589,839          | 732,486          |
| ICE/UWP Projects                                 | -                | 21,813           | 21,813           |
| <b>Sub-Total</b>                                 | <b>230,562</b>   | <b>712,217</b>   | <b>942,779</b>   |
| <b><u>Support Facilities &amp; Equipment</u></b> |                  |                  |                  |
| Improve Facilities - Systemwide                  | 32,109           | 112,698          | 144,807          |
| <b>Sub-Total</b>                                 | <b>32,109</b>    | <b>112,698</b>   | <b>144,807</b>   |
| <hr/>  |                  |                  |                  |
| <b>Capital Project Total</b>                     | <b>1,372,032</b> | <b>2,164,383</b> | <b>3,536,416</b> |
| <b>Marks</b>                                     | <b>1,372,032</b> | <b>2,164,383</b> | <b>3,536,416</b> |
| <b>Marks/Variance</b>                            | <b>(0)</b>       | <b>0</b>         | <b>(0)</b>       |

## Bus Projects

### ❖ Perform Bus Maintenance Activities

Purpose: CTA has embarked on an aggressive bus maintenance program to schedule the replacement of parts nearing the end of their useful life. By investing in a program centered on maintaining buses, CTA will improve the comfort, quality, and reliability of its service while reducing operating expenses.

[Picture: New bus]

Funding/Description of Proposed Work/ Major Elements: CTA has programmed \$12.5 million to provide for bus maintenance activities during FY 2017-2021. This funding will provide for ongoing bus vehicle maintenance efforts to support the removal and installation of components, including the replacement of filters, brake system maintenance, and upgrades.

Budget Impact: As more buses are cycled through the program, unscheduled maintenance on buses will be significantly reduced. If CTA fails to perform standard maintenance on its buses, there will be a continual increase in operating costs and reduced reliability of service.

### ❖ Perform Mid-Life Bus Overhaul

Purpose: The Bus Overhaul and Upgrade Program will allow CTA to extend the useful life of buses by performing scheduled tasks that will result in decreased equipment downtime and a reduction in unscheduled maintenance. Unscheduled maintenance occurs when buses fail while in service, disrupting operations, inconveniencing customers and increasing operating costs.

Funding/Description of Proposed Work/Major Elements: In FY 2017, CTA has programmed \$14.7 million, the final installment of project funds to provide for the overhaul of 208 Articulated Hybrid Buses. In FY 2018-2021, funding is provided for the initial phase of funding required to overall *4300-Series* Artic Buses and for a life extending overhaul of up to 400 additional buses prior to their planned replacement in FY 2022. The actual number of buses to receive a life extending overhaul will be determined by the size of the first of two future bus orders anticipated to replace the *1000-Series* buses. The overhaul

program will provide for ongoing bus vehicle overhaul efforts to support removal and installation of components including, but not limited to engines, transmissions, cooling systems, HVAC systems, wheelchair ramps, batteries, suspension systems and doors. The program will also correct defects discovered during inspections.

**Budget Impact:** The performance of routine bus overhaul and upgrades will avoid increased operating costs, associated with the operation and maintenance of older, outdated and worn-out equipment and allows the CTA to provide more reliable service.

#### Replace Buses

**Purpose:** CTA is committed to providing its customers with the highest quality bus service. Buses entered into service between 2000 and 2002 have reached the end of their useful life and are being replaced with clean diesel buses equipped with the latest generation emissions equipment and are proven heavy-duty propulsion technologies. In addition, there is a second series of buses in service since 2006 are scheduled for replacement in the FY 2020-2021.

**Funding/Description of Proposed Work/Major Elements:** Funding for this bus replacement project will provide for the engineering, purchase, and inspection of fully accessible, air-conditioned buses, including a spare parts inventory. The scope of work includes post-delivery monitoring of vehicle performance and technical support for problem resolution through the warranty period. CTA currently operates a fleet of approximately 1,882 buses.

Over the next five years, as part of CTA's bus modernization plan, CTA will invest in FY 2017-2021 funding of \$8.2 million that will support the purchase of up to 30 ADA-compliant, electric buses. The electric buses offer CTA annual net savings in fuel costs for each electric bus, and over the expected 12-year lifespan a total savings of \$300,000 per bus when compared to existing diesel buses over 12 years. Funding in FY 2020-2021 of \$24.5 million will begin the replacement of New Flyer buses that entered service between FY 2005-2006. CTA will also spend \$47.3 million in FY 2017-2021 to lease buses. A total of \$80 million will be invested in the bus fleet over the five year period.

**Budget Impact:** Purchasing new, fully-accessible, air-conditioned, technologically-advanced buses reinforces CTA's commitment to quality bus service. Newer buses cost less to operate and maintain and ensure that the CTA can continue to provide reliable, efficient service to its riders.

## Rail Projects

### ❖ Rehabilitate Blue Line – O'Hare Branch/Your New Blue (YNB)

**Purpose:** The goal of this project is to upgrade the Blue Line O'Hare Branch stretching over 19 miles from downtown Chicago to O'Hare International Airport. The O'Hare Branch carries more than 26 million passengers per year. The project includes removing slow zones, upgrading traction power and signal systems and improving outdated stations.

The track on the Milwaukee elevated portion of the O'Hare Branch from Damen through California stations was completed in 2013, and station rehabilitation work on the Damen, Western and California stations was completed in 2014. Improvements to stations at Irving Park, Montrose, Addison, Harlem and



Cumberland, including a new elevator and other improvements at Addison to make that station fully accessible are expected to be completed by the end of 2016. Further upgrades are planned in FY2017-2020 which includes the following:

- Improvements to stations at Jefferson Park, Belmont, Logan Square, Division, Chicago and Grand with emphasis on safety, security, and accessibility.
- Signal modernization between O'Hare and Jefferson Park allowing slow zones to be lifted, improving the safety and reliability for the entire O'Hare Branch.
- Power upgrades and replacement of substation and traction power equipment at East Lake and Milwaukee Substations improve reliability and allow for increased service, reducing crowding and dwell time.

Funding/Description of Proposed Work/Major Elements: In total, funding of \$369.2 million has been allocated and an additional \$70.3 million is programmed in the current five year plan for major rehabilitation of the Your New Blue Project. Project work includes removal of track slow zones, station improvements and repairs, and traction power and signal upgrades to better meet the needs of riders. The cumulative impact of these improvements is anticipated to save passengers up to 10 minutes between downtown and O'Hare. The investment is also expected to generate 1,300 new jobs during construction.

Budget Impact: This project will increase safety, provide faster service, eliminate slow zones, and update stations with contemporary amenities. Without these improvements, there will be continued degradation of aging structures and stations that could lead to increased maintenance needs and lower ridership, increasing costs and decreasing revenue.

#### ❖ Red and Purple Modernization (RPM) – Phase One

Purpose: RPM Phase One will improve capacity, travel time, ride quality, and safety in one of CTA's highest ridership corridors. The project will remedy a two-mile gap in ADA station accessibility on the Red Line by making each of the four RPM Phase One stations (Lawrence, Argyle, Berwyn and Bryn Mawr) accessible to persons with disabilities. These newly accessible stations will open up new travel choices and access to more destinations for persons with disabilities. RPM Phase One will also improve access to the system through expanded and modernized stations that will accommodate more passengers more comfortably. The project will allow CTA to increase functional capacity to meet ridership demands while improving the quality, speed, and passenger comfort of each ride and improving access to job markets and destinations. The capacity expansion would have the added benefit of bringing this critical infrastructure into a SOGR, thereby improving efficiency and service reliability and extending the overall life of this portion of the transit system by 60 to 80 years. RPM Phase One will provide numerous benefits to the corridor including:

- Removing the largest physical constraint to increasing train capacity in the RPM corridor, allowing for reduced passenger crowding even as ridership grows;
- Allowing CTA to increase peak service by 30 percent, including adding up to eight more Red Line trains per hour during rush periods, and accommodating up to 7,200 additional customers per hour ultimately on all services;

- Improving speed, reliability, and reducing delays on the Red and Purple lines, saving customers a half-million travel hours each year;
- Modernizing over 5.8 miles of signals, by increasing flexibility through bi-directional operation capability, and increasing capacity through reduction in allowable headway;
- Modernizing and expanding over 1.5 miles of the Red and Purple lines, increasing asset life by 60 to 80 years;
- Improving station access and capacity by widening platforms, adding elevators and stairways, providing ADA accessibility, and improving passenger and emergency ingress and egress;
- Increasing transit-oriented development opportunities within the corridor; and
- Assisting in addressing CTA's commitment to invest in SOGR projects. While RPM Phase One's primary purpose is to increase capacity, the result of these planned infrastructure and operating improvements and enhancements will reduce CTA's SOGR backlog by approximately \$850 million.

Funding/Description of Proposed Work/Major Elements: The estimated cost for Phase One is \$2.1 billion using FTA Core Capacity Funds, a Federal TIFIA loan, Chicago TIF funds and CTA bonds. Funding of \$113.7 million has previously been allocated and an additional \$1.7 billion is programmed in the current five year plan for the RPM Program. The RPM Program is proposed as a massive, multistage program to be completed in phases, allowing CTA to make the greatest number of improvements while meeting the public's expectations for timely delivery of the improvements. The first phase of this program is called RPM Phase One and includes the following main projects within the RPM corridor:

- Advance System Work - Upgrading the signal system and infrastructure to accommodate the proposed train operation during construction.
- Lawrence to Bryn Mawr Modernization - Modernization, expansion, and addition of ADA accessibility at four Red Line stations (Lawrence, Argyle, Berwyn, and Bryn Mawr) and reconstruction and expansion of approximately 1.3-miles of track, structures and viaducts, to accommodate expanded stations and platforms from Leland Avenue on the south to near Ardmore Avenue on the north.

[Picture: Map of Red Line and Purple Line stretching from Linden to Belmont - Phase One of the RPM modernization(Red Line Purple Line Modernization). There is an arrow drawn along side the route from Lawrence to Bryn Mawr with arrow heads at both ends indicating the Lawrence to Bryn Mawr Modernization]

- Red-Purple Bypass - Construction of a bypass (flyover) for the Brown Line at Clark Junction, just north of Belmont station, removing the largest physical capacity constraint in the RPM corridor, where three separate services on six tracks merge onto four tracks. This work will also realign and replace approximately 0.3-miles of associated mainline (Red and Purple line) tracks from Belmont station on the south to the stretch of track between Newport and Cornelia Avenues on the north, increasing speed, reliability, and capacity in the project corridor.

- Corridor Signal Improvements - Installation of a new higher-capacity signal system from approximately Belmont Avenue to Howard Street allowing for increased throughput of trains and increasing reliability of operation.

Upgrades to Broadway substation are also included in RPM Phase One to increase traction power capacity, both to support the train operation during construction of Phase One and the increased train frequency anticipated in the proposed core capacity service plan at the completion of Phase One construction.

**Budget Impact:** The net impact of the RPM Phase One project will be favorable to budget. The RPM Phase One Core Capacity Project will increase and improve service to accommodate additional ridership. Upon implementation of the new RPM service plan, it is anticipated that ridership will increase at least 10% within the RPM corridor. Based on CTA's experience of implementing capacity improvements as part of the Brown Line Capacity Expansion Project (2004 to 2009) -- which resulted in ridership levels increasing by 45% -- the 10% increase is considered conservative. Additional ridership translates to additional revenue. Meanwhile, annual operating and maintenance costs are expected increase modestly, for factors like increased vehicle hours, expanded station square footage, additional elevators and additional staffed entrances, among other items. These costs do not include any potential decrease in maintenance costs from improving the assets' state of repair, which is a conservative assumption. Altogether, once RPM Phase One is implemented, annual operating and maintenance costs will increase by approximately \$5.5 million in 2016 dollars. Meanwhile, CTA anticipates that ridership growth will lead to \$8.067 million in additional revenue, based on the FY 2016 average fare for rail (\$1.25). On net, revenue is estimated to be approximately \$2.5 million more than the anticipated operating and maintenance cost increase.

#### ❖ Replace or Upgrade Power Distribution and Signals

**Purpose of Project:** The upgrading or replacing signal and power distribution network must be accomplished in order to provide continued safe and smooth transit operations. Replacing the power distribution system will minimize the possibility of power shutdowns and service disruptions, and will continue to eliminate slow zones throughout the system. A high percentage of CTA's substations have reached the end of their useful life, obsolescent equipment issues cannot provide the needed power or required redundancy to keep the system operating.

**Funding/Description of Proposed Work/Major Elements:** The FY 2017-2021 CIP will support the rehabilitation of the existing Substation at Illinois (Brown). In addition, major signal work will start later in 2016 along the Brown line between the Merchandise Mart and Armitage.

**Budget Impact:** Benefits include improved reliability of service, increased speeds and reduced headways, and mitigation of safety issues associated with older cabling and equipment in existing substations.

#### ❖ Infrastructure Safety and Renewal Program

**Purpose:** The scope of this project is to systematically replace track and structure throughout the system. This work will include many tunnels, viaducts and retaining walls as well as subway ventilation system components that require significant maintenance to keep them in a SOGR. The majority of these structures have exceeded or reached the end of their useful life and are in need of replacement. Defective

track and structure must be repaired in order to maintain safe and reliable service. As structural elements are identified that require immediate repair work or replacement, CTA's field forces are dispatched to the site to repair or replace the necessary component in order to eliminate the need to impose slow zones and avoid safety issues. Overall, CTA has continued track-work renewal so as to improve speed and reliability of service to customers across the system. In general, infrastructure modernization is a critical part of having a world-class transit system that is safe, reliable and connects neighborhoods and communities.

[Picture: Worker repairing a piece of track]

Funding/Description of Proposed Work/Major Elements: Funding will provide for the replacement of ties, running rail, third rail, ballast, and drainage systems. Also, track and structure renewal work continues in order to remove and prevent slow zones on CTA 'L' system. The structure rehabilitation project will include elevated structure, embankments, subway ventilation, tunnels, viaducts and retaining walls and other necessary track components.

CTA has programmed \$79 million in FY 2017-2021 to rehabilitate elevated track and structural elements system wide, of which CTA will spend \$17.1 million in FY 2017. The majority of the funds programmed will provide for system wide elevated track and structure work. Recently, CTA completed work in the following areas: Loop (track), Ravenswood Loop Connector (track and structure), and North Main Line from Jarvis to Howard (track) and Green Line from Laramie to Harlem (track). CTA will also continue work to mitigate slow zones on the Forest Park Branch of the Blue Line as CTA plans for a larger track and reconstruction project. In addition, CTA continues to rehabilitate track and structure elements in order to eliminate slow zones and upgrade the right-of-way along the elevated structure throughout the rail system.

As part of regular maintenance, CTA inspects, detects, and repairs conditions that might require slow zones, such as loose, aging, or deteriorating track ties and the other infrastructural elements.

Budget Impact: CTA's goal for this proposed capital plan is to continue to eliminate or significantly minimize structural slow zones throughout the system, thereby increasing ridership and revenue and lowering maintenance and operating costs. This project avoids deferral of track renewals that would otherwise lead to a fallback practice of piecemeal patching of deficiencies on a "worst first" basis. It is more costly to operate and maintain older, outdated, and worn-out equipment.

#### ❖ Perform Rail Car Overhaul

Purpose of Project: The Life-Extending Rail Car Overhaul on the *3200-Series* will allow for major components of the cars to operate effectively until the planned replacements can be placed into revenue service. Life-Extending Overhaul is performed at the end of rail car life established at 25 years.

[Picture: two pictures of 3200 rail series cars]

[Picture caption: Crews at Skokie Shops inspecting work performed on two recently overhauled 3200-series rail car.]

The Quarter-Life Overhaul on the *5000-Series* is projected to begin in FY 2019. Quarter-Life overhaul efforts are designed to be performed on each rail car at approximately six to seven year intervals. This maintenance activity would include major component rebuild and as needed repairs to the car body.

Rehabilitating the rail fleet will improve the reliability, comfort, and cost-effectiveness of transit service, making it more attractive and beneficial to the riding public.

Funding/Description of Proposed Work/Major Elements: FY 2017 funding will provide \$20.7 million final installment of funds, a multi-year overhaul program to refurbish the *3200-Series*, which was a \$185 million effort. FY 2017-2021 funds will also provide for the continued staging of work for the Quarter-life overhaul of the *5000-Series* cars, \$94.1 million, due to start in 2019. The overhaul work on *5000-Series* cars will consist of upgrades to various subsystems and other components. The first of the *5000-Series* rail cars were introduced into revenue service beginning in 2012 and will be due a quarter life overhaul starting in 2019.

Budget Impact: It is more costly to operate and maintain older, outdated, and worn-out equipment. Without aggressive and costly maintenance programs in place, CTA's fleet will continue aging and will grow ever more prone to breakdowns in service, with significant impacts to transit riders.

#### ❖ Perform Rail Car Maintenance Activities

Purpose of Project: The funding for this project will provide an ongoing overhaul program that consists of tasks necessary to keep rail cars in revenue service through systematic inspection, detection, and prevention of incipient failure.

Funding/Description of Proposed Work/Major Elements: CTA plans to spend \$12.5 million in FY 2017-2021 on the rail car fleet to correct critical defects and operational deficiencies discovered during inspections of rail cars. CTA's scheduled maintenance program consists of planned preventive maintenance work to maintain rail car performance. While major overhaul work is performed on a quarterly and mid-life cycle basis, additional focused maintenance work is required at certain intervals, outside of the overhaul, of the car's life. Specific component campaign work is conducted when it is identified that certain tasks must be completed before the component reaches the end of its useful life and failing with an increased frequency.

Budget Impact: CTA can expect an overall reduction in operating costs as it continues to extend the life of the existing fleet by performing preventive maintenance and rehabilitation on rail cars. If preventive maintenance is not performed routinely, CTA will see a continual increase in operating costs, reduced reliability, and decreased availability of service.

## ❖ Purchase Rail Cars

Purpose: The project provides for phased funding for the next generation *7000-Series* cars. CTA awarded a contract to CSR Sifang America, a subsidiary of China Railway Rolling Stock Corp (CRRC) for the Purchase of the next generation *7000-Series* railcars. The contract order will provide for the production of approximately 400 cars (with further options to purchase up to a total of 846 cars). *The 7000-Series* is designed to replace the oldest rail cars in CTA's fleet, reducing the average age of CTA's fleet to about 10 years by 2024.

Funding/Description of Proposed Work/Major Elements: CTA has programmed \$216 million over the five-year period to contribute to the purchase of new *7000-Series* rail cars. In addition to prior funding, current funds will provide for the first of multiple phases of funding which will be required to procure up to 846 cars. Future funds will be required to meet the later phases of this proposed order. The first phase of the purchase will replace the majority of 2600-Series rail cars that will be at the end of their useful service lives at time of replacement.

The first prototypes of the *7000-Series* railcars are anticipated to be placed into revenue service starting in late 2019. The new *7000-Series* Rail Cars will feature Alternating Current (AC) powered propulsion system with regenerative braking. The regenerative braking will allow the train to recover the braking energy and return it to the third rail to be used by other trains. This results in a net decrease of electrical energy usage. The *2600-Series* cars that are being replaced by the *7000's* do not have this regeneration capability. The new *7000-Series* railcars will have up-to-date full-color LED destination signs, GPS-triggered announcements, interior LED lighting to provide higher-quality light for passengers, improved air conditioning system and a video surveillance system that serves as a visible deterrent to crime and provides identification of offenders. Each railcar will have an Ethernet train connection that will provide for better communication of maintenance and diagnostic information between cars and allow for this information to be remotely transferred to maintenance shops for rapid diagnostics and repair solutions to avoid system failures. Replacing these rail cars provides CTA with modern, updated vehicles that will decrease maintenance and operating costs while enhancing customer comfort.

Budget Impact: The rail car purchase project will decrease the maintenance costs and hours needed to maintain older rail cars. If new rail cars are not purchased, CTA will continue to experience increased operating costs, reduced reliability in the fleet, and decreased service for its customers.

## System wide Projects

### ❖ Information Technology (IT)

Purpose: Replace laptops, personal computers and system software provide for technology upgrades to business units systems, applications, and hardware at the end of their useful life.

Funding/Description of Proposed Work/Major Elements: The proposed CIP allocates \$11.2 million in FY 2017-2021 for periodic replacement of systems, computers and associated components. Programmed funds will also provide for an IT maintenance program. Annual funds have been planned for an IT maintenance program to revitalize technologies for high usage devices such as Uninterrupted Power

Supply, radios, telephones, cameras, dynamic signs, public announcement microphones, and mobile fleet communications, among others. This maintenance program will provide for the repair/replacement/upgrade of IT devices and/or systems, software or firmware release upgrades, emergency restoration, subject matter expertise support, and system monitoring.

Over time, computer systems reach their useful life and therefore need to be upgraded or changed. Current information systems demand new applications and will be best met by systems with faster speed and greater reliability and efficiency.

Budget Impact: If CTA does not implement the information technology program, employees will continue using the out-of-date systems, desktops and laptops that exist today. The new equipment and software will improve productivity and efficiency.

#### ❖ Equipment and Non-Revenue Vehicle Replacement

Purpose: This project funds the purchase of a variety of equipment and non-revenue vehicles that are utilized to maintain buildings, grounds and CTA infrastructure and Open Fare Equipment.

Funding/Description of Proposed Work/Major Elements: CTA plans to expend \$33.7 million in FY 2017-2021 to procure equipment, non-revenue vehicles and Open Fare Equipment. This project will provide for the purchase of capital-eligible tools that will be used to repair rolling stock and other infrastructure elements that are critical for the support of bus and rail transit operations. In addition, the project provides for equipment acquired as part of the Ventra agreement.

Budget Impact: Productivity will increase due to the accessibility of extra non-revenue vehicles in the system. Maintenance crews need sturdy and sometimes specialized vehicles to transport to work sites. In the past, these vehicles have been obtained through short-term leases due to the lack of capital funds. Purchasing the vehicles that CTA needs to customize and retain for years makes more economic sense over the long term. In addition, the new Open Fare system validates the need for CTA to upgrade and maintain existing fare collection equipment that was beyond its useful life.

#### ❖ Rehabilitate Rail Stations

Purpose: CTA will continue its initiative to rehabilitate and reconstruct rail stations throughout the system. Upgrades to rapid-transit stations will include reconstructing stationhouses; repairing stairs, flooring, platforms, and canopies; removing graffiti, painting, power-washing walls, floors, and stairs; and enhancing lighting which will provide greater security resulting in decreased vandalism. CTA currently has 146 rail stations of which 98 are fully accessible to people with disabilities, per ADA guidelines. Based on funding availability, the addition of elevators and escalators will be installed to provide greater accessibility where needed.

Funding/Description of Proposed Work/Major Elements: The FY 2017-2021 CIP includes \$73 million to upgrade and enhance rail stations. FY 2017 funds of \$50 million will provide for the Garfield Gateway Station. In addition, CTA has allocated in FY 2017 funds of \$5.3 million to implement the Belmont Station and Turnaround Gateway Project on the O'Hare Blue Line. The goal of this project is to create a gateway that is intended to invoke a sense of community in the neighborhood via architecture as art.

- The Gateway Garfield Station Project will create a modern, convenient transit gateway at the Garfield Green Line Station in the Washington Park neighborhood on Chicago's South Side. The redesigned station will improve integration of multiple transportation modes, advance the development of a world-class cultural district through a partnership with the University of Chicago's Arts + Public Life initiative, spur economic growth, and improve livability in the neighborhoods surrounding the historic Washington Park. The station has experienced a 20% ridership increase in the past decade, and improvements are needed to continue meeting the commuting demands of area residents.
- The Belmont Station and Turnaround Gateway Project may include, but is not limited to, sculpture, landscape, window/glass art, etc. The project will also consider bringing customer amenities to the outside station area such as bus and train arrival signage, bus boarding technology, way finding and pre-boarding payment methods. Additional amenities will include infrared heating, shelters and wind breaks, audio and accessibility enhancements to improve the customer experience.

Remaining funding will be targeted at renewal projects at CTA stations system wide, focused primarily on projects that improve CTA's capacity to maintain stations, and improve customer comfort and safety. The focus on this investment will be to target critical upgrades that are determined on a priority basis from year to year.

**Budget Impact:** The project will bring transformational improvements to existing transportation systems at Belmont and Garfield stations and provide cascading benefits to the neighborhoods and beyond. By addressing emergent conditions now, CTA will economize the stations long-term maintenance needs and maintain the station in a SOGR. The project will improve CTA passenger comfort and provide for more efficient and reliable travel system wide.

#### ❖ Implement Security and Communication Projects

**Purpose:** CTA's security system project is an essential part of the agency's goal of protecting critical surface transportation infrastructure, the traveling public and CTA employees from crime and/or acts of terrorism; and will continue to enhance the Chicago Police Department's (CPD) efforts to provide visible security and crime prevention while patrolling rapid transit routes within the City of Chicago.

**Funding/Description of Proposed Work/Major Elements:** FY 2017-2021 funding of \$37.5 million will continue to enhance the multi-agency investment between CTA and the CPD by adding another layer of anti-terrorism precautions to protect our high-risk, high-consequence mass transit assets and operations from terrorist activities. This CIP funding also calls for the implementation of a comprehensive solution for cyber and physical security of critical transit infrastructure in CTA. The Cyber and Physical Security of Critical Infrastructure (CPSCI) Project will include the hardening of supervisory control and data acquisition (SCADA), train control, electric grid, and communications systems to identify, protect, detect, respond, and recover from terrorist activities, both physical and cyber, against CTA's critical infrastructure. CTA continues to purchase and install a security system to strengthen and harden critical infrastructure against the risks associated with potential terrorist attacks.

**Budget Impact:** Investing in security equipment will have a positive impact on the budget as more customers will feel safer in CTA facilities and vehicles and will continue to ride buses and trains rather



than driving to their destinations. The anti-terrorism security enhancement is expected to reduce crime and the costs associated with criminal activity.

#### ❖ Program Management

Purpose: This project provides funding for a program management team to assist CTA staff in the planning and management of the agency's Capital Construction Program.

Funding/Description of Proposed Work/Major Elements: The scope of work for Program Management includes developing project master plans (PMPs) to define primary work scope, schedule and budgets for different types of capital projects; creating specific schedule, cost estimates, and implementation plans to deliver projects; assisting CTA Engineering in the synchronization and analysis of design plans and specifications; and maintaining up-to-date asset information and developing project requests for the capital plan. Funding for this project is allocated at \$32.8 million for FY 2017-2021.

Budget Impact: Contracting for these services eliminates the need for CTA to add or reduce staff as construction levels change over time. If CTA does not implement a program management team, it will incur costs for full-time staff who can manage various project and strategic initiatives.

#### ❖ Bond Repayment, Interest and Finance Cost

Purpose: This project funds debt service and the cost of issuance of bonds, notes and other indebtedness incurred by CTA when it uses long term debt to finance crucial capital activities.

Funding/Description of Proposed Work/Major Elements: FY 2017–2021 funding continues to provide for the payment of principal and interest costs associated with financing the GARVEE bond series issued in 2004, 2006, 2008, 2010, and 2011. Funding has also been allocated to provide for the refinance of GARVEE bonds made in FY 2010, 2011 and 2015. CTA bond funds augment the Authority's infrastructure, facilities and rolling stock. Augmentations include the renovation of stations and facilities, replacement of rail signal systems, replacement of substations throughout the system, and expansion/replacement of bus and rail rolling stock. Funding for this project is allocated at \$732.4 million for FY 2017-2021.

Budget Impact: These projects funded by bonds help CTA to continue meet the vital needs of a growing and interdependent region. The issuance of bonds allows CTA to fast-track capital investments and thereby reduces increases in operating and maintenance costs.

#### ❖ Innovation, Coordination, and Enhancement (ICE) Program

Purpose: The RTA program provides operating and capital assistance to enhance the coordination and integration of public transportation and to develop and implement innovations to improve the quality and delivery of public transportation. Projects are in line with RTA's goal to ensure financial viability by controlling costs through improved operational efficiencies, effective management, coordinated planning, innovation and technology.

Funding/Description of Proposed Work/Major Elements: Previous ICE funding provided an award totaling \$4.8 million in FY 2016. FY 2017-2021 funding will total \$12.9 million. The ICE program

continues to provide funding for the Authority's innovation, coordinated, and enhancement projects. The scope of work includes Business Continuity and Disaster Recovery Implementation. This project will enable CTA to provide essential transportation operating functions after a significant emergency event that limits, restricts or renders inoperable use of the primary Control Center. In addition, ICE funds will provide for a wide variety of Facility/Vehicle Maintenance improvements, signal predictive maintenance, an improved oil change system for buses, and improvements to elevators. ICE funds will also provide for a variety of Software/Hardware upgrades.

**Budget Impact:** By upgrading CTA's facilities, applications and/or processes system wide, CTA can continue improving operational efficiencies.

## Support Facilities & Equipment

### ❖ Improve Facilities System wide

**Purpose:** This project will provide for a transit improvement program to repair or replace facility deficiencies and decrease the environmental impacts on its maintenance facilities systemwide. In addition, CTA is retrofitting existing lighting in the system subways and numerous rail stations with more energy-efficient lights. Also, CTA is replacing many slow-closing garage doors at various maintenance facilities with high-speed garage doors, which helps reduce heating costs. CTA's efforts to reduce energy consumption and greenhouse gas emissions has improved environmental quality and decreased operating costs, which has resulted in CTA receiving over \$397,000 in rebate funding from the Illinois Department of Commerce & Economic Opportunity.

**Funding/Description of Proposed Work/Major Elements:** The rehabilitation of facilities supports crucial elements in providing safe, clean, on-time transit service that connects people and communities. Currently, CTA has seven active bus garages, 10 rail terminals, 17 park-and-ride lots, 106 bus turnarounds, and a variety of other maintenance and support facilities. Both bus and rail operations depend on system support to continue providing timely and efficient service to CTA's customers.

This CIP proposes to spend \$32.1 million on facility improvements in FY 2017, including upgrades to various support facilities throughout the system. A total of \$144.8 million has been allocated in FY 2017-2021 to construct or improve CTA's bus and rail facilities.

**Budget Impact:** CTA expects to see an overall reduction in operating costs. Maintaining facilities in a SOGR will reduce operating expenses and costly repairs.

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## Capital Program Category Historical Comparison

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[Graph: Stacked Bar graph of capital funding by asset categories for 2007 -2021. Four asset categories; Operating Offset, Financial, Infrastructure, Fleet.]

| \$ in Thousands           | 2007       | 2008       | 2009       | 2010         | 2011       | 2012         | 2013       | 2014       | 2015         | 2016       | 2017         | 2018       | 2019       | 2020       | 2021       |
|---------------------------|------------|------------|------------|--------------|------------|--------------|------------|------------|--------------|------------|--------------|------------|------------|------------|------------|
| Operating Offset          | 88         | 40         | 221        | 159          | 146        | 0            | 0          | 0          | 0            | 0          | 0            | 0          | 0          | 0          | 0          |
| Financial                 | 58         | 92         | 85         | 67           | 89         | 227          | 153        | 154        | 158          | 160        | 163          | 166        | 165        | 163        | 154        |
| Infrastructure            | 331        | 649        | 235        | 340          | 309        | 366          | 402        | 376        | 436          | 405        | 1,121        | 490        | 202        | 304        | 411        |
| Fleet                     | 135        | 46         | 140        | 576          | 110        | 575          | 317        | 187        | 562          | 72         | 88           | 64         | 69         | 124        | 118        |
| <b>Sub-Total Projects</b> | <b>612</b> | <b>827</b> | <b>681</b> | <b>1,142</b> | <b>654</b> | <b>1,168</b> | <b>872</b> | <b>718</b> | <b>1,156</b> | <b>638</b> | <b>1,372</b> | <b>721</b> | <b>436</b> | <b>590</b> | <b>683</b> |

The graph above compares the capital funding programmed by broad asset categories. The capital program is inherently varied, as projects require a commitment of funding when they reach the construction or delivery stage. The graph compares the make-up of the previous ten years with the funding programmed for the five-year program included in this CIP. The fleet category represents programming for bus and rail fleets; the infrastructure category includes all construction projects; the operating offset category is comprised of the portion of the capital program used to fund capital-eligible costs included in the operating budget (discontinued in 2012); and the financial category includes funding to support the capital bond program, as well as for other long-term financing such as bus lease and purchase arrangements.

The flow of capital asset replacement or rehabilitation varies widely from year to year, resulting in an irregular funding level for program categories. Significant funding was set aside for two separate construction programs, the first fully funded in 2007–2008, and the second in 2012–2015. Both of the initiatives focused on efforts to reduce slow zones on the rail system, renew facilities, and renew stations. Also, Programs for CTA rail fleet renewal are reflected with the 2010, 2012 and 2015 spikes in funding for the purchase of the *5000-Series* and next generation *7000-Series* rail cars. In 2015, CTA began the planned overhaul of the *3200-Series* rail cars. Funding was provided for the bus fleet renewal program from 2012-2015. CTA recently purchased over 400 new buses, and overhauled more than 1,000 of existing buses. Financial instruments are lower in FY 2010-2011 as a result of a bond restructuring completed in FY 2010. With the retirement of CTA bonds issued in 2005 and the issuance of the two most recent capital financed bond issues in 2010 and 2011, the amount of capital funds programmed for debt service will remain level and begin to marginally decrease, and therefore the financial category remains relatively constant from FY 2014-2021.

## Capital Project Asset Category Comparison for FY 2016-2020

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[Graph: Bar graph comparing the level of expenditures for 2017 – 2021 by Capital Project Asset category]

| Row Labels             | FY17               | FY18               | FY19               | FY20               | FY21               |
|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Bus RS                 | 33,338,675         | 21,710,979         | 30,759,395         | 17,560,848         | 19,850,125         |
| Rail PW ESC            | 19,666,417         | 8,500,000          | 8,500,000          | 0                  | 0                  |
| Rail PW Track          | 17,140,027         | 16,944,903         | 15,000,000         | 15,000,000         | 15,000,000         |
| Rail RS                | 62,515,129         | 50,132,547         | 46,242,512         | 97,465,903         | 87,092,262         |
| Systemwide Facilities  | 25,920,328         | 25,975,814         | 15,500,000         | 38,467,738         | 8,000,000          |
| Systemwide Misc        | 25,481,483         | 21,915,000         | 47,528,143         | 17,414,714         | 13,690,000         |
| Debt Service           | 155,378,545        | 158,293,465        | 157,023,690        | 171,802,567        | 165,059,123        |
| Information Technology | 2,207,386          | 1,988,645          | 2,147,010          | 2,318,636          | 2,510,000          |
| Rail Stations          | 60,226,054         | 2,865,877          | 2,000,000          | 2,000,000          | 6,000,000          |
| Blue Line Improvements | 30,408,830         | 0                  | 11,474,308         | 28,400,000         | 0                  |
| <b>Grand Total</b>     | <b>432,282,874</b> | <b>308,327,230</b> | <b>336,175,058</b> | <b>390,430,406</b> | <b>317,201,510</b> |

The chart above indicates that going forward in the timespan of the five year CIP, CTA has made substantial commitments to provide SOGR work throughout the system. The largest share of investments are dedicated to revenue fleet which includes the purchase of next generation series of railcars, plan and begin to replace over 50% the bus fleet, and continue to overhaul fleet as funding permits. The second largest investment is being made to renew or rehabilitate facilities including maintenance facilities for bus, rail, and rail yards. Significant funding is also directed to renew rail track, structure, and power distribution. The greater share of CTA's investment in the five year plan are oriented toward the rail system, this is indicative of the cost to maintain a dedicated right of way, whereas the bus system is on public right of way. Over 80% of CTA's SOGR needs are associated with rail system.

CTA largest capital investment to date is the Red Purple Modernization (RPM) – Phase One project totaling \$2.131 billion. In order for a capital project of this magnitude to be undertaken a number of unique capital funding sources are necessary to fund the project to completion.

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[Graph: Bar graph showing types of RPM funding plan from 2011 – 2024. The types of funding include; Federal 5309 Core Capacity, City TIF – Bryn Mawr, CTA Bonds, CMAQ, TIFIA Loans, CTA Operating Funds.]

|              | Federal- 5309<br>Core Capacity | City TIF -<br>Bryn Mawr | CTA Bonds          | CMAQ               | TIFIA Loan         | CTA<br>Operating<br>Funds | <b>TOTAL</b>         |
|--------------|--------------------------------|-------------------------|--------------------|--------------------|--------------------|---------------------------|----------------------|
| <b>2011</b>  |                                |                         | 430,408            |                    |                    |                           | <b>430,408</b>       |
| <b>2014</b>  | 35,000,000                     |                         | 24,516,066         |                    |                    |                           | <b>59,516,066</b>    |
| <b>2015</b>  |                                | 10,000,000              |                    |                    |                    |                           | <b>10,000,000</b>    |
| <b>2016</b>  |                                |                         | 43,757,661         |                    |                    |                           | <b>43,757,661</b>    |
| <b>2017</b>  | 256,000,000                    |                         |                    |                    | 622,000,000        | 61,749,481                | <b>939,749,481</b>   |
| <b>2018</b>  | 100,000,000                    |                         | 287,249,193        | 25,000,000         |                    |                           | <b>412,249,193</b>   |
| <b>2019</b>  | 100,000,000                    |                         |                    |                    |                    |                           | <b>100,000,000</b>   |
| <b>2020</b>  | 100,000,000                    |                         |                    | 100,000,000        |                    |                           | <b>200,000,000</b>   |
| <b>2022</b>  | 100,000,000                    |                         |                    |                    |                    |                           | <b>100,000,000</b>   |
| <b>2023</b>  | 100,000,000                    |                         |                    |                    |                    |                           | <b>100,000,000</b>   |
| <b>2024</b>  | 65,607,772                     |                         |                    |                    |                    |                           | <b>65,607,772</b>    |
| <b>TOTAL</b> | <b>856,607,772</b>             | <b>10,000,000</b>       | <b>355,953,328</b> | <b>125,000,000</b> | <b>622,000,000</b> | <b>61,749,481</b>         | <b>2,031,310,581</b> |

FTA Core Capacity funds are made available from the Federal Transit Administration to CTA for RPM Phase One project that is corridor based and where the corridor is or will be over capacity in five years. CTA will enter into a Full Funding Grant Agreement (FFGA) with the FTA in early 2017 to secure funds of \$956.6 million for the project. CTA also will enter into an agreement with the City of Chicago to provide tax increment from a newly-created Tax Increment Financing District (TIF), specifically authorized by the Illinois state legislature for the RPM project, to fund repayment of a \$622 million loan to cover project costs. CTA will also provide funding of \$427.7 million from internal source, including proceeds of CTA Bonds and some operating funds. In addition, \$125 million of federal CMAQ funding has also been allocated for the RPM Phase One project.

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Competitive Grant Opportunities

CTA submitted grant applications seeking funds from several Federal and State competitive grant programs, including Bus and Bus Facilities/SOGR grants, Bus and Bus Facilities/Bus Livability Initiatives, Low or No Emission Vehicle Deployment Program (Low-No Program), EPA's National Clean Diesel Funding Assistance Program, the Transportation Investment Generating Economic Recovery (TIGER) or TIGER Discretionary Grant program, Mobility on Demand (MOD) Sandbox Demonstration Program, Innovation, Coordination, and Enhancement program (ICE), Congestion Mitigation and Air Quality grant (CMAQ), Unified Work Program (UWP), and Department of Homeland Security (DHS) grants. Most recently CTA has sought Federal Core Capacity funding -- the Red and Purple Line Modernization is now the first project in the country to receive funding through the new program.

With an ever-growing need for capital funds to move vital projects forward, CTA continues to aggressively pursue these opportunities. CTA has requested funding for a variety of projects, including the following:

#### Innovation, Coordination, and Enhancement (ICE) Program

The ICE program is an RTA competitive funding program, established as part of the 2008 Mass Transit Reform Legislation. The RTA program provides operating and capital assistance to enhance the coordination and integration of public transportation and to develop and implement innovations to improve the quality and delivery of public transportation. Projects funded through this program advance the vision and goals of the RTA by providing reliable and convenient transit services and enhancing efficiencies through effective management, innovation and technology.

Previously, ICE funding provided an award totaling \$4.8 million in FY 2016.

This funding provided for a wide range of Control Center, Facility and IT project improvements. The RTA ICE projects are in line with CTA's goals to ensure financial viability by controlling costs through improved operational efficiencies, effective management, coordinated planning, innovation and technology. By upgrading CTA's facilities, applications and/or processes systemwide, CTA can continue improving on its ability to deliver safe, clean, reliable and affordable transportation services.

The RTA will provide \$12.9 million in ICE funding in the FY 2017-2021 program.

#### Congestion Mitigation and Air Quality (CMAQ) Grant

The Federal CMAQ program funds surface transportation improvements designed to improve air quality and mitigate congestion.

CTA will receive a \$125 million CMAQ grant that will support Phase One of the Red-Purple Modernization project. This major initiative will completely rebuild the northern portion of the Red Line from Belmont to Howard station and the Purple Line, which extends to Linden station in Wilmette. The RPM corridor was built in phases from 1900 through the 1920's with some infrastructure being constructed over a century ago. The Red Line is now Chicago's busiest 'L' line, serving some of the most densely populated neighborhoods in the country, and the number of riders along this corridor is only growing. The first phase of RPM includes the Red-Purple Bypass (RPB), the Lawrence to Bryn Mawr Modernization (LBMM), and the Corridor Signal Improvements (CSI).

RPB consists of a bypass (or flyover) that will be constructed north of the Belmont station to increase the capacity, speed and efficiency of all Red, Purple, and Brown Line trains. This will remove the largest physical capacity constraint in the RPM corridor, where three separate services on six tracks merge onto four tracks. The intersection (known as “Clark Junction”) was created in 1907 and forces trains to stop and wait for signal clearance at a level crossing junction, limiting the number of trains that can travel through this intersection. The Red-Purple Bypass improvement would eliminate the need for trains to stop and wait for clearance from crossing trains. The new bypass will allow northbound Brown Line trains to proceed along a dedicated rail line without physically crossing Red and Purple Line tracks.

In addition, CMAP will provide \$8.9 million in funding for the Ashland Avenue Transit Signal Priority (TSP) and Signal Modernization – Cermak Road to Irving Park Road project. This project proposes to construct a traffic signal interconnect and communication network required to implement transit signal priority (TSP) on Ashland Avenue between Cermak Road and Irving Park Road. This network will be a combination of wireless and fiber optic communications that will connect the intersections to the City of Chicago’s centralized traffic management software. The network will facilitate communication between the transit vehicles and the intersections and will allow for data collection and system management. In addition, the project will modernize traffic signal equipment to accommodate adopted regional TSP standards.

The implementation of this project will reduce the time that transit vehicles spend delayed at intersection queues, TSP can reduce transit delay and travel time and improve transit service reliability, thereby increasing transit quality of service.

Core Capacity Program – Core Capacity is a project category under the Federal Transit Administration’s (FTA) Capital Investment Grant (CIG) Program. Core Capacity projects are substantial investments in existing fixed-guideway corridors that are at capacity today or will be in five years, where the proposed project will increase capacity by at least 10 percent.

To date, the FTA has allocated \$191 million in Core Capacity funding toward implementing Phase One of the Red and Purple Modernization (RPM) Program. In addition, President Obama proposed an additional \$125 million for RPM Phase One in his FY 2017 budget. After completing the federal requirements for project development, including NEPA requirements and sufficient engineering to establish scope and budget certainty, the FTA rated the RPM Phase One project and accepted the project into the Engineering Phase of the Core Capacity program in December 2015. The Engineering Phase represents the final step before a Core Capacity project receives a Full Funding Grant Agreement (FFGA) and is eligible to begin construction.

Homeland Security/Transit Security Grant Program – The Transit Security Grant Program (TSGP) is one of the Department of Homeland Security’s (DHS) grant programs that directly support transportation infrastructure security activities. DHS focuses its available transit security grant dollars on the highest-risk systems and has identified critical infrastructure assets that are vital to the functionality and continuity of major high risk transit systems and whose incapacitation or destruction would have a debilitating effect on national security, public health, safety, or any combination thereof. Operators of public transportation agencies (which include intra-city bus, commuter bus, ferries, and all forms of passenger rail), compete for funding both locally and nationally.

CTA is a direct recipient of TSGP awards and utilizes funding to protect critical transit infrastructure and the traveling public from acts of terrorism. The Chicago Police Department (CPD) acts as the primary security provider for CTA within the City of Chicago. CTA and CPD have entered into separate intergovernmental agreements for each TSGP award in order to certify the TSGP relationship between the two agencies. These agreements define how funding will be used to meet CPD's investment costs and reporting requirements, etc.

DHS/TSGP provides funding to owners and operators of transit systems to protect critical surface transportation and the traveling public from acts of terrorism and to increase the resilience of transit infrastructure. In FY 2016, this program provided to the nation \$87 million of which CTA was awarded \$5.6 million. Eligibility for TSGP funding is based upon daily ridership of transit systems that serve the nation's key high-threat urban areas. The Department of Homeland Security is committed to working with the nation's response community in the national effort to combat terrorism and secure our homeland.

Unified Work Program (UWP) – In order to fulfill federal planning regulations, the UWP lists planning projects the Chicago Metropolitan Agency for Planning (CMAP) and other regional agencies undertake each year to enhance transportation in northeastern Illinois. The UWP is designed to run in conjunction with the State of Illinois' fiscal year timeline of July 1 to June 30. The final UWP document includes the transportation planning activities to be carried out in the region, detailing each project's description, products, costs and source of funding. For FY 2017, CMAP will award CTA \$500,000 to fund one project: Program Development -- CTA will receive \$500,000 to facilitate efforts to coordinate the provision of capital projects for customers in its service area and to identify projects within the Chicago- area regional five-year Transportation Improvement Program (TIP).

TIGER – The Transportation Investment Generating Economic Recovery (TIGER) Program is a competitive grant program administered by the U.S. Department of Transportation (USDOT). The TIGER program funds surface transportation infrastructure projects that will have a significant impact on the nation, a metropolitan area, or a region. The grant program focuses on capital projects that generate economic development and improve access to reliable, safe and affordable transportation to communities.

In 2016, CTA was awarded \$25 million in TIGER funding for a transformative project at the Green Line Garfield station located in the Washington Park neighborhood on Chicago's South Side. The project will leverage \$25 million in local funding with the TIGER award to upgrade and enhance: 1) the existing operational Garfield station; 2) the historic 1892 former 'Alley L' station that is no longer in use; and 3) a segment of 1892 historic track structure spanning Garfield Boulevard. In addition, the project will increase pedestrian access and flow at the station with a variety of streetscape improvements, including crosswalk enhancements, new lighting, public art, bike racks, landscaping, and traffic control devices.

Bus and Bus Facilities Program – The FTA Bus and Bus Facilities Grants Program (Bus Program), newly authorized under the FAST Act, is a competitive program that finances capital projects to replace, rehabilitate, purchase or lease buses and related equipment and to rehabilitate, purchase, construct or lease bus-related facilities. The purpose of the program is to improve the condition of



the nation's public transportation bus fleets, expand transportation access to employment, educational, and healthcare facilities, and to improve mobility options in areas throughout the country.

Electric Buses – Low or No Emission Vehicle Deployment Program – The FTA Low or No Emission Vehicle Deployment Program (Low-No Program), newly authorized under the FAST Act, is a competitive program that finances the purchase or lease of zero-emission and low-emission transit buses, related equipment, and facilities. The purpose of the Low-No Program is to support the transition of the nation's transit fleet to the lowest polluting and most energy efficient transit vehicles, thereby reducing local air pollution and direct carbon emission, and to support the deployment of technologically advanced U.S.-made transit buses.

In 2016, CTA was awarded \$3.6 million in Low-No Program funding to expand its electric bus fleet. This funding will allow CTA to take its first major step toward meeting the U.S.-China Race to Zero Emissions Challenge announced June 3, 2016 by Secretary Foxx and China Minister of Transport Yang Chuangtang. The Race to Zero Emissions Challenge sets an aspiration goal to have at least 35% of a participating city's bus fleet comprised of zero emission buses by 2025.

During FY 2017-2021, CTA will continue to aggressively pursue additional funding under these competitive grant programs.

## [Printed Page 81] Unfunded Capital Need

In FY 2010, the FTA published the National SOGR Assessment Study, which provided a comprehensive analysis of the costs required to bring the nation's rail and bus transit systems into good operating order. The report showed that transit agencies nationwide are struggling to maintain aging assets. The deferred maintenance backlog is estimated to be \$50 billion for the seven largest transit agencies, including CTA, and approximately \$78 billion for all 690 transit systems nationwide.

An update was provided as a part of the 2013 Status of the Nation's Highways, Bridges and Transit: Conditions and Performance (known as the C&P report), issued jointly by FTA and FHWA in February, 2014. The deferred maintenance and replacement backlog is estimated to be conservatively at \$86 billion (in 2010 dollars). This backlog is expected to grow by \$2.5 billion each year – unless sufficient dedicated funding is made to make investments to slow or stop the growing maintenance deficit.

Since 2010 through 2015 Federal Transit funding has remained relative flat and only in 2016 with the FAST Transit Program Authorization have there been marginal increases. Going into FY 2017 the national transit SOGR backlog continues to grow and is approaching \$100 billion.

The RTA's asset condition assessment originally prepared in 2010 and last updated at the end of 2014 defines the RTA's region total capital reinvestment needs over a 10-year period estimated at \$36.14 billion, which includes investment needs for CTA, Metra, and Pace. According to the RTA's analysis, CTA's share of this total 10-year reinvestment need is \$22.2 billion or 58.3% of the total regional amount. This includes \$12.9 billion to address existing backlog and an additional \$9.2 billion to address normal

reinvestment needs expected over the 10-year period. Approximately 58% of CTA’s reinvestment needs are to address assets that are past their useful life.

CTA’s total 10-year reinvestment need of \$22.2 billion is split between approximately 82% for rail and 18% for bus assets.

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[Chart: CTA ‘s SOGR back log and 10yr Reinvestment]

| Mode  | SGR Backlog (billions) | 10yr Normal Reinvestment (Billions) | Total (billions) |
|-------|------------------------|-------------------------------------|------------------|
| Rail  | \$11.36                | \$6.82                              | \$18.18          |
| Bus   | \$1.56                 | \$2.37                              | \$3.93           |
| Share | \$0.02                 | \$0.05                              | \$0.06           |
| Total | \$12.94                | \$9.24                              | \$22.17          |

The region’s backlog and 10-year investment needs have grown nearly 6% since the previous (one year prior) assessment, in inflation-adjusted dollars. The shortage of capital funds needed to support the region’s systems will continue to present significant challenges for the region and specifically for CTA to reduce the number of assets beyond their useful life benchmarks.

CTA continues investing in upgrading or replacing system assets, yet the unfunded capital need continues to grow with each year. Even if the entire capital backlog was funded, CTA estimates a need of \$950 million annually just to keep the system in a SOGR. The average capital funding level over the period FY 2017-2021 is \$689.3 million.

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[Graph: bar graph identifying the level of spending 2017 – 2021 to maintain a State of Good repair (SOGR)]

|                       | 2017             | 2018           | 2019           | 2020           | 2021           |
|-----------------------|------------------|----------------|----------------|----------------|----------------|
| Federal Funds         | 327,628          | 325,102        | 314,603        | 411,430        | 317,202        |
| Federal 5309 Core RPM | 256,000          | 100,000        | 100,000        | 100,000        | 100,000        |
| TIFIA RPM             | 622,000          | -              | -              | -              | -              |
| State Funds           | 75,000           | 6,350          | 6,572          | 79,000         | -              |
| CTA Funds             | 1,875            | 289,124        | 15,000         | -              | -              |
|                       | <b>1,282,503</b> | <b>720,576</b> | <b>436,175</b> | <b>590,430</b> | <b>417,202</b> |
|                       |                  |                |                |                |                |
| Average               | 689,377          |                |                |                |                |

|                       | 2017             | 2018           | 2019           | 2020           | 2021           |                  |
|-----------------------|------------------|----------------|----------------|----------------|----------------|------------------|
| Federal Funds         | 327,628          | 325,102        | 314,603        | 411,430        | 317,202        | <b>1,695,965</b> |
| Federal 5309 Core RPM | 256,000          | 100,000        | 100,000        | 100,000        | 100,000        | <b>656,000</b>   |
| TIFIA RPM             | 622,000          | -              | -              | -              | -              | <b>622,000</b>   |
| State Funds           | 75,000           | 6,350          | 6,572          | 79,000         | -              | <b>166,922</b>   |
| CTA Funds             | 1,875            | 289,124        | 15,000         | -              | -              | <b>305,999</b>   |
|                       | <b>1,282,503</b> | <b>720,576</b> | <b>436,175</b> | <b>590,430</b> | <b>417,202</b> | <b>3,446,886</b> |
| Average               | 689,377          |                |                |                |                |                  |

\$22.17 billion total over the next 10 Years



\$9.2 billion - to meet normal investment needs over 10 yrs.



\$242.7M plus annual deficit just to maintain system after SGR needs met.

CTA routinely evaluates the additional funding needed to reach a SOGR. CTA's unfunded capital needs have manifested themselves in a variety of ways across its system.

### Right-of-Way

- Slow zones are established to provide safer service where rail right of way has deteriorated; 9.4 miles (4.2%) of CTA's rail system tracks are currently (July 2016) designated as slow zones. The Blue Congress Branch and Purple Lines contain over 38.5% of the system slow zones. Capital track work projects are currently focused on these Lines to remediate and prevent future slow zones.

### Rail Stations

- Sixty-three of 145 rail stations (43%) are past their useful life; as of 2015, 46 stations (32%) are not ADA accessible.

- Water infiltration is a constant battle in subway stations. This infiltration is particularly problematic along the Blue Line subway, where leaks from water and sewer mains result in corrosion and degradation of the infrastructure of these stations.
- Approximately 50% of the escalators in the system are beyond their standard useful life guideline of 25 years, with some escalators dating back to the 1950s.
- Elevators on the system experience extraordinary wear and tear from riders and weather conditions, making them difficult to maintain without major capital work throughout their useful life. Elevators are critical to maintain the accessibility of our system for the elderly, disabled, and families with strollers. CTA invests \$4 million annually to keep existing elevators and escalators operational.

### **Rail Structures**

- The vast majority of viaducts on the Red and Purple Lines date back to the early 1920s. These require permanent exterior braces and regular removal of loose concrete to protect traffic below.

### **Rail Subway Structures**

- State Street and Dearborn Subways were built in 1943 and 1951 and are in need of ongoing maintenance which includes grouting of the tunnels. Ventilation and lighting systems are in need of repair and replacement throughout all subways to provide for a secure and improved environment for transit operation in the subway.

### **Rolling Stock**

- Aging equipment decreases reliability, which creates delays for riders. In recent years, CTA placed into revenue service all 714 rail cars of the new *5000-Series* railcars, yet 35% of CTA's rail fleet remains beyond its useful life guidelines. Approximately 55% of CTA bus fleet will be due replacement with the timespan of the five year capital plan.

### **Maintenance Facilities**

Although CTA has funds programmed for this program, the level of funding is insufficient to bring all facilities to a SOGR standard.

- Maintenance facilities require significant improvements to adequately support the bus and rail fleet. Six of CTA's maintenance buildings are more than 100 years old and have not received substantial rehabilitation.
- Electrical switch gear at two garages (Forest Glen and North Park) dates from the late 1950s. Failure of this switch gear would result in increased operating costs and reduced service,
- Three of CTA's seven bus garages have boilers purchased in the mid-1980s that have exceeded their useful life guideline of 25 years and require significant ongoing costs to keep them from failing. New energy-efficient boilers save CTA 20% on gas bills and require less maintenance.

### **Substations**

Approximately 60% of our substation equipment is beyond the manufacturer's recommended useful life of 30 years. With a dedicated traction power program, CTA can continue to upgrade full substations, upgrade systems within existing substations, or include the possibility of using tie houses and/or energy storage devices where a full substation may not be needed.

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## **Operating Budget Impact of Capital Program Projects**

A robust capital improvement program not only enhances customer service, safety and reliability, but it also minimizes the steady increases in operating and maintenance costs, and thereby allows CTA to operate more efficiently. The \$3.5 billion in capital investments planned for the next five years will allow CTA to achieve cost savings and curtail the increases in maintenance costs that would result from a lack of investment. The following highlights the impact of capital investments on key areas of the operating budget.

As of October 2016, investment made to the bus fleet provides for 425 new standard clean diesel buses now in revenue service, renewal of approximately 23% of the fleet. Recent Investments in the overhaul of CTA New Flyer Series buses over 55% of the fleet have significantly reduced bus fleet material expenses and failure maintenance costs that were increasing prior to overhaul of these buses.

A total of 714 new *5000-Series* railcars are now in service, replacing 650 over aged rail cars and represents approximately 55% of the rail revenue fleet. CTA expects substantial annual costs savings in maintenance material and power costs in the range of \$8 to \$10 million annually. Within the five year timeframe of the CIP, due to investment in the next generation of *7000-Series* rail cars replacing the remaining aged cars in the fleet, the average age of the fleet will be approximately ten years old.

Red Purple Modernization – Phase One project represents CTA’s largest capital investment in the system to date. The \$2.13 billion investment along the corridor will provide many benefits including removing physical constraints that will allow for increase train capacity to meet ridership demands, speed, and reliability especially during peak service. The Project addresses SOGR needs by modernizing over 5.8 miles of signals and 1.5 miles of line structure and track, and extending asset structure life 60 to 80 years. CTA anticipates that ridership growth will lead to \$8.067 million in additional revenue, based on the FY 2016 average fare for rail (\$1.25). On net, revenue is estimated to be approximately \$2.5 million more than the anticipated operating and maintenance cost increase.

A significant investment is being made in the Blue Line O’Hare Branch which will reduce the travel times between downtown to O’Hare Airport by ten minutes compared with conditions before the project. The time savings for each and every train not only produces a better, faster ride for customers, but also a reduction in the overall operating costs of the service.

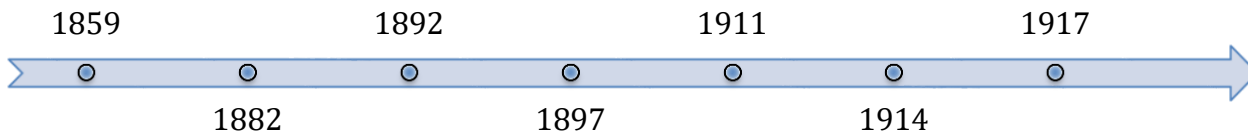
CTA continues to seek an Energy Performance Contracting (EPC) project to determine a comprehensive set of energy and water efficiency improvements for several CTA facilities. CTA will leverage the energy projects at multiple bus and rail facilities to make an investment that will return value annually in the form of lower energy and operational costs. Work may include replacing outdated, inefficient lighting and controls, mechanical equipment and high-bay doors with modern, energy-efficient lighting, controls and equipment. There are several opportunities within CTA’s portfolio for energy reductions as identified based on site assessments completed to date. CTA will contract with the Energy Service Company (ESCO) to perform detailed audits of existing equipment and provide recommended system replacements and improvements. The types of projects outlined in this CIP have similar impacts to the bottom line.

## Capital Program Acronyms

|                  |  |
|------------------|--|
| AA               | Alternative Analysis   |
| ADA              | Americans with Disabilities Act  |
| APB              | Accounting Principles  |
| ARRA             | American Recovery and Reinvestment Act   |
| BAB              | Build America Bonds  |
| BLS              | Bureau of Labor Statistics   |
| BOB              | State Bureau of Budget   |
| BRT              | Bus Rapid Transit  |
| CAC              | Capital Advisory Committee   |
| CBO              | Congressional Budget Office  |
| CDOT             | Chicago Department of Transportation   |
| CIP              | Capital Improvement Program  |
| CMAP             | Chicago Metropolitan Agency for Planning   |
| CMAQ             | Congestion Mitigation and Air Quality Improvement Program  |
| CPD              | Chicago Police Department  |
| CPI              | Consumer Price Index   |
| CTA              | Chicago Transit Authority  |
| DBE              | Disadvantaged Business Enterprise  |
| DHS              | Department of Homeland Security  |
| ESCO             | Energy Service Company   |
| EIA              | Energy Information Administration  |
| EIS              | Environmental Impact Statement   |
| EPA              | Environmental Protection Agency  |
| FAST             | Fixing America's Surface Transportation (FAST) Act   |
| FFGA             | Full Funding Grant Agreement   |
| FHWA             | Federal Highway Administration   |
| FIRST            | Illinois Fund for Infrastructure, Roads, Schools and Transit   |
| FTA              | Federal Transit Administration   |
| GROW AMERICA Act | Generating Renewal, Opportunity, & Work with Accelerated Mobility, Efficiency, and Rebuilding of Infrastructure and Communities throughout America Act |
| HTF              | Highway Trust Funds  |
| ICE              | Innovation, Coordination, and Enhancement Fund of RTA  |
| IDOT             | Illinois Department of Transportation  |
| ISTEA            | Intermodal Surface Transportation Efficiency Act   |
| JARC             | Job Access Reverse Commute   |
| LPA              | Locally Preferred Alternative  |
| MAP-21           | Moving Ahead for Progress in the 21st Century  |
| MTA              | Mass Transit Accounts  |
| NEPA             | National Environmental Policy Act  |
| PE               | Preliminary Engineering  |
| RLE              | Red Line Extension   |
| RPM              | Red and Purple Modernization Project   |
| SAFETEA-LU       | Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users   |
| TEA-21           | Transportation Equity Act for the 21st Century   |
| TIF              | Tax Increment Financing  |
| TIFIA            | Transportation Infrastructure Finance and Innovation Act   |
| TIGER            | Transportation Investment Generating Economic Recovery   |
| TIGGER           | Transit Investments for Greenhouse Gas and Energy Reduction  |
| TIP              | Transportation Improvement Program   |
| TSGP             | Transit Security Grant Program   |
| TSP              | Transit Signal Priority  |

|       |   |
|-------|---|
| TOPS  | Transit Operations Planning System        |
| UMT   | Urban Mass Transportation                 |
| UMTA  | Urban Mass Transportation Authority       |
| UPRR  | Union Pacific Railroad                    |
| UPS   | Uninterrupted Power Supply                |
| USDOT | United State Department of Transportation |
| UWP   | Unified Work Program                      |
| YNB   | Your New Blue                             |

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## History of the Agency

### 1859

The beginning of public transit in Chicago; early service is horse drawn.

[Photo: Horse Drawn Carriage Car]

### 1882

The Chicago City Railway obtains rights to operate San Francisco- style cable cars.

[Photo: Cable Car]

### 1892

The Chicago and South Side Rapid Transit Company opens on June 6, bringing elevated train service to Chicago. At the turn of the century, four separate transit railroads are operating in Chicago. The first trains, powered by steam, are quickly converted to electricity.

[Photo: 1890's elevated train]

### 1897

Elevated trains are built along available rights-of-way, often above alleys and less heavily used streets. The Loop opens, connecting rapid transit lines serving the North, South and West sides of Chicago.

### 1911

The rapid transit companies form a trust that, in 1913, allows free transfers between the carriers for the first time. This also marks the start of through-routing trains between the North and South Sides.

[Photo: Elevated junction downtown Chicago]

### 1914

On February 1, four streetcar companies unite under a single management, the Chicago Surface Lines. At its peak, the Chicago Surface Lines operates along 1,100 miles of track and becomes the largest and most heavily-used streetcar system in the world.

[Photo: Electric Street Car]

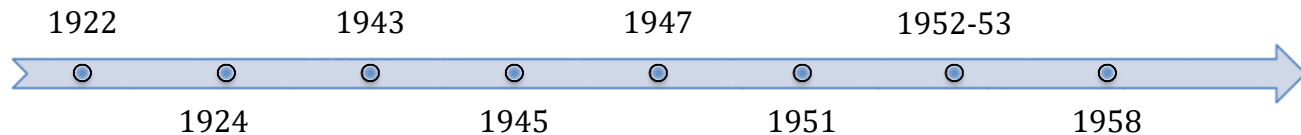
### 1917



Buses are first used in Chicago as the Chicago Motor Bus Company is created. Bus use is limited to Chicago boulevards and parks.

[Photo: 1917 Bus double decker with open seating second level]

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### **1922**

The Chicago Motor Coach Company succeeds the Chicago Motor Bus Company.

### **1924**

The four rapid transit 'L' companies merge to create the Chicago Rapid Transit Company.

### **1943**

To ease traffic congestion, the U.S. Department of the Interior, the Public Works Administration, and the City of Chicago finance the State Street Subway.

[Photo: State Street Subway. Train car surrounded by train operators]

### **1945**

The Chicago Transit Authority, an independent government agency, is formed when the Illinois General Assembly passes the Metropolitan Transit Authority Act. In the same year, the City of Chicago passes an ordinance granting the CTA the exclusive right to own and operate a unified, local transportation service. Voters pass the Act and Ordinance in a referendum on June 4.

[Picture: Initial CTA logo. Circle, red filling with diagonal letters left to right spelling CTA]

### **1947**

The CTA begins operations by issuing \$105 million in revenue bonds to purchase assets of the Chicago Surface Lines and the Chicago Rapid Transit Company.

### **1951**

The Dearborn Street subway opens.

### **1952-53**

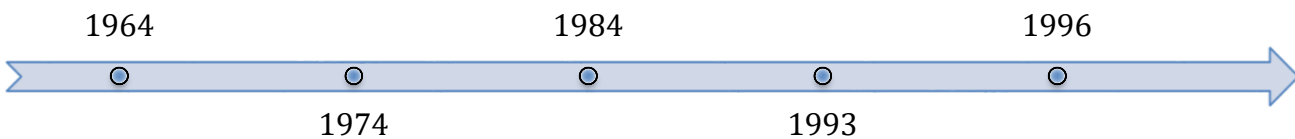
Through additional bond issues, the Chicago Motor Coach Company, a portion of the Chicago Aurora and Elgin Railway, and the Chicago, Milwaukee, St. Paul and Pacific Railroad rights-of-way are added to the CTA.

## 1958

The Congress branch opens along the median of the newly-built Congress expressway, connecting Forest Park with the Loop through the Dearborn Street subway, with trains continuing to Logan Square on the northwest side.

[Photo: Congress branch rail line running in the median of the Congress Expressway]

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## 1964

The CTA obtains federal funding to create the first “light rail” service, the Skokie Swift. The Skokie Swift operates on track lines purchased by the CTA from the Chicago North Shore & Milwaukee Railway. Eventually, the overhead wire is eliminated and the trains become two cars, allowing the Skokie Swift to become a popular rail shuttle and suburban inter-city bus link.

## 1974

By the early 1970s, the popularity of car travel and declining ridership levels threaten the financial stability of the local public transit providers, including the CTA. Therefore, the Illinois General Assembly creates the Regional Transportation Authority (RTA) as a fiscal and policy oversight agency committed to providing an efficient and effective public transportation system. Today, the RTA continues to provide fiscal oversight to the CTA, Metra and Pace.

[Picture: Blue and white RTA logo]

## 1984

The CTA responds to changing demographics during the 1970s by expanding the West-Northwest Service from Logan Square to Jefferson Park, and then along the Kennedy Expressway median to River Road in Rosemont. Finally, the northwest transit extension is completed at O’Hare Airport, providing a station within the airport terminal.

[Photo: CTA Rail Service to O’Hare Airport]

## 1993

The Dan Ryan branch, formerly linked to the Englewood and Jackson Park branches, is linked with the Howard branch. The new Lake to Englewood-Jackson Park service is rerouted to use the Loop Elevated. The Midway Orange Line is completed, linking the downtown elevated Loop to the Southwest side airport. Its completion makes Chicago the only city in the United States with public transportation connecting two major airports.

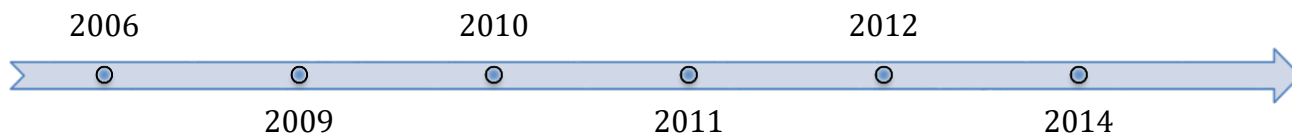
[Photo: Opening of Midway Orange line, rail train breaking through banner]

## 1996

The CTA celebrates the re-opening of the rehabilitated Green Line, improving the service to customers on the West and South sides of Chicago.

[Picture: Green Line route map Harlem/Lake to 63<sup>rd</sup>/Cottage Grove and Ashland/63<sup>rd</sup>]

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## 2006

The CTA introduces the Pink Line as part of a package of bus and rail service improvements for the West Side and western suburbs. The Pink Line provides more frequent service and improved travel times between the 54th/Cermak station and the Loop.

[Picture: CTA logo black background CTA in pink letters. Caption Think Pink!]

## 2009

The final regularly- scheduled bus routes are added to the CTA Bus Tracker. Customers are able to access information online and via text messaging, and receive email notification of predicted arrival times and service alerts.

[Picture: CTA Bus Tracker App]

## 2010

The CTA begins testing the prototypes of a brand new family of 'L' cars, the 5000-series rail cars. These advanced cars result in a smoother, more comfortable ride and provide both operational and maintenance efficiency.

[Photo: 5000 series rail car on the Pink Line]

## 2011

Train Tracker is launched in

January 2011, providing customers with information on estimated train arrival times for all rail stations across the CTA's eight rail lines.

[Picture: CTA Train Tracker App]

## 2012

The CTA rolls out large investments in expanding and improving rail service, including launching the 5000-  
seres 'L' cars into revenue service, opening new stations in the West Loop and Skokie, and rehabilitating seven  
stations on the North Red Line that are over 100 years old.

[Photo: Updated elevated station looking towards downtown]

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## 2014

In July, transition to Ventra, a new fare payment system, was completed. Ventra is built on open standards,  
which means customers can also pay using contactless bankcards and mobile phones. Ventra combines the  
convenience of a contactless card and an account-based system with the ability to have any type of fare value or  
pass – or both – on one card.

[Picture: Ventra cards]

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## Transit Facts

### Creation of CTA

The CTA was created by state legislation and began operating on October 1, 1947, after acquiring the  
properties of the Chicago Rapid Transit Company and the Chicago Surface Lines. On October 1, 1952, the  
CTA became the sole operator of City of Chicago transit when it purchased the Chicago Motor Coach  
System.

### CTA Governance

The CTA's governing arm is the Chicago Transit Board, which consists of seven members. The Mayor of  
Chicago appoints four board members, subject to the approval of the City Council and the Governor of  
Illinois. The Governor appoints three board members, subject to the approval of the State Senate and the  
Mayor of Chicago.

In 1974, the Regional Transportation Authority (RTA) was created by state legislation. The RTA serves as  
the CTA's fiscal oversight agency.

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| Service Area |   |
|--------------|---|
| Area         | 234 square miles of Chicago and<br>35 nearby suburbs                          |
| Population   | 3.53 million  |
| Coverage     | 83% of public transit trips in the<br>six-county Chicago metropolitan<br>area |

| <b>Ridership (2016 Forecast)</b> |                   |
|----------------------------------|-------------------|
| Average Weekday                  | 1,592,571         |
| Average Saturday                 | 966,295           |
| Average Sunday/Holiday           | 726,177           |
| <b>2016 Budget</b>               |                   |
| Operating Budget                 | \$1,475.2 million |
| Capital Budget                   | \$638 million     |
| Budgeted Positions               | 9,869             |

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| <b>Bus</b>                 |               |
|----------------------------|---------------|
| Number of Buses            | 1,881         |
| Routes                     | 128           |
| Stops                      | 11,048        |
| Bus Route Miles            | 1,308         |
| Bus Miles Traveled per Day | 165,012       |
| Ridership (2015 Forecast)  | 274.3 million |

| <b>Rail</b>                 |               |
|-----------------------------|---------------|
| Number of Rail Cars         | 1,499         |
| Stations                    | 145           |
| Rail Track Miles            | 224.1         |
| Rail Miles Traveled per Day | 211,042       |
| Ridership (2015 Forecast)   | 241.0 million |

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[Picture: Picture of all rail line routes and bus routes in the city. A zoomed in picture of the rail lines and bus routes within the Chicago Loop.]

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### **Operating Funding Summary**

The CTA's total estimated revenue for 2017 is \$1,524.2 million. There are two primary sources of operating revenue for the CTA: System-generated revenue through fares and other sources, and public

funding, mostly through the Regional Transportation Authority (RTA). System-generated revenue is projected at \$686.3 million for 2017 and public funding is projected at \$837.9 million. The following table represents 2017 estimated revenue by source.

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| Total CTA Revenue - All Sources (in Thousands) | 2017        |
|--|-------------|
| Fares and Passes                               | \$581,250   |
| Reduced Fare Subsidy                           | \$28,322    |
| Advertising and Concessions                    | \$35,165    |
| Investment Income                              | \$1,121     |
| Statutory Required Contribution                | \$5,000     |
| All Other Revenue                              | \$35,489    |
| Public Funding                                 | \$837,892   |
| Total Revenue                                  | \$1,524,239 |

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[Graph: Pie chart of Revenue Sources of Funding for 2017]

| Total CTA Revenue - All Sources (in Thousands) | 2017      | %      |
|--|-----------|--------|
| Fares and Passes                               | \$581.3   | 38.1%  |
| Reduced Fare Subsidy                           | \$28.3    | 1.9%   |
| Advertising and Concessions                    | \$35.2    | 2.3%   |
| Investment Income                              | \$1.1     | 0.1%   |
| Statutory Required Contribution                | \$5.0     | 0.3%   |
| All Other Revenue                              | \$35.5    | 2.3%   |
| Public Funding                                 | \$837.9   | 55.0%  |
| Total Revenue                                  | \$1,524.2 | 100.0% |

The following is a description of sources of system-generated revenues and public funding for the CTA.

### **System-Generated Revenues**

The CTA's system-generated revenue is forecast at \$686.3 million for 2017. This revenue is derived from the sale of fares and passes, subsidies for free and reduced fare riders, advertising, investment income, statutory required contribution from local governments by provision of the RTA Act, and other revenues. These revenues are further defined below.

#### *Fares and Passes*

Revenue from fares and passes is forecast at \$581.3 million in 2017 and is the largest portion of system-generated revenue. The CTA's revenue from fare and passes includes cash fares and full-fare and reduced-fare cards utilizing the Ventra system. The CTA also sells 30-day full fare and reduced fare passes, along with one-, three- and seven-day passes, which can be loaded onto a Ventra card. Additional

pass revenue comes from the CTA's U-Pass for local university students, bulk sales of passes, and METRA Link-Up passenger revenue. Disposable one-day and three-day passes and single ride tickets are also available to customers at Ventra machines.

#### *Reduced Fare Subsidy*

This funding represents the reimbursement of revenues foregone by the Service Boards due to providing reduced and free fares to students, senior citizens and riders with disabilities as mandated by federal and state law. The funding is subject to the terms of the grant agreement, state statute and annual state appropriation. Reimbursement amounts are allocated to the Service Boards based on qualifying passenger trips taken during the grant year. CTA received only half of the historical reduced fare subsidy funds in 2015 and 2016 as a result of state budget cuts. It is assumed that the full subsidy will be restored in 2017.

#### *Advertising, Charters and Concessions*

Advertising, charters and concessions revenue for 2017 is forecast at \$35.2 million. The bulk of this revenue is received through advertisement on buses and rail cars and in rail stations. This forecast also includes: concession revenue from 88 concessions within the CTA's 145 rail stations, revenue generated from billboards and revenue from Special Contract Guarantees, which includes agreements for transportation services for the University of Chicago and other employers.

#### *Investment Income*

The 2017 budget for investment income is \$1.1 million. This is consistent with recent performance.

The variation from a decade ago is attributed to significant changes in short-term interest rates. The federal funds rate has dropped from a high of 2.50 percent in 2007 to near zero at the end of 2008. Since December 2008, the Federal Open Market Committee (FOMC) decided to raise the federal funds rate from a range of 0-0.25 percent to 0.25-0.50 percent in December of 2015. The FOMC is expected to raise short-term rates once again from 0.25-0.50 percent to a range of 0.50-0.75 percent in December of 2016 and 0.75-1.00 percent by December 2017.

[Table of Investment income Levels 2007 – 2017 Budget]  
 [Printed Page 99]

| Year          | Investment Income | Federal Funds rate (at year end) |
|---------------|-------------------|----------------------------------|
| 2007          | \$12.10           | 2.5                              |
| 2008          | \$3.80            | 0-0.25                           |
| 2009          | \$1.30            | 0.1                              |
| 2010          | \$0.60            | 0.2                              |
| 2011          | \$0.60            | 0.06                             |
| 2012          | \$0.70            | 0.16                             |
| 2013          | \$0.40            | 0.08                             |
| 2014          | \$0.50            | 0.12                             |
| 2015          | \$0.70            | 0.35                             |
| 2016 Forecast | \$1.50            | 0.50-0.75                        |

*Statutory Required Contributions*

The RTA Act requires the City of Chicago and Cook County to annually contribute \$3 million and \$2 million, respectively, towards CTA operations.

[Table: Statutory Contributions by City and County]  
 [Printed Page 99]

| Statutory Required Contributions (in millions) | 2017   |
|--|--------|
| Contributions - City of Chicago                | \$3.00 |
| Contributions - Cook County                    | \$2.00 |
| Total  | \$5.00 |

*All Other Revenue*

The CTA forecasts \$35.5 million in other revenue for 2017. Revenues in this category include safety and security grants, parking fees, rental revenue, third-party contractor reimbursements and filming fees. Other Revenue is higher than 2016 Budget and lower than 2016 Forecast due to timing of non-capital revenue grants, offset by expenses. The CTA has 43 real estate leases across the system, as well as leases within the CTA headquarters building. Parking revenues include Park & Ride Facilities (17 facilities with



approximately 6,200 spaces), under ‘L’ parking rentals and long-term parking agreements.

**Public Funding**

Most of the CTA’s public funding for operating and capital needs is funneled through the RTA. Under the RTA Act, as amended in 2008, some of the funds are allocated to the Service Boards based on a set formula; other funds are allocated based on the RTA’s discretion. The sources and allocations are outlined below.

***Sales Tax Revenue per 1983 Formula***

RTA Sales Tax is the primary source of operating revenue for the RTA and the three Service Boards. The tax is authorized by Illinois statute, imposed by the RTA in the six-county region of northeastern Illinois and collected by the state. The sales tax is the equivalent of one percent on sales in the City of Chicago, one percent on sales in Cook County and 0.25 percent on sales in the collar counties of DuPage, Kane, Lake, McHenry and Will. The one percent sales tax in Cook County is comprised of one percent on food and drugs and 0.75 percent from all other sales, with the state then providing a “replacement” amount to the RTA equivalent to 0.25 percent of all other sales. Proceeds from the RTA Sales Tax are distributed to the CTA, Metra and Pace, and primarily fund operating costs not recovered through the farebox. The RTA retains 15 percent of the total sales tax and passes the remaining 85 percent to the Service Boards according to the Operating Funding Allocation Chart found later in this section.

[Table: Sales Tax Revenue Percentage Allocation by Transit Agency]  
 [Printed Page 100]

|        | Chicago Sales Tax Revenue | Suburban Cook County Sales Tax Revenue | Collar County Sales Tax Revenue |
|--------|---------------------------|--|---------------------------------|
| CTA    | 100%                      | 30%                                    | 0%                              |
| Metra  | 0%                        | 55%                                    | 70%                             |
| Pace   | 0%                        | 15%                                    | 30%                             |
| Total: | 100%                      | 100%                                   | 100%                            |

The 2017 Sales Tax Budget per the 1983 Formula for the Region is estimated to be \$928,858,056 and is distributed to the RTA and three Service Boards as follows:

[Table: Sales Tax Revenue Dollar Allocation by Transit Agency]  
 [Printed Page 100]

| (in thousands) | Chicago Sales Tax Revenue | Suburban Cook County Sales Tax Revenue | Collar County Sales Tax Revenue | Total     |
|----------------|---------------------------|--|---------------------------------|-----------|
| CTA            | \$267,347                 | \$119,573                              | \$0                             | \$386,920 |
| Metra          | \$0                       | \$219,217                              | \$86,524                        | \$305,741 |
| Pace           | \$0                       | \$59,786                               | \$37,082                        | \$96,868  |
| RTA            | \$47,179                  | \$70,337                               | \$21,813                        | \$139,329 |
| Total:         | \$314,526                 | \$468,913                              | \$145,419                       | \$928,858 |

*\* Amounts may not match other tables in document due to rounding.*

In addition, the RTA will distribute at its discretion any funds remaining from the initial allocation of the 15 percent sales tax distribution that are in excess of the RTA's funding needs.

*Federal Assistance (Federal Transit Administration)*

The RTA is the region's designated recipient of federal assistance, which previously included both operating and capital funds. The FTA eliminated operating assistance for the RTA in 1998.

*Public Transportation Fund*

As authorized by the RTA Act, the Illinois State Treasurer transfers from the State General Revenue Fund an amount equal to 25 percent of the RTA sales tax collections (or gasoline or parking taxes, if imposed by the RTA). The treasurer transfers this amount to a special fund, the Public Transportation Fund (PTF), and then remits it to the RTA on a monthly basis. Remittance requires an annual appropriation by the State of Illinois. The RTA uses these funds at its discretion to fund the needs of the Service Boards, RTA operations, debt service and capital investment.

*Innovation, Coordination, and Enhancement (ICE) Program*

The ICE program is an RTA funding program established as part of the 2008 Mass Transit Reform Legislation. The RTA program provides operating and capital assistance to enhance the coordination and integration of public transportation and to develop and implement innovations to improve the quality and delivery of public transportation. Projects funded through this program advance the vision and goals of the RTA Act by providing reliable and convenient transit services and enhancing efficiencies through effective management, innovation and technology. CTA plans to utilize all ICE funds in 2017 toward operating costs.

## State Assistance

The RTA Act provides supplemental state funding in the forms of additional state assistance and additional financial assistance (collectively, “State Assistance”) to the RTA in connection with its issuance of Strategic Capital Improvement Program (SCIP) bonds. The funding equals debt service amounts paid to bondholders of the SCIP bonds issued by the RTA, plus any debt service savings from the issuance of refunding or advanced refunding SCIP bonds, less the amount of interest earned by the RTA on the proceeds of SCIP bonds. The RTA Act limits the amount of State Assistance available to the RTA to the lesser of the debt service or \$55 million. Remittance requires an annual appropriation made by the State of Illinois.

## 2008 Legislation

The 2008 state funding package increased the percentage of state sales tax dedicated to mass transit and gave authority to the City of Chicago to increase the Real Estate Transfer Tax (RETT) to support the CTA. In addition, the legislation also provided for long-term pension reforms that will increase the funded ratio of the CTA’s pension to 90 percent by 2059.

## 2017 RTA Proposed Service Board Operations Funding (in thousands)

[Table: Service Board Funding 2017]

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| 2017 Service Board Funding                 | RTA               | CTA               | Metra             | Pace - Mainline   | Pace - Paratransit | Total               |
|--|-------------------|-------------------|-------------------|-------------------|--------------------|---------------------|
| Sales Tax (1983 Formula)                   | \$ 371,543        | \$ 386,920        | \$ 305,741        | \$ 96,868         |                    | \$ 1,161,074        |
| Sales Tax and PTF (PA 95-0708)             |                   | \$ 135,780        | \$ 110,321        | \$ 36,774         | \$ 152,086         | \$ 434,960          |
| CTA - RTA Non-Statutory                    | \$ (227,750)      | \$ 227,750        |                   |                   |                    | \$ -                |
| Real Estate Transfer Tax (25% PTF)         |                   | \$ 16,173         |                   |                   |                    | \$ 16,173           |
| RTA Suburban Community Mobility Funds      |                   |                   |                   | \$ 25,539         |                    | \$ 25,539           |
| RTA South Suburban Job Access Fund         | \$ (7,500)        |                   |                   | \$ 7,500          |                    | \$ -                |
| Joint Self-Insurance Fund Reserve          |                   |                   | \$ 2,500          |                   |                    | \$ 2,500            |
| Pace - RTA Non-Statutory                   | \$ (4,644)        |                   |                   | \$ 4,644          |                    | \$ -                |
| RTA Non-Statutory (Other)                  | \$ (1,313)        | \$ 630            | \$ 512            | \$ 171            |                    | \$ -                |
| State Funding for ADA                      |                   |                   |                   |                   |                    | \$ -                |
| RTA Agency Revenue                         | \$ 3,238          |                   |                   |                   |                    | \$ 3,238            |
| State Financial Assistance (ASA/AFA)       | \$ 130,283        |                   |                   |                   |                    | \$ 130,283          |
| <b>Total RTA Funds</b>                     | <b>\$ 264,037</b> | <b>\$ 767,072</b> | <b>\$ 419,075</b> | <b>\$ 171,496</b> | <b>\$ 152,086</b>  | <b>\$ 1,773,766</b> |
| Real Estate Transfer Tax (City of Chicago) |                   | \$ 64,690         |                   |                   |                    | \$ 64,690           |
| <b>Total Funding</b>                       | <b>\$ 264,037</b> | <b>\$ 831,762</b> | <b>\$ 419,075</b> | <b>\$ 171,496</b> | <b>\$ 152,086</b>  | <b>\$ 1,838,456</b> |
| ICE Funding/State ADA funding              |                   | \$ 6,129          | \$ 4,980          | \$ 1,660          | \$ 8,500           | \$ 21,269           |

|                       |            |            |            |            |            |              |
|-----------------------|------------|------------|------------|------------|------------|--------------|
| Revised Total Funding | \$ 264,037 | \$ 837,892 | \$ 424,055 | \$ 173,156 | \$ 160,586 | \$ 1,859,725 |
|-----------------------|------------|------------|------------|------------|------------|--------------|

\* Numbers may not precisely add due to rounding.

[Table: CTA 2017 Funding Sources]  
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2017 CTA Public Funding Sources

| Sources                         | 2017 Budget   |
|---------------------------------|---------------|
| Sales Tax I (1983)              | \$387,549,577 |
| PTF I (1983)                    | \$227,570,224 |
| Sales Tax II (2008)             | \$65,013,575  |
| PTF II (2008)                   | \$70,766,117  |
| Real Estate Transfer Tax (RETT) | \$64,690,386  |
| 25% PTF on RETT                 | \$16,172,597  |
| ICE                             | \$6,129,404   |
| Total Funding                   | \$837,891,880 |

[Printed Page 103]  
[Flow chart : Operating Funding Allocation under the 1983 Formula and 2008 Legislation]

\*Amounts may not match other tables in document due to rounding.

[Printed page 103]  
[Chart : Transit Agency 2017 funding and percentages]

| Transit Agency   | Funding      | %      |
|------------------|--------------|--------|
| CTA              | \$ 831,762   | 45.2%  |
| Metra            | \$ 419,075   | 22.8%  |
| Pace-Mainline    | \$ 171,496   | 9.3%   |
| Pace-Paratransit | \$ 152,086   | 8.3%   |
| RTA              | \$ 264,037   | 14.4%  |
| Total            | \$ 1,838,456 | 100.0% |

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[Chart: 2017 ICE and ADA funding by Agency]

| 2017 ICE Funding and ADA Funding | CTA      | Metra    | Pace     | ADA      |
|----------------------------------|----------|----------|----------|----------|
| 2017 ICE                         | \$ 6,129 | \$ 4,980 | \$ 1,660 |          |
| State ADA Funding                |          |          |          | \$ 8,500 |
| Total                            | \$ 6,129 | \$ 4,980 | \$ 1,660 | \$ 8,500 |

*\*2017 ICE Funding and State ADA funding detail found above in corresponding table.*

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[Debt Administration]

## **Debt Management Policy Guidelines**

On October 14, 2004, the Chicago Transit Board approved an ordinance adopting Debt Management Policy Guidelines (the “Debt Policy”) which is currently being updated. The Debt Policy serves as a management tool to ensure that the CTA identifies transactions that utilize debt in the most efficient manner, and provides for full and timely repayment of all borrowings. Additionally, the Debt Policy outlines a means of achieving the lowest possible cost of capital within prudent risk parameters as well as ensuring ongoing access to the capital markets. The Debt Policy applies to all short- and long-term bonds and notes, other long-term lease obligations, and interest rate exchanges. The Debt Policy does not cover commodity hedging, leveraged leases, long-term operating leases, short-term leases and bank obligation transactions. The general debt issuance guidelines outlined in the Debt Policy are summarized below.

### **The Debt Policy**

It is the CTA’s preference to use a pay-as-you-go funding mechanism for all capital projects. As such, CTA explores the use of available cash to fund all or part of a particular capital improvement project and other long-term financial needs before proposing the use of debt. However, the CTA recognizes that the size, scope and timing of particular projects in its capital improvement plan, cash flow sufficiency and capital market opportunities may necessitate the use of debt. The Debt Policy allows for the issuance of either long-term or short-term debt. The financing purpose determines the type of debt the CTA would use.

#### *Short-Term Debt Obligations*

Short-term debt may be used by the CTA as a cash management tool to provide interim financing or to bridge temporary cash flow deficits within a fiscal year. Currently, the CTA has no outstanding short-term debt obligations.

### *Long-Term Debt Obligations*

The Debt Policy prohibits the use of long-term debt to fund operations. However, long-term bonds are deemed appropriate to finance essential capital activities and certain management initiatives. The CTA may also use long-term lease obligations to finance or refinance capital equipment. Prior to entering into any lease financing, the Authority will evaluate three factors: the useful life of assets financed, the terms and conditions of the lease, and the budgetary, debt capacity and tax implications.

### *Other Provisions*

The CTA may secure credit enhancement in the form of municipal bond insurance or a letter/line of credit for all or a portion of each bond issue. The Debt Policy also allows the Authority to issue debt on either a taxable or tax-exempt basis and to use interest rate exchange agreements when such agreements will reduce the expected interest rate costs, hedge fluctuations in interest rates, or gain efficiency in structuring and restructuring debt.

### **Debt Limitations**

Attaining a proper balance between minimizing borrowing and maximizing financial flexibility is a key goal of the CTA debt program. The CTA is not subject to statutory debt limitations for capital investment. However, the Debt Policy does limit the aggregate amount of the CTA's un-hedged, long-term variable rate debt to a maximum of 20 percent of all outstanding long-term debt obligations.

### **Current Debt**

CTA's current long-term debt obligations include sales tax and transfer tax revenue bonds, capital grant receipts revenue bonds, TIFIA loans, building revenue bonds, and capital lease obligations as described below.

[Table: Long-term debt obligations, amount outstanding, security pledge, capital or operating and credit rating]

| <b>Long-Term Debt Obligation</b>                  | <b>Obligation Name and Year</b>  | <b>Current Par Amount Outstanding</b> | <b>Security Pledge</b>       | <b>Debt Service in Capital or Operating Budget</b> | <b>Credit Rating (Moody's/S&amp;P/Kroll/Fitch)</b> |
|---|----------------------------------|---------------------------------------|------------------------------|--|--|
| Sales Tax and Transfer Tax Receipts Revenue Bonds | 2008 A&B ("POBs")                | \$1.845B                              | Sales Tax & Transfer Tax     | Operating  | A1/AA/AA/NR  |
|   | 2010 A&B                         | \$544.285M                            |                              | Capital  |  |
|   | 2011                             | \$476.905M                            |                              | Capital  |  |
|   | 2014*                            | \$555.0M                              |                              | Operating  |  |
| Capital Grant Receipts Revenue Bonds (GARVEEs)    | <b>FTA 5307</b>                  |                                       | FTA 5307 Grant Receipts      | Capital  | A3/A/NR/BBB  |
|   | 2004A                            | \$19.055M                             |                              |  |  |
|   | 2006A                            | \$24.720M                             |                              |  |  |
|   | 2008A                            | \$100M                                |                              |  |  |
|   | 2010                             | \$63.895M                             |                              |  |  |
|   | 2011                             | \$56.525M                             |                              |  |  |
|   | 2015                             | \$27.342M                             |                              |  |  |
|   | <b>FTA 5309/5337</b>             |                                       | FTA 5309/5337 Grant Receipts | Capital  |  |
|   | 2008A                            | \$84.990M                             |                              |  |  |
|   | 2008                             | \$110.135M                            |                              |  |  |
| 2010  | \$26.820M                        |                                       |                              |  |  |
| 2015  | \$45.650M                        |                                       |                              |  |  |
| TIFIA Loan  | 95 <sup>th</sup> Street Terminal | \$91.123M                             | CTA Farebox Revenue          | Operating  | NR/A+/AA-/NR                                       |
|   | Your New Blue                    | \$127.799M                            |                              |  |  |
|   | Railcars                         | \$275.146M                            |                              |  |  |
| Public Building Commission Lease                  | 2006                             | \$69.755M                             | CTA Lease Payments           | Capital  | A2/A+/NR/NR  |
| New Flyer Low Floor Bus Lease                     | 2008 (COPs)                      | \$33.273M                             |                              |  |  |
| Artics Hybrid Bus Lease                           | 2013                             | \$43.865M                             |                              |  |  |

\*Note: Moody's does not rate the 2014 Sales Tax Bonds.

### Sales Tax Revenue Bonds

Sales Tax Revenue Bonds are long-term debt obligations secured by a portion of sales tax revenues. The Sales Tax Receipts consist of all amounts received by the CTA from the RTA, representing the CTA's share of (i) RTA Sales Taxes imposed through the Northeastern Illinois Transit Region, which includes The Counties of Cook, DuPage, Kane, Lake, McHenry and Will, (ii) Replacement Revenues paid to the RTA by the State and (iii) Public Transportation Fund Revenues paid to or on behalf of the RTA by the State. The sales tax pledge for the 2010, 2011, and 2014 Series is parity to the sales tax pledge for the 2008 Series. However, the 2008 Sales Tax Bonds (POB's) are also secured by Transfer Tax Receipts which are a portion of real estate tax revenue remitted by the City directly to the CTA pursuant to the Intergovernmental Agreement. Transfer Tax Receipts do not secure the 2010, 2011, and 2014 Series Bonds.

*Sales and Transfer Tax Receipts Revenue Bonds, 2008A Series (Pension Funding) and 2008B Series (Retiree Health Care Funding)*

On July 30, 2008, the CTA issued Sales and Transfer Tax Receipts Revenue Bonds in the amount of \$1.94 billion to fund the employee retirement plan and to create a retiree health care trust. The bonds were sold in two tranches: a \$1.3 billion Series A to fund the employee retirement plan, and a \$640 million Series B to fund a permanent trust that was established to cover other post-employment benefits for retiree health care. The bonds are secured primarily by a pledge of and lien on the Sales Tax Receipts Fund and the Transfer Tax Receipts Fund deposits. The bonds were issued pursuant to the pension and retiree health care reform requirements set forth in Public Acts 94-839 and 95-0708.

Public Act 94-839 required the CTA to make contributions to its retirement system in an amount which, together with the contributions of its participants, interest earned on investments and other income, was sufficient to bring the total assets of the retirement system up to 90 percent of its total actuarial liabilities by the end of fiscal year 2058. Additionally, Public Act 94-839 required that the Retirement Plan's pension and retiree health care programs be separated into two distinct trusts by December 31, 2008.

Public Act 95-0708 modified this directive slightly and added a number of other requirements. First, a new Retirement Plan Trust was created to manage the Retirement Plan assets. Second, CTA contributions and employee contributions were increased. Third, in addition to the requirement that the Retirement Plan be 90 percent funded by the end of 2059, there is a new requirement that the Retirement Plan be funded at a minimum of 60 percent by September 15, 2009. Any deviation from the stated projections could result in a directive from the State of Illinois Auditor General to increase the CTA and employee contributions. Fourth, Public Act 95-708 authorized the CTA to issue \$1.9 billion in pension obligation bonds to fund the pension and retiree health care. Finally, the legislation provides that the CTA will have no future responsibility for retiree healthcare costs after the bond funding. In accordance with Public Act 95-708, all retiree healthcare benefits were to be paid from the newly established Retiree Health Care Trust no earlier than January 1, 2009 but no later than July 1, 2009.

The Series 2008A and 2008B bonds bear interest ranging from 5.1 percent to 6.9 percent. Scheduled interest on the 2008A and 2008B bonds was funded through June 1, 2009 and June 1, 2010, respectively, with bond proceeds and interest earnings thereon. Interest is payable semi-annually on June 1 and December 1 and the bonds mature serially on June 1, 2013 through June 1, 2040. The debt service obligations are paid by operating funds.

#### *Sales Tax Receipts Revenue Bonds, Series 2010A and Taxable Series 2010B (Build America Bonds)*

On March 23, 2010, the CTA issued Sales Tax Receipts Revenue Bond Series 2010A and Taxable Series 2010B (Build America Bonds) in the amount of \$550 million to fund or reimburse the Authority for prior expenditures of the "2010 Project", capitalize a portion of interest on the bonds, fund a portion of the consolidated debt service reserve fund on the bonds, and to pay costs of issuance on the bonds. The Series 2010B Bonds were issued as bonds designated as "Build America Bonds" under the provisions of the American Recovery and Reinvestment Act of 2009. The 2010 Project means, collectively, capital improvements to the transportation system and specifically the purchase of rail cars, rail car overhaul and rehabilitation, and the replacement and upgrade of rail track and structure.

The Series 2010A bonds bear interest ranging from 4.0 percent to 5.0 percent with interest payable semi-annually on June 1 and December 1, commencing December 1, 2010. The Series 2010A bonds mature serially on December 1, 2015 through December 1, 2019. The Taxable Series 2010B bonds bear interest ranging from 5.07 percent to 6.20 percent with interest payable semi-annually on June 1 and December 1,



commencing December 1, 2010. The Taxable Series 2010B bonds mature annually each December 1, 2020 through December 1, 2040. The debt service obligations are paid by capital funds.

#### *2011 Sales Tax Receipts Revenue Bonds*

On October 26, 2011, the CTA issued the Sales Tax Receipts Revenue Bonds, Series 2011, in the amount of \$476,905,000, along with a premium of \$21,392,000. The bonds were issued to pay for, or reimburse the CTA for prior expenditures relating to (i) the purchase of rail cars to replace existing cars and (ii) the finance of any other capital project designated by the CTA Board as part of the 2011 Project.

The Series 2011 bonds bear interest ranging from 5.0 percent to 5.25 percent. Interest is payable semiannually on June 1 and December 1 and the bonds mature serially on December 1, 2021 through December 1, 2040. The debt service obligations are paid by capital funds.

#### *2014 Sales Tax Receipts Revenue Bonds*

On July 10, 2014, CTA issued the Sales Tax Receipts Revenue Bonds, Series 2014, in the amount of \$555,000,000, along with a premium of \$45,153,612. The bonds were issued to pay for (i) the purchase of rail cars to replace existing cars and (ii) the finance of any other capital project designated by the CTA Board as part of the 2014 Project. The Series 2014 bonds bear interest ranging from 5 percent to 5.25 percent. Scheduled interest on the 2014 bonds was funded through June 1, 2016 with proceeds of the 2014 bonds and interest thereon. Interest is payable semiannually on June 1 and December 1 and the bonds mature serially on December 1, 2041 through December 1, 2049. The debt service obligations are paid by operating funds.

[Table: Schedule II Sales Tax and Transfer Receipts Revenue Bonds Series 2008A and 2008B Total Debt Service 2016-2040]

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| <b>(Public Acts 94-839 and 95-0708)</b>                    |                         |                          |                           |   |
|--|-------------------------|--------------------------|---------------------------|---|
| <b>Series 2008A and 2008B Total Debt Service 2016-2040</b> |                         |                          |                           |   |
| <b>PAYMENT YEAR</b>  | <b>INTEREST PAYMENT</b> | <b>PRINCIPAL PAYMENT</b> | <b>TOTAL DEBT SERVICE</b> | <b>DEBT OUTSTANDING</b><br><b>(as of 12/31)</b> |
| 2016   | \$126,023,519           | \$30,550,000             | \$156,573,519             | \$1,814,785,000                                 |
| 2017   | \$124,098,869           | \$32,475,000             | \$156,573,869             | \$1,782,310,000                                 |
| 2018   | \$122,052,944           | \$34,520,000             | \$156,572,944             | \$1,747,790,000                                 |
| 2019   | \$119,878,184           | \$36,695,000             | \$156,573,184             | \$1,711,095,000                                 |
| 2020   | \$117,566,399           | \$39,010,000             | \$156,576,399             | \$1,672,085,000                                 |
| 2021   | \$115,108,769           | \$41,465,000             | \$156,573,769             | \$1,630,620,000                                 |
| 2022   | \$112,496,474           | \$44,080,000             | \$156,576,474             | \$1,586,540,000                                 |
| 2023   | \$109,455,395           | \$47,120,000             | \$156,575,395             | \$1,539,420,000                                 |
| 2024   | \$106,204,586           | \$50,370,000             | \$156,574,586             | \$1,489,050,000                                 |
| 2025   | \$102,729,560           | \$53,845,000             | \$156,574,560             | \$1,435,205,000                                 |
| 2026   | \$99,014,793            | \$57,560,000             | \$156,574,793             | \$1,377,645,000                                 |
| 2027   | \$95,043,729            | \$61,530,000             | \$156,573,729             | \$1,316,115,000                                 |
| 2028   | \$90,798,774            | \$65,775,000             | \$156,573,774             | \$1,250,340,000                                 |
| 2029   | \$86,260,957            | \$70,310,000             | \$156,570,957             | \$1,180,030,000                                 |
| 2030   | \$81,410,270            | \$75,165,000             | \$156,575,270             | \$1,104,865,000                                 |
| 2031   | \$76,224,636            | \$80,350,000             | \$156,574,636             | \$1,024,515,000                                 |
| 2032   | \$70,681,290            | \$85,895,000             | \$156,576,290             | \$938,620,000                                   |
| 2033   | \$64,755,394            | \$91,820,000             | \$156,575,394             | \$846,800,000                                   |
| 2034   | \$58,420,732            | \$98,150,000             | \$156,570,732             | \$748,650,000                                   |
| 2035   | \$51,649,364            | \$104,925,000            | \$156,574,364             | \$643,725,000                                   |
| 2036   | \$44,410,588            | \$112,165,000            | \$156,575,588             | \$531,560,000                                   |
| 2037   | \$36,672,324            | \$119,905,000            | \$156,577,324             | \$411,655,000                                   |
| 2038   | \$28,400,078            | \$128,170,000            | \$156,570,078             | \$283,485,000                                   |
| 2039   | \$19,557,630            | \$137,015,000            | \$156,572,630             | \$146,470,000                                   |
| 2040   | \$10,104,965            | \$146,470,000            | \$156,574,965             | \$0   |
| <b>Total:</b>  | <b>\$2,069,020,220</b>  | <b>\$1,845,335,000</b>   | <b>\$3,914,355,220</b>    |   |

[Table: Schedule III Sales Tax Receipts Revenue Bonds Series 2010A and 2010B Total Debt Service 2016-2040]  
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| <b>SCHEDULE III: \$550,000,000 Sales Tax Receipts Revenue Bonds</b> |                         |                          |                           |   |
|---|-------------------------|--------------------------|---------------------------|---|
| <b>Series 2010A and 2010B Total Debt Service 2016-2040</b>          |                         |                          |                           |   |
| <b>PAYMENT YEAR</b>   | <b>INTEREST PAYMENT</b> | <b>PRINCIPAL PAYMENT</b> | <b>TOTAL DEBT SERVICE</b> | <b>DEBT OUTSTANDING</b><br><b>(as of 12/31)</b> |
| 2016  | \$32,702,701            | \$7,675,000              | \$40,377,701              | \$536,610,000                                   |
| 2017  | \$32,318,951            | \$9,925,000              | \$42,243,951              | \$526,685,000                                   |
| 2018  | \$31,832,201            | \$10,415,000             | \$42,247,201              | \$516,270,000                                   |
| 2019  | \$31,333,751            | \$10,915,000             | \$42,248,751              | \$505,355,000                                   |
| 2020  | \$30,798,001            | \$11,510,000             | \$42,308,001              | \$493,845,000                                   |
| 2021  | \$30,214,444            | \$12,095,000             | \$42,309,444              | \$481,750,000                                   |
| 2022  | \$29,583,085            | \$12,720,000             | \$42,303,085              | \$469,030,000                                   |
| 2023  | \$28,900,021            | \$13,405,000             | \$42,305,021              | \$455,625,000                                   |
| 2024  | \$28,166,767            | \$14,135,000             | \$42,301,767              | \$441,490,000                                   |
| 2025  | \$27,372,380            | \$14,930,000             | \$42,302,380              | \$426,560,000                                   |
| 2026  | \$26,446,720            | \$15,855,000             | \$42,301,720              | \$410,705,000                                   |
| 2027  | \$25,463,710            | \$16,835,000             | \$42,298,710              | \$393,870,000                                   |
| 2028  | \$24,419,940            | \$17,880,000             | \$42,299,940              | \$375,990,000                                   |
| 2029  | \$23,311,380            | \$18,985,000             | \$42,296,380              | \$357,005,000                                   |
| 2030  | \$22,134,310            | \$20,155,000             | \$42,289,310              | \$336,850,000                                   |
| 2031  | \$20,884,700            | \$21,400,000             | \$42,284,700              | \$315,450,000                                   |
| 2032  | \$19,557,900            | \$22,725,000             | \$42,282,900              | \$292,725,000                                   |
| 2033  | \$18,148,950            | \$24,135,000             | \$42,283,950              | \$268,590,000                                   |
| 2034  | \$16,652,580            | \$31,820,000             | \$48,472,580              | \$236,770,000                                   |
| 2035  | \$14,679,740            | \$33,785,000             | \$48,464,740              | \$202,985,000                                   |
| 2036  | \$12,585,070            | \$35,875,000             | \$48,460,070              | \$167,110,000                                   |
| 2037  | \$10,360,820            | \$38,090,000             | \$48,450,820              | \$129,020,000                                   |
| 2038  | \$7,999,240             | \$40,455,000             | \$48,454,240              | \$88,565,000                                    |
| 2039  | \$5,491,030             | \$42,955,000             | \$48,446,030              | \$45,610,000                                    |
| 2040  | \$2,827,820             | \$45,610,000             | \$48,437,820              | \$0   |
| <b>Total:</b>   | <b>\$554,186,208</b>    | <b>\$544,285,000</b>     | <b>\$1,098,471,208</b>    |   |

[Table: Schedule IV Sales Tax Receipts Revenue Bonds Series 2011 Total Debt Service 2016-2040]  
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| <b>SCHEDULE IV: \$476,905,000 Sales Tax Receipts Revenue Bonds</b> |                         |                          |                           |                                       |
|--|-------------------------|--------------------------|---------------------------|---------------------------------------|
| <b>Series 2011 Total Debt Service 2016-2040</b>                    |                         |                          |                           |                                       |
| <b>PAYMENT YEAR</b>  | <b>INTEREST PAYMENT</b> | <b>PRINCIPAL PAYMENT</b> | <b>TOTAL DEBT SERVICE</b> | <b>DEBT OUTSTANDING (as of 12/31)</b> |
| 2016   | \$24,965,288            | \$0                      | \$24,965,288              | \$476,905,000                         |
| 2017   | \$24,965,288            | \$0                      | \$24,965,288              | \$476,905,000                         |
| 2018   | \$24,965,288            | \$0                      | \$24,965,288              | \$476,905,000                         |
| 2019   | \$24,965,288            | \$0                      | \$24,965,288              | \$476,905,000                         |
| 2020   | \$24,965,288            | \$0                      | \$24,965,288              | \$476,905,000                         |
| 2021   | \$24,965,288            | \$14,090,000             | \$39,055,288              | \$462,815,000                         |
| 2022   | \$24,260,788            | \$14,800,000             | \$39,060,788              | \$448,015,000                         |
| 2023   | \$23,520,788            | \$15,540,000             | \$39,060,788              | \$432,475,000                         |
| 2024   | \$22,704,938            | \$16,360,000             | \$39,064,938              | \$416,115,000                         |
| 2025   | \$21,846,038            | \$17,220,000             | \$39,066,038              | \$398,895,000                         |
| 2026   | \$20,941,988            | \$18,120,000             | \$39,061,988              | \$380,775,000                         |
| 2027   | \$19,990,688            | \$19,075,000             | \$39,065,688              | \$361,700,000                         |
| 2028   | \$18,989,250            | \$20,080,000             | \$39,069,250              | \$341,620,000                         |
| 2029   | \$17,935,050            | \$21,135,000             | \$39,070,050              | \$320,485,000                         |
| 2030   | \$16,825,463            | \$22,250,000             | \$39,075,463              | \$298,235,000                         |
| 2031   | \$15,657,338            | \$23,425,000             | \$39,082,338              | \$274,810,000                         |
| 2032   | \$14,427,525            | \$24,655,000             | \$39,082,525              | \$250,155,000                         |
| 2033   | \$13,133,138            | \$25,950,000             | \$39,083,138              | \$224,205,000                         |
| 2034   | \$11,770,763            | \$27,315,000             | \$39,085,763              | \$196,890,000                         |
| 2035   | \$10,336,725            | \$28,755,000             | \$39,091,725              | \$168,135,000                         |
| 2036   | \$8,827,088             | \$30,265,000             | \$39,092,088              | \$137,870,000                         |
| 2037   | \$7,238,175             | \$31,860,000             | \$39,098,175              | \$106,010,000                         |
| 2038   | \$5,565,525             | \$33,540,000             | \$39,105,525              | \$72,470,000                          |
| 2039   | \$3,804,675             | \$35,305,000             | \$39,109,675              | \$37,165,000                          |
| 2040   | \$1,951,163             | \$37,165,000             | \$39,116,163              | \$0                                   |
| <b>Total:</b>  | <b>\$429,518,825</b>    | <b>\$476,905,000</b>     | <b>\$906,423,825</b>      |                                       |

[Table: Schedule V Sales Tax Receipts Revenue Bonds Series 2014 Total Debt Service 2016-2049]  
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| <b>SCHEDULE V: \$555,000,000 Sales Tax Receipts Revenue Bonds</b> |                         |                          |                           |                                       |
|---|-------------------------|--------------------------|---------------------------|---------------------------------------|
| <b>Series 2014 Total Debt Service 2016-2049</b>                   |                         |                          |                           |                                       |
| <b>PAYMENT YEAR</b>   | <b>INTEREST PAYMENT</b> | <b>PRINCIPAL PAYMENT</b> | <b>TOTAL DEBT SERVICE</b> | <b>DEBT OUTSTANDING (as of 12/31)</b> |
| 2016  | \$14,298,394            | \$0                      | \$14,298,394              | \$555,000,000                         |
| 2017  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2018  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2019  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2020  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2021  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2022  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2023  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2024  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2025  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2026  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2027  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2028  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2029  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2030  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2031  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2032  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2033  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2034  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2035  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2036  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2037  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2038  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2039  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2040  | \$28,596,788            | \$0                      | \$28,596,788              | \$555,000,000                         |
| 2041  | \$28,596,788            | \$50,180,000             | \$78,776,788              | \$504,820,000                         |
| 2042  | \$26,087,788            | \$52,690,000             | \$78,777,788              | \$452,130,000                         |
| 2043  | \$23,453,288            | \$55,325,000             | \$78,778,288              | \$396,805,000                         |
| 2044  | \$20,687,038            | \$58,090,000             | \$78,777,038              | \$338,715,000                         |
| 2045  | \$17,782,538            | \$60,995,000             | \$78,777,538              | \$277,720,000                         |
| 2046  | \$14,580,300            | \$64,195,000             | \$78,775,300              | \$213,525,000                         |
| 2047  | \$11,210,063            | \$67,565,000             | \$78,775,063              | \$145,960,000                         |
| 2048  | \$7,662,900             | \$71,115,000             | \$78,777,900              | \$74,845,000                          |
| 2049  | \$3,929,363             | \$74,845,000             | \$78,774,363              | \$0                                   |
| <b>Total:</b>   | <b>\$854,611,372</b>    | <b>\$555,000,000</b>     | <b>\$1,409,611,372</b>    |                                       |

## **Capital Grant Receipt Revenue Bonds-Section 5307 and Section 5309 Formula Funds**

The Capital Grant Revenue Bonds are also known as “GARVEE bonds” (Grant Anticipation Revenue Vehicles). Federal Transit Administration Formula Funds from Section 5307 and Section 5309 secure the Capital Grant Revenue Bonds under Section 5307 and Section 5309, respectively. The passage of MAP-21 in 2012 replaced Section 5309 grants with Section 5337 grants. All debt service obligations are prefunded and paid by capital funds. Several series have been refunded, as summarized below, followed by details and uses per issue.

Refunding Series 2010 refunded the maturities dated June 1, 2010 through June 1, 2011 of the 5307 (Series 2004A, 2004B and 2006A) and 5309 (Series 2008 and 2008A) bonds.

Refunding Series 2011 refunded the maturity dated June 1, 2016 of the 5307 Series 2004B bonds and the maturities dated June 1, 2013 and June 1, 2016 through June 1, 2020 of the 5307 Series 2006A bonds.

Refunding Series 2015 5307 bonds refunded the maturity dated June 1, 2016 of the 5307 Series 2004B bonds and the maturities dated June 1, 2018 through June 1, 2021 of the 5307 Series 2006A bonds. Refunding Series 2015 5337 bonds refunded the maturities dated June 1, 2016, 2024 thru 2026 of the 5337 Series 2008A bonds.

### *Capital Grant Receipts Revenue Bonds, Series 2004A (5307) and 2004B (5307)*

On October 20, 2004, the CTA issued Capital Grant Receipts Revenue Bonds, Series 2004A and Series 2004B (Federal Transit Administration Section 5307 Formula Funds; together referred to as the 2004 Bonds). Par value of the 2004 Bonds was \$250 million, with \$150 million in Series 2004A and \$100 million in Series 2004B. The 2004 Bonds are solely secured via Federal Transit Administration 5307 Urbanized Area Formula funds.

Proceeds of the 2004 Bonds are used to pay for, or reimburse the CTA for prior expenditures relating to certain capital improvement projects identified by the CTA (“2004 Projects”) which include infrastructure improvements such as facility rehabilitation, rail station reconstruction, replacing and upgrading track, structure and signal systems, communication infrastructure improvements, and replacing the bus and rail fleets. The 2004 Projects must be approved by the CTA Board as well as the RTA and are included in the CTA Capital Plan. The 2004 Projects may be substituted from time to time, provided there are funds in the 2004 Project Account of the Construction fund.

The 2004 Bonds bear interest ranging from 3.60 percent to 5.25 percent. Interest is payable semi-annually on June 1 and December 1 and the remaining bonds mature serially through June 1, 2016.

### *Capital Grant Receipts Revenue Bonds, Series 2006A (5307)*

On November 1, 2006, the CTA issued Capital Grant Receipts Revenue Bonds, Series 2006A (Federal Transit Administration Section 5307 Formula Funds) in the amount of \$275 million, in anticipation of the receipt of grants from the federal government pursuant to a full-funding grant agreement. The bonds were issued to provide funds to finance or reimburse the CTA for expenditures relating to a portion of the costs of capital improvements to the Transportation System referred to as the “2006 Project.”

The Series 2006A bonds bear interest ranging from 4.0 percent to 5.0 percent. Interest is payable semi-annually on June 1 and December 1 and the remaining bonds mature serially through June 1, 2021.

*Capital Grant Receipts Revenue Bonds, Series 2008 (5309) and 2008A (5307)*

On April 16, 2008, the CTA issued Capital Grant Receipts Revenue Bonds, Series 2008A (Federal Transit Administration Section 5307 Formula Funds) and Series 2008 (Federal Transit Administration Section 5309 Formula Funds) in the amount of \$250 million, in anticipation of the receipt of grants from the federal government pursuant to a full-funding grant agreement. The bonds were issued to provide funds to finance or reimburse the CTA for expenditures relating to a portion of the costs of capital improvements to the Transportation System referred to as the “2008 Project.” The Federal Transit Administration’s section 5307 program is a formula grant program for metropolitan areas providing capital, operating or planning assistance for mass transportation. The section 5309 program is a formula grant program providing capital assistance for the modernization of existing rail systems.

The Series 2008 (5309) and Series 2008A (5307) bonds bear interest ranging from 3.50 percent to 5.25 percent. Interest is payable semi-annually on June 1 and December 1 and the remaining bonds mature serially through June 1, 2026.

*Capital Grant Receipts Revenue Bonds, Series 2008A (5309)*

On November 20, 2008, the CTA issued Capital Grant Receipts Revenue Bonds, Series 2008A (Federal Transit Administration Section 5309 Formula Funds) in the amount of \$175 million, in anticipation of the receipt of grants from the federal government pursuant to a full-funding grant agreement. The bonds were issued to provide funds to finance or reimburse the CTA for expenditures relating to a portion of the costs of capital improvements to the Transportation System referred to as the “2008 Project.”

The Series 2008A (5309) bonds bear interest ranging from 5.0 percent to 6.0 percent. Interest is payable semi-annually on June 1 and December 1 and the remaining bonds mature serially through June 1, 2023.

*Capital Grant Receipts Revenue Bonds, Refunding Series 2010 (5307) and Refunding Series 2010 (5309)*

On May 6, 2010, the CTA issued Capital Grant Receipts Revenue Bonds, Refunding Series 2010 (Federal Transit Administration Section 5307 Formula Funds) (Federal Transit Administration Section 5309 Formula Funds), in the amount of \$90.7 million, in anticipation of the receipt of grants from the federal government pursuant to a full-funding grant agreement. The bonds were issued to refund a portion of the outstanding 5307 and 5309 bonds and to pay costs of issuance.

The Refunding Series 2010 bonds bear interest of 5.0 percent. Interest is payable semi-annually on June 1 and December 1 and the bonds mature on June 1, 2027 and June 1, 2028.

*Capital Grant Receipts Revenue Bonds, Refunding Series 2011(5307)*

On October 26, 2011, the CTA issued the tax-exempt Capital Grant Receipts Revenue Bonds backed by the pledge of Federal Transit Administration Section 5307 Urbanized Area Formula Program, in the amount of \$56,525,000, along with a premium of \$1,805,528, in anticipation of the receipt of grants from the

federal government pursuant to a full funding grant agreement. The bonds were issued to provide funds to refund a portion of the outstanding 5307 (Series 2004B and 2006A) bonds.

The Series 2011 bonds bear interest ranging from 4.5 percent to 5.25 percent. Interest is payable semiannually on June 1 and December 1, and the bonds mature serially from June 1, 2022 to June 1, 2029.

*Capital Grant Receipts Revenue Bonds, Refunding Series 2015(5307 and 5337)*

On September 16, 2015, CTA issued the tax-exempt Capital Grant Receipts Revenue Bonds backed by the pledge of Federal Transit Administration Section 5307 Urbanized Area Formula Funds, and Section 5337 State of Good Repair Formula Funds in the total amount of \$176,920,000, along with a premium of \$21,568,633, in anticipation of the receipt of grants from the federal government pursuant to a full funding grant agreement. The bonds were issued to provide funds to refund a portion of the outstanding 5307 (Series 2004B and 2006A) and 5337 (Series 2008A) bonds.

The Series 2015 bonds bear interest of 5.0 percent. Interest is payable semiannually on June 1 and December 1, and the bonds mature serially from June 1, 2018 to June 1, 2026.

[Table: Schedule VI Capital Grant Receipts Revenue Bonds FTA 5307 Formula Funds Series 2004A and 2004B Total Debt Service 2016-2016]

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| <b>SCHEDULE VI: \$250,000,000 Capital Grant Receipts Revenue Bonds<br/>(Federal Transit Administration 5307 Formula Funds)<br/>Series 2004A and Series 2004B Total Debt Service 2016-2016</b> |                         |                          |                           |                                       |
|---|-------------------------|--------------------------|---------------------------|---------------------------------------|
| <b>PAYMENT YEAR</b>   | <b>INTEREST PAYMENT</b> | <b>PRINCIPAL PAYMENT</b> | <b>TOTAL DEBT SERVICE</b> | <b>DEBT OUTSTANDING (as of 12/31)</b> |
| 2016  | \$500,000               | \$19,055,000             | \$19,555,000              | \$0                                   |
| <b>Total:</b>   | <b>\$500,000</b>        | <b>\$19,055,000</b>      | <b>\$19,555,000</b>       |                                       |

[Table: Schedule VII Capital Grant Receipts Revenue Bonds FTA 5307 Formula Funds Series 2006A Total Debt Service 2016-2021]

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| <b>SCHEDULE VII: \$275,000,000 Capital Grant Receipts Revenue Bonds<br/>(Federal Transit Administration Section 5307 Formula Funds)<br/>Series 2006A Total Debt Service 2016-2021</b> |                         |                          |                           |                                       |
|---|-------------------------|--------------------------|---------------------------|---------------------------------------|
| <b>PAYMENT YEAR</b>   | <b>INTEREST PAYMENT</b> | <b>PRINCIPAL PAYMENT</b> | <b>TOTAL DEBT SERVICE</b> | <b>DEBT OUTSTANDING (as of 12/31)</b> |
| 2016  | \$1,236,000             | \$0                      | \$1,236,000               | \$24,720,000                          |
| 2017  | \$618,000               | \$24,720,000             | \$25,338,000              | \$0                                   |
| <b>Total:</b>   | <b>\$1,854,000</b>      | <b>\$24,720,000</b>      | <b>\$26,574,000</b>       |                                       |



[Table: Schedule VIII Capital Grant Receipts Revenue Bonds FTA 5307 & 5309 Formula Funds Series 2008  
 Total Debt Service 2016-2026]  
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| <b>SCHEDULE VIII: \$250,000,000 Capital Grant Receipts Revenue Bonds<br/>                     (Federal Transit Administration Section 5307 &amp; 5309 Formula Funds)<br/>                     Series 2008 Total Debt Service 2016-2026</b> |                             |                              |                               |   |
|--|-----------------------------|------------------------------|-------------------------------|---|
| <b>PAYMENT<br/>YEAR</b>  | <b>INTEREST<br/>PAYMENT</b> | <b>PRINCIPAL<br/>PAYMENT</b> | <b>TOTAL DEBT<br/>SERVICE</b> | <b>DEBT<br/>OUTSTANDING<br/>(as of 12/31)</b> |
| 2016   | \$10,778,900                | \$7,700,000                  | \$18,478,900                  | \$202,435,000                                 |
| 2017   | \$10,384,275                | \$8,085,000                  | \$18,469,275                  | \$194,350,000                                 |
| 2018   | \$9,969,900                 | \$8,490,000                  | \$18,459,900                  | \$185,860,000                                 |
| 2019   | \$9,523,763                 | \$8,910,000                  | \$18,433,763                  | \$176,950,000                                 |
| 2020   | \$9,043,650                 | \$9,380,000                  | \$18,423,650                  | \$167,570,000                                 |
| 2021   | \$8,538,338                 | \$9,870,000                  | \$18,408,338                  | \$157,700,000                                 |
| 2022   | \$7,533,882                 | \$28,395,000                 | \$35,928,882                  | \$129,305,000                                 |
| 2023   | \$6,003,900                 | \$29,890,000                 | \$35,893,900                  | \$99,415,000                                  |
| 2024   | \$4,393,463                 | \$31,460,000                 | \$35,853,463                  | \$67,955,000                                  |
| 2025   | \$2,698,500                 | \$33,110,000                 | \$35,808,500                  | \$34,845,000                                  |
| 2026   | \$914,682                   | \$34,845,000                 | \$35,759,682                  | \$0   |
| <b>Total:</b>  | <b>\$79,783,253</b>         | <b>\$210,135,000</b>         | <b>\$289,918,253</b>          |   |

[Table: Schedule IX Capital Grant Receipts Revenue Bonds FTA 5309 Formula Funds Series 2008A  
Total Debt Service 2016-2026]  
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| <b>SCHEDULE IX: \$175,000,000 Capital Grant Receipts Revenue Bonds<br/>(Federal Transit Administration Section 5309 Formula Funds)<br/>Series 2008A Debt Service 2016-2026</b> |                             |                              |                               |   |
|--|-----------------------------|------------------------------|-------------------------------|---|
| <b>PAYMENT<br/>YEAR</b>  | <b>INTEREST<br/>PAYMENT</b> | <b>PRINCIPAL<br/>PAYMENT</b> | <b>TOTAL DEBT<br/>SERVICE</b> | <b>DEBT OUTSTANDING<br/>(as of 12/31)</b> |
| 2016   | \$4,220,000                 | \$7,480,000                  | \$11,700,000                  | \$77,510,000                              |
| 2017   | \$3,785,000                 | \$9,440,000                  | \$13,225,000                  | \$68,070,000                              |
| 2018   | \$3,264,000                 | \$9,935,000                  | \$13,199,000                  | \$58,135,000                              |
| 2019   | \$2,703,000                 | \$10,480,000                 | \$13,183,000                  | \$47,655,000                              |
| 2020   | \$2,138,000                 | \$11,055,000                 | \$13,193,000                  | \$36,600,000                              |
| 2021   | \$1,572,000                 | \$11,610,000                 | \$13,182,000                  | \$24,990,000                              |
| 2022   | \$977,000                   | \$12,190,000                 | \$13,167,000                  | \$12,800,000                              |
| 2023   | \$336,000                   | \$12,800,000                 | \$13,136,000                  | \$0                                       |
| <b>Total:</b>  | <b>\$18,995,000</b>         | <b>\$84,990,000</b>          | <b>\$103,985,000</b>          |   |

[Table: Schedule X Capital Grant Receipts Revenue Bonds FTA 5307 & 5309 Formula Funds  
Refunding Series 2010 Total Debt Service 2016-2028]  
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| <b>SCHEDULE X: \$90,715,000 Capital Grant Receipts Revenue Bonds<br/>(Federal Transit Administration Section 5307 &amp; 5309 Formula Funds)<br/>Refunding Series 2010 Total Debt Service 2016-2028</b> |                           |                        |                               |   |
|--|---------------------------|------------------------|-------------------------------|---|
| <b>PAYMENT<br/>YEAR</b>  | <b>TOTAL<br/>INTEREST</b> | <b>TOTAL PRINCIPAL</b> | <b>TOTAL DEBT<br/>SERVICE</b> | <b>DEBT OUTSTANDING<br/>(as of 12/31)</b> |
| 2016   | \$4,535,750               | \$0                    | \$4,535,750                   | \$90,715,000                              |
| 2017   | \$4,535,750               | \$0                    | \$4,535,750                   | \$90,715,000                              |
| 2018   | \$4,535,750               | \$0                    | \$4,535,750                   | \$90,715,000                              |
| 2019   | \$4,535,750               | \$0                    | \$4,535,750                   | \$90,715,000                              |
| 2020   | \$4,535,750               | \$0                    | \$4,535,750                   | \$90,715,000                              |
| 2021   | \$4,535,750               | \$0                    | \$4,535,750                   | \$90,715,000                              |
| 2022   | \$4,535,750               | \$0                    | \$4,535,750                   | \$90,715,000                              |
| 2023   | \$4,535,750               | \$0                    | \$4,535,750                   | \$90,715,000                              |
| 2024   | \$4,535,750               | \$0                    | \$4,535,750                   | \$90,715,000                              |
| 2025   | \$4,535,750               | \$0                    | \$4,535,750                   | \$90,715,000                              |
| 2026   | \$4,535,750               | \$0                    | \$4,535,750                   | \$90,715,000                              |
| 2027   | \$3,429,375               | \$44,255,000           | \$47,684,375                  | \$46,460,000                              |
| 2028   | \$1,161,500               | \$46,460,000           | \$47,621,500                  | \$0                                       |
| <b>Total:</b>  | <b>\$54,484,125</b>       | <b>\$90,715,000</b>    | <b>\$145,199,125</b>          |   |

[Table: Schedule XI Capital Grant Receipts Revenue Bonds Refunding Series 2011 Debt Service 2016-2029]

| <b>SCHEDULE XI: \$56,525,000 Capital Grant Receipts Revenue Bonds<br/>Refunding Series 2011 Debt Service 2016-2029<br/>(Federal Transit Administration Section 5307 Urbanized Area Formula Funds)</b> |                       |                            |                               |   |
|---|-----------------------|----------------------------|-------------------------------|---|
| <b>PAYMENT<br/>YEAR</b>   | <b>TOTAL INTEREST</b> | <b>TOTAL<br/>PRINCIPAL</b> | <b>TOTAL DEBT<br/>SERVICE</b> | <b>DEBT<br/>OUTSTANDING<br/>(as of 12/31)</b> |
| 2016  | \$2,864,525           | \$0                        | \$2,864,525                   | \$56,525,000                                  |
| 2017  | \$2,864,525           | \$0                        | \$2,864,525                   | \$56,525,000                                  |
| 2018  | \$2,864,525           | \$0                        | \$2,864,525                   | \$56,525,000                                  |
| 2019  | \$2,864,525           | \$0                        | \$2,864,525                   | \$56,525,000                                  |
| 2020  | \$2,864,525           | \$0                        | \$2,864,525                   | \$56,525,000                                  |
| 2021  | \$2,864,525           | \$0                        | \$2,864,525                   | \$56,525,000                                  |
| 2022  | \$2,699,650           | \$6,595,000                | \$9,294,650                   | \$49,930,000                                  |
| 2023  | \$2,353,125           | \$6,920,000                | \$9,273,125                   | \$43,010,000                                  |
| 2024  | \$1,980,244           | \$7,285,000                | \$9,265,244                   | \$35,725,000                                  |
| 2025  | \$1,593,581           | \$7,665,000                | \$9,258,581                   | \$28,060,000                                  |
| 2026  | \$1,186,575           | \$8,060,000                | \$9,246,575                   | \$20,000,000                                  |
| 2027  | \$975,000             | \$0                        | \$975,000                     | \$20,000,000                                  |
| 2028  | \$975,000             | \$0                        | \$975,000                     | \$20,000,000                                  |
| 2029  | \$487,500             | \$20,000,000               | \$20,487,500                  | \$0   |
| <b>Total:</b>   | <b>\$29,437,825</b>   | <b>\$56,525,000</b>        | <b>\$85,962,825</b>           |   |

[Table: Schedule XII Capital Grant Receipts Revenue Bonds Refunding Series 2015 Debt Service 2016-2026 Federal Transit Administration Section 5307 Urbanized Area Formula Funds /Federal Transit Administration Section 5337 State of Good Repair Formula Funds]

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| <b>SCHEDULE XII: \$176,920,000 Capital Grant Receipts Revenue Bonds<br/>Refunding Series 2015 Debt Service 2016-2026<br/>(Federal Transit Administration Section 5307 Urbanized Area Formula Funds)<br/>(Federal Transit Administration Section 5337 State of Good Repair Formula Funds)</b> |                       |                            |                               |   |
|--|-----------------------|----------------------------|-------------------------------|---|
| <b>PAYMENT<br/>YEAR</b>  | <b>TOTAL INTEREST</b> | <b>TOTAL<br/>PRINCIPAL</b> | <b>TOTAL DEBT<br/>SERVICE</b> | <b>DEBT<br/>OUTSTANDING<br/>(as of 12/31)</b> |
| 2016   | \$8,846,000           | \$0                        | \$8,846,000                   | \$176,920,000                                 |
| 2017   | \$8,846,000           | \$0                        | \$8,846,000                   | \$176,920,000                                 |
| 2018   | \$8,163,750           | \$27,290,000               | \$35,453,750                  | \$149,630,000                                 |
| 2019   | \$6,692,000           | \$31,580,000               | \$38,272,000                  | \$118,050,000                                 |
| 2020   | \$5,104,875           | \$31,905,000               | \$37,009,875                  | \$86,145,000                                  |
| 2021   | \$3,263,625           | \$41,745,000               | \$45,008,625                  | \$44,400,000                                  |
| 2022   | \$2,211,250           | \$350,000                  | \$2,561,250                   | \$44,050,000                                  |
| 2023   | \$2,193,250           | \$370,000                  | \$2,563,250                   | \$43,680,000                                  |
| 2024   | \$1,837,625           | \$13,855,000               | \$15,692,625                  | \$29,825,000                                  |
| 2025   | \$1,127,500           | \$14,550,000               | \$15,677,500                  | \$15,275,000                                  |
| 2026   | \$381,875             | \$15,275,000               | \$15,656,875                  | \$0   |
| <b>Total:</b>  | <b>\$48,667,750</b>   | <b>\$176,920,000</b>       | <b>\$225,587,750</b>          |   |

### TIFIA Loans

The Federal government passed the Transportation Infrastructure Finance and Innovation Act (TIFIA) in 1998 to provide federal credit assistance to surface transportation municipalities wishing to advance qualified, large-scale surface transportation projects that might otherwise be delayed because of size, complexity, or uncertainty over the timing of revenues.

TIFIA financing is a highly recommended form of government borrowing because it improves the affordability of the debt and maximizes borrowing capacity. TIFIA loans are provided through the United States Department of Transportation (U.S. DOT) and allow municipalities to secure a loan at interest rates equal to the federal government's rate, which has been 1.0%-1.5% lower than traditional financing, and saves additional interest costs. Municipalities are also able to draw TIFIA funds on an "as needed" basis during a project, similar to a line of credit, and do not have to pay interest on funds that are issued all at once, further saving interest costs.

A TIFIA loan must not exceed one-third of the reasonably anticipated Eligible Project Total Costs, and the total federal funding for the project, inclusive of the TIFIA Loan and all federal direct or indirect grants, shall not exceed eighty percent (80%) of reasonably anticipated Eligible Project Costs. TIFIA loans can be secured by a variety of sources, depending on the transportation system. CTA currently has three TIFIA loans and is applying for a fourth. All CTA TIFIA loans are secured by CTA Farebox Receipts and debt service obligations are paid by operating funds.

### *TIFIA Loan 1-2014 95<sup>th</sup> Street Terminal Improvement Project*

On April 24, 2014, CTA entered into a definitive loan agreement with U.S. DOT acting by and through the Federal Highway Administration under the TIFIA loan program. The principal amount of the TIFIA Loan shall not exceed \$79,200,000, or thirty-three percent (33%) of reasonably anticipated Eligible Project Costs for the 95<sup>th</sup> Street Terminal Improvement Project. As evidence of CTA's obligation to repay the TIFIA Loan, CTA has issued to the lender a registered farebox receipts revenue bond in the amount of \$79.2 million dated April 24, 2014 with a maturity date of December 1, 2050 bearing an interest rate of 3.5%. A loan amortization with a debt service schedule will be provided once the funds are drawn down to fund the redevelopment project. The TIFIA loan is estimated to save the CTA approximately \$20 million.

### *TIFIA Loan 2-2015 Your New Blue Improvement Project*

On February 3, 2015, CTA entered into a definitive loan agreement with the U.S. DOT acting by and through the Federal Highway Administration under the TIFIA loan program. The principal amount of the Your New Blue TIFIA Loan is an aggregate total not to exceed \$120,000,000; in two tranches (Series 2015A-1 for \$42,631,692 and Series 2015A-2 for \$77,368,308) or thirty-three percent (33%) of reasonably anticipated Eligible Project Costs for the Your New Blue Improvement Project. As evidence of CTA's obligation to repay the TIFIA Loan, CTA issued to the lender two registered farebox receipts revenue bonds in the following amounts (Series 2015A-1 Bond for \$42,631,692 with a final maturity date of December 1, 2029 bearing an interest rate of 2.02% and Series 2015A-2 Bond for \$77,368,308 with a final maturity date of December 1, 2052 bearing an interest rate of 2.31%). A loan amortization with a debt service schedule will be provided once the funds are drawn down for the redevelopment project. For this project, TIFIA financing is estimated to save the CTA approximately \$50 million.

### *TIFIA Loan 3-2016 Railcars*

On March 30th, 2016, CTA entered into a third definitive loan agreement with the U.S. DOT, and through the Federal Highway Administration under the TIFIA loan program to finance certain projects that are part of CTA's Rail Car Purchase Program. The principal amount of the Railcars TIFIA Loan is an aggregate total not to exceed \$254,930,402; in two tranches (Series 2016A-1 for \$147,018,363 and Series 2016A-2 for \$107,912,039) or thirty-three percent (33%) of reasonably anticipated Eligible Project Costs for the new railcars.

As evidence of CTA's obligation to repay the TIFIA Loan, CTA issued to the lender two registered farebox receipts revenue bonds in the following amounts (Series 2016A-1 Bond for \$147,018,363 with a final maturity date of December 1, 2049 bearing an interest rate of 2.64% and Series 2016A-2 Bond for \$107,912,039 with a final maturity date of December 1, 2056 bearing an interest rate of 2.64%). A loan amortization with a debt service schedule will be provided once the funds are drawn down for the redevelopment project. For this project, TIFIA financing is estimated to save the CTA approximately \$100 million.

### **Lease/Leaseback Agreements**

The CTA entered into several economically defeased lease and leaseback agreements in fiscal years 1995 through 2013. These agreements were entered into with various third parties and pertain to certain assets of the CTA, including rail lines and equipment, rail cars, facilities, buses and qualified technology equipment. Under the lease/leaseback financings, the CTA entered into a long-term lease for applicable assets with trusts established by equity investors; trusts which concurrently leased the respective assets back to CTA under sublease agreements. Each sublease contains a fixed date and a fixed price purchase option that allows the CTA, at its option, to purchase the assets back from the lessor. The debt service obligations are all paid by capital funds.

#### *Public Building Commission Lease (2003/2006)*

On March 31, 2003, the Public Building Commission of Chicago (PBC) issued \$119 million of Building Revenue Bonds, Series 2003 (Chicago Transit Authority; PBC Bonds). The PBC used the proceeds of these bonds, among other things, to acquire the site for and construct a 12-story office building. The PBC leased the building to the CTA for a 20-year term to be used as CTA headquarters. Rent payments due to the PBC from the CTA under the lease are general obligations of the CTA payable from any lawfully-available funds. Upon satisfaction of all of the obligations of the CTA under the lease and payment, or provision for payment, of the PBC Bonds in full, the PBC will transfer title of the leased premises to the CTA.

On October 26, 2006, the PBC issued Building Refunding Revenue Bonds for the benefit of the CTA in the amount of \$91.3 million. The proceeds of the bonds were used to advance refund to the PBC, Series 2003 bonds. The original, executed lease in connection with the Series 2003 bonds was amended accordingly. The CTA is obligated to pay to the Trustee on behalf of the PBC on or before February 15 of each year in which the headquarters lease is in effect, rent which equals the debt service on the PBC bonds due through and including September 1 of that calendar year. The source of funds for the PBC lease payments is primarily FTA grant funds. The present value of future payments to be made by CTA under the lease is approximately \$69.755 million as of December 31, 2015.

#### *Artics Hybrid Bus Lease (2008/2013)*

During 2008, the CTA entered into a lease-purchase agreement to finance the purchase of 150 sixty-foot New Flyer articulated hybrid buses and certain related parts and equipment with a book value of \$51.8 million at December 31, 2015. The terms of the agreement allow the CTA to lease the buses for 12 years and retain ownership at the conclusion of the lease. Lease payments are due every June 1 and December 1 of each year, beginning on December 1, 2008. During 2013, CTA terminated the 2008 agreement and entered into a 2013 lease-purchase agreement with the same term and reduced rental payments. The present value of the future payments to be made by the CTA under the lease was approximately \$55.8 million as of December 31, 2015. Annual principal and interest debt service payments of \$13,085,425 are payable from 2016 to 2019, with the final debt service payment of \$6,542,712.64 due in 2020. A debt service schedule has not been included as the *Artics Hybrid Bus Lease* is a private placement.

#### *New Flyer Low Floor Bus Lease (2008 COPs)*

In August 2008, the Bank of New York Mellon issued Certificates of Participation (COPs) totaling \$78.4 million on behalf of the CTA with an interest rate of 4.725 percent. The COPs were used to finance the purchase of 200 (40 ft.) New Flyer low floor buses and certain related parts and equipment. On August 1, 2008, the CTA entered into an installment purchase agreement with the Bank of New York Mellon. The obligation of the CTA to make installment payments is an unconditional obligation and is payable from legally available funds. The installment agreement requires the CTA to make annual COP payments to the Bank of New York Mellon which are remitted to the COP holders. Scheduled maturity dates occur at various times through December 1, 2020. During 2013, CTA amended the original 2008 agreement that amended terms and reduced interest rates. The total principal and interest remaining to be paid on the COPs as of December 31, 2015, was \$39.56 million. Principal and interest paid in 2015 was approximately \$7.9 million. Annual principal and interest debt service payments of 3,955,850.24 are required to be made from 2016 to 2020. A debt service schedule has not been included as the *New Flyer Low Floor Bus Lease* is a private placement.

[Table: Schedule XIII Building Revenue Bonds Series 2006 Lease Payment Schedule 2016-2033]

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| <b>SCHEDULE XIII: \$91,340,000 Building Revenue Bonds<br/>(Public Building Commission on behalf of Chicago Transit Authority)<br/>Series 2006 Lease Payment Schedule 2016-2033</b> |  |   |                            |                                       |
|--|--|---|----------------------------|---------------------------------------|
| <b>PAYMENT YEAR</b>  | <b>PORTION OF LEASE PAYMENT ATTRIBUTABLE TO INTEREST</b> | <b>PORTION OF LEASE PAYMENT ATTRIBUTABLE TO PRINCIPAL</b> | <b>TOTAL LEASE PAYMENT</b> | <b>DEBT OUTSTANDING (as of 12/31)</b> |
| 2016   | \$3,659,400  | \$2,530,000   | \$6,189,400                | \$69,755,000                          |
| 2017   | \$3,529,650  | \$2,660,000   | \$6,189,650                | \$67,095,000                          |
| 2018   | \$3,403,969  | \$2,785,000   | \$6,188,969                | \$64,310,000                          |
| 2019   | \$3,271,913  | \$2,915,000   | \$6,186,913                | \$61,395,000                          |
| 2020   | \$3,122,413  | \$3,065,000   | \$6,187,413                | \$58,330,000                          |
| 2021   | \$2,965,163  | \$3,225,000   | \$6,190,163                | \$55,105,000                          |
| 2022   | \$2,799,788  | \$3,390,000   | \$6,189,788                | \$51,715,000                          |
| 2023   | \$2,621,456  | \$3,565,000   | \$6,186,456                | \$48,150,000                          |
| 2024   | \$2,429,175  | \$3,760,000   | \$6,189,175                | \$44,390,000                          |
| 2025   | \$2,226,525  | \$3,960,000   | \$6,186,525                | \$40,430,000                          |
| 2026   | \$2,012,981  | \$4,175,000   | \$6,187,981                | \$36,255,000                          |
| 2027   | \$1,787,888  | \$4,400,000   | \$6,187,888                | \$31,855,000                          |
| 2028   | \$1,550,719  | \$4,635,000   | \$6,185,719                | \$27,220,000                          |
| 2029   | \$1,300,688  | \$4,890,000   | \$6,190,688                | \$22,330,000                          |
| 2030   | \$1,037,138  | \$5,150,000   | \$6,187,138                | \$17,180,000                          |
| 2031   | \$759,413  | \$5,430,000   | \$6,189,413                | \$11,750,000                          |
| 2032   | \$466,725  | \$5,720,000   | \$6,186,725                | \$6,030,000                           |
| 2033   | \$158,288  | \$6,030,000   | \$6,188,288                | \$0                                   |
| <b>Total:</b>  | <b>\$39,103,292</b>                                      | <b>\$72,285,000</b>                                       | <b>\$111,388,292</b>       |                                       |

Summary of Total Bond Debt Service for all Outstanding Bonds and PBC as of December 2015 (excludes 2008 Bus Leases and TIFIA loans)

[Table: XIV Total Bond Debt Service Schedule 2016-2049]

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| <b>SCHEDULE XIV: TOTAL BOND DEBT SERVICE SCHEDULE (2016-2049)</b> |                         |                          |                           |                                       |
|---|-------------------------|--------------------------|---------------------------|---------------------------------------|
| <b>PAYMENT YEAR</b>   | <b>INTEREST PAYMENT</b> | <b>PRINCIPAL PAYMENT</b> | <b>TOTAL DEBT SERVICE</b> | <b>DEBT OUTSTANDING (as of 12/31)</b> |
| 2016  | \$234,630,846           | \$74,990,000             | \$309,620,846             | \$4,081,880,000                       |
| 2017  | \$244,543,471           | \$87,305,000             | \$331,848,471             | \$3,994,575,000                       |
| 2018  | \$239,649,477           | \$93,435,000             | \$333,084,477             | \$3,901,140,000                       |
| 2019  | \$234,364,911           | \$101,495,000            | \$335,859,911             | \$3,799,645,000                       |
| 2020  | \$228,736,063           | \$105,925,000            | \$334,660,689             | \$3,693,720,000                       |
| 2021  | \$222,624,439           | \$134,100,000            | \$356,724,690             | \$3,559,620,000                       |
| 2022  | \$215,694,204           | \$122,520,000            | \$338,214,455             | \$3,437,100,000                       |
| 2023  | \$208,516,472           | \$129,610,000            | \$338,126,473             | \$3,307,490,000                       |
| 2024  | \$200,849,335           | \$137,225,000            | \$338,074,336             | \$3,170,265,000                       |
| 2025  | \$192,726,621           | \$145,280,000            | \$338,006,622             | \$3,024,985,000                       |
| 2026  | \$184,032,151           | \$153,890,000            | \$337,922,152             | \$2,871,095,000                       |
| 2027  | \$175,287,177           | \$146,095,000            | \$321,382,178             | \$2,725,000,000                       |
| 2028  | \$166,491,971           | \$154,830,000            | \$321,321,971             | \$2,570,170,000                       |
| 2029  | \$157,892,363           | \$135,320,000            | \$293,212,363             | \$2,434,850,000                       |
| 2030  | \$150,003,968           | \$122,720,000            | \$272,723,969             | \$2,312,130,000                       |
| 2031  | \$142,122,875           | \$130,605,000            | \$272,727,875             | \$2,181,525,000                       |
| 2032  | \$133,730,228           | \$138,995,000            | \$272,725,228             | \$2,042,530,000                       |
| 2033  | \$124,792,557           | \$147,935,000            | \$272,727,558             | \$1,894,595,000                       |
| 2034  | \$115,440,863           | \$157,285,000            | \$272,725,863             | \$1,737,310,000                       |
| 2035  | \$105,262,617           | \$167,465,000            | \$272,727,617             | \$1,569,845,000                       |
| 2036  | \$94,419,533            | \$178,305,000            | \$272,724,534             | \$1,391,540,000                       |
| 2037  | \$82,868,107            | \$189,855,000            | \$272,723,107             | \$1,201,685,000                       |
| 2038  | \$70,561,631            | \$202,165,000            | \$272,726,631             | \$999,520,000                         |
| 2039  | \$57,450,123            | \$215,275,000            | \$272,725,123             | \$784,245,000                         |
| 2040  | \$43,480,736            | \$229,245,000            | \$272,725,736             | \$555,000,000                         |
| 2041  | \$28,596,788            | \$50,180,000             | \$78,776,788              | \$504,820,000                         |
| 2042  | \$26,087,788            | \$52,690,000             | \$78,777,788              | \$452,130,000                         |
| 2043  | \$23,453,288            | \$55,325,000             | \$78,778,288              | \$396,805,000                         |
| 2044  | \$20,687,038            | \$58,090,000             | \$78,777,038              | \$338,715,000                         |
| 2045  | \$17,782,538            | \$60,995,000             | \$78,777,538              | \$277,720,000                         |
| 2046  | \$14,580,300            | \$64,195,000             | \$78,775,300              | \$213,525,000                         |
| 2047  | \$11,210,063            | \$67,565,000             | \$78,775,063              | \$145,960,000                         |
| 2048  | \$7,662,900             | \$71,115,000             | \$78,777,900              | \$74,845,000                          |
| 2049  | \$3,929,363             | \$74,845,000             | \$78,774,363              | \$0                                   |
| <b>Total:</b>   | <b>\$4,180,161,8</b>    | <b>\$4,156,870,000</b>   | <b>\$8,337,031,8</b>      |                                       |



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## **Annual Budget Process**

### **Budget Calendar**

The RTA Act requires the RTA Board to adopt a consolidated annual operating and capital budget and associated two and five-year financial plans. The budgetary process contains three phases: budget development, budget adoption, and budget execution and administration.

### **Budget Development**

The CTA annual budget development process serves as the foundation for its financial planning and control. The Chief Financial Officer and staff prepare and submit the budget to the Board of Directors for consideration and approval. The annual budget consists of both the operating and capital budgets. It is the responsibility of each department to adhere to approved spending levels and manage its operations efficiently and in alignment with CTA's goals and programs authorized by the Board.

The budget development process is a joint effort. Major phases include the following:

- 1) Development of key assumptions and drivers, based on CTA's strategic initiatives, including feedback from the riding public and taxpayers. Initiatives vetted with the CTA's riders, communities and tax payers may become part of the Plan.
- 2) Budget formulation includes department submissions and reviews and justification;
- 3) Presentation of the proposed operating and capital budgets to the President and Chief Operating Officer;
- 4) Board discussions, public hearings;
- 5) Budget adoption by the Board; and
- 6) Budget implementation, managing and monitoring.

[Picture: Budget Process is six step process with Budget Office facilitating the process]

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1. Develop Strategy, Initiatives, Goals and Objectives; Outreach
2. Department Submittals; Budget Review Sessions
3. President/ Chief Operating Officer Budget Presentation
4. Board Discussios, Public Hearing (s)
5. Baord Adoption of Budget
6. Budget Implementation; Manage and Monitor

### **Budget Adoption**

*July 7*

**RTA Budget Call** - RTA releases the requirements that the Service Boards must follow for the development of their 2017

budget, two-year financial plan, and five-year capital program.

*September 15*

**RTA Releases and Announces Marks.** The RTA Board is required by the RTA Act to set operating and capital funding marks for the three Service Boards by September 15.

The operating marks include estimates of available funding for the budget and financial plan, and a required recovery ratio (the ratio or percentage of operating expenses that must be recovered from system-generated revenues) for the budget. Upon issuance of the budget marks, the CTA revises its expenses and revenues to conform to the marks.

The capital marks provides estimates of available grant receipts from federal, State, and local sources for the proposed fiscal year and the remaining years of the five year capital plan.

CTA develops a 5-year capital improvement program that identifies the capital projects programmed for funding along with the source of funds to implement the capital projects.

*October 21*

**CTA Budget released to the public.** The statute requires that documents be available for public inspection 21 days prior to the public hearing.

*November 14*

**Public Hearing** to be scheduled to receive comments from the public.

*November 15*

**Budget submission to the RTA.** The RTA Act requires that the CTA, by November 15, submit its detailed budget, financial plan and capital improvement plan to the RTA. The budget must conform to the marks set by the RTA by the statutory deadline of September 15.

*November 16*

Budget presentation to **Cook County Board.** The CTA presents the budget to the Cook County Board after the Public Hearing but prior to the CTA adoption of the budget, as required by the RTA Act.

*November 16*

**Chicago Transit Board vote.** The Chicago Transit Board incorporates any changes and adopts the operating and capital fiscal year budget and financial plans.

*December 15*

**RTA Board** vote on consolidated regional budget. The RTA Board adopts the proposed fiscal year operating and capital budget and the two year and five year financial plan upon the approval of 12 of the RTA's 16 directors.

January 2017 (date TBD) **RTA and CTA submit the capital improvement program** to the Chicago Metropolitan Agency for Planning (CMAP). CMAP adopts and incorporates CTA's capital projects in the Regional Transportation Improvement Program allowing CTA to apply for Federal funding for these projects.

### **RTA Statutory Requirements for Budget Approval**

The RTA Board adopts the proposed budget and plan upon the approval of 12 of the RTA's 16 directors. If the budget meets the RTA's criteria, which are identified in the RTA Act and outlined below, then the RTA is required to adopt the budget. If the RTA Board does not approve the budget, the RTA Board cannot release any funds for the periods covered by the budget and two-year financial plan, except the proceeds of sales taxes due by the statutory formula to the CTA, until the budget conforms to the criteria specified in the Act.

The criteria for budget and plan approval per RTA Act are:

1. **Balanced Budget:** The budget and plan show a balance between (A) anticipated revenues from all sources including operating subsidies and (B) the costs of providing the services specified and of funding any operating deficits or encumbrances incurred in prior periods, including provision for payment when due of principal and interest of outstanding indebtedness.
2. **Capital Budget:** The capital improvement plan lists the projects with the funding sources. All of the capital projects are eligible for Federal and RTA funding and meet all requirements. Project budgets and schedules are also provided to RTA for each project.
3. **Cash Flow:** The budget and plan show cash balances including the proceeds of any anticipated cash flow borrowing sufficient to pay with reasonable promptness all costs and expenses incurred.
4. **Recovery Ratio:** The budget and plan provide for a level of fares or charges and operating or administrative costs for the public transportation provided by or subject to the system-generated revenue recovery ratio.
5. **Assumptions:** The budget and plan are based upon and employ assumptions and projections, which are reasonable and prudent.
6. **Financial Practices:** The budget and plan have been prepared in accordance with sound financial practices as determined by the RTA Board.
7. **Other Requirements:** The budget and plan meet such other financial, budgetary, or fiscal requirements that the RTA Board may by rule or regulation establish.
8. **Strategic Plan:** The budget and plan are consistent with the goals and objectives adopted by the RTA Board in the Strategic Plan.

### **Budget Execution & Administration**

After the proposed budget and financial plan are adopted, the budget execution and administration phase begins. Detailed budgets of operating revenues and expenses calendarized for the 12 months of the budget year are forwarded to the RTA. The CTA's actual monthly financial performance is measured against the monthly budget and reported to the RTA Board. Detailed capital grant applications are prepared and submitted to funding agencies. Quarterly capital program progress reports along with milestones are provided to the RTA Board to monitor expenditures and obligations for capital program items. RTA meets with CTA quarterly to review the status of capital projects.

### **Amendment Process**

As the CTA monitors actual performance, changes may be required to the budget. The RTA might revise its sales tax forecast, which could result in less public funding for the CTA. This in turn would require reduced spending to meet the revised funding mark and recovery ratio.

When the RTA amends a revenue estimate because of changes in economic conditions, governmental funding, a new program, or other reasons, the CTA has 30 days to revise its budget to reflect these changes. The RTA's Finance Committee must approve all amendments before they are recommended to the RTA Board for approval. The budget may also be amended based upon financial condition and results of operations if the CTA is significantly out of compliance with its budget for a particular quarter. The RTA Board, by a vote of 12 members, may require the CTA to submit a revised financial plan and budget, which show that the marks will be met in a time period of less than four quarters. If the RTA Board determines that the revised budget is not in compliance with the marks, the RTA will not release discretionary funds. RTA discretionary funds include monies from the Public Transportation Fund (PTF), discretionary sales tax and other state funding. If the Authority submits a revised financial plan and budget which show the marks will be met within a four-quarter period, then the RTA Board shall continue to release funds.

As capital projects proceed, changes may be required to project budgets. Capital funding marks may be revised based on actual federal or state appropriations actions. When revisions are necessary, the CTA will amend its five-year capital program and submit the changes to the RTA for RTA Board action.

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## **Accounting System and Financial Controls**

### **Organization Overview**

The CTA was formed in 1945 pursuant to the Metropolitan Transportation Authority Act passed by the Illinois Legislature. The CTA was established as an independent governmental agency (an Illinois municipal corporation) "separate and apart from all other government agencies" to consolidate Chicago's

public and private mass transit carriers. The City Council of the City of Chicago granted the CTA the exclusive right to own and operate a unified, local transportation system.

The Regional Transportation Authority Act provides for the funding of public transportation in the six-county region of Northeastern Illinois. The Act established a regional oversight board, the RTA, and designated three Service Boards: the CTA, the Commuter Rail Board and the Suburban Bus Board. The Act requires, among other things, that the RTA approve the annual budget of the CTA; that the CTA obtain agreement from local governmental units to provide an annual monetary contribution of at least \$5 million for public transportation and that the CTA, collectively with the other Service Boards, finance at least 50 percent of operating costs, excluding depreciation and certain other items, with system-generated revenues.

### *Financial Reporting Entity*

As defined by U.S. generally accepted accounting principles (GAAP), the financial reporting entity consists of a primary government, as well as its component units, which are legally separate organizations for which the elected officials of the primary government are financially accountable.

Financial accountability is defined as:

- 1) Appointment of a voting majority of the component unit's board and either (a) the ability to impose will by the primary government or (b) the possibility that the component unit will provide a financial benefit to or impose a financial burden on the primary government.
- 2) Fiscal dependency on the primary government.

In conformance with Governmental Accounting Standards Board (GASB) standards, the CTA includes in its financial statements all funds over which the Chicago Transit Board exercises oversight responsibility. Oversight responsibility is defined to include the following considerations: selection of governing authority, designation of management, ability to significantly influence operations, accountability for fiscal matters, and scope of an organization's public service and/or special financing relationships.

The CTA participates in the Employees' Retirement Plan, which is a single-employer, defined benefit plan covering substantially all full-time permanent union and nonunion employees. The Employees' Plan is governed by state statute (40 ILCS 5/22-101). The fund, established to administer the Employees' Retirement Plan, is not a fiduciary fund or component unit of the CTA. This fund is a legal entity separate and distinct from the CTA. This plan is administered by its own board of trustees comprised of five union representatives, five representatives appointed by the CTA, and a professional fiduciary appointed by the RTA. The CTA has no direct authority and assumes no fiduciary responsibility with regards to the Employees' Retirement Plan. Accordingly, the accounts of this fund are not included in the CTA's financial statements.

The CTA participates in the Retiree Health Care (RHCT), which provides and administers health care benefits for CTA retirees and their dependents and survivors. The RHCT is not a fiduciary fund or a component unit of the CTA. This trust is a legal entity separate and distinct from the CTA. This trust is administered by its own board of trustees comprised of three union representatives, three representatives appointed by the CTA and a professional fiduciary appointed by the RTA. The CTA has no direct authority and assumes no fiduciary responsibility with regards to the RHCT. Accordingly, the accounts of this fund are not included in the CTA's financial statements.

Based upon the criteria set forth by the GASB, the CTA is not considered a component unit of the RTA because the CTA maintains separate management, exercises control over all operations, and is fiscally independent from the RTA. Because governing authority of the CTA is entrusted to the Chicago Transit Board, comprised of four members appointed by the Mayor of the City of Chicago and three members appointed by the Governor of the State of Illinois, the CTA is not financially accountable to the RTA and is not included as a component unit in the RTA's financial statements. As statutorily required, the CTA is combined in pro forma statements with the RTA.

### **Budget and Budgetary Basis of Accounting**

The CTA is required under Section 4.01 of the RTA Act to submit for approval an annual budget to the RTA by November 15th of each year. The budget is prepared on a basis consistent with generally accepted accounting principles (GAAP), except for the exclusion of certain income and expenses, and consistent with the basis of accounting. The excluded income and expense amounts include the following:

- Provision for injuries and damage in excess of (or under) budget,
- Depreciation expense,
- Pension expense in excess of pension contributions,
- Actuarial adjustments,
- Revenue from leasing transactions,
- Interest income,
- Expense from sale/leaseback transactions, and
- Capital contributions.

The Act requires that expenditures for operations and maintenance in excess of budget cannot be made without the approval of the Chicago Transit Board. All annual appropriations lapse at fiscal year-end. The RTA, in accordance with the RTA Act, has approved, for budgetary-basis presentation, the CTA's recognition of the amounts of the injury and damage reserve and pension contribution in the approved annual budget. Provisions in excess of the approved annual budget that are unfunded are excluded from the recovery ratio calculation.

Public funding assistance, administered through the RTA, provides the public funding revenue for the budgets of the Service Boards. Favorable variances from budget remain as operating assistance to the CTA.

The RTA approves the proposed budget based on four criteria:

- That the budget is in balance with regard to anticipated revenues from all sources, including operating subsidies, costs of providing services and funding operating deficits;
- That the budget provides for sufficient cash balances to pay, with reasonable promptness, costs and expenses when due;
- That the budget provides for the CTA to meet its required system-generated revenue recovery ratio;
- That the budget is reasonable and prepared in accordance with sound financial practices, and complies with such other RTA requirements as the RTA Board of Directors may establish.

The RTA monitors the CTA's performance against the budget on a quarterly basis. If, in the judgment of the RTA, this performance is not substantially in accordance with the CTA's budget for such period, the RTA shall so advise the CTA and the CTA must, within the period specified by the RTA, submit a revised budget to bring the CTA into compliance with the budgetary requirements listed above.

## **Financial Reporting**

### *Overview*

The CTA's financial statements are prepared in conformity with GAAP. GASB is the accepted standard-setting body for establishing governmental accounting and reporting principles. The CTA applies Financial Accounting Standards Board (FASB) pronouncements and Accounting Principles Board (APB) opinions issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements, in which case the GASB prevails.

### *Basis of Presentation*

The financial statements provide information about the CTA's business-type and fiduciary (Open Supplemental Retirement Plan) activities. Separate financial statements for each category are presented. The financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of the related cash flows.

The financial statements for CTA's business-type activities are used to account for the operations of the CTA and are accounted for on a proprietary (enterprise) fund basis. This basis is used when operations are financed and operated in a manner similar to a private business enterprise, where the intent of the governing body is that the costs of providing services to the general public be financed or recovered primarily through user charges such as fares.

Accordingly, the CTA maintains its records on the accrual basis of accounting. Under this basis, revenues are recognized in the period in which they are earned, expenses are recognized in the period in which they are incurred, depreciation of assets is recognized, and all assets and liabilities associated with the operation of the CTA are included in the balance sheet.

The financial statements for the fiduciary activities are used to account for the assets held by the CTA in trust for the payment of future retirement benefits under the Open Supplemental Retirement Plan. The assets of the Open Supplemental Retirement Plan cannot be used to support CTA operations.

### *Fiscal year*

The operating cycle of the CTA is based on the calendar year. Prior to 1995, the CTA operated on a 52-week fiscal year composed of four quarters of "four week, four week, and five week" periods. Periodically, a 53-week fiscal year was required to keep the fiscal year aligned with the calendar.

## **Internal Controls**

### *Overview*

CTA management is responsible for establishing and maintaining an internal control system designed to ensure that the assets of the CTA are protected from loss, theft, or misuse, and to ensure that adequate accounting data are compiled to allow for the preparation of financial statements in conformity with GAAP. The internal control system is designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that the cost of internal control should not exceed the benefits likely to be derived; and that the evaluation of costs and benefits requires estimates and judgments by management.

All internal control evaluations occur within the above framework. The CTA's internal accounting controls are reasonable under the existing budgetary constraints, and adequately safeguard assets as well as provide reasonable assurance of proper recording of all financial transactions.

Each year, the CTA conducts internal and external audits to test the adequacy of its internal control system. Where weaknesses are identified, the CTA takes immediate action to correct such weaknesses to ensure a sound internal control system.

#### *Single Audit*

As a recipient of federal, state and RTA financial assistance, the CTA is responsible for ensuring that an adequate internal control system is in place to ensure compliance with applicable laws and regulations related to those programs. This internal control system is subject to periodic evaluation by management and the internal audit staff of the CTA, as well as external auditors.

As part of the CTA's single audit, tests are performed to determine the adequacy of the internal control system, including the portion related to federal financial assistance programs, as well as to determine that the CTA has complied with applicable laws and regulations.

#### *Budgeting Controls*

In addition, the CTA maintains budgetary controls to ensure compliance with legal provisions embodied in the annual budget appropriated by the Chicago Transit Board and approved by the RTA. The level of budgetary control (that is, the level at which expenditures cannot legally exceed the appropriated amount) is established for total operating expenses. The CTA also maintains a position control system which requires that every job that is not part of scheduled transit operations be budgeted on an annual basis.

## **[Printed Page 135] Financial Policy**

### **Financial Planning Policies**

Financial planning policies incorporate both short- and long-term strategies focused on the principles of a balanced budget. These policies ensure proper resource allocation and the continued financial viability of the organization. The CTA reviews the policies on an annual basis as part of the budget process to ensure continued relevance to the organization's goals and objectives.



### *A Balanced Budget*

The budget reflects the short-term goals of the agency. Following development, adoption and implementation of the annual budget, the CTA continually monitors actual monthly financial performance against the budget. Each month, the CTA performs a detailed line-by-line analysis of revenues and expenses to determine operating variances. This includes reviewing position headcount, analyzing material and other expenses, examining revenue scenarios for potential shortfalls, applying seasonality spread in relation to business activities, and conducting continuous audits to ensure a balanced budget. Where potential year-end variances to budget are projected, the CTA uses various strategies to manage the variance. A monthly financial performance report is produced and submitted to the CTA and RTA boards for their review.

The RTA Act requires the CTA to have a balanced budget each year. As such, the CTA takes care in the development of its budget to ensure that assumptions and estimates used to develop the budget are reasonable. The CTA analyzes data from recent years and develops forecasts that are built on actual expense trends. The CTA also researches market trends and consultants' studies that could impact fuel and healthcare expenses. All expenses match available revenues at the time of the budget, including system-generated and other revenues, as well as public funding.

### *Long-Range Planning*

The CTA also develops a longer-range plan for the period beyond the current budget and two-year financial plan. This ten-year plan assesses the implications of current and proposed budgets, policy priorities and financial assumptions. Additionally, external economic studies, demographics and traffic patterns are used to estimate the future transit needs of the Chicago metropolitan area, as well as to establish the future system requirements of the CTA. Current infrastructure needs, as well as system growth needs, are developed, prioritized and incorporated into the long-term plan.

### *Capital Investment Planning*

The CTA continuously maintains an inventory and assessment of the condition of all major capital assets. A detailed five-year capital program prioritizes the short-term capital needs that are necessary to bring the system to a state of good repair, as well as to maximize customer benefits in the regional transit system. A 20-year capital program condition and assessment report provides a broader list of the CTA's capital investment needs.

## **Revenue Policies**

The principal operating revenues of the CTA are bus and rail passenger fares, which are established by the CTA's Board. The CTA also recognizes as revenue the rental fees received from concessionaires, the fees collected from advertisements on CTA property, and other miscellaneous operating revenues. A clear understanding of CTA revenue sources is essential to maintaining a balanced budget and for providing quality service to customers.

### *Revenue Diversification*

Organizational units are encouraged to submit revenue ideas for consideration. The CTA has embarked upon numerous alternative revenue enhancements, such as vending machines and ATMs on the system, wireless communications in the subway tunnels, digital communications, and parking under the elevated rights-of-way. The CTA continues to find ways to enhance system advertising, charters and concession revenues, as well as revenue from investments.

### *Use of One-Time Revenues*

Extraordinary revenues from the sale of surplus assets provide one-time benefits to the CTA. These additional revenues are used to fund non-recurring expense items.

## **Expenditure Policies**

CTA expenditures include the costs of operating the mass transit system, administrative expenses, and depreciation on capital assets. Prudent expenditure planning, monitoring and accountability are key elements of fiscal stability.

### *Debt Capacity, Issuance and Management*

These policies serve as a management tool to ensure that the CTA:

- may utilize leverage as part of its overall funding strategy to speed up investment in the system;
- utilizes debt in the most efficient and effective manner to fund operating and capital improvement programs; and
- makes full and timely repayment of all borrowings.

Moreover, the policy provides broad guidelines to ensure that the agency achieves the lowest possible cost of capital within prudent risk parameters, secures ongoing access to the capital markets, and authorizes the appropriate amount, type and structure of debt for various financing situations.

### *Expenditure Accountability*

Each month, the CTA compares its operating and capital performance to budget. Any deviations from budget are reviewed and corrective measures are implemented by the appropriate organizational units. Each unit is responsible for maintaining budget compliance. Actual capital expenditures are also reviewed monthly and adjustments to capital projects spending are made accordingly.

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## **Economic Indicators**

### **Overview**

CTA ridership and revenue are influenced by overall employment levels and relative transportation costs. The local labor market and commuting costs are, in turn, influenced by national economic conditions. Meanwhile, long-term ridership and public funding trends can also provide context for economic conditions.

Locally and nationally, the employment situation has improved since the recession. The total number of people employed is higher and the unemployment rate is lower than a few years ago. Total employment continues to increase and the related unemployment rate is decreasing. Chicago-area employment levels have now matched their pre-recession levels.

Employment has grown in Chicago and downtown parking costs remain high, increasing the relative value of public transportation. In 2016, rail ridership has continued to grow during peak times of the day. However, gas prices have decreased since 2014 and reached record lows by 2016, lowering ridership, increasing auto-use, and slowing down buses due to increased street congestion. More alternatives such as bike share and ride share have also impacted CTA ridership in off-peak in 2016.

In addition, the number of visitors to Chicago has increased in the past few years, with over 52 million visitors in 2015, an increase of 4.5% over 2014. Additional visitors have a positive impact on ridership and can be seen particularly at the airport stations and during the summer months.

### **Employment**

The seasonally-adjusted non-farm employment in the Chicago metropolitan area recovered to a monthly average of 4,638,600 in June 2016 since reaching a low point of 4,304,900 in 2010.

The 1.2 percent increase in payroll in the Chicago area from 2015 to 2016 year-to-date is outpaced by the national 1.4 percent increase during the same time period. However we have seen an increase of 9.3 percent in employment since the low point in 2010.

[Table: Non-Farm Employment 2006-2016]

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| Total Non-Farm Employment 2006-2016 (in thousands)<br>(2016 is year-to-date monthly average, seasonally adjusted) |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|   | 2003    | 2004    | 2005    | 2006    | 2007    | 2008    | 2009    | 2010    | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    |
| National  | 130,344 | 131,770 | 134,042 | 136,458 | 137,997 | 137,241 | 131,300 | 130,353 | 131,941 | 134,173 | 136,381 | 138,939 | 141,833 | 143,756 |
| % Change  |         | 1.1%    | 1.7%    | 1.8%    | 1.1%    | -0.5%   | -4.3%   | -0.7%   | 1.2%    | 1.7%    | 1.6%    | 1.9%    | 2.1%    | 1.4%    |
| Chicago Area  | 4,410   | 4,411   | 4,458   | 4,516   | 4,554   | 4,525   | 4,288   | 4,243   | 4,302   | 4,373   | 4,441   | 4,508   | 4,586   | 4,639   |
| % Change  |         | 0.0%    | 1.1%    | 1.3%    | 0.8%    | -0.6%   | -5.2%   | -1.1%   | 1.4%    | 1.7%    | 1.6%    | 1.5%    | 1.7%    | 1.2%    |

## Unemployment Rate

The Chicago metropolitan area seasonally-adjusted unemployment rate averaged 6.2 percent through June 2016. This compares to a 4.9 percent national average which is the lowest rate since 2007. This represents a 1.6 point decrease in the unemployment rate for the Chicago area from 2014 and comparable to 2015 levels.

[Graph: Unemployment rates comparison 2003-2016 Chicago vs National ]

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|      | Chicago Area | National |
|------|--------------|----------|
| 2003 | 7.0%         | 6.0%     |
| 2004 | 6.5%         | 5.5%     |
| 2005 | 6.0%         | 5.1%     |
| 2006 | 4.6%         | 4.6%     |
| 2007 | 5.0%         | 4.6%     |
| 2008 | 6.2%         | 5.8%     |
| 2009 | 10.2%        | 9.3%     |
| 2010 | 10.6%        | 9.6%     |
| 2011 | 10.1%        | 8.9%     |
| 2012 | 9.3%         | 8.1%     |
| 2013 | 9.2%         | 7.4%     |
| 2014 | 7.1%         | 6.2%     |
| 2015 | 5.9%         | 5.3%     |
| 2016 | 6.2%         | 4.9%     |

## Fuel Prices

Nationally, consumer gas prices have continued to drop in 2015 and 2016. Prices during this period have ranged from a low of \$1.77 in February 2016 to a high of \$2.83 in July 2015.

The average price for Unleaded Regular Gasoline in 2016 through June is \$2.08 per gallon.

Diesel fuel prices showed a similar pattern, with the monthly average continuing to fall from \$3 in Jan 2015 to \$2 in Feb 2016, for a year-to-date average of \$2.22 per gallon.

[Graphs: Unleaded Regular Gas Price Per Gallon and No.2 Diesel Price Per Gallon 2006-2016]  
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### Consumer Gas Prices

|      |        |
|------|--------|
| 2003 | \$1.59 |
| 2004 | \$1.88 |
| 2005 | \$2.30 |
| 2006 | \$2.59 |
| 2007 | \$2.80 |
| 2008 | \$3.27 |
| 2009 | \$2.35 |
| 2010 | \$2.79 |
| 2011 | \$3.53 |
| 2012 | \$3.64 |
| 2013 | \$3.53 |
| 2014 | \$3.37 |
| 2015 | \$2.45 |
| 2016 | \$2.08 |

### US No.2 Diesel Prices

|      |        |
|------|--------|
| 2003 | \$1.51 |
| 2004 | \$1.81 |
| 2005 | \$2.40 |
| 2006 | \$2.71 |
| 2007 | \$2.88 |
| 2008 | \$3.81 |
| 2009 | \$2.46 |
| 2010 | \$2.99 |
| 2011 | \$3.85 |
| 2012 | \$3.97 |
| 2013 | \$3.92 |
| 2014 | \$3.83 |
| 2015 | \$2.71 |
| 2016 | \$2.22 |

## Consumer Price Index (CPI)

The CPI measures the average change over time in the prices paid by urban consumers for a fixed set of consumer goods and services. An increase in the index, such as the one experienced in 2016 to date, means consumers have to pay more in dollars to buy the same goods and services. The CPI increased by 0.38 percent in the Chicago area and by 0.40 percent nationally, after slight declines in 2015.

[Graph: Consumer Price Index Percentage 2004-2016 National vs. Chicago]

[Printed page 141]

|      | National | Chicago |
|------|----------|---------|
| 2004 | 2.47%    | 2.22%   |
| 2005 | 2.93%    | 3.02%   |
| 2006 | 2.90%    | 2.06%   |
| 2007 | 2.53%    | 3.29%   |
| 2008 | 3.73%    | 3.77%   |
| 2009 | -0.47%   | -1.20%  |
| 2010 | 1.42%    | 1.37%   |
| 2011 | 3.06%    | 2.73%   |
| 2012 | 1.95%    | 1.52%   |
| 2013 | 1.22%    | 1.14%   |
| 2014 | 1.45%    | 1.75%   |
| 2015 | -0.16%   | -0.30%  |
| 2016 | 0.40%    | 0.38%   |

## Producer Price Index (PPI)

The PPI measures average changes in prices received by domestic producers for their output. Three commodity categories are selected for trend illustration: industrial commodities (less fuel), fuel, and iron and steel. While industrial commodities less fuel experienced a slight decrease in PPI (down 1.4 percent from 2015), the fuel PPI decreased drastically, by 15.2 percent, from 2015, and iron and steel saw a 11.7 percent decrease in the index.

[Graph: Producers Price Index Changes 2006-2016 for Industrial Commodities less Fuel, Fuel, Iron & Steel]

[Printed Page 141]]

|      | Industrial<br>Commodities<br>less Fuel | Fuel   | Iron &<br>Steel |
|------|--|--------|-----------------|
| 2006 | 5.0%                                   | 6.6%   | 9.0%            |
| 2007 | 2.9%                                   | 6.5%   | 7.8%            |
| 2008 | 6.0%                                   | 20.8%  | 22.6%           |
| 2009 | -2.5%                                  | -26.0% | -25.3%          |
| 2010 | 3.9%                                   | 17.1%  | 21.5%           |
| 2011 | 5.2%                                   | 16.2%  | 13.3%           |
| 2012 | 0.8%                                   | -1.8%  | -4.9%           |
| 2013 | 0.7%                                   | -0.1%  | -5.9%           |
| 2014 | 1.1%                                   | -0.9%  | 2.5%            |
| 2015 | -1.8%                                  | -23.5% | -15.7%          |
| 2016 | -0.9%                                  | -13.1% | -7.0%           |

## Gross Domestic Product

National Real GDP has improved with an average growth rate of 2.2% through 2016, slightly down from the 2015 average growth rate of 3.7%.

However, Chicago's GDP has shown a stronger performance in 2015, growing at 5.25 percent over 2014.

[Graph: GDP Growth Rate 2005-2016 National vs. Chicago]

[Printed Page 141]

|      | National | Chicago |
|------|----------|---------|
| 2005 | 6.67%    | 5.23%   |
| 2006 | 5.82%    | 5.67%   |
| 2007 | 4.49%    | 4.24%   |
| 2008 | 1.66%    | -0.98%  |
| 2009 | -2.04%   | -1.83%  |
| 2010 | 3.78%    | 2.64%   |
| 2011 | 3.70%    | 3.36%   |
| 2012 | 4.11%    | 5.47%   |
| 2013 | 3.32%    | 0.89%   |
| 2014 | 4.20%    | 3.68%   |
| 2015 | 3.70%    | 5.25%   |
| 2016 | 2.22%    |         |

## **Federal Funds Rate (FFR)**

The FFR is the interest rate at which banks lend balances at the Federal Reserve to other depository institutions. The Federal Open Market Committee (FOMC) is tasked with setting a target for the FFR. The FOMC raised the target rate from 0.25% to 0.50% at the end of 2015 for the first time in nearly a decade. The market is anticipating another 0.25% increase by the end of 2016, which will occur only if economic conditions are supportive.

## **Ten-Year U.S. Treasury Yield**

The ten-year Treasury note is the most frequently-quoted security for analysis of the US government bond market's performance, used to convey the market's perspective on longer-term, macroeconomic expectations. Yields on the ten-year Treasury note rose modestly in 2015, with yields increasing from 2.17% at the end of 2014 to 2.27% at the end of 2015. The beginning of 2016 brought economic uncertainty which caused downward pressure on yields, with the ten-year Treasury note significantly declining to a low rate of 1.78% in the first quarter of 2016 to the current low rate of 1.60% in the third quarter of 2016. The markets are anticipating a modest increase in the 10-year Treasury note yield fueled by the expectations that the Fed will increase the Federal Funds rate by the end of 2016. Lower long term rates provide incentives for consumers and corporations to borrow at favorable interest rates.

## **Historical Ridership and Public Funding**

Ridership has been increasing nationally overall over the last 20 years, with dips associated with recessions in the early 2000s and in 2009-2010. National ridership increased by less than 1% in 2014 vs. 2013.

[Graph; Yield on 10yr Treasury Notes]  
[Printed Page 142]

|         |       |
|---------|-------|
| 2011-09 | 1.98% |
| 2012-03 | 2.17% |
| 2012-09 | 1.72% |
| 2013-03 | 1.96% |
| 2013-09 | 2.81% |
| 2014-03 | 2.72% |
| 2014-09 | 2.53% |
| 2015-03 | 2.04% |
| 2015-09 | 2.17% |
| 2016-03 | 1.89% |



In the Chicago metropolitan area, ridership has seen an overall upward trend since the early 2000s. It hit high points in 2008 and 2012. There were 630 million rides in 2014, a decrease of 2 percent compared to 2013.

[Graph: National Historical Ridership]

[Graph: Chicago Area Historical Ridership]

[Printed Page 143]

|      | National | Chicago |
|------|----------|---------|
| 1991 | 6,996    | 616     |
| 1992 | 6,996    | 584     |
| 1993 | 6,737    | 537     |
| 1994 | 7,402    | 549     |
| 1995 | 7,268    | 547     |
| 1996 | 7,310    | 551     |
| 1997 | 7,709    | 549     |
| 1998 | 7,782    | 560     |
| 1999 | 8,161    | 583     |
| 2000 | 8,381    | 596     |
| 2001 | 8,692    | 599     |
| 2002 | 8,748    | 595     |
| 2003 | 8,615    | 581     |
| 2004 | 8,692    | 582     |
| 2005 | 8,996    | 603     |
| 2006 | 9,260    | 610     |
| 2007 | 9,886    | 619     |
| 2008 | 10,208   | 649     |
| 2009 | 10,089   | 633     |
| 2010 | 9,915    | 628     |
| 2011 | 10,049   | 646     |
| 2012 | 10,352   | 664     |
| 2013 | 10,408   | 630     |

National funding for mass transit has increased steadily over time, reaching an all-time high of \$63.7 billion in 2014; this represents a 9 percent increase over the prior year.

[Graph: National Historical Funding for Public Transit 1994-2014. \$ in billions]

[Graph: Chicago Area Historical Funding for Public Transit 1994-2014. \$ in billions]

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|      | National | Chicago<br>Area |
|------|----------|-----------------|
| 1994 | \$22.2   | \$1.7           |
| 1995 | \$23.6   | \$1.8           |
| 1996 | \$24.2   | \$1.8           |
| 1997 | \$25.2   | \$1.7           |
| 1998 | \$25.7   | \$1.6           |
| 1999 | \$28.1   | \$1.7           |
| 2000 | \$30.0   | \$1.9           |
| 2001 | \$33.5   | \$2.2           |
| 2002 | \$36.2   | \$2.4           |
| 2003 | \$37.9   | \$2.6           |
| 2004 | \$39.1   | \$2.6           |
| 2005 | \$40.2   | \$2.5           |
| 2006 | \$42.3   | \$2.8           |
| 2007 | \$46.9   | \$2.8           |
| 2008 | \$52.3   | \$3.3           |
| 2009 | \$54.0   | \$3.1           |
| 2010 | \$54.1   | \$2.8           |
| 2011 | \$55.2   | \$2.9           |
| 2012 | \$58.5   | \$3.1           |
| 2013 | \$61.3   | \$3.4           |

Locally, public funding reached a high of \$3.3 billion in 2008, but has declined in past years but rebounded at \$3.4 billion in 2013 and \$3.3 billion in 2014; this represents a 9 percent increase in funding from 2012 and a decline of 2 percent compared to 2013.

[Printed Page 145]  
 Operating Statistics

[Table: System Operating Statistics; Ridership, Expense, Revenue 2013-2015 Actual, 2016 Forecast, 2017 Budget]  
 [Printed Page 145]

| <b>Characteristics</b>  | <b>2013<br/>Actual</b> | <b>2014<br/>Actual</b> | <b>2015<br/>Actual</b> | <b>2016<br/>Forecast</b> | <b>2017<br/>Budget</b> |
|-------------------------|------------------------|------------------------|------------------------|--------------------------|------------------------|
| <b>Ridership</b>        |                        |                        |                        |                          |                        |
| Avg. Daily Weekday      | 1,683,492              | 1,630,402              | 1,640,877              | 1,592,996                | 1,594,418              |
| Avg. Daily Saturday     | 1,069,230              | 1,044,918              | 1,027,863              | 964,663                  | 939,354                |
| Avg. Daily Sunday       | 764,515                | 760,840                | 760,211                | 730,170                  | 719,019                |
| System Wide Ridership   | 529,232,404            | 514,216,813            | 515,964,831            | 499,690,839              | 496,250,687            |
| <b>Expense</b>          |                        |                        |                        |                          |                        |
| Top Operator Rate       | \$30.77                | \$31.70                | \$32.82                | \$32.82                  | \$32.82                |
| Capital Expenditures    | \$1,047,671,240        | \$859,519,636          | \$734,716,432          | \$630,423,793            | \$728,500,000          |
| <b>Revenue</b>          |                        |                        |                        |                          |                        |
| Avg. Fare per Trip      | \$1.08                 | \$1.13                 | \$1.14                 | \$1.17                   | \$1.17                 |
| Public Funding per Trip | \$1.32                 | \$1.44                 | \$1.54                 | \$1.63                   | \$1.69                 |

[Graph: Bar graph Systemwide Ridership]  
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|                  | <b>Ridership</b> |
|------------------|------------------|
| 2013<br>Actual   | 529,232          |
| 2014<br>Actual   | 514,217          |
| 2015<br>Actual   | 515,965          |
| 2016<br>Forecast | 499,691          |
| 2017<br>Budget   | 496,251          |

[Table: Bus Operating Statistics; Expense, Miles, Trips, Vehicles 2013-2015 Actual, 2016 Forecast, 2017 Budget]

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| Characteristics                      | 2013 Actual                 | 2014 Actual                 | 2015 Actual                 | 2016 Forecast               | 2017 Budget                 |
|--------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| <b>Expense</b>                       |                             |                             |                             |                             |                             |
| Scheduled Transportation Expense     | \$367,575,334               | \$374,664,340               | \$375,580,292               | \$382,039,308               | \$389,185,740               |
| Garage Maintenance Expense           | \$144,752,363               | \$139,843,950               | \$135,520,844               | \$124,146,709               | \$125,126,824               |
| Support Expense                      | \$21,768,715                | \$19,159,371                | \$19,169,749                | \$20,767,704                | \$22,181,508                |
| Heavy Maintenance Expense            | \$41,816,963                | \$46,604,203                | \$41,521,895                | \$40,660,667                | \$45,457,897                |
| Other Expenses                       | \$26,158,792                | \$28,636,913                | \$32,695,705                | \$32,248,141                | \$27,367,134                |
| <b>Total Operating Expense</b>       | <b><u>\$602,072,167</u></b> | <b><u>\$608,908,777</u></b> | <b><u>\$604,488,484</u></b> | <b><u>\$599,862,528</u></b> | <b><u>\$609,319,104</u></b> |
| Fuel Expense                         | \$61,835,960                | \$59,476,423                | \$49,829,780                | \$34,729,341                | \$33,946,241                |
| <b>Miles</b>                         |                             |                             |                             |                             |                             |
| Annual Vehicle Revenue Miles         | 53,446,534                  | 52,380,315                  | 52,277,748                  | 52,975,478                  | 52,566,789                  |
| <b>Trips</b>                         |                             |                             |                             |                             |                             |
| Annual Unlinked Trips                | 300,116,357                 | 276,116,759                 | 274,288,766                 | 259,811,978                 | 248,800,294                 |
| <b>Vehicles</b>                      |                             |                             |                             |                             |                             |
| Annual Vehicle Revenue Hours         | 5,790,071                   | 5,684,638                   | 5,729,637                   | 5,749,229                   | 5,761,315                   |
| Vehicles Operated in Maximum Service | 1,877                       | 1,629                       | 1,869                       | 1,881                       | 1,881                       |
| Vehicles Owned by CTA                | 2,117                       | 1,867                       | 2,108                       | 2,121                       | 2,121                       |
| Average Age of Vehicles              | 7.1                         | 7.1                         | 7.5                         | 7.1                         | 8.0                         |

[Graph: Bar Graph Annual Bus revenue Hours]

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|               | Bus Revenue Hours |
|---------------|-------------------|
| 2013 Actual   | 5,790             |
| 2014 Actual   | 5,685             |
| 2015 Actual   | 5,730             |
| 2016 Forecast | 5,749             |
| 2017 Budget   | 5,761             |

[Table: Heavy Rail Operating Statistics; Ridership, Expense, Revenue 2013-2015 Actual, 2016 Forecast, 2017 Budget]  
 [Printed Page 147]

| Characteristics                      | 2013<br>Actual              | 2014<br>Actual              | 2015<br>Actual              | 2016<br>Forecast            | 2017<br>Budget              |
|--------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| <b>Expense</b>                       |                             |                             |                             |                             |                             |
| Scheduled Transportation Expense     | \$141,666,655               | \$149,295,425               | \$154,659,250               | \$158,241,814               | \$158,468,454               |
| Terminal Maintenance Expense         | \$44,694,310                | \$49,456,644                | \$49,078,596                | \$47,185,581                | \$53,563,077                |
| Support Expense                      | \$35,571,091                | \$36,982,321                | \$41,134,476                | \$40,240,492                | \$45,829,919                |
| Heavy Maintenance Expense            | \$22,733,173                | \$19,033,791                | \$19,281,847                | \$19,439,668                | \$20,673,325                |
| Rail Car Appearance Expense          | \$11,822,901                | \$12,567,050                | \$13,135,097                | \$14,423,753                | \$14,950,940                |
| Other Expenses                       | \$7,287,106                 | \$8,414,478                 | \$9,169,666                 | \$10,581,557                | \$11,992,195                |
| <b>Total Operating Expense</b>       | <b><u>\$263,775,237</u></b> | <b><u>\$275,749,709</u></b> | <b><u>\$286,458,931</u></b> | <b><u>\$290,112,866</u></b> | <b><u>\$305,477,911</u></b> |
| Power Expense                        | \$26,173,990                | \$33,567,876                | \$28,817,929                | \$29,397,717                | \$31,365,013                |
| <b>Miles</b>                         |                             |                             |                             |                             |                             |
| Annual Rail Car Revenue Miles        | 69,046,006                  | 70,679,582                  | 71,297,563                  | 75,327,594                  | 73,018,515                  |
| <b>Trips</b>                         |                             |                             |                             |                             |                             |
| Annual Unlinked Trips                | 229,116,047                 | 238,100,054                 | 241,676,065                 | 239,878,861                 | 247,450,393                 |
| <b>Vehicles</b>                      |                             |                             |                             |                             |                             |
| Annual Train Revenue Hours           | 638,825                     | 644,733                     | 663,942                     | 687,132                     | 679,968                     |
| Vehicles Operated in Maximum Service | 1,319                       | 1,365                       | 1,484                       | 1,468                       | 1,468                       |
| Vehicles Owned by CTA                | 1,351                       | 1,400                       | 1,520                       | 1,499                       | 1,499                       |
| Average Age of Vehicles              | 22                          | 18                          | 18                          | 16                          | 17                          |

aph: Bar Graph Annual train Hours]

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|                  | Rail<br>Revenue<br>Hours |
|------------------|--------------------------|
| 2013<br>Actual   | 639                      |
| 2014<br>Actual   | 645                      |
| 2015<br>Actual   | 664                      |
| 2016<br>Forecast | 687                      |
| 2017<br>Budget   | 680                      |

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## **Performance Management at the CTA**

The CTA's performance management process is designed to improve efficiency, promote accountability, and enhance the experience of our customers. Performance management is a systematic process involving all departments and employees in the accomplishment of the agency's goals. While some departments have more direct contact with the public than others, the CTA recognizes that all departments are interconnected and that individual performance affects the organization's ability to meet its goals.

Performance management allows the CTA to focus its limited resources to fulfill its mission to provide transit service. Performance Management segments CTA goals into the following areas:

|                         |  |
|-------------------------|--|
| <b><i>Safe</i></b>      | The CTA will minimize the number of accidents involving customers, employees, and the general public.  |
| <b><i>On-Time</i></b>   | The CTA will reduce system delays and successfully manage intervals between its vehicles to provide predictable and reliable service for customers. Construction and other projects will be completed within the allocated budget and time frame to minimize impacts to consumers. |
| <b><i>Clean</i></b>     | The CTA will maintain and strive to improve the cleanliness of all vehicles, stations, and work areas to provide a safe and comfortable atmosphere for riders.   |
| <b><i>Courteous</i></b> | The CTA will maintain the highest standards of customer service through timely, reliable, and clear communication with customers, considerate employees, and efficient operational practices.  |
| <b><i>Efficient</i></b> | The CTA will responsibly and effectively manage resources to boost performance and provide safe, reliable, and affordable transit for customers.   |

Each department throughout the agency is responsible for focusing its resources to meet these goals. Performance management establishes a level of accountability necessary throughout the organization by

requiring that all departments establish results-oriented measures—both financial and non-financial—that are aligned with these goals. Results are continually monitored throughout the year and, based on these results, resources and programs are adjusted to enhance outcomes where necessary and possible.

[Table: Key Monthly Performance Indicators Jan 2016 – Jul 2016]  
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Legend

Meeting or exceeding target:



Definitions  
 of CTA  
 Monthly

| CTA Preliminary Monthly Performance (*) |   | 2016 Monthly Target | Jan 2016 | Feb 2016 | Mar 2016 | Apr 2016 | May 2016 | Jun 2016 | Jul 2016 |
|---|---|---------------------|----------|----------|----------|----------|----------|----------|----------|
| RIDERSHIP                               | Total Ridership (in millions)                                   | 43.8                | 38.9     | 40.0     | 43.7     | 41.5     | 42.5     | 42.6     | 40.9     |
|   | Rail Ridership (in millions)                                    | 21.6                | 18.2     | 18.6     | 20.4     | 19.8     | 20.3     | 20.9     | 20.5     |
|   | Bus Ridership (in millions)                                     | 22.1                | 20.8     | 21.5     | 23.3     | 21.7     | 22.2     | 21.7     | 20.4     |
|   | Total (Year to Date, in millions)                               | 301.0               | 38.9     | 78.9     | 122.7    | 164.2    | 206.7    | 249.3    | 290.2    |
|   | % Change Over Prior Year (Year to Date)                         | 0.7%                | -1.3%    | 1.8%     | 0.4%     | -1.0%    | -1.4%    | -3.9%    | -2.9%    |
| ON-TIME                                 | Rail Delays of 10 Minutes or More                               | 78                  | 66       | 47       | 82       | 73       | 67       | 96       | 109      |
|   | % of Slow Zone Mileage  | N/A                 | 5.7%     | 5.9%     | 5.5%     | 5.5%     | 5.5%     | 5.8%     | 6.3%     |
|   | % of Big Gap Intervals, Bus                                     | 4.0%                | 2.3%     | 2.6%     | 2.8%     | 2.8%     | 3.2%     | 3.4%     | 3.2%     |
|   | % of Bunched Intervals, Bus                                     | 3.0%                | 2.6%     | 2.8%     | 3.0%     | 3.0%     | 3.5%     | 3.7%     | 3.3%     |
| EFFICIENT                               | Mean Miles Between Reported Rail Vehicle Defects                | 3,950               | 8,946    | 10,302   | 11,463   | 11,175   | 10,996   | 8,926    | 8,548    |
|   | Miles Between Reported Bus Service Disruptions Due to Equipment | 5,000               | 7,564    | 7,594    | 7,046    | 8,845    | 8,620    | 7,384    | 7,047    |
|   | Average Daily Percent of Bus Fleet Unavailable for Service      | 12.6%               | 12.0%    | 11.4%    | 12.1%    | 12.7%    | 12.6%    | 14.3%    | 13.8%    |
|   | Average Daily Percent of Rail Fleet Unavailable for Service     | 11.0%               | 9.3%     | 8.3%     | 7.8%     | 8.6%     | 9.7%     | 10.2%    | 10.3%    |
| SAFE                                    | Bus NTD Security-Related Incidents per 100,000 miles            | N/A                 | 0.12     | 0.17     | 0.16     | 0.09     | 0.14     | 0.16     | 0.02     |
|   | Rail NTD Security-Related Incidents per 100,000 miles           | N/A                 | 0.09     | 0.04     | 0.10     | 0.17     | 0.05     | 0.05     | 0.10     |
|   | Bus NTD Safety-Related Incidents per 100,000 Miles              | N/A                 | 0.56     | 0.48     | 0.40     | 0.47     | 0.53     | 0.70     | 0.61     |
|   | Rail NTD Safety-Related Incidents per 100,000 Miles             | N/A                 | 0.03     | 0.07     | 0.07     | 0.09     | 0.08     | 0.12     | 0.05     |
| CLEAN                                   | Average Interior Rail Clean Inspection Score                    | 90.0%               | 93.9%    | 94.0%    | 95.0%    | 93.7%    | 95.1%    | 94.9%    | 94.9%    |
|   | Average Interior Bus Clean Inspection Score                     | 85.0%               | 87.0%    | 85.6%    | 86.0%    | 87.3%    | 86.4%    | 86.6%    | 86.4%    |
| COURTEOUS                               | % of Customer Complaints Not Closed Out Within 14 Days          | 3%                  | 0.0%     | 0.0%     | 0.0%     | 0.0%     | 0.0%     | 0.0%     | 0.0%     |
|   | CTA Customer Service Hotline Average Wait-time (†)              | 0:02:00             | 0:00:13  | 0:00:14  | 0:00:17  | 0:00:12  | 0:00:11  | 0:00:13  | 0:00:12  |
|   | Reported Ramp Defects (Service Disruptions)                     | N/A                 | 116      | 70       | 129      | 116      | 169      | 113      | 177      |
|   | % Buses with Defective AVAS                                     | 2.0%                | 0.6%     | 0.8%     | 0.8%     | 0.6%     | 0.5%     | 0.5%     | 0.4%     |
|   | Reported ADA Complaints   | N/A                 | 46       | 52       | 64       | 57       | 64       | 76       | 77       |

Performance Metrics

| CTA Monthly Performance Metrics |  | Definition   |
|---------------------------------|--|--|
| RIDERSHIP                       | <b>Total Ridership (monthly, in millions)</b>  | Number of rides registered on the bus and rail systems.  |
|                                 | <b>Rail Ridership (monthly, in millions)</b>   | Number of rides registered on the rail system.   |
|                                 | <b>Bus Ridership (monthly, in millions)</b>    | Number of rides registered on the bus system.  |
|                                 | <b>Total (Year to Date, in millions)</b>       | Number of rides registered on the bus and rail systems, year to date.  |
|                                 | <b>% Change Over Prior Year (Year to Date)</b> | Number of rides registered on the bus and rail systems, year to date (including rail-to-rail transfers) divided by the number of rides registered on the bus and rail systems previous year, year to date.         |
| ON-TIME                         | <b>Rail Delays of Ten Minutes or More</b>      | Rail delays of ten minutes or more reported to the Control Center by an Operator, a Controller, or a Supervisor.   |
|                                 | <b>% of Slow Zone Mileage</b>                  | Miles of revenue track that have slow zones. Slow zones range from 6 mph to 35 mph.  |
|                                 | <b>% of Big Gap Intervals, Bus</b>             | Number of bus intervals (time between two buses at a bus stop) that are double the scheduled interval and greater than 15 minutes, divided by the total number of weekday bus intervals traveled during the month. |
|                                 | <b>% of Bunched Intervals, Bus</b>             | Number of bus intervals (time between two buses at a bus stop) that are 60 seconds or less divided by the total number of weekday bus intervals traveled during the month.   |

| CTA Monthly Performance Metrics |   | Definition   |
|---------------------------------|---|--|
| EFFICIENCY                      | <b>Mean Miles Between Reported Rail Vehicle Defects</b> | Miles traveled during the month divided by the number of reported defects for the month. |



|  |  |  |
|--|--|--|
|  | <b>Miles Between Reported Bus Service Disruptions Due to Equipment</b>                         | Miles traveled during the month divided by number of reported service disruptions due to equipment for the month.  |
|  | <b>Average Daily Percent of Bus Fleet Unavailable for Service</b>                              | Daily average number of buses unavailable for service for any reason divided by the total number of buses in the fleet.  |
|  | <b>Average Daily Percent of Rail Fleet Unavailable for Service</b>                             | Daily average number of rail cars unavailable for service for any reason divided by the total number of rail cars in the fleet.  |
| <b>SAFE</b>                            | <b>Bus National Transportation Database (NTD) Security-Related Incidents per 100,000 miles</b> | Number of occurrences of bomb threats, robbery, larceny, burglary or arrests/citations for fare evasion, trespassing, vandalism and assault on the bus system divided by traveled miles divided by 100,000.  |
|  | <b>Rail NTD Security-Related Incidents per 100,000 miles</b>                                   | Number of occurrences of bomb threats, robbery, larceny, burglary or arrests/citations for fare evasion, trespassing, vandalism, and assault on the rail system divided by traveled miles divided by 100,000.  |
|  | <b>Bus NTD Safety-Related Incidents per 100,000 Miles</b>                                      | Any event where one or more of the following occurs on the bus system: Individual dies at the time or within 30 days of the event; one or more persons suffer bodily damage as a result of the event requiring immediate medical attention away from the scene; property damage in excess of \$25,000.         |
|  | <b>Rail NTD Safety-Related Incidents per 100,000 Miles</b>                                     | Any event where one or more of the following occurs on the rail system: Individual dies either at the time or within 30 days of the event; one or more persons suffer bodily damage as a result of the event requiring immediate medical attention away from the scene; property damage in excess of \$25,000. |
| <b>CTA Monthly Performance Metrics</b> |  | <b>Definition</b>  |
| <b>CLEAN</b>                           | <b>Average Days Between Completed Rail General Cleans</b>                                      | Two-month, rolling average number of days between detail cleans on rail cars for those rail cars which were cleaned at least twice during the two month period.  |

**Average Days Between Completed Bus General Cleans**

Three-month, rolling average number of days between detail cleans on buses for those buses which were cleaned at least twice during the three month period.

**% of Customer Complaints Not Closed Out Within 14 Days**

Number of open and overdue complaints (complaints not closed out by a department within 14 days) as of the last day of the month divided by the total number of complaints received during that month.

**CTA Customer Service Hotline Average Wait-time**

Average number of minutes a customer waits on the CTA hotline before his/her call is answered.

**Reported Lift Defects (Service Disruptions)**

Number of reported lift defects that resulted in a disruption of service.

**Reported Ramp Defects (Service Disruptions)**

Number of reported ramp defects that resulted in a disruption of service.

**% Buses with Defective Automatic Voice Annunciation System (AVAS)**

The percent of buses experiencing navigation issues (not calling out stops for at least part of the day), broken operator log-on screens, odometers reporting zero distance, and Bus Link issues, meaning no data will be received from the bus. This does not measure defective destination signs.

**% Functional Destination Signs**

The percent of buses, audited by Bus Quality Control (QC), with defective destination signs.

**Reported ADA Complaints**

Number of reported complaints to Customer Service identified as ADA-related.

## **Department Overviews and Facts**

### **Service Area & Population**

- 234 square miles of Chicago and 35 nearby suburbs.
- The service area has 3.5 million people.

### **Ridership**

- Over 499.7 million trips projected for 2016.
- Approximately 1.59 million trips per average weekday.

### **Operations Departments**

#### *Bus Operations and Maintenance*

- On average, provides 827,663 rides per weekday (2016, Jan-July).
- Maintains reliable service with over 4,000 bus operators driving 1,846 buses traveling 231,370 miles each weekday over 120 routes serving 10,813 bus stops.
- Manages seven Bus Garages and one Heavy Maintenance Shop.
- At the end of 2015, the average age of the fleet was 6.8 years old.

#### *Rail Operations and Maintenance*

- On average, provides 798,779 rides per weekday (2016, Jan-July).
- Maintains reliable service with over 1,000 rail operators and 1,462 rail cars traveling 297,897 miles each weekday over eight routes with 145 stations.
- Manages nine Rail Terminals and one Heavy Maintenance Shop.
- At the end of 2015, the average age of the fleet was 16.9 years old.

## **Facilities Maintenance**

### *Facilities Maintenance*

- Cleans and maintains more than 210 locations, including 145 rail stations, 9 terminals, 7 bus garages, and 11 rail shops.
- Completes life safety requirements per applicable codes to systems requiring mandated testing, maintenance, and inspections.

## **Infrastructure**

### *Power & Way Maintenance*

- Inspects and maintains 224.1 miles of revenue track approximately every seven days, 86.2 miles of elevated structure once every two years, and the full length of contact rail (“third rail”) two times per year.
- Inspects and maintains 813 signals; 1,064 rail track switches; 1,835 track circuits; and 24,000 vital signal relays.
- Responsible for all power substations, including maintaining all traction and contact rail power distribution, including 600 miles of traction power cable.

Power & Way is responsible for maintaining rail infrastructure, including the track, structure, power, and signal systems. As part of the performance management process, a large focus for Power and Way has been minimizing slow zones across the rail system. Replacing or repairing old rails and ties reduces slow zones and makes rail customers’ trips quicker, safer, and more comfortable.

### *Construction*

- Responsible for ensuring that major capital construction projects related to CTA track, structure, power, signal, rail stations, and rail and bus maintenance facilities are delivered on time, on budget, and conform with all applicable standards, regulations, and requirements.
- Responsible for overseeing and integrating program management and construction management services to assist in the monitoring and controlling of multiple capital construction projects.
- Responsible for developing uniform procedures and processes that assist in the design, construction, and administration of the capital program.

- Responsible for overseeing constructions projects, performed by other organizations (IDOT, CDOT, etc.) that impact the CTA system as well as other private work adjacent to the CTA system.

### *Engineering*

- Responsible for providing technical support to Power & Way Maintenance.
- Responsible for developing and maintaining the technical standards for track, structure, power, signal, rail stations, and other transit support facilities.
- Responsible for maintaining the engineering records and “as built” drawings.
- Responsible for CTA utilities, including traction power, water, and gas at CTA locations.
- Responsible for supporting the capital program and providing capital design project management as needed.
- Responsible for preparing design packages for CTA construction projects including projects constructed by CTA forces, JOC Contractors, and General Contractors.
- Responsible for representing CTA on all engineering issues associated with work performed by other agencies or private entities that may impact CTA’s infrastructure or operations.
- Responsible for ensuring that quality processes are developed and followed for all construction, maintenance, and procurement activities.

## **Administration Operations Support**

### *Purchasing & Supply Chain*

- Purchasing processes over 1,000 contracts covering hundreds of millions of dollars in annual expenditure to secure the best prices and ensure the most responsible use of CTA funds, as well as adherence to all funding agencies' regulations.
- Supply Chain Operations is responsible for the efficient stocking, managing, and distribution of material and supplies to all CTA maintenance facilities and stock rooms throughout the service network.

### *Technology*

- Maintains, supports, and upgrades all CTA technology infrastructure, including computer hardware, application software, and communications equipment.
- Responsible for all communication system infrastructures.
- Manages and delivers Information Technology projects across the CTA.

### *Safety*

- Reviews, monitors, and assesses all CTA activities and responsibilities related to the provision of safe service and a safe workplace.
- Establishes and documents CTA safety policies.
- Identifies hazards through inspections, investigations, observations, and audits, as well as by creating and maintaining systems that encourage reporting of hazards by all personnel.
- Assesses safety risk and develops recommendations and corrective action plans to reduce risk.
- Tracks and verifies the implementation of corrective action plans, and the effectiveness of ongoing management routines that support safety. Escalates issues and assists in identifying and assigning resources to reduce risk.
- Ensures compliance with all applicable transit and safety laws and regulations.
- Promotes safety through CTA's employee training, instruction programs, and employee engagement.

- Selected by the Federal Transit Administration (FTA) to pilot the adoption of a new national safety regulatory framework and performance criteria for transit, Safety Management System (SMS).

### *Communications*

- Customer Service provides a number of services including intake, analysis, and routing of customer concerns, customer refunds, travel information, maps and brochures, and support for onsite public forums.
- Compiles customer feedback that is obtained via an inbound call center at 1-888-YOUR-CTA, the primary customer service e-mail address ([feedback@transitchicago.com](mailto:feedback@transitchicago.com)), the website ([www.transitchicago.com](http://www.transitchicago.com)), and through U.S. mail. Call volume averages 270 calls daily, and the Customer Feedback Programs group responds to an average of 135 emails daily.

## **2016 Performance by Department**

### **Bus Operations**

Bus Operations provides over 274 million rides per year, or over 44% of all rides taken on the CTA system. Customers rely on the CTA's buses daily for commuting to and from work, as well as for errands and recreational trips. The CTA recognizes that customers value frequent, on-time service.

To ensure that customers can depend on buses running on-time, Bus Operations continually monitors the reliability of service. One measure which is tracked regularly is the amount of "big gaps" experienced by CTA customers each day. A "big gap" is defined as an instance when the interval between buses is 15 minutes and two times the scheduled interval.

Bus Operations hosts weekly and monthly discussion sessions with bus operators regarding service reliability and also works with Bus Service Management (BSM) to coordinate service. In addition, BSM leverages technology such as Bus Tracker, Real Time Bus Management (RTBM), and a new Bus Emergency Communication System (CAD/AVL) to monitor the routes and make real-time adjustments to service.

Through July of 2016, Bus Operations maintained a big gaps average of 3.1%, below the 2016 target of 4%. Intervals bunched have averaged 3.1% in 2016 through July, on par with the year's target of 3%. The department is continuously examining new approaches to improve this number in order to reach the target by the end of the year.

[Table: Bus Operations Performance Measures]

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| <b>Bus Operations Performance Measures</b> | <b>2016 Target</b> | <b>2016 YTD Performance (Jan-July)</b> | <b>Service Level with Proposed Budget</b> |
|--|--------------------|--|---|
| % of Big Gap Intervals                     | 4.0%               | 3.1%                                   | 4.0%                                      |
| % Intervals Bunched                        | 3.0%               | 3.1%                                   | 3.0%                                      |

## **Bus Maintenance**

The safety and reliability of buses is paramount. Bus Maintenance is responsible for the maintenance of the CTA bus fleet, composed of 1,846 buses. This includes both mechanical maintenance and regular cleaning of bus interiors and exteriors.

The CTA has completed the receipt of the base order of 300 new Nova 7900 Series buses. An additional option order of 125 buses has been fully executed. Delivery will continue through September of 2016. The oldest buses in the current fleet, the 6400 series Nova, are currently being replaced by the 7900 series. To date, only 123 buses remain out of the 484 original 6400 series order.

In February 2016, Bus Maintenance implemented the use of Clever CAD to better track all reported defects and road calls. Bus Maintenance now reports Total Maintenance Defects to include defects and road calls in one statistic. Therefore, the CTA is now reporting Mean Miles between Defects (MMBD) to include all defects and service disruptions (RCs) reported by the Control Center. As part of the performance management process, Bus Maintenance set a goal of providing a fleet reliability of 4,200 miles between defects in 2016. A defect is classified as any failure that requires the bus to be inspected or repaired by a bus mechanic outside of its normal inspection cycle.



[Table: Bus Maintenance Performance Measures]

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|  | <b>Bus Maintenance Performance Measures</b> | <b>2016 Target</b> | <b>2016 YTD Performance (Jan-July)</b> | <b>Service Level with Proposed Budget</b> |  |
|--|---|--------------------|--|---|--|
| In 2014, began both Miles Defects as Mean Road | Mean Miles between Defects                  | 4,200              | 4,094                                  | 4,200                                     | the CTA tracking Mean between as well Miles between Calls (MMBRC |
|  | Mean Miles between Road Calls               | 8,000              | 7,619                                  | 8,000                                     |  |
|  | Bus General Clean Quality Inspection Score  | 88%                | 86.5%                                  | 88%                                       |  |

- service disruptions). The target for MMBRC is set at 8,000 miles between Road Calls (service disruptions). Bus Maintenance has seen the MMBRC improve to an average of slightly under that target in 2016 YTD. In early 2009, the bus fleet was running an average of approximately 2,500 miles between service disruptions.

[Graph: Bar Graph Mean Miles Between Road Calls for 2014,2015, 2016 and 2016 Target

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*\*Note: Data missing in March and April 2015 due to system unavailability.*

## Rail Operations

Rail customers expect the CTA’s trains to provide frequent, fast, reliable service. In order to constantly improve the rail customer’s experience, Rail Operations continues to focus on reducing major delays (delays to service that exceed ten minutes) as a top priority.

The target in 2015 was 78 or fewer major delays per month, including all rail operations, rail maintenance, and power and way delays, per month. The average number of monthly major delays from January to July 2016 is 70, or 10% under the target. In 2015, the average number of major delays was 58, or 26% under the target. In 2014, the average number of major delays was 62, or 20% under the target.

In April 2013, the CTA began tracking the number of incidents more transparently by filtering out those not directly under its control (such as sick passengers, bridge lifts, and police investigations). By measuring only incidents that are under the control of the CTA, the Major Delay metric allows the agency to better track and create accountability for resolving issues. The signal and maintenance-related delays equally account for the majority of major delays that are under the control of the CTA.

[Graph: Bar Graph Major Delays for 2014, 2015, 2016 and 2016 Target

[Printed page 161]

## Rail Maintenance

Rail Maintenance is responsible for maintaining the safe mechanical functioning of CTA trains, as well as for regular cleaning and heavy maintenance repairs or rebuilds of train systems. A well-maintained, clean train minimizes delays and provides a safe and comfortable environment for passengers.

[Graph: Bar Graph Mean Miles Between Defects-Rail for 2014, 2015, 2016 and 2016 Target  
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Rail Maintenance continues to focus on improving the Mean Miles between Vehicle Defects (the average miles a train runs before encountering a defect to one of its systems). This focus includes improving the preventive maintenance process and reducing the most common defects, as well as repeat defects (a defect that repeats within 30 days of the original defect).

Due to Rail Maintenance’s focus on reliability, the introduction of additional new 5000 Series cars during 2015, and the continued retirement of the oldest series of cars, we have seen increased Mean Miles between Defects to an average of 10,046 miles through July 2016 (compared to just 7,506 miles in the same time frame in 2015). In 2015, the CTA raised the target for this metrics to 5,400 from 3,950; in 2016, the target was raised to 8,000 miles to promote continued improvements. The 3200 Series C-Level Overhaul, which began late 2015, is expected to further enhance the performance and reliability of the CTA Rail Fleet.

[Table: Rail Performance Measures]  
[Printed Page 162]

| <b>Rail Maintenance Performance Measures</b> | <b>2016 Target</b> | <b>2016 YTD Performance (Jan-July)</b> | <b>Service Level with Proposed Budget</b> |
|--|--------------------|--|---|
| Mean Miles between Defects                   | 8,000              | 10,046                                 | 8,000                                     |
| Rail General Clean Quality Inspection Score  | 93%                | 94.5%                                  | 93%                                       |

## **Power and Way**

Power and Way is responsible for maintaining rail infrastructure, including the track, structure, power, and signal systems. As part of the performance management process, a large focus for Power and Way has been minimizing slow zones across the rail system. Replacing or repairing old rails and ties reduces slow zones and makes rail customers’ trips quicker, safer, and more comfortable.

[Graph: Line and Bar Graph Slow Zones]

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## **Facilities Maintenance**

Facilities Maintenance operates, maintains, repairs, and cleans CTA properties and equipment. CTA provides the personnel and supervision to remodel, rehabilitate, construct, and install facilities, offices, equipment, and devices throughout its approximately 5,000,000 square feet of CTA property. This is done in a cost-efficient manner for both the general public and CTA departments, permitting the Authority to provide a safe, functional, healthy, and clean environment.

An important function of Facilities Maintenance is maintaining elevators and escalators to ensure customer comfort and accessibility. Escalators are maintained in-house, while elevators are inspected and maintained by a contractor.

[Graph: Line graph Elevator Uptime for 2014, 2015, 2016 and 2016 Target]

[Graph: Line graph Escalator Uptime for 2014, 2015, 2016 and 2016 Target]

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Escalator uptimes reached the target of 96% for the majority of 2015, with a slight dip attributable inclement weather in February July, and have continued to exceed the target in 2016. Elevator uptimes have been at or above the increased target of 98% for all of 2015.

[Table: Facilities Performance Measures]

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| <b>Facilities Performance Measures</b> | <b>2016 Target</b> | <b>2016 Performance (Jan-May)</b> | <b>Service Level with Proposed Budget</b> |
|--|--------------------|-----------------------------------|---|
| <i>Elevator Uptime</i>                 | 98.0%              | 99.4%                             | 98.0%                                     |
| <i>Escalator Uptime</i>                | 96.0%              | 97.2%                             | 96.0%                                     |

## Technology

The Technology Department provides necessary technology solutions and services to support the CTA and its riders. For example, the Technology Department continues to expand and upgrade the security camera system that serves the Authority. Cameras in underground subway tunnels are being upgraded from analog technology to modern high-definition digital technology. All buses and rail cars now have on-board cameras that record activity. Several bus garages and rail yards have expanded camera coverage for enhanced safety and security.

CTA's underground cellular network was recently upgraded and modernized to provide continuous, reliable mobile phone service in all CTA subway platforms, mezzanines, and tunnels. The upgraded network offers improved and more robust voice and high-speed data services and enhanced communication between CTA personnel and emergency responders. It replaced existing infrastructure which dated back to 2005, well before most modern smartphones and tablets were introduced. CTA is now the largest transit agency in North America that supports full 4G from all major carriers in all underground areas of the subway, including stations, platforms, and tunnels.

In addition to technology infrastructure upgrades, Technology is also responsible for the day-to-day reliability of CTA applications and online tools, including the Bus and Train Trackers. CTA Tracker information is now available by e-mail and text messaging to riders. In 2015, there were around 35 million Bus Tracker requests through e-mail, text, and the internet. Riders can access CTA Bus and Rail Tracker, along with instructions on how to receive notifications by e-mail or text message, on the CTA website at [www.transitchicago.com](http://www.transitchicago.com).

[Table: Technology Performance Measures]

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| <b>Technology Performance Measure</b>         | <b>2016 Target</b> | <b>2016 YTD Performance (Jan-July)</b> | <b>Service Level with Proposed Budget</b> |
|---|--------------------|--|---|
| <i>Bus Tracker Application Availability</i>   | 99.5%              | 99.5%                                  | 99.5%                                     |
| <i>Train Tracker Application Availability</i> | 99.5%              | 100.0%                                 | 99.5%                                     |

## **Safety**

### ***Safety Management System (SMS)***

In 2014, the Federal Transit Administration (FTA) chose the CTA as the first transit agency in the nation to assist in developing a Safety Management System (SMS) for transit. Through SMS, the FTA will develop uniform standards to upgrade and ensure safety for transit operations throughout the country. The CTA will also integrate its safety guidelines, policies, and processes to help identify and mitigate risk, to ensure that safety systems are both employed and effective, and to promote a robust safety culture. SMS is a top-down approach, supported by safety focused activities at every level of the organization.

In 2016, the CTA President issued an executive order to CTA employees. It states, "Safety is a core value of the CTA, and managing safety is a core business function of the Authority. The CTA is committed to developing, implementing, maintaining, and continuously improving processes to ensure the safety of its customers, employees, and the public. The CTA will use safety management processes to direct the prioritization of safety and allocate its organizational resources – people, processes, or technology in balance with its other core business functions. CTA aims to support a robust safety culture, and achieve the highest level of safety performance, meeting all established safety standards. All levels of management and all front line employees are accountable for the delivery of the highest level of safety performance, starting with the President of the CTA."

The statement provides further detail in the following areas:

- Executive Commitment
- Communication & Training
- Responsibility & Accountability
- Responsibility of Employees & Contractors
- Employee Reporting
- Performance Monitoring & Measuring
- Review & Evaluation

## **Communications**

The CTA's Communications Department is responsible for a wide range of communications functions, all designed to provide clear, concise, timely, and helpful information to CTA customers and Chicago residents. Communications has three business units: (1) Communications/Media Relations; (2) Customer Information; and (3) Customer Service. Each unit uses various print, electronic, and telephonic channels to inform customers about CTA service, projects, and programs, which are designed to help them understand and efficiently use CTA buses and trains in Chicago and its suburbs.

[Graph: Bar graph comparing Customer Service Hotline Wait Times by Month Jan-Dec for 2014-2016]

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Communications/Media Relations prepares a wide range of communications materials, from printed advertisement pieces to responses to media outlets. Customer Information is responsible for multiple customer-facing communications efforts, from signage and way-finding to information on digital display screens. Customer Service manages CTA's Customer Service hotline, 1-888-YOUR-CTA, and e-mail address ([feedback@transitchicago.com](mailto:feedback@transitchicago.com)). These channels allow customers to receive information about CTA service and provide feedback on the quality of their experience. The CTA recognizes that when customers call or e-mail our Customer Service channels, they expect prompt and courteous service. The Customer Service hotline was held to a target of two minutes in 2016 and has consistently exceeded that target.

[Table: Communications Performance Measures]

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| <b>Communications Performance Measures</b>            | <b>2016 Target</b> | <b>2016 YTD Performance (Jan-July)</b> | <b>2017 Service Level with Proposed Budget</b> |
|---|--------------------|--|--|
| <i>Average Call Response Time (Overall)</i>           | 2:00               | 0:13                                   | 2:00   |
| <i>Average Call Response Time (General Inquiries)</i> | 2:00               | 0:13                                   | 2:00   |

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## **Comparative Performance Analysis**

### **Peer Comparison**

#### **Overview**

To illustrate the CTA's performance in relation to its peers, the following comparative performance analysis utilizes the 2014 National Transit Database (NTD)<sup>1</sup>. The selection of comparison transit agencies is based upon the size of the urban area served, the urban characteristics of the service area, and the size of the transit system. The analysis is then conducted on a modal basis (i.e. bus versus heavy rail). For each mode, the CTA is compared with five peers.

The comparison group includes:

MBTA                    Massachusetts Bay Transportation Authority  
NYCT                    New York City Transit

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<sup>1</sup> The data from NTD is self-reported by the participating transit agencies following guidelines and procedures established by the Federal Transit Administration.

SEPTA Southeastern Pennsylvania Transportation Authority  
 WMATA Washington Metropolitan Area Transit Authority  
 MARTA Metropolitan Atlanta Rapid Transit Authority  
 (for heavy rail comparison only)  
 LACMTA Los Angeles County Metropolitan Transportation Authority  
 (for bus comparison only)

### Comparative Agency Profiles

[Table: Comparison of major city transit agencies on Population of Service Area, Square Miles, Fleet Size, Track Miles]

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| Agency        | City             | Population of Service Area | Square Miles of Urban Area Served | Fleet Size   | Rapid Rail Track Miles* |
|---------------|------------------|----------------------------|-----------------------------------|--------------|-------------------------|
| <b>CTA</b>    | <i>Chicago</i>   | <i>3,425,958</i>           | <i>314</i>                        | <i>3,347</i> | <b>287.8</b>            |
| <b>MBTA</b>   | Boston           | 4,181,019                  | 1,873                             | 3,068        | <b>108.0</b>            |
| <b>NYCT</b>   | New York         | 8,491,079                  | 321                               | 12,718       | <b>829.9</b>            |
| <b>SEPTA</b>  | Philadelphia     | 3,361,074                  | 836                               | 2,811        | <b>99.8</b>             |
| <b>WMATA</b>  | Washington, D.C. | 3,719,567                  | 950                               | 3,014        | <b>269.8</b>            |
| <b>MARTA</b>  | Atlanta          | 1,697,633                  | 485                               | 1,035        | <b>103.7</b>            |
| <b>LACMTA</b> | Los Angeles      | 8,626,817                  | 1,513                             | 4,095        | <b>169.9</b>            |

\* - Total track mileage as listed in NTD Table 23.

The comparative analysis measures the performance in four areas: service efficiency, cost effectiveness, service maintenance and reliability, and service level solvency. Specific indicators are assigned to measure the performance in each dimension.

[Table: Definitions of Terms used in Comparative Performance Measurement]  
 [Printed Page 170]

**Definitions of Comparative Performance Measurement**

| <b>Area</b>                                  | <b>Indicator</b>                           | <b>Definition</b>   |
|--|--|---|
| <b>Service Efficiency</b>                    | Operating Expense per Vehicle Revenue Mile | Total operating cost divided by the total number of miles that vehicles travel while in revenue service.  |
|  | Operating Expense per Vehicle Revenue Hour | Total operating cost divided by the total number of hours of transit service provided.  |
| <b>Cost Effectiveness</b>                    | Operating Expense per Passenger Mile       | Total operating cost divided by the total number of miles traveled by passengers.   |
|  | Operating Expense per Unlinked Trip        | Total operating cost divided by the total number of passengers boarding public transportation vehicles.   |
| <b>Service Maintenance &amp; Reliability</b> | Average Fleet Age                          | The mean of the difference between year of manufacture and year under consideration for all vehicles in the active fleet.   |
|  | Miles between Major Mechanical Failures    | The average number of miles that vehicles travel while in revenue service between failures of some mechanical elements or a safety concern that prevents the vehicle from completing a scheduled trip or from starting the next scheduled trip. |
| <b>Service Level Solvency</b>                | Fare Recovery Ratio <sup>2</sup>           | The proportion of operating costs that are covered by fare revenue paid by passengers.  |
|  | Capital Funds Expended per Passenger Trip  | Expenses related to the purchase of capital assets divided by the total number of unlinked passenger trips provided.  |

<sup>2</sup> The recovery ratio in this section follows the NTD definition. It differs from the calculation of the RTA recovery ratio, which is set forth in the RTA Act.



## Urban Bus

[Table: Comparative Characteristics of Urban Bus]

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| <i>Numbers in millions unless otherwise noted</i> | <b>CTA</b>     | <b>MBTA</b>   | <b>LACMTA</b>      | <b>NYCT</b>          | <b>SEPTA</b>        | <b>WMATA</b>           |
|---|----------------|---------------|--------------------|----------------------|---------------------|------------------------|
|   | <b>Chicago</b> | <b>Boston</b> | <b>Los Angeles</b> | <b>New York City</b> | <b>Philadelphia</b> | <b>Washington D.C.</b> |
| Operating Expense                                 | \$783          | \$400         | \$895              | \$2,613              | \$619               | \$566                  |
| Capital Funds Expended                            | \$175          | \$33          | \$265              | \$78                 | \$66                | \$23                   |
| Fare Revenue                                      | \$297          | \$84          | \$245              | \$858                | \$179               | \$141                  |
| Vehicle Revenue Miles                             | 52.4           | 21.9          | 68.1               | 87.0                 | 40.0                | 39.2                   |
| Vehicle Revenue Hours                             | 5.7            | 2.2           | 6.8                | 12.22                | 4.0                 | 3.8                    |
| Passenger Miles                                   | 684.1          | 232.8         | 1,359.6            | 1,588.6              | 524.7               | 425.7                  |
| Total Number of Unlinked Trips                    | 276.1          | 107.9         | 336.0              | 762.6                | 177.3               | 134.4                  |
| Total Number of Mechanical Failures (thousands)   | 8.9            | 1.6           | 7.7                | 15.0                 | 6.8                 | 4.9                    |

### *Service Efficiency*

CTA urban bus had a lower operating expense per vehicle revenue mile and vehicle revenue hour than the peer average, ranking the third most efficient for expense per vehicle revenue mile and the second most efficient in expense per vehicle revenue hour.

#### **Service Efficiency**

[Operating Expense per Vehicle Revenue Mile]

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| <b><i>Operating Exp./Vehicle Rev. Mile</i></b> | Mile    |
|--|---------|
| LACMTA   | \$13.13 |
| WMATA  | \$14.46 |
| CTA  | \$14.95 |
| SEPTA  | \$15.48 |
| MBTA   | \$18.26 |
| NYCT   | \$30.02 |

[Operating Expense per Vehicle Revenue Hour]

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| <b><i>Operating Exp./Vehicle Rev. Hour</i></b> | Hour     |
|--|----------|
| LACMTA   | \$131.39 |
| CTA  | \$137.80 |
| WMATA  | \$149.50 |
| SEPTA  | \$156.45 |
| MBTA   | \$181.10 |
| NYCT   | \$213.88 |

### *Cost Effectiveness*

Both measures show that CTA urban bus had better performance than the peer average in the area of cost effectiveness. It ranked second for both lowest operating expense per unlinked trip and operating expense per passenger mile.

[Graph: Operating Expense per Passenger Mile]

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| <b><i>Operating Exp./Passenger Mile</i></b> | Mile   |
|---|--------|
| LACMTA                                      | \$0.66 |
| CTA   | \$1.14 |
| SEPTA                                       | \$1.18 |
| WMATA                                       | \$1.33 |
| NYCT  | \$1.64 |
| MBTA  | \$1.72 |

[Graph: Operating Expense per Unlinked Trip]

[Printed Page 172]

| <b><i>Operating Exp./Unlinked Trip</i></b> |        |
|--|--------|
| LACMTA                                     | \$2.66 |
| CTA  | \$2.84 |
| NYCT                                       | \$3.43 |
| SEPTA                                      | \$3.49 |
| MBTA                                       | \$3.71 |
| WMATA                                      | \$4.21 |

### *Service Maintenance & Reliability*

Due to an influx of new buses, the CTA continued to have the lowest fleet age in the peer group, coming in below the peer average of 8.7 years. The CTA came in under the peer average in miles between major mechanical defects, ranking fifth among the group.

[Graph: Average Age of Fleet]

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| <b>Average Age of Fleet</b> | Age | Peer Average |
|-----------------------------|-----|--------------|
| CTA                         | 6.8 | 8.7          |
| NYCT                        | 7.3 | 8.7          |
| WMATA                       | 7.4 | 8.7          |
| LACMTA                      | 9.6 | 8.7          |
| SEPTA                       | 9.7 | 8.7          |
| MBTA                        | 9.7 | 8.7          |

[Graph: Miles Between Mechanical Failure]

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| <b>Miles between Major Mechanical Failures</b> | <b>Mile</b> | <b>Peer Average</b> |
|--|-------------|---------------------|
| LACMTA   | 176,461     | 118,366             |
| MBTA   | 146,220     | 118,366             |
| NYCT   | 106,096     | 118,366             |
| WMATA  | 86,052      | 118,366             |
| CTA  | 77,130      | 118,366             |
| SEPTA  | 77,000      | 118,366             |

### *Service Level Solvency*

Solvency refers to the capability to meet financial obligations, including covering long-term fixed expenses. Among its peers, the CTA achieved the highest level of bus fare recovery ratio and had a higher than average level of capital funds expended per passenger trip.

[Graph: Fare Recovery Ratio]  
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|        | <b>Fare Recovery Ratio<br/>2014</b> | <b>Peer Average</b> |
|--------|-------------------------------------|---------------------|
| MBTA   | 20.9%                               | 27.8%               |
| WMATA  | 25.0%                               | 27.8%               |
| LACTMA | 27.4%                               | 27.8%               |
| SEPTA  | 28.9%                               | 27.8%               |
| NYCT   | 32.8%                               | 27.8%               |
| CTA    | 37.9%                               | 27.8%               |

[Graph: Capital Funds Expended Per Passenger Trip]  
[Printed Page 173]

|        | <b>Capital<br/>Funds Expended<br/>per<br/>Passenger Trip</b> | <b>Peer Average</b> |
|--------|--|---------------------|
| NYCT   | \$ 0.10  | \$ 0.58             |
| WMATA  | \$ 0.17  | \$ 0.58             |
| MBTA   | \$ 0.31  | \$ 0.58             |
| SEPTA  | \$ 0.37  | \$ 0.58             |
| CTA    | \$ 0.64  | \$ 0.58             |
| LACTMA | \$ 0.79  | \$ 0.58             |

## **Heavy Rail**

[Table: Comparative Characteristics of Heavy Rail]

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| <i>Numbers in millions unless otherwise noted</i>            | <b>CTA</b>     | <b>MARTA</b>   | <b>MBTA</b>   | <b>NYCT</b>          | <b>SEPTA</b>        | <b>WMATA</b>           |
|--|----------------|----------------|---------------|----------------------|---------------------|------------------------|
|  | <b>Chicago</b> | <b>Atlanta</b> | <b>Boston</b> | <b>New York City</b> | <b>Philadelphia</b> | <b>Washington D.C.</b> |
| Operating Expense  | \$546          | \$216          | \$331         | \$5,022              | \$190               | \$953                  |
| Capital Funds Expended                                       | \$306          | \$111          | \$161         | \$2,589              | \$71                | \$396                  |
| Vehicle Revenue  | \$290          | \$75           | \$198         | \$3,172              | \$104               | \$593                  |
| Vehicle Revenue Miles  | 70.9           | 17.6           | 24.3          | 356.3                | 17.1                | 75.6                   |
| Vehicle Revenue Hours  | 4.22           | 0.71           | 1.51          | 19.95                | 0.88                | 3.18                   |
| Passenger Miles  | 1,446.5        | 445.0          | 606.8         | 11,152.7             | 439.4               | 445.0                  |
| Total Number of Unlinked Trips                               | 238.1          | 68.8           | 178.5         | 2,743.0              | 99.3                | 269.5                  |
| Total Number of Mechanical Failures (individual occurrences) | 334            | 882            | 472           | 2,443                | 112                 | 822                    |

*Service Efficiency*

CTA heavy rail achieved superior service efficiency, ranking at the top by far for both operating expense per vehicle revenue mile and operating expense per vehicle revenue hour. The two indicators were 39.5% and 49.3% below the peer average, respectively.

[Graph: Bar graph Operating Expense per Vehicle Revenue Mile]

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***Operating Exp./Vehicle Rev. Mile***

|       |         |
|-------|---------|
| CTA   | \$7.71  |
| SEPTA | \$11.14 |
| MARTA | \$12.28 |
| WMATA | \$12.60 |
| MBTA  | \$13.62 |
| NYCT  | \$14.09 |

[Graph: Bar graph Operating Expense per Vehicle Revenue Hour]

[Printed Page 174]

***Operating Exp./Vehicle Rev. Hour***

|       |          |
|-------|----------|
| CTA   | \$129.53 |
| SEPTA | \$215.00 |
| MBTA  | \$219.35 |
| NYCT  | \$251.73 |
| WMATA | \$299.51 |
| MARTA | \$302.49 |

CTA had the lowest expense per passenger mile amongst its peers, and, while the CTA had a higher operating expense per unlinked trip than half the peer agencies, it still bested the peer average by 15 cents.

[Graph: Bar graph Operating Expense per Passenger Mile]  
 [Printed Page 174]

| <b>Operating Exp./Passenger Mile</b> |        |
|--------------------------------------|--------|
| CTA                                  | \$0.38 |
| SEPTA                                | \$0.43 |
| NYCT                                 | \$0.45 |
| MARTA                                | \$0.49 |
| MBTA                                 | \$0.54 |
| WMATA                                | \$0.63 |

[Graph: Bar graph Operating Expense per Unlinked Trip]  
 [Printed Page 174]

| <b>Operating Exp./Unlinked Trip</b> |        |
|-------------------------------------|--------|
| NYCT                                | \$1.83 |
| MBTA                                | \$1.85 |
| SEPTA                               | \$1.91 |
| CTA                                 | \$2.29 |
| MARTA                               | \$3.14 |
| WMATA                               | \$3.53 |

*Service Maintenance & Reliability*

The CTA’s recent investment in new rail cars significantly lowered the average age of the fleet, moving the CTA from the highest average fleet age in 2012 to the lowest in 2014. The CTA continued to excel in Miles between Major Mechanical Failures, beating the peer average by nearly 130%.

[Graph: Bar graph Average Age of Fleet]  
 [Printed Page 175]

| <b>Average Age of Fleet</b> | <b>Age</b> | <b>Peer Average</b> |
|-----------------------------|------------|---------------------|
| CTA                         | 15.9       | 23.4                |
| NYCT                        | 20.6       | 23.4                |
| SEPTA                       | 21.7       | 23.4                |
| WMATA                       | 23.9       | 23.4                |
| MARTA                       | 24.8       | 23.4                |
| MBTA                        | 26.0       | 23.4                |

Graph: Bar graph Miles between major Mechanical Failures]

[Printed Page 175]

| Miles between Major Mechanical Failures | Mile(000's) | Peer Average |
|---|-------------|--------------|
| MARTA                                   | 20          | 92           |
| MBTA                                    | 51          | 92           |
| WMATA                                   | 92          | 92           |
| NYCT                                    | 146         | 92           |
| SEPTA                                   | 152         | 92           |
| CTA                                     | 212         | 92           |

*Service Level Solvency*

The CTA Rail's Fare Recovery Ratio was the second lowest and just under the peer average, while Capital Funds Expended per Passenger Trip was the third lowest in the peer agency group.

Graph: Bar graph Miles Fare Recovery Ratio]

[Printed Page 175]

|       | Fare Recovery Ratio | Peer Average |
|-------|---------------------|--------------|
| MARTA | 34.7%               | 54.9%        |
| CTA   | 53.2%               | 54.9%        |
| SEPTA | 54.7%               | 54.9%        |
| MBTA  | 59.9%               | 54.9%        |
| WMATA | 62.3%               | 54.9%        |
| NYCT  | 63.2%               | 54.9%        |

Graph: Bar graph Capital Funds Expended per Passenger Trip]

[Printed Page 175]

|       | Capital Funds Expended per Passenger Trip | Peer Average |
|-------|---|--------------|
| SEPTA | \$ 0.71                                   | \$ 1.41      |
| NYCT  | \$ 0.94                                   | \$ 1.41      |
| CTA   | \$ 1.29                                   | \$ 1.41      |
| WMATA | \$ 1.47                                   | \$ 1.41      |
| MARTA | \$ 1.61                                   | \$ 1.41      |
| MBTA  | \$ 2.33                                   | \$ 1.41      |

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**Sustainable Transportation**

The CTA plays an important role in reducing vehicle emissions in the Chicago region in replacing automobile trips, reducing traffic congestion and enabling compact development. By providing high-quality transit service, CTA strives to make regional transportation patterns more sustainable. The CTA replaces the equivalent of about 400,000 vehicles on regional roads each weekday. A full eight-car CTA train replaces more than 600 cars, and a full 60-foot articulated CTA bus replaces more than 70 cars.

## **Clean Vehicles: CTA Trains**

CTA's electric rail service, which operates over eight rail lines and 224.1 miles of track, is a highly efficient motorized transport mode, operating on low-friction steel rails. On an average weekday, CTA provides about 2,250 rail service trips. CTA has improved the energy efficiency of its rail service with the purchase and delivery of more than 700 new rail cars, the 5000-series. The new 5000-series rail cars, which are all in service now and make up about half of CTA's entire rail fleet, consume about 23% less peak energy at 55 miles-per-hour than the older rail cars. The energy efficiency of the 5000-series rail cars is due to regenerative braking technology that can transfer electricity back to the third rail, supplementing power to nearby CTA trains that are accelerating at the same time.

In March 2016, the CTA Board approved the largest rail car purchase in CTA's history, for over 800 new 7000-series cars to replace the remaining half of the rail fleet. The cars will be manufactured locally on Chicago's South Side, and will feature LED lighting, regenerative braking, advanced controls, and other technologies that improve the energy efficiency of the cars.

CTA is currently studying the feasibility of placing a large-scale battery (or other type energy storage device) on the side of the rail to capture excess electricity regenerated by 5000-series and future 7000-series rail cars. Known as a "wayside energy storage system" (or WESS), this type of technology has been deployed successfully by a number of other transit agencies throughout the country and around the world. A WESS could provide multiple benefits to CTA: increasing the energy efficiency of the rail system, improving the reliability of power, and generating revenues from participating in regional electric grid services. Thanks to RTA grant funding, in late 2016 CTA will conduct an analysis of potential locations throughout the rail system to determine the optimal sites for installing a WESS.

## **Clean Vehicles: CTA Buses**

The CTA maintains a fleet of over 1,850 buses that provide over 18,800 service trips per weekday. CTA has made strategic investments in the bus fleet in recent years to improve fuel efficiency. These strategic investments include the purchase of 250 hybrid buses, which make up about 15% of the total fleet. The investments in the CTA bus fleet also yield reductions in air-borne pollutants that threaten public health.

In 2014, CTA began receiving the first of 425 new 40-foot, EPA-2013 compliant clean diesel buses from the bus manufacturer Nova. The new Nova buses reduce particulate matter ("PM") by 95% and increase fuel efficiency by 16% compared to the older buses, which are being gradually retired by CTA. The final Nova buses are scheduled to be delivered in late 2016.

The CTA also retrofitted older buses to improve their energy efficiency and emissions. As part of a mid-life overhaul program, CTA retrofitted 1,030 1000-series New Flyer buses with an electric engine cooling-fan drive system to lower pollutant emissions and reduce fuel consumption. This retrofit resulted in a fuel efficiency improvement of up to 18% across the 1000-series bus fleet.

In the fall of 2016, CTA will complete two years of operating two all-electric prototype buses made by New Flyer. These e-buses have zero tailpipe emissions and a range of up to 100 miles on a single battery charge. In service daily on a variety of bus routes, they continue to perform well in Chicago's tough environment of extreme heat and cold with heavy passenger loads.

Following the successful deployment of its first two e-buses, CTA announced in January 2016 that it will purchase 20 to 30 new all-electric buses over the next several years. CTA has secured over \$30 million in federal grant funding toward the purchase of these e-buses plus the charging stations and infrastructure necessary to power them. While CTA's two existing e-buses charge in the garage outside of service hours, CTA is looking at en-route charging technology for this next purchase of e-buses.

## **Efficient Facilities**

The CTA has made significant progress in identifying, evaluating, and implementing projects that increase energy efficiency in its facilities. In the spring of 2015, CTA retrofitted over 1,000 exit signs with energy-saving LEDs and installed nearly 300 occupancy sensors for lighting. These lighting products and controls, valued at over \$80,000, were provided for free to the CTA through the energy efficiency program administered by the Illinois Department of Commerce & Economic Opportunity (DCEO) and the Midwest Energy Efficiency Alliance (MEEA)

Over the past year, CTA has upgraded to more energy-efficient lighting at 40 "L" stations, including those on the Red, Purple, and Green Lines, as well as elevated stations around the Loop. CTA's own in-house electricians replaced older, inefficient light fixtures with new, high-efficiency fluorescent and LED fixtures in a variety of locations across numerous facilities: in the service pits at rail maintenance shops, outdoors at rail yards, and in the high bays at bus garages. At the 103<sup>rd</sup> Street Bus Garage, CTA replaced outdated rooftop HVAC equipment and installed high-efficiency pumps and fans and new controls. In total, CTA received over \$397,000 in rebate funding from Illinois DCEO for completing these energy efficiency projects.

CTA is also working to implement systems and processes that will support the ongoing management, maintenance, and operation of efficient facilities. Together with its building management partner Jones Lang LaSalle (JLL), CTA is in the process of applying to the U.S. Green Building Council's LEED Dynamic Plaque program for the headquarters building at 567 West Lake Street. LEED Dynamic Plaque is a platform that will allow CTA and JLL to continuously monitor and score the building's energy efficiency and green performance. CTA is also expanding the use of its new energy management software, EnergyCAP Enterprise, to analyze energy consumption by facility and evaluate the energy savings of retrofits and other measures.

## **Climate Change Impact on the CTA**



The CTA is engaged in ongoing efforts to increase the resilience of its infrastructure, operations, and ridership to observed and projected impacts of climate change. In an effort to mitigate the impact of climate change, the CTA partners with multiple local, regional and national agencies, including the Sustainable Chicago 2015 action task force and the City of Chicago’s participation in the Rockefeller Foundation’s 100 Resilient Cities (100RC) Program.

The CTA was selected by the Federal Transit Administration (FTA) as one of seven FTA-funded climate adaptation pilots. The FTA-funded pilot study focused on detailed adaptation strategies developed for three CTA system areas: right-of-way flooding, rail heat kinks, and signal house overheating. The final FTA report, entitled “An Integrated Approach to Climate Adaptation at the Chicago Transit Authority” was published in early 2015. The CTA is incorporating the recommendations of the climate adaptation pilot into its capital program, including track and station renewal projects.

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## Fare Structure

**No fare changes are proposed for 2017**

| Fare Group   | Current Fare Structure                             |
|--|--|
| <i>CTA Regular Fare Types</i>  |  |
| Full Fare Bus <sup>[1]</sup>   | \$2.00   |
| Full Fare Rail <sup>[1]</sup>  | \$2.25   |
| Full Fare Cash/PAYG <sup>[2]</sup> (Bus Only)                            | \$2.25   |
| Transfer <sup>[3]</sup>  | \$0.25 (1 <sup>st</sup> ), free (2 <sup>nd</sup> ) |
| Ventra Single Ride Ticket<br>(price includes 2 transfers) <sup>[4]</sup> | \$2.50 + fee                                       |
| 1-Day Pass   | \$10.00  |
| 3-Day Pass   | \$20.00  |
| 7-Day Pass   | \$28.00  |
| 7-Day Pass (CTA/Pace)  | \$33.00  |
| 30-Day Pass (CTA/Pace)   | \$100.00   |
| Metra Link-Up  | \$55.00  |
| <i>CTA Reduced Fare Types <sup>[5]</sup></i>                             |  |
| Reduced Fare Bus   | \$1.00   |
| Reduced Fare Rail  | \$1.10   |
| Reduced Fare Cash (Bus Only)   | \$1.10   |
| Transfer <sup>[3]</sup>  | \$0.15 (1 <sup>st</sup> ), free (2 <sup>nd</sup> ) |
| 30-Day Reduced Pass  | \$50   |

|  |  |
|--|--|
| <i>CTA Student Fare <sup>[6]</sup></i> |  |
| Bus & Rail on Student Card             | \$0.75   |
| Transfer <sup>[3]</sup>                | \$0.15 (1 <sup>st</sup> ), free (2 <sup>nd</sup> ) |

|   |  |
|---|--|
| Student Fare Cash (Bus Only)                            | \$0.75                                   |
| <i>O'Hare Station Fare</i> <sup>[7]</sup>               |  |
| Full Fare on Ventra cards, Ventra Tickets, Cash or PAYG | \$5.00                                   |
| <i>Stadium Express Bus</i>                              |  |
| #128 Soldier Field Express <sup>[8]</sup>               | \$5.00 round-trip<br>\$2.50 reduced fare |

## Notes

- [1] Indicates fares paid with Ventra Card or registered contactless credit/debit cards, unless otherwise indicated.
- [2] "PAYG" refers to payments made by a contactless credit card or mobile wallet not associated with a Transit Account (unregistered).
- [3] Transfers are not available with cash or PAYG transactions.
- [4] An additional 50 cent limited use fee is applied to the fare on a Ventra Ticket.
- [5] The CTA offers reduced fares via a RTA reduced-fare permit to seniors and persons with disabilities in compliance with 49 CFR Part 609. In addition, the CTA also offers reduced fares to children age 7-11. Free rides are offered to low-income seniors and persons with disabilities as required by 70 ILCS 3605/51(b) & 70 ILCS 3605/52. Children under the age of 7 are free at all times when riding with an adult.
- [6] Student Fares are for enrolled elementary and high school students on school days only, 5:30 a.m. to 8:30 p.m. Students can pay with transit value on their Student Ventra Card, or present the Card on bus to be eligible for reduced cash fare.
- [7] Special \$5 pricing at O'Hare station is not applicable to the following customers: Ventra Cards using a purchased period-pass; contactless credit/debit cards using a purchased period-pass; O'Hare Airport-based employees using an employer-issued Ventra Card; reduced fares; student fares; and U-Pass.
- [8] The #128 Soldier Field Express is a service jointly managed by CTA and Metra, scheduled to operate for all Chicago Bears home games at Soldier Field, and other agreed-upon events. Period-passes, Student Fares and U-Pass fares are not accepted on the #128. Reduced fares are for customers displaying the RTA reduced-fare permit and children ages 7 to 11. Statutory free rides (seniors and persons with disabilities) and children under the age of 7 are free on the #128.

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## Comparative Fare Structure

All displayed fares are cash-based. Each transit agency has its own card-based system and fares, which are not reflected here. This comparison was conducted in October, 2016.

[Table: Comparative Fare Structure]

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| <u>CITY SYSTEM</u>         | <u>Bus Fare</u>     | <u>Express<br/>Bus Fare</u>              | <u>Rail Fare</u>             | <u>30-Day/Monthly Pass<br/>Cost</u> | <u>Reduced Fare<br/>(Senior/Disabled)</u>   |
|----------------------------|---------------------|--|------------------------------|-------------------------------------|---|
| CHICAGO<br>(CTA)           | \$2.00              | ---                                      | \$2.25                       | \$100                               | \$1.00 - Bus<br>\$1.10 - Rail               |
| ATLANTA<br>(MARTA)         | \$2.50              | ---                                      | \$2.50                       | \$95                                | \$1.00                                      |
| NEW YORK CITY<br>(MTA)     | \$2.75              | \$6.50                                   | \$2.75                       | \$116.50                            | \$1.35                                      |
| PHILADELPHIA<br>(SEPTA)    | \$2.25 <sup>1</sup> | ---                                      | \$2.25 <sup>2</sup>          | \$91                                | Senior: Free<br>Disabled: \$1.00            |
| BOSTON<br>(MBTA)           | \$1.70              | \$4 (Inner)<br>\$5.25 (Outer)            | \$2.25                       | \$85                                | \$0.85 - Bus<br>\$1.10 - Rail               |
| WASHINGTON D.C.<br>(WMATA) | \$1.75              | \$4.00 Regular<br>\$2.00 Senior/Disabled | \$2.15 - \$5.90 <sup>3</sup> | \$237 <sup>4</sup>                  | \$0.85                                      |
| LOS ANGELES<br>(LACMTA)    | \$1.75              | \$2.50 Regular<br>\$1.35 Senior/Disabled | \$1.75                       | \$100                               | \$0.75 Rush Hours;<br>\$0.35 Non-Rush Hours |

[Table: Historical fare Structure 1991 – Present]

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**Table A Historical Fare Structure**

| <u>Year</u> | <u>Bus Fare</u> | <u>Rail Fare</u> | <u>Transfer</u> | <u>30-Day Pass</u> | <u>Reduced Fare</u>           |
|-------------|-----------------|------------------|-----------------|--------------------|-------------------------------|
| 1991-1998   | \$1.50          | \$1.50           | \$0.30          | \$60-\$88          | \$0.75                        |
| 1999-2003   | \$1.50          | \$1.50           | \$0.30          | \$75               | \$0.75                        |
| 2004 - 2005 | \$1.75          | \$1.75           | \$0.25          | \$75               | \$0.85                        |
| 2006 - 2008 | \$1.75          | \$2.00           | \$0.25          | \$75               | \$0.85                        |
| 2009 - 2012 | \$2.00          | \$2.25           | \$0.25          | \$86               | \$0.85                        |
| 2013 -      | \$2.00          | \$2.25           | \$0.25          | \$100              | \$1.00 - Bus<br>\$1.10 - Rail |

Zone charge may apply.

Zone charge may apply.

The fares are zone based and depend on hours traveled. Full fares are paid during peak hours varying from \$2.15 to \$5.90, with a \$0.40 fee added to regular fares during the peak-of-the-peak periods (weekday 7:30-9:00 a.m. and 3:00-7:00 p.m., based on the starting time of the trip).

Metra sells a 28-day pass for unlimited Metro rides.

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**Acronyms**

|      |   |
|------|---|
| AA   | Alternatives Analysis                                     |
| ADA  | Americans with Disabilities Act                           |
| APB  | Accounting Principles Board                               |
| APTA | American Public Transportation Association                |
| ARRA | American Recovery and Reinvestment Act                    |
| BAB  | Build America Bonds                                       |
| BLS  | Bureau of Labor Statistics                                |
| BOB  | State Bureau of the Budget                                |
| BRT  | Bus Rapid Transit   |
| CAC  | Capital Advisory Committee                                |
| CBO  | Congressional Budget Office                               |
| CIP  | Capital Improvement Program                               |
| CDOT | Chicago Department of Transportation                      |
| CMAQ | Chicago Metropolitan Agency for Planning                  |
| CMAQ | Congestion Mitigation and Air Quality Improvement Program |
| CPD  | Chicago Police Department                                 |
| CPI  | Consumer Price Index                                      |

|            |   |
|------------|---|
| CTA        | Chicago Transit Authority   |
| DBE        | Disadvantaged Business Enterprise   |
| DHS        | Department of Homeland Security   |
| EIA        | Energy Information Administration   |
| EIS        | Environmental Impact Statement  |
| EPA        | Environmental Protection Agency   |
| FASB       | Financial Accounting Standards Board  |
| FAST       | Fixing America's Surface Transportation (FAST) Act                                      |
| FFGA       | Full Funding Grant Agreement  |
| FICA       | Federal Insurance Contribution Act  |
| FOMC       | Federal Open Market Committee   |
| FTA        | Federal Transit Administration  |
| FY         | Fiscal Year   |
| GAAP       | General Accepted Accounting Principles  |
| GASB       | Governmental Accounting Standards Board   |
| GDP        | Gross Domestic Product  |
| GFOA       | Government Finance Office Association   |
| HTF        | Highway Trust Funds   |
| ICE        | Innovation, Coordination and Enhancement Fund of RTA                                    |
| IDOT       | Illinois Department of Transportation   |
| JARC       | Job Access and Reverse Commute Program  |
| LACMTA     | Los Angeles County Metropolitan Transportation Authority                                |
| LIBOR      | London Interbank Offered Rate   |
| LPA        | Locally Preferred Alternative   |
| MAP-21     | Moving Ahead for Progress in the 21 <sup>st</sup> Century                               |
| MBTA       | Massachusetts Bay Transportation Authority  |
| MTA        | Mass Transit Accounts   |
| NEPA       | National Environmental Policy Act   |
| NTD        | National Transit Database   |
| NYCT       | New York City Transit   |
| OPEC       | Organization of Petroleum Exporting Countries   |
| PBC        | Public Building Commission of Chicago   |
| PE         | Preliminary Engineering   |
| POB        | Pension Obligation Bond   |
| PPI        | Producer Price Index  |
| RHCT       | Retiree Health Care Trust   |
| RTA        | Regional Transportation Authority   |
| RETT       | Real Estate Transfer Tax  |
| SAFETEA-LU | Safe, Accountable, Flexible, Efficient<br>Transportation Equity Act: A Legacy for Users |
| SCIP       | Strategic Capital Improvement Program   |
| SEPTA      | Southeastern Pennsylvania Transportation Authority                                      |
| SMS        | Safety Management System  |
| SOGR       | State of Good Repair  |

|        |   |
|--------|---|
| STIP   | State Transportation Improvement Program                    |
| STO    | Scheduled Transit Operations                                |
| SWAP   | Sheriff's Work Alternative Program                          |
| TEA-21 | Transportation Equity Act for the 21 <sup>st</sup> Century  |
| TIF    | Tax Increment Financing                                     |
| TIFIA  | Transportation Infrastructure Finance and Innovation Act    |
| TIGER  | Transportation Investment Generating Economic Recovery      |
| TIGGER | Transit Investments for Greenhouse Gas and Energy Reduction |
| TIP    | Transportation Improvement Program                          |
| TSGP   | Transit Security Grant Program                              |
| TSP    | Traffic Signal Prioritization                               |
| UMT    | Urban Mass Transportation                                   |
| UMTA   | Urban Mass Transportation Authority                         |
| UPS    | Uninterrupted Power Supply                                  |
| USDOT  | United States Department of Transportation                  |
| UWP    | Unified Work Program  |
| UZA    | Urbanized Area  |
| WMATA  | Washington Metropolitan Area Transit Authority              |

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## Glossary

### 2008 Legislation

The amendments to the RTA Act in 2008 included the following policies affecting the CTA budget: 1) Increased the RTA sales tax to 1.25 percent in Cook County and 0.75 percent in the collar counties; 2) Prescribed a new distribution of revenues for the incremental sales tax increase and Public Transportation Fund match; 3) Established an Innovation, Coordination, and Enhancement (ICE) Fund, an ADA Paratransit Fund, and a Suburban Community Mobility Fund and 4) The chair of the CTA no longer was on the RTA Board.

### Accessible

As defined by the FTA, a site, building, facility, or portion thereof that complies with defined standards and that can be approached, entered and used by persons with disabilities.

### Accounting Principles Board (APB)

The former authoritative body of the American Institute of Certified Public Accountants (AICPA). It was created by the AICPA in 1959 and issued pronouncements on accounting principles until 1973, when it was replaced by the Financial Accounting Standards Board (FASB).

**Accrual Basis**

A method of accounting in which revenues are reported in the fiscal period when they are earned, regardless of when they are received, and expenses are deducted in the fiscal period they are incurred, whether they are paid or not.

**Alternatives Analysis (AA) Study**

To conduct the Study is the first step of the FTA's process in order to be qualified for New Starts funding. The Study is designed to examine all the potential transit options available and to determine a locally preferred alternative. Among the projects that were authorized for further analysis by the United States Congress, the CTA has completed the Studies for the Red Line Extension south of 95<sup>th</sup>, the Orange Line Extension to Ford City, and the Yellow Line Extension north of Dempster Avenue in Skokie.

**Americans with Disabilities Act (ADA)**

The Americans with Disabilities Act (ADA) of 1990, including changes made by the ADA Amendments Act of 2008, became effective on January 1, 2009. This federal act requires many changes to ensure that people with disabilities have access to jobs, public accommodations, telecommunications and public services, including public transit. Examples of these changes includes mandating that all new buses and rail lines be wheelchair accessible and that alternative transportation be provided to customers unable to access the transit system.

**Americans with Disabilities Act (ADA) Paratransit Fund**

A fund created by the 2008 Legislation to fund regional paratransit services provided by Pace.

**American Public Transportation Association (APTA)**

International organization for the bus, rapid transit and commuter rail systems industry. To strengthen and improve public transportation, APTA serves and leads its diverse membership through advocacy, innovation and information sharing. APTA and its members and staff work to ensure that public transportation is available and accessible for all Americans in communities across the country.

**American Recovery and Reinvestment Act (ARRA)**

An economic stimulus package enacted in February 2009 to create jobs and promote investment and consumer spending during the recession. The Act includes federal tax cuts, expansion of unemployment benefits and other social welfare provisions as well as domestic spending in education, health care and infrastructure, including the energy sector.

**Articulated Bus**

A high-capacity passenger bus that flexes in the middle.

**Americans with Disabilities Act (ADA) Paratransit Fund**

A fund created by the 2008 Legislation to fund regional paratransit services provided by Pace.

**Automated Voice Annunciation System**

In 2002, the CTA began installing an automated voice annunciation system (AVAS) from Clever Devices on all buses. This system automatically makes next-stop and external route identification announcements. Whenever the bus doors open, the route name and destination is announced through an external speaker (eg. "Route 29 State to Navy Pier"). Inside the bus, next-stop information is communicated both audibly and visually. Approximately one block before a stop, the name of the stop is announced through the bus's public address system. The stop name is also displayed on electronic signs inside the bus. In addition to showing the next stop, the signs also display the current time and date along with the "Stop Requested" notice. The system also plays public service announcements at varying intervals.

The announcement system works using both global positioning (satellite-based) and logical positioning (distance-based) systems to determine the location of a bus and make the appropriate next-stop announcement.

**Big Gap**

An instance when the time in between buses is more than double the scheduled interval and also creates a gap of more than 15 minutes.

**Bond**

An interest-bearing promise to pay a specified sum of money on a specified date in the future.

**Build America Bonds (BAB)**

A subsidy provided by the American Recovery and Reinvestment Act that provides for a wider pool of capital financing funding for state, county and municipal entities, such as the CTA.

**Bureau of Labor Statistics (BLS)**

The Bureau of Labor Statistics of the U.S. Department of Labor is the principal federal agency responsible for measuring labor market activity, working conditions, and price changes in the economy. Its mission is to collect, analyze, and disseminate essential economic information to support public and private decision-making. As an independent statistical agency, BLS serves its diverse user communities by providing products and services that are objective, timely, accurate, and relevant.

**Bus Rapid Transit (BRT)**

BRT is an enhanced bus system that operates on bus lanes or other transitways in order to combine the flexibility of buses with the efficiency of rail. By doing so, BRT operates at faster speeds, provides greater service reliability and increased customer convenience.



**Capital Advisory Committee (CAC)**

The Capital Advisory Committee is comprised of members from local universities as well as leaders from the business community. The purpose of the CAC is to solicit expert advice from external professionals in carrying out the CTA's capital process including the selection of projects for funding and advising the CTA in closing the funding gap.

**Capital Budget**

A formal plan of action for a specified time period for purchases of fixed assets using capital grants.

**Capital Expense**

Expenditures that acquire improve or extend the useful life of any item with an expected life of three or more years and a value of more than \$5,000 (e.g. rolling stock, track and structure, support facilities and equipment, and stations and passenger equipment). It can also include the costs associated with the long-term maintenance of these assets, such as bus overhaul programs, rail overhaul programs and preventive maintenance. Also referred to as a capital improvement.

**Capital Grant**

Funds received from grantor funding agencies used to finance construction, renovation, and major repairs or the purchase of machinery, equipment, buildings, or land.

**Capital Improvement Program (CIP)**

A strategic and comprehensive financing program in which available capital funds are identified and targeted toward key capital renewal and improvement needs of the CTA system to yield the greatest customer benefit.

**Chicago Card**

A stored-value farecard that has an embedded microchip that can be read to register fares by the fare equipment when touched to the touchpad on the front of rail station turnstiles and bus fareboxes on all CTA routes and Pace buses. Value is added with cash at CTA vending machines or off-site Touch-n-Go devices.

**Chicago Card Plus**

A farecard with its balance maintained in an online account rather than stored on the card itself. Value is added with credit cards or through electronic transit benefit deductions only. The card also features online reloading — customer accounts automatically reload each time their account value falls below the pre-selected reload amounts.

**Chicago Department of Transportation (CDOT)**

The Chicago Department of Transportation (CDOT) is responsible for public way infrastructure including planning, design, construction, maintenance and management.

**Collar Counties**

The five counties that surround Cook County as identified in the RTA Act: Will, Kane, DuPage, Lake, and McHenry counties.

**Chicago Metropolitan Agency for Planning (CMAP)**

The agency that integrates land use planning and transportation planning for the counties of Cook, DuPage, Kane, Kendall, Lake, McHenry and Will in northeastern Illinois. CMAP and its partners aim to remove barriers to cooperation across geographical boundaries and subject areas such as land use, transportation, natural resources, housing, and economic development.

**Congestion Mitigation & Air Quality Improvement Program (CMAQ)**

A program initially authorized by the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 that provided \$6.0 billion in funding for surface transportation and other related projects to contribute to air quality improvements and reduce congestion. It was reauthorized in 2005 under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) and provides funding to State Departments of Transportation, Metropolitan Planning Organizations, and transit agencies to invest in projects that reduce criteria air pollutants regulated from transportation-related sources. The Program provides the CTA with funding totaling \$19.92 million over a period of five years (2011-2015).

**Congressional Budget Office**

Branch of the federal government that provides economic data to Congress.

**Consumer Price Index (CPI)**

A measure estimating the average price of consumer goods and services purchased by households. CPI measures a price change for a market basket of goods and services from one period to the next within the same area and is used as a measure of the increase in the cost of living (i.e. economic inflation).

**Corridor**

A defined study area considered for significant transportation projects such as highway improvements, bus transitways, rail lines, or bikeways (e.g. Dan Ryan corridor, Western Avenue corridor).

**CTA Board Member Terms of Office**

Board member terms are in seven year increments. Board members may be appointed to terms already in progress, in which case they may serve until the end of that term.

**Department of Homeland Security (DHS)**

This agency that is responsible for ensuring the safety and security of the United States from terrorist attacks and other disasters.

**Depreciation**

An accounting term that recognizes the loss in value of a tangible fixed asset over time attributable to deterioration, obsolescence, and impending retirement. Applies particularly to physical assets like vehicles, equipment, and structures.

**Disadvantaged Business Enterprise (DBE)**

The Disadvantaged Business Enterprise (DBE) program is intended to ensure nondiscrimination in the award and administration of contracts.

**Discretionary Funds**

Funds that the RTA allocates, at its discretion, to the Service Boards. These funds include Public Transportation Funds and a portion of the 15 percent of the RTA Sales Tax.

**Employees' Retirement Plan**

A single-employer, defined benefit pension plan covering substantially all full-time permanent union and nonunion employees.

**Energy Information Administration (EIA)**

The U.S. Energy Information Administration (EIA) collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment.

**Environmental Impact Statement (EIS)**

An Environmental Impact Statement (EIS) is a document required by the National Environmental Policy Act for federal government agency actions significantly affecting the quality of the human environment. As a tool for decision making, an EIS describes the positive and negative environmental effects of proposed agency action and cites alternative actions.

**Environmental Protection Agency (EPA)**

The United States Environmental Protection Agency (EPA or sometimes USEPA) is an agency of the Federal government of the United States which was created for the purpose of protecting human health and the environment by writing and enforcing regulations based on laws passed by Congress.

**Fare**

The amount charged to passengers for bus and rail services.

**Farebox**

Equipment used for the collection of bus fares.

**Farecard**

Electronic fare media used for payment of fares.

**Federal Funds Rate**

The interest rate at which banks lend balances at the Federal Reserve to other banks overnight. The rate is set by the Federal Open Market Committee (FOMC). The FOMC's long term goals are price stability and sustainable economic growth in the economy.

**Federal Open Market Committee (FOMC)**

Branch of the Federal Reserve that is responsible for open market operations, such as the purchase and sale of U.S. treasuries and federal agencies securities.

**Federal Transit Administration (FTA)**

The federal agency which provides financial and planning assistance to help plan, build, and operate rail, bus, and paratransit systems through grant programs.

**Federal Insurance Contributions Act (FICA)**

Social Security payroll taxes are collected under the authority of FICA.

**Financial Accounting Standards Board (FASB)**

The FASB establishes and improves standards of financial accounting and reporting for the guidance and education of the public, including issuers, auditors, and users of financial information.

**Financial Plan**

In addition to an annual budget, the Regional Transportation Authority Act, as amended in 2008, requires that all transit agencies prepare a financial plan encompassing the two years subsequent to the budget year. This provides a three-year projection of expenses, revenues and public funding requirements.

**Fiscal Year (FY)**

A fiscal year is a 12-month period used for calculating annual financial reports in organizations. The CTA's fiscal year runs congruent to the calendar year, beginning on January 1 and ending on December 31.

**Fixing America's Surface Transportation (FAST) Act**

On December 4, 2015, President Obama signed the Fixing America's Surface Transportation (FAST) Act (Pub. L. No. 114-94) into law—the first federal law in over a decade to provide long-term funding certainty for surface transportation infrastructure planning and investment. The FAST Act authorizes \$305 billion over fiscal years 2016 through 2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs. The FAST Act maintains our focus on safety, keeps intact the established structure of the various highway-related programs we manage, continues efforts to streamline project delivery and, for the first time, provides a dedicated source of federal dollars for freight projects. With the enactment of the FAST Act, states and local governments are now moving forward with critical transportation projects with the confidence that they will have a federal partner over the long term.

**Full Funding Grant Agreement (FFGA)**

Grant agreements authorized under federal transit law that establish the terms and conditions for federal financial participation in a New Starts project. The FFGA defines the project, sets the maximum amount of federal New Starts funding for a project, covers the period of time for completion of the project, and facilitates efficient management of the project in accordance with applicable federal statutes, regulations, and policy.

**Fund Balance**

The excess of funding for a given period of time, referring to unreserved/undesignated funds. Annual budget surpluses (or deficits) generally add to (or subtract from) the fund balance.

**Funding (Budget) Marks**

The Regional Transportation Authority Act, as amended in 1983, calls for the RTA to advise each of its Service Boards by September 15<sup>th</sup> of the public funding to be available for the following year, as well as the required recovery ratio.

**Generally Accepted Accounting Principles (GAAP)**

GAAP is the standard framework of guidelines for financial accounting, mainly used in the United States. It includes the standards, conventions and rules accountants follow in recording and summarizing transactions, and in the preparation of financial statements.

**Governmental Accounting Standards Board (GASB)**

The GASB establishes and improves standards of state and local governmental accounting and financial reporting.

**Gross Domestic Product (GDP)**

As a measure of economic activities, it is the amount of goods and services produced in the United States in one year. It is calculated by adding together the market values of all of the final goods and services produced in a year and reported by the U.S. Bureau of Economic Analysis.

**Government Finance Office Association (GFOA)**

The purpose of the Government Finance Officers Association is to enhance and promote the professional management of governments for the public benefit by identifying and developing financial policies and best practices, and promoting their use through education, training, facilitation of member networking, and leadership.

**Headway**

The time span between when one service vehicle (bus or rail) leaves a stop/station and when the following vehicle arrives at the same stop/station on specified routes. Also called service frequency.

**Heavy Rail**

An electric railway with the capacity for a heavy volume of traffic. Heavy rail is characterized by high-speed passenger rail cars and trains operating on fixed rails in separate rights-of-way from which all other vehicular and foot traffic is excluded.

**Hedge**

A type of investment activity used to reduce the risk of adverse price movements in an asset. Normally, a hedge consists of taking an offsetting position in a related security to minimize unwanted risks associated with price fluctuation.

**Highway Trust Funds (HTF)**

A transportation fund in the United States which receives money from a federal fuel tax of 18.4 cents per gallon on gasoline and 24.4 cents per gallon of diesel fuel and related excise taxes. It currently has two accounts, the Highway Account which funds road construction and other surface transportation projects, and a smaller 'Mass Transit Account' which supports mass transit. Separate from the Highway Trust Fund is the 'Leaking Underground Storage Tank Trust Fund', which receives an additional 0.1 cents per gallon on gasoline and diesel, making the total amount of tax collected 18.4 cents per gallon on gasoline and 24.4 cents per gallon on diesel fuel. The Highway Trust Fund was established in 1956 to finance the United States Interstate Highway System and certain other roads. The Mass Transit Fund was created in 1982. The federal tax on motor fuels yielded \$28.2 billion in 2006.

**Hybrid Bus**

A hybrid bus combines a conventional internal combustion engine propulsion system with an electric propulsion system and uses a diesel-electric powertrain. Also known as a hybrid diesel-electric bus.

**Illinois Fund for Infrastructure, Roads, Schools and Transit (Illinois FIRST)**

A five-year public works improvement program that allocated capital funds between FY2000 through FY2004.

**Illinois Jobs Now Program**

A \$31 billion program creating over 439,000 jobs in five years from 2010 through 2014; designed to improve bridges and roads, transportation networks, schools, and communities.

**Illinois' Low-Income Circuit Breaker Program**

The official name of the Program is the Senior Citizens and Disabled Persons Property Tax Relief and Pharmaceutical Assistance Act, governed by the Illinois Department on Aging. The Program is to help offset the cost of property taxes and other living costs by providing low-income, senior, or disabled residents with yearly grants.

**Infrastructure**

Capital assets that make up the CTA's transportation system, including maintenance facilities, rail track, signals, stations, elevated structures, and power substations.

**Innovation, Coordination and Enhancement Fund (ICE)**

A fund established by the 2008 amendments to the RTA Act for operating or capital grants or loans to Service Boards, transportation agencies, or units of local government that advance the goals and objectives identified by the RTA's Strategic Plan. Unless an emergency is determined by the RTA Board that requires some or all amounts of the Fund, it can only be used to enhance the coordination and integration of public transportation and develop and implement innovations to improve the quality and delivery of public transportation.

**Intermodal**

Transportation by more than one mode (bus, train, etc.) during a single journey.

**Interval**

The time between when one service vehicle (bus or train) leaves a stop/station to the time when the following vehicle leaves the same stop/station.

**Job Access and Reverse Commute Program (JARC)**

A program established by the FTA to address the unique transportation challenges faced by welfare recipients and low-income persons seeking to obtain and maintain employment, which often is located in a less accessible area and/or requires late at night or weekend schedules when conventional transit services are not sufficiently provided.

**Job Order Contracting (JOC)**

A collaborative construction project delivery method that enables organizations to get numerous, commonly encountered construction projects done quickly and easily through multi-year contracts. JOC reduces unnecessary levels of engineering, design, and contract procurement time along with construction project procurement costs by awarding long-term contracts for a wide variety of renovation, repair and construction projects. These contracts are often referred to as IDIQ contracts in the federal government.

With an emphasis on partnering and teamwork between owners and contractors, JOC provides the methodology to execute a wide variety of minor construction and maintenance projects indefinite delivery, indefinite quantity, fixed-price, multiple simultaneous orders for renovation, rehabilitation and repair work for large facilities and infrastructures.

JOC contractors are selected on qualifications and performance at a best value, lowest responsive and responsible bidder, or a combination of both depending on local, state or federal statutes. JOC is about performance, reliability, dependability and quality. At the same time, JOC is about results and working within budget and time constraints. The JOC contractor provides "on call" construction services from concept to close-out.

JOC today has more than a 25-year record of implementation within the United States Department of Defense. Currently, there are hundreds of successful contracts going by the JOC name or by its counterparts of delivery order contracting (DOC), task order contracting (TOC) and simplified acquisition of base engineering requirements (SABER).

JOC deployment hasn't remained solely federal. The JOC concept and principles have been further embraced in all areas of publicly funded state facilities, universities, housing authorities, transportation agencies, healthcare systems, and school systems.

A designated non-profit organization dedicated to education and best practices was formed in 1995 to serve as a resource for information. Further research can be found at Center for Job Order Contracting Excellence

**Locally Preferred Alternative (LPA)**

The final selected scope and design for a major corridor investment. Alternatives analysis is considered complete when a locally preferred alternative is selected by local and regional decision makers and adopted by the Metropolitan Planning Organization (MPO) into the financially constrained, long-range metropolitan transportation plan.

**London Interbank Offered Rate (LIBOR)**

Short-term interest rate used when banks borrow funds from other banks in the London interbank market. The world's most widely used benchmark for short-term loans.

**Major Delay - Rail**

An instance where a train experiences a delay to service of ten minutes or more.

**Mass Transit Accounts (MTA)**

The Mass Transit Fund was created in 1982. The federal tax on motor fuels yielded \$28.2 billion in 2006.

**Mean Miles Between Defects**

The average mileage a train accrues before experiencing a defect.



**Metra**

Commuter Rail division of the RTA responsible for the day-to-day operation of the region's long-distance commuter rail transit service (with the exception of those services provided by the CTA). Metra was created in 1983 by an amendment to the RTA Act.

**Moving Ahead for Progress in the 21st Century (MAP-21)**

A funding and authorization bill to govern United States federal surface transportation spending. It was passed by Congress on June 29, 2012, and President Barack Obama signed it on July 6.

**National Environmental Policy Act (NEPA)**

A United States environmental law that promotes the enhancement of the environment and established the President's Council on Environmental Quality (CEQ). The law was enacted on January 1, 1970.

**National Transit Database (NTD)**

The FTA's primary national database for statistics on the transit industry.

**New Starts**

FTA discretionary program that is the federal government's primary financial resource for supporting locally-planned, implemented and operated transit "guideway" capital investments.

**Non-Farm Payroll**

A compiled employment level of goods-producing, construction and manufacturing companies. It is released monthly by the United States Department of Labor to represent the number of jobs added or lost in the economy over the last month.

**Non-Operating Funds**

Capital grant monies to fund expenses.

**Non-Revenue Vehicle**

Vehicles that do not carry fare-paying passengers and are used to support transit operations.

**Operating Budget**

Annual revenues and expenses forecast to maintain operations.

**Operating Expenses**

Costs associated with the day-to-day operations of the delivery of service for a transit agency. Examples of operating expenses include labor, material, fuel, power, security and professional services.

**Operating Revenues**

Revenues generated from user fees (in the form of farebox revenues) or other activities directly related to operations such as advertising, concessions, parking, investment income, etc.

**Organization of Petroleum Exporting Countries (OPEC)**

OPEC is an intergovernmental organization of 12 developing countries made up of Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. OPEC has maintained its headquarters in Vienna since 1965.

**Pace**

The Suburban Bus Division of the RTA, responsible for non-rail, suburban public transit service and all paratransit service. Pace was created in 1983 by an amendment to the RTA Act.

**Paratransit Service**

Demand-response service utilizing wheelchair-accessible vans and small buses to provide pre-arranged trips to and from specific locations within the service area to certified participants. Paratransit includes demand-response transportation services, subscription bus services and shared-ride taxis.

**Passenger Miles**

The sum of the distances traveled by passengers.

**Pay-As-You-Go Funding**

A practice of financing expenditures with funds that are currently available rather than borrowed.

**Pension Obligation Bonds (POB)**

Debt instruments issued by a governmental entity to fund all or a portion of the Unfunded Actuarially Accrued Liabilities (UAAL) for pension and/or Other Post Employment Benefits (OPEB).

**Performance Management**

The process of assessing and acting upon progress toward achieving predetermined measures and metrics. All operating and most support personnel are held accountable to these measures and metrics. The CTA implemented a performance management program in May 2007.

**Power Washing - Facilities**

The deep cleaning of a CTA station or facility using pressure washing equipment.

**Preliminary Engineering (PE)**

An analysis and design work to produce construction plans, specifications and cost estimates. PE brings plans to 30 percent complete. The next step, Final Design, brings plans to 100 percent completion.

**Preventive Maintenance**

The care and servicing of equipment and facilities in order to maintain them in satisfactory operating condition. Preventive maintenance provides for systematic inspection, detection and correction of incipient failures either before they occur or before they develop into major defects.

**Producer Price Index (PPI)**

A family of indices from the U.S. Bureau of Labor Statistics (BLS) that measures the average changes over time in the prices received by domestic producers of goods and services.

**Proprietary Fund**

One of three broad classifications of funds used by state and local governments. Proprietary funds include enterprise funds and internal service funds. Enterprise funds are used for services provided to the public on a user charge basis.

**Public Building Commission (PBC)**

Formed in 1956, this City of Chicago organization provides professional management of the city's public construction projects.

**Public Funding**

Funding received from the RTA or other government agencies.

**Public Transportation Funds (PTF)**

As authorized by the RTA Act, the Illinois State Treasurer transfers from the State General Revenue Fund an amount equal to 25 percent of RTA sales tax collections to a special fund, called the Public Transportation Fund (PTF), and then remits it to the RTA on a monthly basis. The state funding package increases the percentage of state sales tax dedicated to mass transit and deposits additional amount of funding to PTF. All funds deposited are allocated to the RTA to be used at its discretion for the benefit of the Service Boards.

**Real Estate Transfer Tax (RETT)**

A source of public funding for the CTA collected by the City of Chicago. The 2008 legislation authorized a \$1.50 per \$500 increase in RETT and the CTA receives 100 percent of the RETT increase.

**Real Time Bus Management (RTBM)**

The RTBM System polls the IVN on each bus every thirty seconds for location updates. The buses also send up events when new operators logon, start a new trip or pass a time point. A complex system in a database keeps track of logons, routes and archives the data in real-time.

**Recovery Ratio**

Measures the percentage of expenses that a Service Board must pay against revenues that it generates. The RTA Act mandates that the RTA region must attain an annual recovery ratio of at least 50 percent.

**Reduced Fare**

Discounted fare for children ages seven through 11, grade school and high school students (with CTA ID), seniors 65 and older (with RTA ID), and riders with disabilities (with RTA ID) except paratransit riders.

**Reduced Fare Reimbursement**

Reimbursement of revenue lost by the Service Boards due to providing reduced fares to students, elderly and the disabled. The CTA recovers the cost of trips with both the fare revenue and operating subsidies. The reimbursements are made from the State of Illinois to cover the difference between the standard and reduced fare. Reimbursement amounts are allocated to the Service Boards based on reduced fare passenger trips taken during the year.

**Regional Transportation Authority (RTA)**

The RTA is the financial oversight and regional planning body for the three public transit operators in northeastern Illinois: the CTA, Metra commuter rail, and Pace suburban bus.

**Regional Transportation Authority Act (RTA Act)**

An Act that regulates which public funds may be expended and authorizes the state to provide financial assistance to units of local government for distribution to providers of public transportation, including the CTA. It authorizes the distribution of sales tax revenue collected by the City of Chicago and collar counties, Public Transportation Funds, State Assistance, as well as other funding streams for the CTA. It also outlines criteria that the CTA has to meet for its budget approval.

**Retiree Health Care Trust (RHCT)**

Provides and administers health care benefits for CTA retirees and their dependents and survivors. The trust is a legal entity separate and distinct from the CTA. It is not a fiduciary fund or a component unit of the CTA.

**RTA Sales Tax**

The primary source of operating revenue for the RTA, the CTA, Metra and Pace. The RTA retains 15 percent of the original one percent RTA sales tax authorized in 1983. Of that which remains, the CTA receives 100 percent of the taxes collected in the City of Chicago and 30 percent of those taxes collected in suburban Cook County. Of the funding available from the 0.25 percent sales tax and PTF authorized by the 2008 legislation, the CTA receives 48 percent of the remaining balance after allocations are made to fund various programs.

**Revenue Bond**

A certificate of debt issued by an organization in order to raise revenue. It guarantees payment of the original investment plus interest by a specified date. Debt service payment is secured by a specific revenue source.

**Revenue Equipment**

Includes vehicles that carry fare-paying passengers and equipment used for the collection of fares.

**Ride**

A trip taken by passengers on the bus or rail system.

**Ridership (Unlinked Passenger Trips)**

Total number of rides. Each passenger is counted each time that person boards a vehicle.

**Right-of-Way**

A strip of land that is granted, through an easement or other mechanism, for transportation purposes, such as for a trail, driveway, rail line or highway. A right-of-way is reserved for the purposes of maintenance or expansion of existing services within the right-of-way.

**Rolling Stock**

Public transportation vehicles, including rail cars and buses.

**Run**

Rail or bus operator's assigned period(s) of work on a given day.

**SAFETEA-LU**

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). A federal transit and highway bill signed into act on August 10, 2005, authorizing \$286.4 billion nationwide through 2009, including \$52.6 billion for transit. A reauthorization of the federal transit and highway program is pending congressional action.

**Safety Management System (SMS)**

A comprehensive, collaborative approach that brings management and labor together to build on the transit industry's existing safety foundation to control risk better, detect and correct safety problems earlier, share and analyze safety data more effectively, and measure safety performance more carefully.

**Scheduled Transit Operations (STO)**

The scheduled transit operations classification includes bus operators, motormen and conductors.

**Senate Bill (SB) 1977**

Illinois Senate Bill that stipulates that beginning January 1, 2009, the CTA must make annual contributions to the CTA Pension Fund to achieve a 90 percent funded ratio by 2059. The CTA's Pension Fund's actuary has determined that the fund's assets will be exhausted by 2012 without significant increased contributions and changes to the funding structure and benefit levels.

**Service Boards**

CTA, Metra commuter rail and Pace suburban bus system, as referred to by the Regional Transportation Authority Act.

**Sheriff's Work Alternative Program (SWAP)**

A program where persons convicted of Driving Under the Influence and other low-level offenses are required to provide a variety of community services for municipalities throughout Cook County.

**Slow Zone**

Sections of track where trains must reduce speed in order to safely operate rail service.

**State Assistance**

The supplemental funding provided by the RTA Act in the form of additional state and financial assistance to the RTA in connection with its issuance of Strategic Capital Improvement Program (SCIP) bonds. It equals the debt service amounts paid to the bondholders of the SCI bonds plus any debt service savings from the issuance of refunding or advanced refunding SCIP bonds, less the amount of interest earned on the bonds' proceeds.

**State of Good Repair (SOGR)**

An asset or system is in a state of good repair when no backlog of capital needs exists – hence all asset life cycle investment needs (e.g., preventive maintenance and rehabilitation) have been addressed and no capital asset exceeds its useful life. Therefore, the first priority for a transit system is to maintain infrastructure and equipment, making regular repairs where needed and retiring equipment from service at the end of its life cycle.

**State of Illinois' Public Transportation Fund (PTF)**

As authorized by the RTA Act, the Illinois State Treasurer transfers from the State General Revenue Fund an amount equal to 25 percent of RTA sales tax collections (or gasoline or parking taxes, if imposed by the RTA). The treasurer transfers this amount to a special fund, called the Public Transportation Fund (PTF), and then remits it to the RTA on a monthly basis. The RTA uses these funds at its discretion to fund the service board needs, RTA operations, debt service and capital investment.

**State Transportation Improvement Plan (STIP)**

The FY 2006-2009 Statewide Transportation Improvement Program (STIP) is a four-year program of highway and transit projects developed to fulfill the requirements set forth in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and its successor, the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), and in the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU). The FY 2006-2009 STIP totals \$15.66 billion with \$7.1 billion for highway improvements and \$8.56 billion for transit capital improvements and operating assistance.

**Stimulus Funds**

See American Recovery and Reinvestment Act.

**Suburban Community Mobility Fund**

Outlined by the RTA Act, grants and appropriations from the state, which the RTA distributes to the Suburban Bus Board for operating transit services, other than traditional fixed-route services, that enhance suburban mobility, including, but not limited to, demand-responsive transit services, ride sharing, van pooling, service coordination, centralized dispatching and call taking, reverse commuting, service restructuring and bus rapid transit.

**System-Generated Revenue**

Revenue generated by the CTA. Includes fare revenue, advertising, investment income, income from local governments by provision of the Regional Transportation Authority Act, and subsidies for reduced fare riders per 1989 legislation.

**TEA-21**

Transportation Equity Act for the 21<sup>st</sup> Century, a federal transportation package that reauthorized the Federal Transit Program for the eight years from 1998 through 2005. Grants can pay up to 80 percent of a capital project, with the remaining 20 percent funded from local sources.

**Ten-Year Swap Rate**

The rate paid by a fixed-rate payer on an interest swap with maturity of ten years.

**Ten-Year Swap Spread**

The gap between the rates to exchange floating for fixed interest payments and treasury yield for ten years. By taking into account the investments that contain credit risk, as well as the ones that are often viewed as risk-free, swap spread indicates investors' expectations of the market.

**Transportation Infrastructure Finance and Innovation Act (TIFIA)**

The Transportation Infrastructure Finance and Innovation Act (TIFIA) program provides credit assistance for qualified projects of regional and national significance. Many large-scale, surface transportation projects - highway, transit, railroad, intermodal freight, and port access - are eligible for assistance. Eligible applicants include state and local governments, transit agencies, railroad companies, special authorities, special districts, and private entities. The TIFIA credit program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital.

**Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER)**

The TIGGER Program has been continued in FY2011 through the Department of Defense and Full-Year Continuing Appropriations Act 2011 (Pub. L. 112-10). \$49.9 million was appropriated for grants to public transit agencies for capital investments that will reduce the energy consumption or greenhouse gas emissions of their public transportation systems.

**Transportation Improvement Plan (TIP)**

A six-year financial program that describes the schedule for obligating federal funds to state and local projects. The TIP contains funding information for all modes of transportation, including highways and high-occupancy vehicles, as well as transit capital and operating costs.

**Top Operator Rate**

The top hourly rate paid to CTA bus and rail operators, based on employee seniority within the job, as specified by the union contract.

**Trip**

A one-way bus or train trip from origin to destination terminal.

**Traffic Signal Prioritization**

Operational strategy where communication between a transit bus and a traffic signal alters the timing of the traffic signal to give priority to the transit vehicle.

**Unified Work Program (UWP)**

The Unified Work Program lists the planning projects the Chicago Area Transportation Study and other agencies undertake each year to enhance transportation in northeastern Illinois and to fulfill federal planning regulations. The UWP is designed to run in conjunction with the State of Illinois fiscal year timeline of July 1-June 30. The final UWP document includes the transportation planning activities to be carried out in the region, detailing each project's description, products, costs, and sources of funding.

**Unlinked Passenger Trip**

An unlinked passenger trip is a single boarding of any transit vehicle. Thus, unlinked passenger trips for any transit system are the number of passengers boarding public transportation vehicles. A passenger is counted each time he boards a vehicle, even if the boarding is part of the same trip.

**Vehicle Revenue Hours**

The hours that vehicles travel while in revenue service. Vehicle revenue hours include recovery time but exclude travel to and from storage facilities.

**Vehicle Revenue Miles**

Miles that vehicles travel while in revenue service. Vehicle revenue miles exclude travel to and from storage facilities.

**Ventra**

Payment system for CTA and Pace that allows customers to pay for train and bus rides with the same methods used for everyday purchases and also allows them to manage their accounts online and choose from several different contactless payment methods.