

[BOOK FRONT COVER]

[Picture of art work at Wilson Station – Red Line]

[Picture of bus at a bus stop – Loop Link]

[Picture of Train at an “L” station – Loop]

TRANSFORMING TRANSIT FOR THE 21<sup>ST</sup> CENTURY

President’s 2019 Budget Recommendations

[CTA Logo]

[BACK PAGE OF FRONT COVER]

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Dorval R. Carter Jr., President

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## LETTER FROM THE PRESIDENT

Dear CTA customers:

When most people think of “Chicago,” they think about a few things: stunning architecture, a beautiful lakefront, great food (and not just pizza), championship sports teams. But more often than not, they also think of the Chicago Transit Authority.

Few transit systems in the world are so inextricably linked with their cities. The CTA is part and parcel of Chicago, as iconic as the city’s skyline. The CTA connects neighborhoods across the city, and every weekday 1.5 million customers take a CTA train or bus to work, to school, to visit friends and family, to enjoy the many cultural attractions, sporting events and community celebrations the region has to offer.

But CTA also plays an important role beyond just getting people to their destinations. CTA has helped foster economic development and improve neighborhoods. CTA investments to modernize the system have created jobs, helped attract companies and spurred private investment in communities across the city.

Since 2011, under the leadership of Mayor Rahm Emanuel, the CTA has embarked on an unprecedented level of modernization. More than \$8 billion in projects—from new or completely rehabbed buses and rail cars, to new and rebuilt rail stations, to new and expanded technologies—have been completed, begun or announced over the last seven years. All of those investments are a step toward transforming the CTA into a 21st century transit system.

For 2019, I am pleased to propose a balanced operating budget of \$1.552 billion. I am also proposing a five-year, \$2.9 billion Capital Improvement Plan (CIP) for 2019-2023.

I’m also pleased to announce there will be no changes to CTA fares or service levels in the 2019 budget.

The path to a balanced budget, one that holds the line on fares and preserves service, isn’t an easy one. Thoughtful planning, prudent management, and a focus on providing the highest possible level of service have been our guiding principles.

But despite the historic infrastructure investment and our ability to hold the line on fares and service, the CTA faces challenges and uncertainty. For the fourth year in a row, the State of Illinois budget has reduced operating budget funding to support regional transit. CTA, which carries more than 80 percent of the region’s transit rides, has shouldered the largest portion of the state cuts: more than \$46 million in reduced funding in 2018 and a projected additional \$15 million reduction in 2019. That number could grow larger if the state extends the cuts in its FY2020 budget.

Faced with dwindling and uncertain funding, the CTA has continually found ways to work more nimbly. Since 2011, we’ve realized \$330 million in cost savings, operational efficiencies and additional, non-fare box revenue—more than 20 percent of our entire budget. Over \$150 million of that has been achieved since I became President in May 2015, including the elimination of 145 management positions and freezing 150 positions. I also negotiated a labor agreement in 2018 that supported our hardworking men and women while preserving CTA’s commitment to providing the highest quality service. That agreement also secured the future of our nationally renowned Second Chance Program, expanding the program to help even more people begin the path toward productive careers.

On the capital side, the CTA continues to grapple with the lack of state funding. Illinois has not passed a capital bill since 2009, a program that typically provides over \$200 million per year for improvement projects. The lack of certainty posed by the absence of a consistent, long-term capital bill is a growing concern. If it’s not addressed soon, CTA will not be able to continue the critical investment seen over last several years.

Despite those fiscal challenges, CTA continues to find ways to innovate and transform. We continue to modernize our bus and rail fleets, including the largest rail car purchase in the CTA’s history. The CTA’s new 7000-series railcars not only

will help the agency maintain one of the youngest fleets among U.S. transit agencies, but the new vehicles will be assembled in a new manufacturing facility on the South Side of Chicago. Earlier this year, we placed an order for 20 new electric buses, which will give the CTA one of the largest electric fleets in the country.

We continue to make smart, strategic investments in modernization, creating stations that exceed the expectations of the 21st Century transit customer. Transformative stations like 95th Street and Wilson have created new landmarks in their communities, while gateway projects at Garfield Green Line and Belmont Blue Line will help shape new identities for their neighborhoods.

We continue to invest in technology that improve our customers' experience—from additional Train and Bus Tracker screens, to expansion of our security camera network, to the continued evolution of our industry-leading Ventra app. In late 2018, I also will launch a pilot test of new display screens on buses, to provide real-time information to riders—the latest of many bus improvements I've pursued since becoming President.

In 2019, the CTA will continue to face the challenges of a changing marketplace. Today's world is less about transportation than mobility, and new marketplace competition, low gas prices and other factors have created a greater urgency to the CTA to innovate and transform.

When I became President, I established three strategic goals to guide all of the agency's initiatives: Safety, Customer Experience and Workforce Development. Through a multitude of projects and programs, we have made remarkable progress toward improving each of those key areas. Our customers have benefitted from myriad improvements we've made as part of our focus on those strategic goals. But we recognize there is still more work to do.

For 71 years, CTA has been woven into the city's fabric. Transit must remain as the lynchpin of a vibrant, sustainable city. CTA must remain agile, focused and innovative in order to continue the transformation that's under way.

It won't be easy, but we are ready for the challenge.

Sincerely,

Dorval R. Carter, Jr.

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## ORGANIZATIONAL CHART

[This is the CTA Organizational chart]

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

Eleven branches are under the President, as follows:

The first branch is Planning with Strategic Planning, Scheduling & Service Planning, Community Relations, and ADA below.

The second branch has General Counsel at the top, with Corporate Law and Litigation, Labor Policy & Appeals, Torts, and Claims below.

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

The fourth branch has Safety, Security, & Control Center Operations at the top, with Safety, Security, and Control Center below.

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

The sixth branch has Strategy, Data & Technology at the top, with Technology, Data Analytics and Strategic Business Initiatives below.

The seventh branch has Finance at the top, with Accounting, Budget & Capital Finance, Treasury, Revenue and Finance & Payroll Systems below.

The eighth branch has Administration at the top, with Human Resources, Purchasing & Supply Chain, Diversity & DBE Compliance, Training & Workforce Development, and Performance Management below.

The ninth branch is Legislative Affairs.

The tenth branch is Communications.

The eleventh branch is Red Purple Modernization.

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## EXECUTIVE SUMMARY

2019: Transforming Transit for the 21st Century

### OVERVIEW

The Chicago Transit Authority (CTA) has remained part of the fabric of Chicago for more than 70 years. CTA provides 1.5 million rides every day and more than 80 percent of transit trips across Chicago and 35 surrounding suburbs. As the city's largest public transportation network, and the second largest transit-provider in the United States, the CTA is a critical connector of people, jobs and communities. Transit agencies throughout the world look to the CTA as a model of what a modern, innovative and ever-evolving transit provider can be.

The CTA works tirelessly toward creating a 21st Century transit experience that efficiently serves Chicago residents and visitors, both now and for generations to come. Under the leadership of Mayor Rahm Emanuel and CTA President Dorval R. Carter, Jr., the CTA continues to modernize infrastructure, enhance safety and security, enrich workforce development, and improve customer experience.

In the last seven years, the CTA has completed, announced or begun more than \$8 billion in modernization projects across the entire system. The CTA is proud that those projects have not only improved service, but also served as a catalyst for neighborhood economic development, as well as job and contracting opportunities. The agency has been on the cutting edge of using technology to improve performance and enhance customer information.

In 2019, the CTA will build on those important priorities—continuing to modernize its fleet and facilities, despite reduced state funding and a host of external challenges—and providing the transit service that is vital to the region.

### CUSTOMER EXPERIENCE

#### Rail Improvements

FastTracks Program. The FY19 CTA Budget includes capital funding to reduce and prevent slow zones on the rail system. This targeted program of track repairs and maintenance, announced in 2018, will provide faster commutes and smoother rides for 'L' customers, improvements made possible by Mayor Emanuel's innovative fee on ride-hailing services.

The FastTracks program will reduce by up to six minutes a typical round-trip commute on the Red, Blue, Brown and Green Lines, the four busiest rail lines, by repairing and upgrading rail, rail ties and electrical power in multiple locations throughout the system.

Track and power improvements have occurred on the south branch of the Green Line, the Lake Street branch of the Green and Pink lines, the Blue Line's O'Hare and Congress branches, the Red and Blue Line subways, and the northern end of the Brown Line. To date, FastTracks has removed five miles of slow zones.

Rail car investment. The CTA is also investing in a younger rail fleet to provide customers with a more comfortable, reliable commute and lower the agency's maintenance and repair expenses.

[Picture: CTA train at elevated platform.]

The newest rail cars— the 7000-series - to be built by CRRC Sifang America JV, will be assembled at a new facility built on the Far South Side by CRRC in 2018. These 7000-series vehicles are the first railcars purchased by CTA in more than a decade since 2006, when the 5000-series contract was awarded to Bombardier.

In 2018, CTA also completed its overhaul of more than 250 3200-series rail cars, which were built in 1992 and 1993. The rail cars received new major operating systems, including the installation of new air conditioning systems and the

rebuilding of the propulsion system, passenger door motors and wheel and axle assemblies. The rehab work has greatly improved performance and reliability.

## Bus Improvements

CTA is dedicated to improving the quality, frequency and reliability of bus service. Improvements under Mayor Emanuel's leadership include the creation of Loop Link and the new Union Station Transportation Center, increasing the profile of bus service in the city's downtown business district, and improving reliability. Ridership at Loop Link stops has grown steadily since launch. So far in 2018, Loop Link has averaged a two percent increase, year-over-year, continuing to outpace the system trend.

Prepaid bus boarding. As part of CTA's continuing efforts to improve service and reliability for customers, CTA has piloted prepaid boarding at the Belmont Blue Line CTA station. Allowing customers to prepay their fares before boarding has made boarding quicker and easier, saving customers an average of 38 seconds and increasing service reliability. The pilot will be made semi-permanent as part of the Belmont Blue Gateway project, which will be complete by the end of 2018. CTA will continue to identify opportunities to expand prepaid or all-door boarding in 2019.

South Halsted study. In early 2019, CTA will complete a study of an 11-mile portion of South Halsted Street, in coordination with Pace. The study will identify ways to improve speed and reliability by looking at four CTA and Pace routes that serve South Halsted. Recommendations will target improved customer experience and enhanced mobility for the more than 11,000 Far South Side and south suburban customers who travel through the corridor and connect to the 95th and 79th Red Line stations each day.

Express bus service and traffic-signal prioritization. Following the 2015 implementation of express bus service during the morning and evening rush periods on Ashland and Western Avenues—two of CTA's busiest bus corridors—ridership continues to outperform the bus system overall. Since 2016, ridership on the express routes beat bus system trends by nine percent (X49) and six percent (X9). In addition, Transit Signal Priority (TSP) will further increase bus speed and reliability on these high-traffic streets. Implementation of TSP on the entire Western Avenue corridor (79th to Howard) will be complete by the second quarter of 2019. TSP on the south portion of Ashland Avenue (95th Street to Cermak Avenue) was completed in 2016 and the north portion of the corridor (Cermak to Irving Park) will begin construction in 2019.

Bus investment. CTA continued its efforts to modernize the agency's bus fleet and work toward making Chicago one of the greenest cities in the world. In 2018, it awarded a \$32 million contract for the purchase of 20 new, all-electric buses. In addition to lower emissions that benefit air quality, electric buses offer significant savings in fuel costs and maintenance costs.

[Picture: Electric bus.]

The new electric buses will give the CTA one of the largest electric bus fleets in the country—another step toward Mayor Emanuel's efforts to promote green initiatives and address climate change.

Since 2012, CTA has purchased 425 new buses, replacing buses that were more than 15 years old. In addition, CTA has performed mid-life overhauls on more than 1,000 buses to extend their lifespans and make them more environmentally friendly than when they were brand new.

In 2018, CTA continued its bus overhaul efforts with its \$54 million upgrades to more than 200 hybrid 60-foot articulated buses – the longest buses in its fleet serving many of the busiest bus routes in the city. The overhaul program will provide CTA customers with cleaner, greener and more reliable buses.

Articulated bus overhaul. In 2018, CTA continued its bus overhaul efforts with \$54 million in upgrades to more than 200 60-foot hybrid, articulated buses – the longest buses in its fleet serving many of the busiest bus routes in the city. By year's end, up to 170 buses will be overhauled and, next year, the remaining buses will be overhauled, as well. All buses

engines will be reconditioned and some major components will be replaced or overhauled. The overhaul program will provide CTA customers with cleaner, greener and more reliable buses.

## Accessibility

All Stations Accessibility Plan. In 2018, CTA released its first-ever blueprint to make the rail system 100 percent vertically accessible to people with disabilities over the next 20 years. The All Stations Accessibility Program (ASAP) Strategic Plan lays out the agency's proposed plans to increase accessibility through the addition of elevators at 42 rail stations that are currently inaccessible by wheelchair. The plan also details future upgrades or replacements for 162 existing passenger elevators across the rail system. The ambitious plan is dependent on federal, state and local funding, and CTA will use the ASAP Plan to build support for funding.

Commitment to accessibility continues. CTA already has made significant progress in making its system fully accessible. All CTA trains and buses are wheelchair accessible and over 70 percent of all CTA rail stations are accessible via elevator or ramp, putting CTA ahead of most of its peers across the transit industry. In 2018, the CTA and the Chicago Department of Transportation opened the new Washington/Wabash station, replacing two inaccessible Loop stations with a modern, accessible station. Also in 2018, the Illinois Medical District station was upgraded, making all three of its entrances accessible to people with disabilities, and the Quincy Loop station project is nearing completion, bringing accessibility to another downtown Loop station. Over the last five years, CTA has also added elevators to the Garfield, 63rd, and 87th stations on the Red Line South branch, the Addison station on the Blue Line O'Hare branch, and the Clark/Division and Wilson stations on the Red Line North branch. With the completion of Quincy, 103 of 145 rail stations will be accessible. In 2019, CTA will continue to work to realize ASAP goals.

## Technology

Redesigned web site. In 2018, CTA redesigned [transitchicago.com](http://transitchicago.com). The easier-to-navigate, more mobile-friendly design offers content and features that put commuters on the fast track to information they need to get them where they want to go. The web site features a brighter, more open layout, with useful tools that are more adaptable to all screens – whether you're using a desktop, laptop, tablet or mobile device. The changes make the site easier and faster to browse on all devices, while continuing to showcase the links you need to navigate the system and the city faster and more efficiently. New accessibility features help people with visual impairments use our web site with greater ease. Additional enhancements to [transitchicago.com](http://transitchicago.com), meant to improve the customer's experience, include improved navigation and start page; better search functions; improved elevator status visibility; trip planning and trip info.

Ventra app updates. The popular, award-winning Ventra app now offers Apple Pay as a way to purchase CTA and Pace fares, and Metra mobile tickets, providing additional convenience for transit customers. Apple Pay, a mobile payment and digital wallet service, lets users make payments using an iPhone, Apple Watch, iPad or Mac, and can now be used on the app to purchase transit value or 1-, 3-, 7- and 30-day unlimited ride passes. CTA anticipates adding additional mobile wallets, including Google Pay, to the Ventra app in the near future.

Digital information screens. CTA has expanded the number of Train Tracker displays at rail stations to 760. CTA also installed 195 urban panels (advertising and train information panels at street level adjacent to the station) which are located on the street and visible to customers before they enter rail stations. In 2018, CTA redesigned its station screens to include a passenger information bar at the bottom of the screen showing train tracker information. CTA will also begin a pilot of digital information screens on buses, providing arrival times and other service information, by the end of 2018.

## Public Art

Art and Architecture Book. In 2018, the CTA completed *Elevated: Art and Architecture of the Chicago Transit Authority* – a new book celebrating and chronicling the extensive collection of public art and significant architectural details across the nation's second largest transit agency. Creation of the new book is part of CTA's vision to expand and showcase public art across Chicago's bus and rail system, while also enriching the experience and minds of those who travel the system each day. *Elevated: Art and Architecture of the Chicago Transit Authority*, is a 448-page hardcover book that



serves as a guide to the more than 70 works of art and 24 significant architectural elements showcased across the CTA system. The book features stunning visuals, captured through the lens of award-winning Chicago photographer Aron Gent, as well as essays by world-renowned, Chicago-based artist and architect Iker Gil, as well as Tim Samuelson, Chicago's official Cultural Historian.

[Picture: Public art in rail station; mosaic flower on ceiling above turnstiles.]

Transit artwork. CTA's collection of public art has nearly doubled since 2011, with more than 70 works of art across all eight rail lines and including mosaics, art glass and sculptures created by nationally and internationally acclaimed artists, many of whom are from Chicago. In 2019, CTA will unveil signature art works by Theaster Gates at the new 95th/Dan Ryan station, and by Nick Cave at the Garfield Green Line station.

## SAFETY AND SECURITY

Safe and Secure. CTA launched the new Safe and Secure program, another program funded by the City's new ride-hailing fee, as a multi-faceted effort to increase safety across the CTA system and provide a more secure, comfortable traveling experience. Begun in 2018, CTA is in the process of adding 1,000 new cameras and upgrading more than 3,800 older-model cameras throughout the system to high-definition. Additionally, new lighting, repairs and other improvements will enhance safety at about 100 CTA rail stations. New cameras also will be installed at more than 100 CTA bus turnaround locations, and video monitors will be added to all CTA rail stations to aid personnel in monitoring station and customer activity. Since June 2011, CTA cameras have aided police in the investigation, arrest and charging of more than 1,300 individuals.

Safety Management System (SMS). CTA has worked to strengthen its safety culture and ensure staff follows 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, or SMS. Through a partnership with the Federal Transit Administration, CTA has developed and tested a Safety Risk Management process to formalize safety reporting and information gathering. CTA anticipates full implementation of new and enhanced safety protocols over the next year. These efforts will help further instill a culture of safety throughout every level of the organization.

Security. CTA works closely with the Chicago Police Department's Public Transportation Unit to strengthen and deploy strategies to fight crime that include expanded police patrols, rail saturation missions and undercover operations. CTA's 33,000 cameras throughout its system, monitoring every bus and train and every rail station, have proven to be an invaluable tool for police and their investigations into crimes committed either on or near CTA property. CTA has also expanded its efforts in cybersecurity and physical security of properties across the system.

Department of Homeland Security/Transit Security Grant Program. The Transit Security Grant Program (TSGP) is one of the Department of Homeland Security's initiatives that directly support transportation infrastructure security activities. CTA is a direct recipient of TSGP awards and utilizes funding to protect the traveling public and critical transit infrastructure from acts of terrorism. In FY2018, CTA was awarded \$10.7 million to fund a number of its security initiatives.

## WORKFORCE DEVELOPMENT, COMMUNITY INVESTMENT AND PROMOTING OPPORTUNITY

CTA's Workforce. CTA's workforce of over 10,000 employees' is entrusted to provide safe and reliable transportation services to nearly 1.5 million passengers per day. To meet our day-to-day workforce needs, the CTA hires approximately 1,200 new employees each year to fill various positions within the organization. CTA's recruitment efforts consist of local and nationwide career marketing initiatives, as well as participating and/or sponsoring locally-based job fairs. In 2018, CTA expanded promotion of these opportunities with bi-lingual advertisements on the system and increased the number of community partnerships. CTA's recruiting efforts promote industry-based professions while focusing on diversity and inclusivity. CTA was recognized in 2018 by the Hispanic/Latino Professionals Association as one of America's Best Places to Work for Hispanics/Latinos. The Authority also recently updated the job application process to make it mobile-friendly and improve the overall applicant experience.

CTA's Second Chance program. One of the largest programs of its kind in the country, CTA significantly expanded its Second Chance program in 2018. This life-changing

program provides opportunities for non-violent ex-offenders, victims of domestic abuse and others facing barriers to employment. Second Chance is a holistic program that provides training, educational opportunities and support to help participants gain valuable work experience and get back on their feet. CTA partners with social services agencies to recruit Second Chance participants and provide them with a wide array of in-class education, hands-on training, and networking opportunities to further develop their skill set and enhance their future job prospects. In 2018, CTA negotiated a wage increase for all Second Chance participants. It added 50 new rail janitor positions, bringing the total number of second chance opportunities to 315 and extended the terms of employment for rail participants from nine to twelve months. CTA also expanded the number of partner agencies in 2018.

[Picture: CTA employee cleaning the inside of a rail car.]

The changes were a result of successful contract negotiations between the CTA and the Amalgamated Transit Union (ATU), Locals 308 and 241, which represent CTA's rail and bus employees, respectively. To date, more than 975 non-violent ex-offenders have entered this invaluable program and more than 285 participants have secured permanent employment at CTA. Many others have secured permanent jobs elsewhere because of their successful experience at CTA.

Workforce participation goals. Because CTA believes in investing in communities, CTA now requires a workforce plan for all major 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 disadvantaged workers with CTA construction jobs. For major contracts, CTA sets a minimum standard for disadvantaged workers. And, for the major Red-Purple Modernization contract, CTA has established minimum standards for the number of disadvantaged workers, union apprenticeship opportunities, and workers from disadvantaged communities. This is in addition to the CTA's commitment to requiring certified DBE participation in CTA contracts.

DBE outreach and inclusion. CTA's workforce development efforts include programs to certify and educate companies as Disadvantaged Business Enterprises—or DBEs to increase their chances of participation in CTA contracts; DBE meet and greets with prime contractors; participation in job fairs and partnering with local community groups on major CTA projects to ensure access to jobs and training. In order to help small businesses grow, CTA has also established a Small Business Enterprise (SBE) program and set aside numerous contracts so that only SBE or DBE businesses can compete for the work.

[Picture: Crowd of people listening to a presenter at an outreach meeting.]

Driving Small Businesses the Distance. In 2018, CTA instituted a quarterly educational series that continues to have a transformative impact on small businesses throughout Chicago communities. The series explains how CTA works to ensure small and minority-owned businesses are aware of the various contracting opportunities available and what steps need to be taken to apply for them. This program complements CTA's already strong track record of working with small businesses and is working actively to increase the number of opportunities available to small businesses and those owned by minorities such as women, African-Americans and Latinos.

Small Business Educational Initiative. CTA works diligently and makes every effort to ensure diversity in contracting and that its Disadvantaged Business Enterprise (DBE) goals are met. In 2017, CTA launched its Green Line Small Business Initiative, a program focused on providing training and assistance to small businesses and DBEs so they could compete for large-scale CTA work related to upcoming improvements planned for four Green Line stations. Program participants engaged in a five-course educational series hosted by CTA and received instruction from key CTA contractors who provided their insight on best practices, managing and understanding projects, project reporting and other subject areas. CTA built upon this work in 2018 with the Your New Blue Educational Series to provide assistance to small businesses so they could compete for work on the Your New Blue projects active in 2018 and 2019.

Promoting educational opportunity. CTA provides career development opportunities to a variety of Chicago residents through its multiple internship programs. In addition to offering high school students a mechanics vocational internship program during the summer months, for the past three years, CTA also partnered with the City of Chicago's One Summer Chicago (OSC) program to offer more than 100 high school students meaningful and paid, part-time employment opportunities. These programs complement CTA's year-round and highly competitive college internship program, which this year has had more than 40 undergraduate- and graduate-level interns representing approximately two dozen colleges and universities. Furthermore, CTA partners with DePaul University to offer customized, graduate-level training for managers.

U.S. Employment Plan and rail car purchase. CTA's plan to purchase 846 new rail cars was first announced in 2016. The rail car purchase 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 U.S. Employment Plan in procurement. The U.S. Employment Plan is an innovative approach to use public transportation funds to create good jobs in the United States, by focusing on leveraging the purchases of buses and trains to help create job opportunities for the underemployed. In 2017, the contractor selected for the rail car manufacturing broke ground on a new final assembly plant on the city's Far South Side, which will create 170 new jobs in Chicago. In 2018, the contractor completed the construction of the assembly plant, which now awaits the first rail car parts to arrive.

## MODERNIZATION INVESTMENT

### Major Modernization Programs

Red and Purple Modernization. In 2018, the CTA continued to make significant progress with the largest capital improvement project in CTA history: the Red and Purple Modernization Program (RPM). This major initiative will completely rebuild the nearly century old North Red Line from Belmont to Howard and the Purple Line from Belmont to Linden in Wilmette. The project will increase much needed capacity in this growing residential corridor to accommodate current and future riders, and will deliver faster and smoother rides with less crowding and more frequent service. This massive, multi-stage project is scheduled to be completed in several phases, which allows CTA to make the greatest number of improvements while minimizing impacts on riders and the surrounding communities. In 2018, CTA began significant work on RPM Phase One, which will completely rebuild the Lawrence, Argyle, Berwyn and Bryn Mawr stations and all the tracks and support structures for more than a mile adjacent to the station. RPM Phase One will also construct a Red-Purple Bypass just north of Belmont station for northbound Brown Line trains to modernize the 100-year-old Clark junction where Red, Purple and Brown Line trains currently intersect. CTA began property demolition and advance utility work in the Phase One areas in 2018, while continuing extensive outreach to neighborhood residents and businesses. CTA anticipates awarding the design-build contract for Phase One by the end of 2018 and issuing a Notice to Proceed to the Design-Build Contractor in early 2019.

Your New Blue. CTA in 2018 continued to move forward with its ambitious Your New Blue modernization of the O'Hare branch of the Blue Line. CTA announced the start of the next two major Blue Line station improvement projects - the Belmont Blue Gateway project and the renovation and modernization of the Jefferson Park Transit Center. The Jefferson Park and Belmont Transit Centers are valuable transit connections for the Northwest Side of Chicago, and are the fourth and seventh-busiest stations along the O'Hare branch, respectively. This will be the first time Belmont Blue has undergone a major renovation since it opened nearly 50 years ago, while Jefferson Park gets its first major upgrade since 2001. The \$17 million upgrades to the Belmont Blue Line terminal will include the addition of a new architectural steel canopy for the terminal, designed by the Chicago architecture firm Carol Ross Barney and more modern bus arrival and departure areas – featuring new LED lighting, repaved surfaces and new signage - to speed bus boarding and a more convenient environment for pedestrians. The \$25 million rehabilitation to the Jefferson Park Transportation Center will create a modern terminal that is safer, brighter, cleaner, more comfortable and easier-to-navigate, while visually enhancing the streetscape for the Jefferson Park community. CTA also continues to work on signal improvements, as well as planning for electrical power upgrades—both required to enable more trains to run during AM and PM rush, where demand has grown significantly.

Red Line Extension. CTA continues to move forward with planning for the \$2.3 billion Red Line Extension project between 95th and 130th streets. The proposed 5.3-mile extension would include four new, fully accessible stations at 103rd Street, 111th Street, Michigan Avenue, and 130th Street. A modern, efficient rail car storage yard and shop facility is also part of the project. The project would provide a one-seat ride for far South Side residents from 130th Street to downtown, reduce commute times, improve mobility and accessibility for transit-dependent residents, provide multimodal connections, and foster economic development. The project would provide viable linkages between affordable housing, jobs, services, and educational opportunities, thereby enhancing livability and neighborhood vitality. In 2018, based on public feedback, technical analysis, and agency coordination, CTA selected a preferred alignment for the route.

### Station Projects

Wilson Red Line. CTA completed the transformational \$203 million Wilson Station Reconstruction Project, with the opening of the new, modern Wilson main stationhouse, replacing a badly deteriorated structure with a bright, spacious stationhouse that has an elevator that made the station fully accessible to all customers. The CTA opened two additional entrances, opened a second new platform, completed remaining track structure work, and began Purple Line stops at Wilson to allow customers to transfer between Red and Purple Line trains. CTA also completed a full restoration of the historic Gerber Building and entered into a lease with a community grocery co-op.

[Picture: CTA train station at night.]

Quincy. CTA is nearing completion of its \$18.2 million project to renovate the historic Quincy Loop station and make the 120-year-old station fully wheelchair accessible, while preserving its renowned historic appearance. It was the largest renovation in nearly 30 years for Quincy, which is one of CTA's oldest stations and was built in 1897.

95th Street Terminal. In April 2018, the CTA opened the first of two brand new bus and rail terminal facilities at 95th Street. The completion of the South Terminal—which included expanded bus boarding areas and pedestrian improvements—was a major milestone in a \$280 million project that is building a state-of-the-art 95th/Dan Ryan station on the city's South Side. The 95th/Dan Ryan station is one of CTA's busiest stations and an important multi-modal hub, with 24-hour Red Line service and over 20,000 daily bus and rail passengers, including Pace and Greyhound. When the North Terminal is completed, 95th/Dan Ryan will be a signature station on Chicago's South Side that will provide customers with a modern design and amenities to improve the overall transit experience.

[Picture: Outside of new CTA 95th Street station.]

Illinois Medical District. In 2018, CTA completed and opened the \$23 million renovated, modern Illinois Medical District (IMD) Blue Line station. The final milestone in the project was the opening of a newly renovated main entrance on Ogden Avenue, which included a new elevator, and the revamped auxiliary entrance on Paulina Avenue. Improvements to the stationhouse and its concourse, along with upgrades to the station-to-platform ramp, mean this vital West Side transit center—with three entrances—now offers increased accessibility and a better customer experience for area residents, as well as visitors to one of the nation's largest medical districts.

[Picture: Outside of new CTA Illinois Medical District station.]

Garfield Gateway. CTA continues a \$50 million project to completely renovate the Garfield Green Line station. The renovated Garfield Gateway will include a new streetscape and renovation of the historic Garfield stationhouse, to be used as a community space. The project, which will feature artwork by renowned artist Nick Cave, will create a strong community focal point on Chicago's South Side and be an iconic gateway to the Washington Park community.

Damen Green Line. CTA and the City of Chicago unveiled designs for a brand-new CTA station on the Green Line at Damen Avenue. The new station will fill a 1.5-mile gap between existing Green Line stations at California and Ashland to better serve the growing business corridor and residential neighborhood on Chicago's Near West Side, as well as the United Center.

[Picture: Rendering of outside of new Damen Green Line station.]

Cottage Grove Green Line. In 2018, CTA continued to work with community partners on design concepts to improve the Cottage Grove Green Line station for customers. This work is complemented by City of Chicago plans for redevelopment around the station at 63rd Street and Cottage Grove Avenue, as part of ongoing redevelopment and renewal in the Woodlawn neighborhood.

King Drive Green Line. In 2018, CTA announced \$6 million in improvements at the King Drive Green Line station on the city's South Side. Currently in the engineering and design phase, major work is anticipated to begin in 2019. Most notable among the improvements to be made at the station is rebuilding the station elevator and towers, which were originally constructed 25 years ago. The renovation will also include LED lighting, new signage, new paint, and new stainless steel features throughout the station.

## PROMOTING CTA

75th Anniversary of the State Street Subway. CTA celebrated the 75th anniversary of the engineering marvel that created Chicago's first subway. The event recognized the importance of the subway and the CTA in the economic growth and development of the city.

25th Anniversary of Orange Line Service. CTA will mark the 25th anniversary of the Orange Line, the agency's most recently completed rail line. Opened in 1993, the line provides a direct connection to Midway Airport.

Pride Train. In 2018, CTA again put its popular "Pride Train" into service. Debuting the previous year, this train with rail cars wrapped with the rainbow Pride flag, traveled the Red Line, to join the city in celebrating Pride Weekend and to support equality and inclusion. CTA also offered Pride-themed Ventra tickets at stations across the city.

[Picture: CTA pride train.]

Community bus. In 2018, CTA's popular Community Bus—a CTA-branded and staffed bus—rolled into neighborhoods throughout the city to provide travel information and serve as a brand ambassador for CTA. The bus appeared at more than 30 events and festivals across the city, offering information on CTA, mobile phone charging and a respite from the summer heat.

[Picture: CTA Community bus.]

New Resident Program. In August 2017, CTA launched its New Resident Program, a direct mail campaign designed to attract new Chicagoland residents to CTA buses and trains through an introductory ride offer. The mailer includes a new Ventra card, plus information about CTA, Ventra card registration and passes pricing.

Commemorative farecards. Over the past few years, CTA has developed a number of specialized farecards, including the Pride Parade, the 2016 World Series and others. In 2018, the promotion included several events, including the Chicago Marathon and Pride Weekend. CTA also launched a new card in conjunction with Northwestern University's football season.

[Picture: Northwestern Wildcats-themed commemorative farecard.]

## CONCLUSION

The CTA remains the lifeblood of Chicago and over the past few years has begun a transformation to meet the needs of 21st century riders.

The CTA does more than move passengers from Point A to Point B. It drives economic development, job opportunities and personal growth that no other mobility option can match. Chicago is a world-class city because the CTA is a cornerstone on which commerce and culture depend. To remain competitive, the CTA must continue to transform.

The CTA's 2019 Budget, balanced and fiscally responsible, is an important step in that direction and continues our core commitment to providing quality, reliable, affordable transit services.

## STRATEGIC GOALS

The strategic priorities outlined below reflect CTA President Dorval R. Carter, Jr.'s vision for the agency. CTA provides the Chicago region with on-time, affordable, convenient transportation that connects people, places, and jobs. Since he was named President in 2015, President Carter has been committed to three key priorities: enhancing safety, improving the customer experience, and expanding workforce development. The 2019 Budget reflects these important goals.

CTA Mission Statement: CTA delivers quality, affordable transit services that link people, jobs and communities.

CTA Values: CTA provides safe, clean, on-time, courteous and efficient transit services. CTA accomplishes its mission with a diverse workforce that embodies the following values:

- Courteous – CTA will create a pleasant environment for its customers and employees.
- Innovative – CTA will seek out and encourage employees who initiate change, improvement, learning and advancement of its goals.
- Motivated – CTA will meet each task with spirit, enthusiasm and a sense of pride to be second to none.
- Professional – CTA will provide transit service with the highest standards of quality and safety for its customers and employees.
- Reliable – CTA will be dependable for its customers and employees, and will maintain the highest standards of trust.
- Results-Oriented – CTA will focus on getting the job done and will derive personal satisfaction from the service it provides.

### Strategic Priorities for FY 2019 Budget

- Safety – CTA aims to ensure that customers and employees have a safe and secure transit system and workplace that prioritizes safety over all other aspects of service delivery.
- Customer Experience – CTA places a high priority on putting the customer at the center of every decision made and action taken to ensure its services meet or exceed customer expectations.
- Workforce Development – CTA invests in its workforce to build on the successes of the past and work toward a bright future, creating jobs and opportunity as it provides residents and visitors of the Chicago region with high quality transit service into the future.

[Picture: Graphic of CTA Strategic Priorities – CTA logo in the middle with Safety, Workforce Development, and Customer Experience surrounding it.]

## OPERATING BUDGET SCHEDULE

[Table: 2014-2021 Operating Budget Schedule (Dollars in thousands)]

	Actual 2014	Actual 2015	Actual 2016	Actual 2017
<u>Operating Expenses</u>				
Labor	\$ 965,868	\$ 1,002,486	\$ 1,027,047	\$ 1,044,859
Material	80,963	83,507	82,921	83,783
Fuel	59,476	49,830	32,738	28,757
Power	33,568	28,818	29,283	27,373
Provision for Injuries and Damages	3,500	13,000	10,500	3,167
Purchase of Security Services	13,628	14,431	14,095	17,041
Other Expenses	242,910	252,054	267,557	245,860
Pension Obligation Bonds (Net)	115,746	112,281	111,779	104,469
Contractual Services	94,334	104,278	105,003	84,878
Utilities	23,059	24,562	23,234	21,846
Non-Capital Grant, Travel, Leases, Other	9,771	10,933	13,243	5,827
Other Debt Service	-	-	14,298	28,841
Total Operating Expenses	\$ 1,399,913	\$ 1,444,126	\$ 1,464,142	\$ 1,450,840
<u>System Generated Revenue</u>				
Fare and Passes	\$ 583,299	\$ 587,108	\$ 577,007	\$ 559,495
Reduced Fare Subsidy	28,321	14,606	14,385	14,606
Advertising, Charter & Concessions	27,561	31,241	35,019	34,379
Investment Income	422	1,123	1,608	3,119
Statutory Required Contributions	5,000	5,000	5,000	5,000
Other Revenue	36,073	36,439	43,550	33,279
Total System Generated Revenue	\$ 680,675	\$ 675,518	\$ 676,569	\$ 649,878
<u>Public Funding</u>				
Sales Tax I	\$ 343,087	\$ 360,575	\$ 365,622	\$ 364,280
Sales Tax II	58,022	56,760	57,611	57,166
PTF II	63,667	66,913	67,936	64,762
RETT	63,150	74,724	79,063	62,021
PTF II on RETT	15,058	19,566	19,594	15,083
Non-Statutory Funding (Sales Tax I, PTF I and Other)	196,254	214,471	218,922	209,021
Innovation, Coordination and Enhancement Funding*	-	-	1,000	6,129
Total Public Funding	\$ 739,238	\$ 793,008	\$ 809,748	\$ 778,462
Total Operating Revenue	\$ 1,419,913	\$ 1,468,526	\$ 1,486,317	\$ 1,428,340
Short-term Borrowing	\$ -	\$ -	\$ -	\$ 22,500
Balance	\$ 20,000	\$ 24,400	\$ 22,175	\$ -
Recovery Ratio*	58.46%	56.02%	55.21%	55.48%
Required Recovery Ratio	54.00%	54.50%	54.50%	54.75%



	Budget 2018	Forecast 2018	Proposed Budget 2019	Plan 2020
<u>Operating Expenses</u>				
Labor	\$ 1,046,059	\$ 1,068,296	\$ 1,084,100	\$ 1,100,362
Material	92,425	84,325	80,064	83,241
Fuel	33,576	33,482	44,084	47,543
Power	31,369	30,660	34,372	34,965
Provision for Injuries and Damages	5,000	5,000	7,500	8,500
Purchase of Security Services	17,804	17,804	19,307	19,693
Other Expenses	288,263	250,603	282,685	293,208
Pension Obligation Bonds (Net)	112,535	107,535	108,630	111,889
Contractual Services	109,063	81,863	95,400	98,262
Utilities	23,250	22,450	23,610	24,277
Non-Capital Grant, Travel, Leases, Other	14,468	9,918	7,237	7,972
Other Debt Service	28,947	28,837	47,808	50,808
Total Operating Expenses	\$ 1,514,495	\$ 1,490,170	\$ 1,552,112	\$ 1,587,511
<u>System Generated Revenue</u>				
Fare and Passes	\$ 583,105	\$ 584,037	\$ 588,012	\$ 601,014
Reduced Fare Subsidy	28,322	13,875	28,321	21,464
Advertising, Charter & Concessions	38,347	37,966	38,758	40,308
Investment Income	1,600	2,500	2,100	2,500
Statutory Required Contributions	5,000	5,000	5,000	5,000
Other Revenue	51,202	45,236	45,555	49,655
Total System Generated Revenue	\$ 707,576	\$ 688,615	\$ 707,746	\$ 719,941
<u>Public Funding</u>				
Sales Tax I	\$ 381,224	\$ 380,431	\$ 395,620	\$ 403,532
Sales Tax II	59,580	59,138	60,395	59,006
PTF II	65,212	64,264	70,644	74,129
RETT	66,631	66,631	66,631	68,630
PTF II on RETT	16,658	16,658	16,658	17,158
Non-Statutory Funding (Sales Tax I, PTF I and Other)	211,577	208,462	228,213	238,785
Innovation, Coordination and Enhancement Funding*	6,037	5,971	6,205	6,330
Total Public Funding	\$ 806,919	\$ 801,555	\$ 844,366	\$ 867,570
Total Operating Revenue	\$ 1,514,495	\$ 1,490,170	\$ 1,552,112	\$ 1,587,511
Short-term Borrowing	\$ -	\$ -	\$ -	\$ -
Balance	\$ -	\$ -	\$ -	\$ -
Recovery Ratio*	57.12%	56.73%	55.57%	55.09%
Required Recovery Ratio	54.75%	54.75%	54.75%	54.75%

\*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, Pension Obligation Bond debt service, ICE grant and depreciation and (iii) includes a portion of senior free ride revenue.

Note: Totals may not add due to rounding.

## OPERATING BUDGET PERFORMANCE

### 2018 Operating Budget Performance Summary

#### Overview

The 2018 operating expense forecast is projected to be \$1,490.2 million, which is 1.6 percent lower than the 2018 budget of \$1,514.5 million and 2.7 percent higher than 2017 actuals. The CTA forecasts a balanced budget between expenses and revenues for 2018.

The 2018 expense projection reflects CTA's continuous efforts to aggressively manage spending levels to cover reductions in Public Funding due to State cuts, including cuts to the Reduced Fare Reimbursement subsidy, Public Transportation Funds and Sales Tax revenues. The 2018 operating budget forecast will end the year \$24.3 million below budget and \$39.3 million above 2017. CTA was able to contain expenses in 2018 through enhancing capital maintenance programs, and aggressive cost savings initiatives in contractual expenses, while also minimizing the impact of rising fuel prices.

System-generated revenues are projected to be \$688.6 million, or \$19.0 million below the 2018 budget and \$38.7 million higher than 2017 actual. Compared to budget, the decline in system-generated revenue is due primarily to a reduction in reduced fare subsidy from the State of Illinois and other revenues. Public funding is estimated to be \$801.6 million, which is \$5.4 million or 0.7 percent lower than budget. Public funding revenues are impacted by lower than expected sales tax revenues and a reduction in public funding by the State of Illinois enacted with its State Fiscal Year (SFY) 2018 and 2019 budget.

#### FY18 Forecast - Operating Expenses

[Pie chart: 2018 Operating Expense Forecast. \$ in millions. Information in table below.]

Labor	\$1,068.3	71.7%
Material	\$84.3	5.7%
Fuel	\$33.5	2.2%
Power	\$30.7	2.1%
Provision for Injuries and Damages	\$5.0	0.3%
Purchase of Security Services	\$17.8	1.2%
Other Expenses	\$250.6	16.8%
	<hr/>	
	\$1,490	100%

The 2018 labor expense is projected to be \$1,068.3 million, which is higher than the 2018 budget of \$1,046.1 million by \$22.2 million or 2.1 percent, and higher than 2017 actual labor expense by \$23.4 million. The labor forecast is higher due to contractual wage increases for bargained employees approved in 2018.

Material spending for 2018 is forecasted to be \$84.3 million, which is \$8.1 million or 8.8 percent lower than budgeted levels, but \$0.5 million higher than 2017. The 2018 forecast reflects proactive inventory management, the retirement of older bus fleet, and programs to overhaul and refurbish the bus fleet, including the 4000-series articulated buses.

The 2018 forecasted expenditure for diesel fuel for CTA's revenue fleet is \$33.5 million. This forecast is 0.3 percent less than the original 2018 budget of \$33.6 million but \$4.7 million higher than the 2017 actual diesel expenditure. The fuel expenses reflect an increase in the price per gallon of fuel from an average of \$1.79 in 2017 to an average of \$2.00 forecast in 2018. At the beginning of 2018, CTA had locked in pricing for 71 percent of its estimated fuel usage. Additional purchases, up to 85 percent of estimated usage, locked in relatively low prices and increased budget certainty. The remaining 15 percent of estimated usage will be purchased at market prices and is subject to market fluctuations. CTA is continuing its cost management practice of purchasing a higher-priced diesel blend ("D1") only when that blend is required for cold weather operations.

CTA's 2018 forecast expenditure for traction (rail service) electric power is \$30.7 million. Although this forecast is \$3.3 million higher than the 2017 actual traction power expenditure, it is \$0.7 million, or 2.3 percent, below the original 2018 budget. The increase for 2018 forecasted expenses over 2017 reflects more typical seasonal weather in 2018 compared to a particularly mild 2017. It also includes increased charges for the Illinois Future Energy Jobs Act ("FEJA"), which became effective in June 2017, resulting in additional utility charges for zero-emissions (nuclear) and renewable energy. These increased charges are partially offset by an Illinois Commerce Commission order that was favorable to CTA in an electric rate-setting process that occurs every three years; the resulting rates are in effect for 2018, 2019, and 2020.

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 2018 forecast of \$5.0 million is flat with the 2018 budget due to sufficient funding levels per the actuaries.

Purchase of security services expenses are forecasted to be \$17.8 million, which is flat with budget and \$0.8 million higher than 2017 actual expenses. The increase in expenses is due to rate increases for contracted security levels on the rail system. 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.

Other expenses are projected to be \$250.6 million, which is \$37.7 million or 13.1 percent lower than budget, but \$4.7 million higher than 2017 actual. The lower forecasted expenditures are due to reduced contractual expenses and non-capital grant expense. Non-capital grant expense represents spending on pass-through grants which is offset by an equal amount of grant revenue (classified as Other Revenue) and is lower due to availability of grant funding.

#### FY18 Forecast - Operating Revenues

##### System-Generated Revenues

[Pie chart: 2018 System-Generated Revenue Forecast. \$ in millions. Data depicted in table below.]

Fare and Passes	\$584.0	84.8%
Reduced Fare Subsidy	\$13.9	2.0%
Advertising, Charter & Concessions	\$38.0	5.5%
Investment Income	\$2.5	0.4%
Statutory Required Contributions	\$5.0	0.7%
Other Revenue	\$45.2	6.6%
	<hr/>	
	\$688.6	100%

System-generated revenues are projected to be \$688.6 million for 2018 which is \$19.0 million, or 2.7 percent, below the original 2018 budget of \$707.6 million, but a \$38.7 million increase compared to the 2017 actual amount. The lower system-generated revenue compared to budget is primarily due to a reduction in state reduced fare subsidy and lower other revenue, which includes non-capital grant revenues. The higher system-generated revenue compared to 2017 is due to the fare increase effective in January 2018 and the new ride-hailing fee from the City of Chicago, expected to generate \$23 million and \$16 million of additional revenues respectively.

Regular fares and passes make up the majority of system-generated revenues. Revenue from fares and passes is forecasted to be \$584.0 million which is \$0.9 million, or 0.2 percent, higher than the original 2018 budget and \$24.5 million higher than the 2017 actual amount. The 2018 forecast is favorable to 2018 budget due to strong pass sales. The increased revenue over 2017 actual is due to the base fare increase of \$0.25 per ride in addition to a \$5.00 increase in the 30-day pass. The average fare paid in 2018, including cross-platform transfers, is projected to be \$1.25.

[Stacked bar graph: CTA farebox revenue 2012-2018 forecast. \$ in millions.]

2012	\$548.8
2013	\$574.0
2014	\$583.3
2015	\$587.1
2016	\$577.0
2017	\$559.5
2018 Forecast	\$584.0

The reduced fare subsidy is the State of Illinois' reimbursement to the CTA, Metra and Pace for discounted and free fares given to seniors and people with disabilities. The forecasted total for 2018 is \$13.9 million, reflecting a 51.0 percent reduction in the historic funding for this program. The 2019 Budget passed by the State of Illinois in July 2018 did not restore the reduced fare subsidy to \$28.3 million, which was anticipated in the 2018 budget. The CTA continues to work with the other service boards and the RTA to restore this critical piece of funding to its historic levels in order to comply with important federal and state mandates.

Advertising, charters and concessions revenues in 2018 are projected to be slightly under \$38.0 million, below the budget by \$0.4 million, or 1.0 percent, and \$3.6 million more than 2017. The year-over-year growth is due to an increase in advertising revenues from the minimum guarantee escalation.

Investment income is estimated to be \$2.5 million, which is \$0.9 million higher than budget due to higher interest rates, but \$0.6 million lower than 2017 actuals due to lower cash balances.

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, the City of Chicago ride-hailing fee, non-capital grants, and miscellaneous revenue, are projected to be \$45.2 million, which is \$6.0 million, or 11.7 percent, lower than the 2018 budget and \$12.0 million higher than 2017 actual. The lower revenue compared to budget is due to lower non-capital grant revenues and a lower than anticipated subsidy for Build America Bonds ("BABs") due to Federal sequestration. The higher revenue over 2017 is due to the new ride-hailing fee from the City of Chicago, which contributed \$16.0 million to CTA's other revenues in 2018.

Public Funding

[Pie chart: 2018 Public Funding Forecast. \$ in millions. Data depicted in table below.]

Sales Tax I	\$380.4	47.5%
Sales Tax II	\$59.1	7.4%
PTF II	\$64.3	8.0%
RETT	\$66.6	8.3%
PTF II on RETT	\$16.7	2.1%
Non-Statutory Funding (Sales Tax I, PTF I and Other)	\$208.5	26.0%
Innovation, Coordination and Enhancement Funding	\$6.0	0.7%
	<u>\$801.6</u>	<u>100%</u>

Public funding is forecasted to be \$801.6 million which is \$5.4 million, or 0.7 percent, below the budgeted level of \$806.9 million, and \$23.1 million higher than 2017. Actual sales tax revenues have improved in 2018 after weak growth in 2017. In addition, the State's FY19 budget lowered the surcharge for collection of sales taxes from 2.0 percent introduced in the SFY 2018 budget to 1.5 percent. This improvement is offset by the SFY 2019 budget inclusion of a 5.0 percent reduction in the State's 30.0 percent Public Transportation Fund matching funds, which was not anticipated.

#### Ridership

Ridership in 2018 is forecasted to be 467.3 million passenger trips, a 2.5 percent decrease from the 479.4 million trips in 2017. The bus ridership forecast is for 242.5 million, a 2.7 percent decrease versus 2017, while rail ridership is projected to be 224.8 million trips, a 2.3 percent decrease.

While gas prices have increased some in 2018, they still remain low, which has had a negative impact on transit use. The fare change that went into effect in January has had a smaller impact than anticipated on this year's ridership as the forecast ridership of 467.3 million is 5 million more than the 2018 budget ridership. Furthermore, competition from ride-hail companies including Uber, Lyft and Via have also negatively impacted ridership in recent years.

[Graph: Line graph of CTA ridership 2010-2018 forecast. Data depicted in table below.]

	<u>Actual 2014</u>	<u>Actual 2015</u>	<u>Actual 2016</u>	<u>Actual 2017</u>	<u>Forecast 2018</u>
Bus	276,116,759	274,288,766	259,058,440	249,231,171	242,524,560
Rail	238,100,054	241,676,065	238,645,812	230,204,047	224,815,677
Sys	514,216,813	515,964,831	497,704,252	479,435,218	467,340,237

Average weekday ridership for 2018 is projected to be 1.5 million per day, which is 2.1 percent lower than 2017 weekday ridership. Weekday bus ridership is projected to be down 2.3 percent while weekday rail ridership is projected to be down 1.8 percent.

Average Saturday ridership for 2018 is projected at 0.87 million per day, which is a decrease of 4.8 percent from 2017 Saturday ridership. Average Saturday ridership for bus is projected to fall 4.8 percent while average Saturday ridership for rail is projected to fall 4.9 percent.

Average Sunday/holiday ridership for 2018 is projected at 0.64 million per day, which is a 6.2 percent decrease from 2017 Sunday/holiday ridership. Bus (-6.1 percent) and rail (-6.3 percent) are projected to lose similar percentages for Sundays/holidays in 2018.

## PRESIDENT'S 2019 PROPOSED OPERATING BUDGET

### President's 2019 Proposed Operating Budget Summary

#### Overview

The CTA's Proposed 2019 Operating Budget is \$1,552.1 million and preserves bus and rail service, while continuing an unprecedented investment in modernization that has not occurred since 2011. CTA is not proposing to cut service or increase fares in this budget, even as the State funding reductions continue to impact revenues.

Expenses for the 2019 Operating Budget are higher than the 2018 budget by \$37.6 million and higher than the 2018 forecast by \$61.9 million. The majority of this increase is due to contractual wage increases for union employees along with higher fuel and debt service costs. The major assumptions outlined in the 2019 budget include enhancing capital maintenance programs to improve service and reliability while maintaining existing fares and service levels.

System generated revenues are projected to be \$707.7 million, \$0.2 million higher than the 2018 budget and \$19.1 million higher than the 2018 forecast. CTA anticipates a modest increase in fare revenue in 2019 as customers shift from pay-per-use to pass products. CTA also continues to receive \$16.0 million per year from the ride-hailing fee imposed by the City of Chicago. The City provides CTA with this additional revenue from the Ground Transportation Tax (GTT) to fund capital improvements.

State budget cuts in recent years have significantly impacted Public Funding revenues and the Reduced Fare Reimbursement. The State Fiscal Year (SFY) 2018 budget, which passed in July 2017, imposed a 2 percent permanent surcharge on sales tax receipts to RTA, a 10 percent cut in Public Transportation Funds (PTF) for one year, and a 51 percent cut in the reduced fare subsidy for one year. The SFY 2019 budget reduces the surcharge on sales tax receipts to 1.5 percent from 2 percent. It also extends the cuts to PTF, albeit at a reduced level of 5 percent, and the reduced fare subsidy for an additional year. The estimated impact of these continued cuts on the 2019 budget is \$15 million. The proposed budget assumes the State will restore the PTF and reduced fare subsidy funding to the historical amounts with its SFY 2020 budget. Both the sales tax and PTF are continuing appropriations of the State. The reduced fare subsidy, representing 2 percent of the budget, is the only state revenue source subject to annual appropriation. CTA and RTA agencies will continue to make a case for full funding at historic levels.

In 2019, CTA's customers will continue benefiting from strategic investments in technology that improve the quality and reliability of bus and train service. These investments reflect President Dorval Carter's vision for CTA be on the forefront of new technologies. Bus customers will benefit from the delivery of 20 new all electric Proterra buses that will be delivered throughout 2019. In addition to being quiet and environmentally friendly, the new Proterra buses will include new passenger information screens to show real-time travel information and other service information.

CTA's rail customers will also benefit from investments including new security cameras and updated lighting as part of the Safe and Secure program, as well additional train tracker screens at rail stations that provide real-time customer updates. The FastTracks program will reduce travel time on the Red, Blue, Brown and Green Lines, the four busiest rail lines, by repairing and upgrading rail, rail ties and electrical power in multiple locations throughout the system. Finally, customers that utilize the Ventra App for fare payment will benefit from new features such as mobile wallet options such as Apple Pay and Google Pay.

#### Operating Expenses

The proposed operating budget is \$1,552.1 million, a \$37.6 million increase compared to the 2018 budget, and a \$61.9 million increase compared to the 2018 forecast. Although CTA continues to implement cost saving opportunities and increase non-farebox revenues, the 2019 budget includes increased labor, fuel, power and security costs as outlined below due to inflationary pressures.

[Graph: Pie Chart of 2019 Operating Expense Budget in \$ Millions]

Expense Category	\$ in Millions	Percentage
Labor	\$1,084	70%
Material	\$80.1	5%
Fuel	\$44.1	3%
Power	\$34.4	2%
Provision for Injuries and Damages	\$7.5	1%
Purchase of Security Services	\$19.3	1%
Other Expenses	\$282.7	18%

Labor expenses represent 69.8 percent of the total operating expense budget at \$1,084.1 million, an increase of \$38.0 million from the 2018 labor budget and an increase of \$15.8 million from the 2018 forecast. The labor budget assumes flat service levels and restricted hiring on 150 positions, an increase from 70 positions in 2018.

CTA's labor budget is aligned with CTA's strategic priorities of safety, customer experience and workforce development. The 2019 budget reflects an increase of 68 non-STO positions due to strategic investments in enhanced training and supervision and the expanded Second Chance program. Of the 68 new positions, 35 are cost neutral and reflect a shifting of functions from Scheduled Transit Operations (STO) positions to non-STO positions in both bus and rail operations.

As mentioned, a key highlight of the 2019 budget is the expanded Second Chance program. To ensure success of the participants in the program, a total of 20 additional rail janitor positions as well as new oversight positions in Bus Maintenance and Facilities were added for the 2019 budget. The result of this investment will be reflected in cleaner rail stations, buses and trains while providing opportunities for those with barriers to employment.

To support CTA's strategic initiatives, a new Department of Training and Workforce Development has been created to consolidate all training and workforce development activities. The new department will add 10 budgeted positions for 2019 to support training needs of new employees and existing front-line staff in addition to training for participants in various programs including Second Chance and internships. The budget also includes 2 new management positions to oversee the Rail Customer Service department and the Safety, Security and Control Center department.

#### Budgeted Positions

[Table: 2018 and 2019 budgeted position by type]

	2018 Budgeted Positions	2019 Budgeted Positions
Total CTA without STO*	4,300	4,368
Bus STO positions**	3,796	3,790
Rail STO positions**	1,801	1,770
Total CTA	9,897	9,928

\*Total excludes Capital positions



## \*\*Scheduled Transit Operations (STO) Full-Time Equivalents

Material expenses represent 5.2 percent of the budget, at \$80.1 million. This is \$12.4 million below the 2018 budget and \$4.3 million lower than the 2018 forecast. CTA's material expenses for 2019 are reduced due to proactive campaigns to overhaul CTA bus and rail fleet. These campaigns replace high-cost, high-failure parts such as armatures and motors on CTA's oldest rail cars, the 2600-series cars. The result of these targeted capital campaigns will be reduced operating costs and improved service to customers by proactively replacing components that are the top causes of mechanical delays to CTA's bus and rail fleet.

For 2019, diesel fuel expenditures are budgeted to be \$44.1 million, which is \$10.5 million higher than the 2018 budget and \$10.6 million higher than the 2018 forecast. The 2019 diesel fuel budget assumes flat consumption and incorporates anticipated higher pricing compared to 2018: an average of \$2.67 per gallon budgeted in 2019 versus an average of \$2.00 per gallon forecast in 2018. The increase in price per gallon is due to price increases for crude oil. Throughout 2019, CTA will continue to manage the diesel fuel budget using a fixed-price purchasing policy. To mitigate future price increases, CTA has fixed pricing for 85 percent of the 2019 forecasted fuel usage.

For 2019, traction (rail system) electric power expenditures are budgeted to be \$34.4 million, which is \$3.7 million higher than the 2018 forecast, although only \$3.0 million higher than the 2018 budget. The 2019 budget assumes flat consumption and reflects increased rates for power capacity, transmission, and renewable energy charges. CTA has contained its power expenditures through continuation of CTA's "load following" purchase strategy, which provides fixed pricing for a certain percentage of consumption, no matter how much electricity is used. This mitigates the risk of exceeding the budget, even if consumption is higher than anticipated. CTA has already locked in pricing for 100 percent of the expected 2019 traction power consumption, taking advantage of attractive forward prices and providing budget certainty. The 2019 budget includes continued increases in Future Energy Jobs Act (FEJA) charges and in capacity and transmission costs – regulatory charges incurred by electricity suppliers and passed on to all ComEd customers.

The budget includes a \$7.5 million contribution to the provision for injuries and damages fund in 2019. 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 \$19.3 million, an increase of \$1.5 million versus the 2018 budget and 2018 forecast. The increase is due wage rate increases for contracted security services. 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 additional protection of CTA passengers, bus garages and other CTA facilities.

Other expenses are budgeted to be \$282.7 million in 2019, a decrease of \$5.6 million compared to the 2018 budget, and an increase of \$32.1 million compared to the 2018 forecast. 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. The non-capital grant, travel, leases and other expenses is budgeted \$7.2 million below 2018 due to reduced non-capital grant funding. The cost for debt service increases by \$18.9 million reflecting CTA's costs to maintain a state of good repair due to the lack of a State of Illinois capital bill since 2009.

## Operating Revenues

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

### System-Generated Revenues

System-generated revenues include fares and passes, reduced-fare subsidy, advertising and concessions, investment income, statutory required contributions from the City of Chicago and Cook County, and other miscellaneous revenues, including the City of Chicago's ride-hailing fee. In 2019, system-generated revenue is budgeted to be \$707.7 million, representing an increase of \$0.2 million when compared to the 2018 budget and an increase of \$19.1 million versus the 2018 forecast.

[Graph: Pie Chart of 2019 System-Generated Revenue Budget in \$ Millions]

Revenue Category	\$ in Millions	Percentage
Fare and Passes	\$588.0	83%
Reduced Fare Subsidy	\$28.3	4%
Advertising, Charter & Concessions	\$38.3	6%
Investment Income	\$2.1	0%
Statutory Required Contributions	\$5.0	1%
Other Revenue	\$45.6	6%

Revenue from fares and passes is budgeted at \$588.0 million, which is \$4.9 million higher than the 2018 budget and \$4.0 million higher than the 2018 forecast. The modest increase is anticipated due to the remaining impact of the fare increase effective January 7, 2018, and a full year of the new U-Pass rates effective Fall 2018. In accordance with state and local laws, 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 96 million free and reduced-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 2018 subsidy was reduced by more than 50 percent. Consistent with guidance from the RTA, the 2019 proposed budget assumes the reduced fare subsidy will return to historic levels, resulting in reimbursement of \$28.3 million for 2019.

Advertising, charters and concessions revenues include advertisements on buses, trains and stations, income from concessions, and other non-farebox revenue. The 2019 budget is \$38.8 million, which is approximately \$0.4 million higher than the 2018 budget and \$0.8 million higher than the 2018 forecast due to an increase in minimum annual guarantees in advertising contracts and management initiatives to increase digital advertising. The CTA will continue to work to expand digital advertising and increase advertising sales.

Investment income for 2019 is budgeted at \$2.1 million, \$0.5 million higher than the 2018 budget and \$0.4 million lower than 2018 forecast. Low interest rates as well as 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 2019, 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 the ride-hailing fee implemented by the City of Chicago, non-capital grants, park and ride revenue, rental revenue, third-party contractor reimbursements, and filming fees, among other varied income sources. Other revenues are budgeted in 2019 at \$45.6 million, a decrease of \$5.6 million compared to 2018 budget and an increase of \$0.3 million compared to the 2018 forecast. The decrease to 2018 budget is primarily due to non-capital grant revenue, which is offset by lower non-capital grant expenses.

## Public Funding

[Graph: Pie Chart of 2019 Public Funding Budget in \$ Millions]

Funding Category	\$ in Millions	Percentage
Sales Tax I	\$395.6	47%
Sales Tax II	\$60.4	7%
PTF II	\$70.6	8%
RETT	\$66.6	8%
PTF II on RETT	\$16.7	2%
Non-Statutory Funding (Sales Tax I, PTF I, and Other)	\$228.2	27%
Innovation, Coordination, and Enhancement Funding	\$6.2	1%

The budgeted amounts of public funding available for CTA operations are established by the RTA, and are 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 percent state PTF match on the RETT.

The State of Illinois passed its 2018 budget that reduced the PTF match by 10 percent for one year. The budget also included a 2 percent permanent surcharge on sales tax receipts. The SFY 2019 budget reduced the surcharge on sales tax receipts to 1.5 percent from 2 percent, while extending the cut to PTF at a rate of 5 percent, reduced from 10 percent.

Public funding available through the RTA is budgeted to be \$844.4 million in 2018. This includes the \$6.2 million Innovation, Coordination and Enhancement (ICE) funds which are 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 \$37.4 million increase compared to the 2018 budget and a \$42.8 million increase over the 2018 forecast. The public funding available for the CTA for 2019 is impacted by the State of Illinois 2019 Budget.

## Ridership

CTA system ridership was at a 20-year high in 2012, and CTA rail ridership had reached its highest point in at least 50 years in 2015. However, bus and rail ridership have decreased since 2015. CTA ridership in 2018 fell at a slower rate than the previous year, despite the fare increase that took effect in January 2018.

Ridership levels in cities across the country are experiencing similar trends recently. Overall, mass transit in the United States was trending down 3.9 percent in 2018, including 4.5 percent for bus and 3.8 percent for rail. Bus ridership in the

largest cities was trending to lose nearly 5 percent while bus ridership in smaller cities was trending to lose just 1-2 percent. Ridership fell for both bus and rail in major cities including New York, Los Angeles, Washington DC and Boston. Rail ridership was falling by at least 5 percent for three of these cities.

Ridership in Chicago, and likely other cities, has been negatively impacted by increasing competition from the ride-hailing app industry, including Uber, Lyft and Via. Slowing bus speeds and shifting demographics have added to the negative trends locally. The popularity of ride-hailing apps continues to grow. Meanwhile, despite staying relatively low, gas prices increased in 2018, and helped stem some of the loss due to the fare increase. Gas prices are forecasted to continue increasing at a moderate rate into 2019, reducing the rate of future transit ridership loss.

CTA expects that ridership will decline by 1.3 percent overall in 2019 to 461.3 million. Bus ridership is expected to fall 1.9 percent to 238.0 million in 2019, while rail ridership is expected to fall 0.7 percent to 223.3 million.

## PROPOSED TWO-YEAR OPERATING FINANCIAL PLAN

### 2020-2021 Two-Year Financial Plan

#### Budget Highlights

The two-year financial plan continues the Authority's mission to deliver quality, affordable bus and rail transit services. The financial plan assumes flat bus and rail service levels from the 2019 budget, increases in non-farebox revenues through innovative advertising programs, and continued strategic capital investments in bus and rail fleets, stations, track structures and technology to reduce cost escalations in the operating budget.

The two-year financial plan assumes public funding as reported by the RTA. The public funding marks assume continued growth at 2.7 percent for 2020 and 2.1 percent for 2021, due to growth in sales tax receipts and full restoration of the State match (Public Transportation Fund) that is currently subject to a 5 percent temporary cut. Any additional reduction in State funding to the CTA would negatively impact the two-year plan.

The two-year financial plan shows increased system-generated revenue from fares and passes, and advertising offset by increased labor, material, debt service, and standard increases in contractual services and contributions to injuries and damages reserves.

The labor cost growth is budgeted at 1.5 percent growth for the 2020-2021 plan years but 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 \$1,552.1 million for the 2019 budget. Operating expenses are expected to grow by 2.3 percent to \$1,587.5 million in 2020 and 2.1 percent to \$1,620.1 million in 2021.

Labor expenses, including base salaries, benefits, and payroll taxes, are projected to be \$1,084.1 million in 2019, \$1,100.4 million in 2020 and \$1,116.9 million in 2021. Labor for the two-year plan reflects a 1.5 percent growth for 2020 and 2021, respectively.

The financial plan projects material expenses to be \$80.1 million in 2019, \$83.2 million in 2020 and \$87.4 million in 2021. The materials projection assumes a 4 percent annual growth in 2020 and 4.9 percent annual growth in 2021 reflecting increased costs to maintain CTA's bus and rail fleet.

The proposed financial plan projects fuel costs to be \$44.1 million in 2019, \$47.5 million in 2020 and \$46.5 million in 2021. The plan assumes the continuation of CTA's strategic fixed-price purchasing policy and essentially flat projected fuel consumption over these years. Based on current market pricing for fuel purchases in future years, CTA assumes that fuel cost per gallon will increase in 2020 and then slightly decrease in 2021.

The proposed financial plan projects traction (rail system) electric power costs to be \$34.4 million in 2019, \$35.0 million in 2020 and \$35.5 million in 2021. At the time of budgeting, CTA was in the process of procuring a supplier for electricity delivery starting in January 2020. Once the supplier contract is in place, CTA expects to make further advanced purchases for these future years. As in previous years, capacity and transmission costs and Future Energy Jobs Act (FEJA) charges are expected to continue rising through 2021.

CTA plans to continue contributions to provision for injuries and damages, with a \$7.5 million reserve payment planned for 2019. The financial plan projects the reserve payment to increase to \$8.5 million in 2020 and \$10.0 million 2021.

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 \$19.3 million in 2019, \$19.7 million in 2020 and \$20.1 million in 2021. The annual growth rate is projected to be 2.0 percent for 2020 and 2021, respectively, due to annual contractual increases built into the contracts with private security firms. The CTA has intergovernmental agreements with the Chicago, Oak Park, Evanston and Forest Park police departments to provide security services for the CTA rail system.

Other expenses include utilities, advertising, equipment, software maintenance, accounting, engineering, legal fees, banking fees and commissions, debt service for sales tax revenue bonds including the outstanding pension obligation bonds, TIFIA loans, and other consulting services. Other expenses are budgeted to be \$282.7 million in 2019. The financial plan projects other expenses at \$293.2 million in 2020 and slightly over \$303.8 million in 2021. The growth rate reflects increased costs for pension obligation bonds and other debt service.

### Operating Revenues

Overall operating revenues, including system-generated revenues and public funding, are projected to increase over the two-year financial plan. From the 2019 budgeted level of \$1,552.1 million, operating revenues are projected to increase by 2.3 percent in 2020 to \$1,587.5 million and 2.1 percent in 2021 to \$1,620.1 million.

### System-Generated Revenues

From a base of \$588.0 million in 2018, fare and passes revenue is projected to increase to \$601.0 million in 2020 and \$614.8 million in 2021. These 2.2 percent and 2.3 percent year-over-year increases are based on a shift of fare payment from pay-per-use to pass products and a stabilization of ridership levels as the City's transit-oriented population and employment continue to grow and gas prices increase from historic lows in recent years. Management initiatives to increase transit benefit participation will also contribute to fare revenue increases in 2020 and 2021.

The two-year plan assumes the reduced fare subsidy will be partially restored by the State in 2020 at a level of \$21.5 million but reduced to \$14.6 million or 50 percent of the historical level in 2021. This reduced-fare subsidy only covers a portion of the estimated \$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 4.0 percent in 2020 and 5.0 percent in 2021. This yields a projected \$40.3 million in 2020 and \$42.3 million in 2021. Advertising revenue continues at a strong pace, with increased digital advertising and growth of concession revenue, as well as revenue from new initiatives in 2020.

Investment income in 2019 and 2020 is projected to grow modestly with rising interest rates. Investment income is expected to generate \$2.5 million in 2020 and \$3.0 million in 2021.

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 9.0 percent in 2020 and 10.0 percent in 2021 due to CTA's continued efforts to increase non-farebox revenues. The new \$0.15 per trip ride-hailing fee proposed by the City of Chicago in its 2018 budget is anticipated to generate \$16.0 million for CTA each year. This fee is the first in the nation to be dedicated solely for mass transit capital improvements. The plan also projects increased miscellaneous revenues, slight growth in rental properties and park-and-ride revenues, third-party contractor reimbursements, fees from filming, non-capital grants from the federal government and other sources. The planned totals are \$49.7 and \$54.6 million in 2020 and 2021, respectively.

## Public Funding

The RTA provides public funding marks for the two-year financial plan. The RTA public funding projections include revenues from sales tax collections, and PTF in addition to RETT revenue from the City of Chicago. The RTA public funding marks for CTA increase by 2.7 percent in 2020 and 2.1 percent in 2021. These marks are developed with assumptions of a 2 percent increase in regional sales tax receipts each year. It is also assumed that the Public Transportation Fund cut of 5 percent will be lifted in the next state budget. Real Estate Transfer Tax (RETT) receipts are anticipated to grow 3 percent annually.

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 2020 and 2021 are 55.09 and 54.75 percent, respectively – meeting or exceeding the regional requirement.

## PROPOSED 2019-2023 CAPITAL IMPROVEMENT PLAN

### Five-Year Capital Improvement Program

“Chicago has been a national leader in transit-oriented development, and expanding the policy to bus lines will strengthen smart growth in the city. We look forward to continuing to work closely with communities to enhance the way we live, work and get around Chicago.”

Mayor Rahm Emanuel, June 22, 2018

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

Chicago Transit Authority’s (CTA) Fiscal Year (FY) 2019-2023 \$2.9 billion Capital Improvement Plan (CIP) pursues 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 federal backed sources, including traditional federal formula, Major Capital Investment Core Capacity, and anticipated competitive grants. At this time, the plan calls for two locally backed sources, the larger amount from an anticipated CTA Bond issues and a smaller amount from an expected Regional Transportation Authority (RTA) Bond issues in FY 2020 and FY 2023. The amount of CTA Bonds may be reduced if additional Federal, State and local funds become available.

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 (FFY) 2016-2020 for highways, highway and motor vehicle safety, public transportation and other programs, this law provides multiyear funding certainty that allows 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).

The Consolidated Appropriations Act 2018 was signed by the President Trump and enacted into law on March 27, 2018. Overall, the bill provides about \$13.5 billion in budgetary resources for the Federal Transit Administration (FTA), which is an increase of more than \$1 billion as compared to FY 2017 enacted levels. Federal transit formula grants received \$10.6 billion, and Capital Investment grants received \$2.6 billion that provides an 8.6% and 14.9% increase above the program levels authorized by the FAST Act. As of September 2018, FFY 2019 Budget Appropriation bills are in process and final public transit funding levels are yet to be agreed upon.

As of January 2018, the City of Chicago implemented an increase in Ground Transportation Tax (GTT) on ride-hailing services, which will fund capital improvements to the City of Chicago transportation network and specifically to CTA’s transit network. The City and CTA entered into an agreement that will provide CTA with \$16 million in annual funding to support a \$179 million capital program that will be implemented over the next five years (2019-2023). CTA will leverage this source of funds to maximize its capital investment in the system by using tax proceeds to support a bond issuance that will fund the major share of the \$179 million of capital investments.

Meanwhile, the State of Illinois has not had a funded Public Transportation Bond program since 2014 and has reduced CTA’s share of the most recent program by up to \$280 million. Since 2014, CTA has had to rely on internally generated sources of funds to match CTA’s major federal capital investments. While these CTA-sourced funds enable CTA to go forward with a number of key major capital investments such as the procurement of new rail cars, the rehabilitation of the O’Hare Blue Line, and the Red and Purple Modernization Phase One project, internally generated sources of funding become increasingly limited with each passing year. Without a new State Capital Transportation program, some planned projects have had to be deferred. This will continue, and newly planned projects will also be 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 1.5 million rides on an average weekday. CTA's capital program for FY 2019-2023 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, recognizing that 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 contained 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 CTA's system toward a state of good repair (SOGR). The investments outlined will reduce operating costs in some areas and avoid escalating costs in others. By driving down expenses and minimizing costs, CTA will be able to leverage its limited operating and capital funds to continue to further improve the transit system.

Sources of Funds

[Graph: 2018-2022 CIP Preliminary Marks Capital Improvement Funding Sources. \$ in thousands]

The total projected available funding is \$2.9 billion for the FY 2019-2023 CIP. A summary of this funding is presented in the following chart:

FY 2018-2022		
Sources of Funds	5 Yr. Total (in \$ thousands)	Percentage of Total
5307 Urbanized Formula	\$664,426	23.03%
5339 Bus and Bus Facilities Formula	\$62,887	2.18%
5337 State of Good Repair	\$786,922	27.28%
Sec. 5307 CMAQ	\$116,891	4.05%
5309 Core Capacity	\$500,000	17.33%
Department Homeland Security (DHS)	\$30,000	1.04%
RTA Bonds	\$144,000	4.99%
Illinois Long Range Transportation Plan	\$1,368	0.05%
CTA Bond	\$186,456	6.40%
CTA Bond - Ground Transportation Tax	\$163,000	5.65%
CTA Bond RPM	\$227,249	7.88%
CTA Share for Competitive Grants	\$949	0.03%
New Funding Available	\$2,884,665	100%

The following table details the funding sources supporting CTA's Capital Improvement Program:

Sources of Funds	2019	2020	2021	2022	2023	TOTAL
5307 Urbanized Formula	\$129,961	\$131,407	\$132,869	\$134,347	\$135,842	\$664,426
5337 State of Good Repair	154,222	155,787	157,368	158,966	160,579	786,922
5339 Bus and Bus Facilities Formula	11,941	12,251	12,569	12,895	13,230	62,887
Subtotal FTA	\$296,124	\$299,445	\$302,806	\$306,208	\$309,651	\$1,514,235

Sec. 5307 CMAQ	\$8,891	\$100,000	\$8,000	\$0	\$0	\$116,891
5309 Core Capacity	100,000	100,000	100,000	100,000	100,000	500,000
Section 5303 UWP Planning	747	420	420	420	420	2,427
Transit Security Grant Program (DHS)	6,000	6,000	6,000	6,000	6,000	30,000
Other Federal	\$115,638	\$206,420	\$114,420	\$106,420	\$106,420	\$ 649,318

AVAILABLE FEDERAL	\$411,761	\$505,865	\$417,226	\$412,628	\$416,071	\$2,163,552
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RTA Bonds	\$0	\$79,000	\$0	\$0	\$65,000	\$144,000
Illinois Long Range Transportation Plan	726	642	0	0	0	1,368
CTA Bond	26,329	86,728	71,490	0	0	184,546
CTA Bond - Ground Transportation Tax	46,542	86,536	22,707	7,215	0	163,000
CTA Bond for Red and Purple Modernization	73,083	107,173	46,993	0	0	227,249
Subtotal Local	\$146,681	\$360,079	\$141,189	\$7,215	\$65,000	\$720,164

AVAILABLE LOCAL	\$146,681	\$360,079	\$141,189	\$7,215	\$65,000	\$720,164
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New Funding Available	\$558,442	\$865,944	\$558,416	\$419,843	\$481,071	\$2,883,716
CTA Share for Competitive Grants	368	265	105	105	105	949
TOTAL Programmed Funds	\$558,810	\$866,210	\$558,521	\$419,948	\$481,176	\$2,884,665

Federal funding of \$2.2 billion is anticipated from a combination of Formula and Discretionary based programs. Other contributing sources include CTA issued bonds of \$574.7 million and RTA bonds of \$144.0 million.

#### Sources of Funds with Legislative Update

Federal Funding – The current five-year transit authorization known as Fixing America's Surface Transportation (FAST) Act provides five years of predictable funding that enables transit agencies to better manage long-term assets and address the backlog of SOGR needs. It also includes funding for new competitive grant programs for buses and bus facilities, innovative transportation coordination, workforce training, and public transportation research activities.

The FAST Act authorizes funding for FY 2016 through FY 2020 for transit agencies totaling \$61.1 billion nationally, of which the majority of funds (\$48.9 billion) are allocated to agencies based on formulas created by Congress that are derived from transit and population metrics, while the remaining (\$12.2 billion) is distributed by discretionary action by Congress and are to provide for federal transit capital construction programs.

The FAST Act continues many of the important programs and streamlining efforts enacted under the prior authorization, Moving Ahead for Progress in the 21st Century Act (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 articulate principles of goal-setting and performance measurement in the development and implementation of federal surface transportation programs. Together, these laws place emphasis on performance management and 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 also 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 the Federal FAST Act. Each year Congress appropriates funds for transit programs based on the FAST Act, allowing the Federal Transit Administration (FTA) to distribute both formula and discretionary funds to transit agencies throughout the nation.

CTA traditionally receives FTA formula funds under three funding programs: 5307, 5337 and 5339. The 5307 Urbanized Area program provides funding for public transportation capital and planning projects; 5337 are State of Good Repair funds dedicated to repairing and upgrading rail transit systems along with bus rapid transit systems; and 5339 Bus & Bus Facility funds are used to repair, rehabilitate and purchase buses and related equipment and to improve bus facilities.

The amount of funds that an urbanized area (UZA) receives is based on a formula that includes population and the amount of transit service provided. Chicago is part of the Chicago/NW Indiana UZA. The Regional Transportation Authority (RTA), as the designated recipient, distributes the Chicago region's share to each of the three transit agencies on the following basis: CTA (58%), Metra (34%) and Pace (8%). Each agency submits grant applications annually for the projects to be funded. CTA also receives discretionary funds that are administered through a competitive grant program for specific projects.

[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 2017. The act provided \$12.1 billion dollars in funding.

There are two branches that flow from the Appropriations Act; Discretionary which is valued at \$2.4 billion and Mass Transit valued at \$9.7 billion.

Discretionary funds are awarded competitively on a project basis

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

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

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

State Funding – The traditional revenue for the state transit funding is through a legislatively mandated bond program, generally for a five-year period. The most recent State Transportation Series "B" Bond funds were 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 expected share from both legislative programs totals \$1.4 billion. The Illinois Jobs Now program included funding for mass transit agencies to replace,

upgrade and enhance infrastructure systemwide and provided state funding over a five-year period, which began in FY 2010 and ended in FY 2014. CTA was granted \$1.17 billion of funds in total from these programs.

[Graph: Stacked bar graph of CTA historical state capital funding 2000-2018. Data depicted in table below.]

Year	Funding Received
2000	182,400,000
2001	176,400,000
2002	177,310,000
2003	217,900,000
2004	130,145,000
2005	-
2006	-
2007	-
2008	-
2009	-
2010	253,718,500
2011	-
2012	421,567,043
2013	211,884,289
2014	270,600,000
2015	220,900,000*
2016	-
2017	-
2018	-

\*funding not received

Due to budget constraints the State did not appropriate the remaining \$220.9 million of authorized funds promised to CTA. In 2018, the State reduced grant contract funding by \$58.9 million for existing projects. These actions have resulted in the delay or downsizing of a number of construction projects that can't move forward until a new state transportation program is enacted.

CTA, over the last several years, provided its own source of funding by issuing bonds, allowing for key projects to advance. It is not feasible to expect the CTA to continue to generate internally financed sources. It is greatly anticipated

and desired that the State of Illinois proceed with a new state transportation funding program, so that CTA can effectively move forward with various new project initiatives as well as in addressing system SOGR needs.

Traditionally with each new five-year federal transit authorization, the region's Service Boards (CTA, Metra, and Pace) have planned for projects that leverage the federal program funds with a state contributed match. Since 2014, State funds have not been available to contribute to the recent federal transit program funding.

Regional Transportation Authority Bonds Funding – RTA is proposing a bond issuance in 2020 and 2023, proceeds of \$158 million and \$130 million will be made available for the three Service Boards to program for projects. CTA's share of bond proceeds will total \$79 million and \$65 million. This ongoing RTA funding program has recently provided bond proceeds in 2014, 2015 and a 2018 issuance.

The RTA's capacity to issue bonds for the Service Boards is restricted by statutory requirements on the amount of bonding capacity. Specifically, debt service on the bonds is limited to 40% of the average annual sales tax receipts (over the last two years). Going forward, this severely limits RTA's ability to issue bonds unless the capacity is raised. As bonding capacity is made available from retirement of existing capital debt obligations, RTA's 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.

RTA bonding capacity beyond the current limits would need to be authorized through the State legislature and a new source of funding would be required to meet debt service requirements. Otherwise, without a new source to service debt, funding would be provided from current transit operating funds.

CTA Bonds Overview – Since FY 2004, when CTA issued its first Series of Capital Bonds, these bonds have provided an internally generated source of capital funds for SOGR projects. CTA Capital Bonds are financed with grant and sales tax receipts. Project funds totaling over \$2.8 billion have been provided from this funding program for critical capital projects. CTA's bond financing program continues to be a strategically important supplement to the federal program. With a SOGR backlog approaching \$13 billion, and given the unpredictable 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. FY2019-2023 will provide \$184.5 million to continue this effort.

CTA will issue capital bonds that are supported by the City of Chicago's Ground Transportation Tax. The issuance is expected to generate \$163 million of project funds, in addition to \$16 million outstanding on the capital line of credit. Collected tax receipts and bond proceeds will support renewal and repair work which will focus on enhancements to be made to CTA's system that include the following:

#### Fast and Reliable Tracks

- Green Line South
- Green & Pink Line West
- Red and Blue Subway
- Brown Line
- Blue Line Congress Branch
- Blue Line O'Hare Branch

## Safe and Secure Stations

- Replace/modernize cameras system, install monitors at station kiosks
- Maintain state of the art working camera system
- Replace/upgrade lighting systems
- Install a camera system at CTA bus turnarounds

Also, CTA expects to provide financing to generate approximately \$227.2 million in capital project funds from FY 2019 to 2021 for the North Main Line Red and Purple Modernization Project (RPM). The actual timing of financing and issuances will be determined by the RPM Phase One project needs and schedule. Through the issuance of interim financing and bonds, CTA can advance this critically important project, 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, accessibility and reliability throughout the entire system.

Uses of Funds by Asset Category

Projects are funded under the seven asset categories in CTA’s proposed FY 2019-2023 capital plan. 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 for rail, while buses operate on streets maintained by other units of government. The capital projects proposed for FY 2019-2023 and beyond are intended to address CTA’s most critical needs for the bus and rail system, customer facilities, and systemwide support. CTA’s major projects planned or underway during this period include: the Red and Purple Modernization (RPM) Phase One, the O’Hare Blue Line improvements, Rail Yards Improvements, Project Engineering for the proposed Red Line Extension, the purchase of up to 846 new rail cars, and the overhaul of up to approximately half of the existing rail fleet and over a quarter of the bus fleet.

[Graph: Pie chart depicting dollar allocation for 2018-2022 by Asset category. \$ in thousands]

The following table shows the proposed FY 2019-2023 Capital Improvement Program by general category of asset improved or replaced.

FY 2018-2022		
Asset Category	Capital Funds (in \$ thousands)	Percentage of Total
Rail Line Improvements	\$899,315	31%
Systemwide Misc.	\$871,771	30%
Rail Rolling Stock	\$430,666	15%
Bus Rolling Stock	\$275,954	10%
Systemwide Facilities	\$179,257	6%
Power & Way Track Structure	\$194,966	7%
Power & Way Electrical, Signal, & Communications	\$32,736	2%
CIP Total	\$2,884,665	100%

FY 2019-2023 Project Solicitation – As a part of the development of the FY 2019-2023 Capital Improvement Program (CIP) CTA issued a call for new capital projects. This provided an opportunity to present new capital projects for consideration and to provide more detailed information regarding previously submitted projects, both funded and unfunded. This project solicitation is intended to address the prioritization of capital needs of CTA, for the timespan of the five-year capital improvement. This solicitation process serves two essential functions as follows:

1. It identifies those specific projects that should be considered in developing the next five-year capital program.
2. It helps CTA to identify the immediate universe of capital needs; by describing and justifying CTA’s needs over the next five years, CTA is better able to prepare for new transit capital funds as programs become available.

The evaluation criteria includes: the impact of a proposed investment on SOGR, 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.

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



CHICAGO TRANSIT AUTHORITY			
FY 2019-2023 Capital Program			(in thousands)
<u>Title</u>	<u>2019</u>	<u>FY2020-2023</u>	<u>5Yr. Funding</u>
<u>Bus Projects</u>			
<u>Rolling Stock</u>			
Perform Mid-Life Bus Overhaul	\$0	\$72,360	\$72,360
Perform Bus Maintenance Activities	40,000	9,100	49,100
Replace Buses	15,454	139,039	154,494
Sub-Total	\$55,454	\$220,499	\$275,954
<u>Rail Projects</u>			
<u>Rail Line Improvements</u>			
Rehabilitate Blue Line - O'Hare Branch	\$0	\$31,819	\$31,819
Red Line Extension - Planning, Preliminary Engineering	0	40,247	40,247
North Main Line - RPM	173,083	654,166	827,249
Sub-Total	\$173,083	\$726,232	\$899,315
<u>Power &amp; Way Electrical, Signal &amp; Communication</u>			
Replace/Upgrade Power Distribution and Signals	\$5,994	\$26,742	\$32,736
Sub-Total	\$5,994	\$26,742	\$32,736
<u>Power &amp; Way, Track &amp; Structure</u>			
Infrastructure Safety & Renewal Program	\$58,569	\$136,397	\$194,966
Sub-Total	\$58,569	\$136,397	\$194,966
<u>Rolling Stock</u>			
Perform Rail Car Overhaul	\$14,317	\$167,550	\$181,866
Perform Rail Car Maintenance Activities	40,801	16,008	56,808
Purchase Rail Cars	0	191,991	191,991
Sub-Total	\$55,118	\$375,548	\$430,666
<u>Systemwide Projects</u>			
<u>Miscellaneous</u>			
Information Technology	\$495	\$7,270	\$7,766
Equipment and Non-Revenue Vehicles Replacement	0	3,806	3,806
Rehabilitate Rail Stations	2,924	22,774	25,698
Implement Security & Communications Projects	9,450	34,440	43,890
Capital Improvement Program Management	10,117	48,568	58,685
Bond Repayment, Interest Cost, & Finance Cost	141,876	580,110	721,987
Core Capacity Planning Studies	809	324	1,132
Signal Priority & Modernization (Ashland Ave)	8,806	0	8,806
Sub-Total	\$174,478	\$697,293	\$871,771
<u>Support Facilities &amp; Equipment</u>			
Improve Facilities - Systemwide	\$36,114	\$143,143	\$179,257
Sub-Total	\$36,114	\$143,143	\$179,257
Capital Project Total	\$558,810	\$2,325,855	\$2,884,665
CTA Share for Competitive Grants	-368	-580	-949
Marks	\$558,442	2,325,274	2,883,716
Marks/Variance	0	0	0

## Bus Projects

### Rolling Stock

#### ❖ Perform Mid-Life Bus Overhaul

[Picture: Worker performing maintenance on a bus.]

[Stacked bar graph: Perform Mid-Life Bus Overhaul – funding by year, in \$ thousands. Data in table below.]

	2019	2020	2021	2022	2023
Perform Mid-Life Bus Overhaul	0	19,108	21,339	15,815	16,098
Life Extending Overhaul - 430 Standard (1000 Series)	0	0	21,339	15,815	16,098
Mid-Life Bus Overhaul - 100 Artic (4300/4333 Series)	0	19,108	0	0	0

Purpose: The Bus Overhaul and Upgrade Program continues to improve service through the regular replacement of major mechanical components that are subject to extensive wear. These bus overhauls are necessary to maintain the fleet in a SOGR, reduce operating costs, and improve service.

By performing regularly scheduled maintenance tasks, these buses will have 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 2019-2023, funding will provide for two initiatives: the first is the life extending overhaul of up to 430, *1000-Series* New Flyer Diesel buses, and the second is the overhaul of up to 100 of the *4300/4333-Series* New Flyer Articulated buses. The number of buses to be overhauled is dependent on future procurements of 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.

#### ❖ Perform Bus Maintenance Activities

Purpose: Funding for this project will provide for an ongoing capital maintenance program that consists of tasks necessary to keep buses in service through systematic inspection, detection, and prevention of incipient failure.

[Picture: Workers performing maintenance in a garage.]

[Stacked bar graph: Perform Mid-Life Bus Overhaul –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Perform Bus Maintenance Activities	40,000	2,300	2,300	2,300	2,200
Perform Bus Maintenance Activities (P1)	40,000	2,300	2,300	2,300	2,200
Perform Bus Maintenance Activities (P1) [2018 OFFSET]	0	0	0	0	0

Funding/Description of Proposed Work/ Major Elements: CTA plans to spend \$49.1 million in FY 2019-2023 on the bus fleet to correct critical defects and operational deficiencies discovered during inspections of buses. CTA's scheduled

maintenance program consists of planned preventive maintenance work to maintain bus performance. While major overhaul work is performed on a mid-life cycle basis, additional focused maintenance work is required at certain intervals, outside of the mid-life overhaul, during the life of buses. When certain maintenance tasks are needed to repair or replace, before it reaches its end of useful life and failing with an increased frequency, specific component campaign work is conducted.

CTA's Bus Scheduled Maintenance Program consists of a SOGR, component overhaul and component change out work. The Program is designed to prevent and correct major mechanical, electrical, and structural problems on a plan basis. Component updates/upgrades are addressed during overhaul work.

The 12 major systems on CTA's buses that must be maintained are:

Engine

Transmission

Body

Differential

HVAC

Brakes

Chassis/Suspension

Steering

Electrical

Fuel

Air

Doors

CTA's Bus Garages are responsible for work that includes but is not limited to Engine modification, Engine Rebuild, Coolant Heater, HVAC, Turntable, Shock Absorbers, Fuel Injectors, Propeller Shaft, Engine Alternator, Wheel bearings, Brake Reline, A/C Compressor, Trans Assembly, Turbo Charger, Radius Rods, and Lift Overhaul.

The Bus Heavy Maintenance Department is responsible for the repair, rebuild, modification and overhaul of buses/bus components. Four separate, but closely related groups perform the work:

- Mechanical/five areas: Vehicle wiring, Brake Shop, Mechanical, Articulated Annex, and Overhaul;
- Body/six areas: Body, Blacksmith/Welding, Shop Services, Sheet Metal, Radiator, Paint Shops;
- Unit Rebuild/four areas: Converter/Differential, Electrical Rebuild, Inspect/Degrease, Machine Shop;
- Field Support/two areas: Bus Radio Communication and Bus Communication.

❖ Replace Buses

Purpose: The CTA has a large bus fleet consisting of 1,859 buses, operating on 128 routes. CTA is committed to providing its customers with the highest quality bus service. The system's success depends on the CTA's ability to renew, maintain and operate its bus fleet in a SOGR. The backbone of the bus system is the bus fleet.

[Picture: New bus.]

[Stacked bar graph: Replace buses –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Replace Buses	15,454	39,560	7,890	19,140	72,450
Option 2 Nova (remaining 25 buses)	1,000	0	0	0	0
Electric Buses	0	0	7,890	0	0
Replace 6400 Series - 50 Base/Plus 50 Option	0	35,605	0	0	0
Replace 150 of 1,030 -New Flyers	0	0	0	19,140	72,450
Replace Buses - Lease Principal & Interest	14,454	3,956	0	0	0

Funding/Description of Proposed Work/Major Elements: Over the next five years, as part of CTA's bus modernization plan, CTA will invest \$154.5 million in FY 2019-2023 for the purchase of up to 100 new, fully accessible buses, which will replace older *6400-Series* buses. CTA also plans to provide for the initial installment of funds for the anticipated procurement of 150 buses, which will begin to replace 1,030 (*1000-Series*) buses in revenue service.

In 2019, CTA will procure the remaining 25 buses to complete the recent Nova bus order. To date 425 new, fully accessible buses have been placed in service for CTA customers. The remaining delivery of 25 buses will bring the total to 450 new buses. The Nova Buses will be equipped with the latest generation of emissions reduction equipment and proven heavy-duty propulsion. Additionally, in FY 2019-2023 CTA will continue to pay for leased *6400-Series* and *4000-Series* buses that are currently in service.

Moreover, CTA began testing two electric buses in 2014, when the Authority became one of the first in the country to use all-electric-powered buses for regular scheduled service. These electric buses have performed very well, exceeded expectations and continue to provide reliable, comfortable transportation for the Authority's customers.

In 2018, CTA awarded a \$32 million contract for the purchase of 20 new all-electric buses to modernize the agency’s bus fleet and make Chicago one of the greenest cities in the world. These new all-electric buses will improve air quality, in addition to saving on fuel and maintenance costs. The FY 2019-2023 program continues to build upon this exciting, new technology by continuing to purchase zero-emission, all-electric buses. CTA will purchase all-electric buses and en-route chargers in the next five year program. The purchase of all-electric buses allows Chicago to continue to be a world-class city that is at the forefront of modern and green technologies.

New bus procurements will include a scope of work that will provide for the engineering, purchase, and inspection of the fully accessible buses. This procurement will also include a spare parts inventory and post-delivery monitoring of vehicle performance and technical support for problem resolution through the warranty period.

Rail Projects

Line Modernization & Improvements

❖ Rehabilitate Blue Line O’Hare Branch – Your New Blue (YNB)

Purpose: The goal of the *Your New Blue* program is to upgrade the Blue Line O’Hare Branch, which stretches 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 to better power trains and increase service reliability, modernizing signal systems and rehabilitating rail stations.

The elevated track portion of the O’Hare Branch from Damen through California stations was completed in 2014, and station rehabilitation work on the Damen, Western and California stations was completed in 2014-2015.

[Picture: Picture of CTA Your New Blue logo with drawing of CTA railcar.]

[Stacked bar graph: Rehabilitate Blue Line O’Hare Branch –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Rehabilitate Blue Line - O'Hare Branch	0	20,488	11,331	0	0
Station Work	0	8,638	0	0	0
Jeff Park to ORD Signals	0	0	11,331	0	0
Harlem Station Bus Bridge	0	9,875	0	0	0
Subway Waterproofing & Track	0	1,975	0	0	0

In 2016, improvements to the following stations were completed: Addison, Irving Park, Montrose, Harlem and Cumberland. Improvements to all stations focused on bringing the stations to a SOGR, providing a safe and dry life extension, and enhancing the customer experience. The Addison station, which was previously not ADA accessible, was also made fully ADA accessible with the addition of a new elevator and reconfiguration of the stationhouse. Further upgrades will continue in FY2020, which include the following:

- Improvements to stations at Jefferson Park, Belmont, Logan Square, Division, Chicago and Grand with emphasis on customer experience, safety, security, and accessibility;
- Signal modernization between O’Hare and Jefferson Park allowing slow zones to be lifted, and improving the safety and reliability for the entire O’Hare Branch;

- Power upgrades and the replacement of substation and traction power equipment at East Lake and Milwaukee Substations, which will improve reliability, provide for greater power capacity, and include upgrades to substation buildings.

Funding/Description of Proposed Work/Major Elements: In total, funding of \$411.2 million has been allocated and an additional \$31.8 million is programmed for this five-year plan for the *Your New Blue* Project. Project work includes removal of track slow zones, station improvements/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 on a typical round trip between downtown and O’Hare. The investment is also expected to generate 1,300 new jobs during construction.

❖ Red Line Extension – Planning/Preliminary Engineering

Purpose: The proposed Red Line Extension (RLE) project would extend the Red Line from the existing terminal at 95th Street to the vicinity of 130th Street, subject to the availability of funding. The 5.3-mile extension would include four new, fully accessible stations at 103rd Street, 111th Street, Michigan Avenue and 130th Street. RLE would reduce commute times for residents, improve mobility and accessibility, and provide connections to other transportation modes. It could also foster economic development, where new stations may serve as catalysts for neighborhood revitalization. Finally, the RLE Project would also provide a modern, efficient rail car storage yard and shop facility.

[Picture: Graphic of the Red Line Extension logo.]

[Stacked bar graph: Red Line Extension –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Red Line Extension	0	8,049	32,198	0	0
Red Line Extension (PPE) [2018 OFFSET + OUSTANDING NEED]	0	8,049	32,198	0	0

Funding/Description of Proposed Work/Major Elements: In October 2016, CTA published a Draft Environmental Impact Study (EIS) on the two alignment options for this project. In November 2016, Mayor Emanuel and CTA announced approval of \$75 million in funding for the RLE project. The \$40.2 million in the 2019-2023 CIP represents the final allocation of this funding and will provide for the completion of the RLE Final EIS and Preliminary Engineering (PE), as part of the FTA’s Capital Investment Grant Project Development Phase over the next five years.

❖ North Main Line Red and Purple Modernization (RPM)

Purpose: The Red Purple Modernization (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.

On January 9, 2017 CTA signed the Full Funding Grant Agreement with the Federal Transit Administration (FTA), which was the final step in securing the funding needed for the \$2.1 billion first phase of the RPM project. The first phase of the RPM project will be implemented with a Design-Build Contract to be approved in December 2018.

[Picture: Graphic of the RPM Modernization logo. “Improving your commute, improving your community.”]

[Stacked bar graph: North Main Line RPM –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
North Main Line - RPM	173,083	307,173	146,993	100,000	100,000
North Main Line - RPM	172,023	305,292	146,092	99,388	99,388
Support Service for RPM (Core,CMAQ, etc)	1,060	1,881	900	613	613

RPM Phase One will improve capacity, travel time, ride quality, and safety in one of CTA's highest ridership corridors. The project will allow CTA to increase capacity to meet ridership demands while improving the quality, speed, and passenger comfort of each ride and increasing 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. Additionally, 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, which will open up new travel choices and access to more destinations. RPM Phase One will provide numerous benefits to the corridor including:

- Removing the largest physical constraint to increasing train capacity in the RPM corridor, and reducing 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 ultimately accommodating up to 7,200 additional customers per hour on all services;
- Improving speed and reliability, and reducing delays on the Red and Purple lines, saving customers a half-million travel hours each year;
- Modernizing 5.8 miles of signal equipment 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;
- 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 \$2.1 billion cost for RPM Phase One will be funded with FTA Core Capacity Funds, a Federal TIFIA loan, Chicago TIF funds, a CMAQ grant and CTA bonds. Funding of \$1.2 billion has previously been allocated and an additional \$827.2 million is programmed in the current five-year plan and future funds of \$65.4 million have been identified for Phase One of the RPM Program. 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: Red Line CTA station entrance.]

- Red-Purple Bypass – Construction of a rail bypass for the Brown Line at Clark Junction, just north of Belmont station. The bypass will remove the largest physical capacity constraint in the RPM corridor, where three separate rail lines 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 the 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.

Power & Way Electrical, Signal & Communication

❖ Replace/Upgrade Power Distribution and Signals

Purpose: This project will replace/upgrade equipment on a priority basis at various traction power substations currently in service. The equipment at many locations is at end the of its useful service life and in some cases is at or exceeding rated output. This project will correct deficiencies and avoid potential service reductions, due to failure of aging equipment. The upgrading of the power distribution network must be accomplished in order to provide continued safe and reliable transit operations, to minimize the possibility of power shutdowns and service disruptions, and to continue to eliminate slow zones throughout the system.

Funding/Description of Proposed Work/Major Elements: FY 2019-2023 CIP funding totaling \$32.7 million to support the systemwide tactical traction power renewal program where traction power conversion and distribution equipment at select substations will be replaced throughout the system. Project will also provide for traction improvements on the O’Hare and Logan Square branches of the Blue Line.

CTA has an ongoing tactical rehabilitation program that replaces and upgrades equipment at various traction power substations currently in service. Tactical upgrades correct deficiencies and avoid service reductions due to failure and overload of aging equipment. To extend service life, obsolete and unserviceable components must be replaced.

Ongoing work is performed where necessary to replace third rail and heavy traction power cables that feed the third rail along the tracks currently in service at various locations throughout the rail system.

[Picture: Interior of a CTA station.]

[Stacked bar graph: Replace/Upgrade Power Distribution & Signals –funding by year. \$ in thousands. Data in table below.]

TITLE	2019	2020	2021	2022	2023
Replace/Upgrade Power Distribution and Signals	5,994	17,844	7,764	1,133	0
Tactical Traction Power (Equipment/Cable/Enclosures)	0	4,197	4,197	0	0
Blue Line O'Hare Branch Traction Power Improvements	5,994	13,647	3,567	1,133	0



CTA’s signal systems maintenance program provides for signal equipment repair along the rail right-of-way, signal equipment on rail cars, and the reconstruction of electronic components of the signal system, including relays and circuit boards. As necessary dedicated small renewals and system modifications are also completed. CTA maintains a signal system designed to permit the safe operation of trains over 224.1 revenue track miles.

The traction power distribution system assets consist of 67 substations, five substation tie houses, 285 miles of cable, and 224.1 miles of third rail.

Power & Way, Track & Structure

❖ Infrastructure Safety and Renewal Program

Purpose: To improve safety and SOGR projects on CTA’s right-of-way (ROW) infrastructure, this project is focused on critical upgrades, in the absence of funding to accomplish a larger capital replacement project. Funds will be used to rehabilitate track and structure throughout the system. Defective track and structure must be repaired in order to maintain safe and reliable service. As structural elements requiring immediate repair work or replacement are identified, CTA’s field forces are dispatched to the site to repair or replace the necessary components. This eliminates the need to impose slow zones and ensures safe operating conditions.

[Picture: Workers repairing elevated track.]

[Stacked bar graph: Infrastructure Safety & Renewal –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Infrastructure Safety & Renewal Program	58,569	72,195	29,812	19,578	14,813
Elevated Track & Structure Systemwide	24,813	14,813	14,813	14,813	14,813
Track & Structure Systemwide - [GTT Program]	33,756	57,382	14,999	4,766	0

Funding/Description of Proposed Work: Funding will provide for the replacement of ties, running rail, and third rail on the elevated structure within the system. Beyond track renewal, work will focus on key structural elements that have been identified through structural inspections as deficient. CTA has programmed \$195.0 million in FY 2019-2023 to rehabilitate elevated track and structure elements throughout the system. 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.

CTA’s Fast Track initiatives has directly benefited our customers through major track improvements and minimizing mandatory slow zones. Major lines identified are Green Line South, Green & Pink Line West, Brown Line, Blue Line Congress, and Red & Blue Line Subways. These improvements are focused on strategically planned work that will have the greatest impact on customer service by providing faster and more reliable service.

CTA’s ROW infrastructure capital maintenance work is planned on a priority basis to maintain approximately 224.1 miles of revenue track on a mixture of ballasted roadbed, open-deck elevated structure, and direct fixation, plus 30 miles of track in rail car storage yards.

CTA maintains approximately 106 linear miles of rail structure, including subway structures, 115 bridges and viaducts, 89 elevated station structures, and several standalone facility structures.

## Rolling Stock

### ❖ Perform Rail Car Overhaul

Purpose: The Quarter-Life Overhaul on the *5000-Series* rail cars is projected to begin in FY 2019. Quarter-Life Overhaul efforts are intended to be performed on each rail car at approximately six to seven year intervals. This maintenance activity will include major component rebuild and any needed repairs to the rail car bodies. 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.

[Picture: Two CTA rail cars in the shop for repair.]

[Stacked bar graph: Perform Rail Car Overhaul –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Perform Rail Car Overhaul	14,317	54,507	38,791	0	74,251
5000 Series Critical	14,317	3,527	5,400	0	0
5000 Series Qtr Overhaul - Base of 287 cars	0	50,980	33,391	0	74,251

Funding/Description of Proposed Work/Major Elements: FY 2019-2023 funds will provide for the continued staging of work for the phased Quarter-Life overhaul of the *5000-Series* rail cars that were introduced into revenue service in 2012. Due to a lack of State Capital funding the project will include multiple phases. The first phase will consist of critical upgrades to various subsystems and other components. The second phase is projected to initiate the base overhaul of 283 cars. The third/fourth phase will complete the overhaul for the remainder 431 cars of the *5000-Series*.

### ❖ Perform Rail Car Maintenance Activities

Purpose: Funding for this project will provide for an ongoing capital maintenance program that consists of tasks necessary to keep rail cars in service through systematic inspection, detection, and prevention of incipient failure.

[Picture: CTA worker working on a rail car.]

[Stacked bar graph: Perform Rail Car Maintenance Activities –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Perform Rail Car Maintenance Activities	40,801	9,408	2,200	2,200	2,200
Perform Rail Car Maintenance Activities	40,000	2,200	2,200	2,200	2,200
Traction Motor & Armatures	801	7,208	0	0	0

Funding/Description of Proposed Work/Major Elements: CTA will continue investing in the rail car fleet maintenance program. This program is intended to correct critical defects and operational deficiencies discovered during inspections of rail cars. CTA's scheduled maintenance program consists of planned 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 of the car's life, outside of the overhaul cycle. When certain maintenance tasks are needed to repair or replace a component before it reaches its end of useful life and fails with an increased frequency, specific component campaign work is conducted.

The major systems that must be maintained on CTA’s rail cars include the following:

- Propulsion
- Braking
- Doors
- RCA
- Communication
- Safety
- Battery/Charging
- Windows
- Lighting
- Suspension
- HVAC
- Signage
- Traction Power
- Automatic Train Control
- Car body/Structure

CTA’s Rail Terminal Shops are responsible for the maintenance that may result in replacement of a variety of components such as: traction motors, HVAC components and packages, lights, public address system components, trucks, wheels assemblies, hydraulic units, couplers, drawbars, and numerous other mechanical and electrical components.

CTA’s Heavy Maintenance Shop is responsible for the rebuild/repair/manufacture of components for the railcar fleet such as wheel assemblies, truck assemblies, traction motors, air comfort units, electronic devices, control units, and associated devices including solid state and microprocessor-controlled units.

❖ Purchase Rail Cars

Purpose: The project provides for phased funding for the next generation of CTA’s rail cars, the *7000-Series*. The *7000-Series* is designed to replace the oldest rail cars in CTA’s fleet. CTA has awarded a contract to CSR Sifang America, a subsidiary of China Railway Rolling Stock Corp (CRRC) to manufacture the *7000-Series* rail cars. As of mid-2018, construction of a new railcar manufacturing plant has been completed. The facility is located on the southeast side of Chicago at 135th and Torrence Avenue. The contract order will provide for the production of approximately 400 cars (with further options to purchase up to a total of 846 cars).

[Picture: New CTA rail cars.]

[Stacked bar graph: Purchase Rail Cars –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Purchase Rail Cars	0	66,753	53,114	72,124	0
Purchase Rail Cars	0	66,753	53,114	72,124	0

Funding/Description of Proposed Work/Major Elements: CTA has programmed \$192.0 million over the five-year period to contribute to the purchase of rail cars. This project provides for phased funding for the next generation of CTA rail cars, the *7000-Series*. The *7000-Series* is designed to replace the oldest rail cars in CTA’s fleet.

The first prototypes of the *7000-Series* rail cars are anticipated to be placed into service starting in late 2019. These cars’ features include regenerative braking, which will allow trains to recover braking energy and return it to the electrified third rail to be used by other trains. This will result in a net decrease of electrical energy usage compared to older models of rail cars. New rail cars have interior LED lighting to provide higher-quality light for passengers, an improved air conditioning system and a video surveillance system that serves as a visible deterrent to crime and provides identification of offenders. Also, each rail car will have an Ethernet train connection that will provide better communication of maintenance and diagnostic information between cars and allow this information to be remotely transferred to maintenance shops for rapid diagnostics and repair solutions to avoid system failures. Replacing older rail cars with the *7000-Series* will provide CTA with modern, updated vehicles that will decrease maintenance and operating costs while enhancing customer comfort.

## Systemwide Projects

### Miscellaneous

#### ❖ Information Technology (IT)

Purpose: This initiative will modernize technology systems critical to CTA business units in order to maintain a SOGR. Upgrades will be implemented as necessary to personal computers (PC), laptops, servers, software, applications, and IT infrastructure to mitigate end-of-life technologies as well as incorporate cyber-security solutions.

[Picture: Graphic of various IT systems and equipment including monitors, wi-fi signal, and mobile devices.]

[Stacked bar graph: Information Technology –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Information Technology	495	2,170	1,700	1,700	1,700
Upgrade Office Computer Systems	0	1,300	1,300	1,300	1,300
Upgrade\Support Computer Systems	0	400	400	400	400
Asset Management System Enhancements	495	470	0	0	0

Funding/Description of Proposed Work/Major Elements: The proposed CIP allocates \$7.8 million in FY 2019-2023 for periodic replacement of systems, computers and associated components as well as annual funds for IT's state-of-good-repair maintenance program to revitalize heavy usage 24/7 technology systems including Uninterrupted Power Supplies (UPS), radios, telephones, cameras, dynamic message signs (DMS), public announcement (PA) speakers/microphones, SCADA, Control Center, and mobile fleet communications. This SOGR maintenance program will provide for the repair, replacement, and upgrade of IT systems and/or devices, software, emergency restoration, subject matter expertise support, system monitoring, and cyber security solutions. Funds will also provide for enhancements to the asset management system. This Project will significantly enhance the tools and data used by CTA to plan maintenance and renewal of its infrastructure assets including track, structures, signals and traction power systems.

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

Purpose: The Non-Revenue Equipment Replacement Plan consists of a multi-year plan intended to replace many of the outdated non-revenue vehicles and equipment in an incremental manner, contingent on funding availability. This replacement plan is divided into three main types of vehicles: Rail-borne equipment, heavy duty equipment and light/medium duty vehicles.

[Picture: CTA diesel snow remover with Rotary snow blower, third rail brushes, diesel locomotive, and rotary snow broom circled on the picture.]

[Stacked bar graph: Equipment and Non-Revenue Vehicles –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Equipment and Non-Revenue Vehicles Replacement	0	473	3,333	0	0
Equipment and Non-Revenue Vehicles (Diesel Locomotives)	0	473	3,333	0	0

Funding/Description of Proposed Work/Major Elements: Funding for this CIP will provide for the purchase of capital-eligible equipment that will be used to repair rolling stock and other infrastructure elements that are critical for the support of bus and rail transit operations. Also, to support the acquisition of diesel locomotives for snow removal, and other non-revenue equipment which will support improved transit operations.

❖ Rehabilitate Rail Stations

Purpose: CTA will continue its initiative to rehabilitate and reconstruct rail stations throughout the system. CTA currently has 145 rail stations of which 102 are accessible to people with disabilities, per ADA guidelines. Based on funding availability, additional elevators will be installed to provide greater accessibility where needed. Escalators may also be installed to provide for convenient customer entry and exit of stations.

[Picture: CTA red line station entrance.]

[Stacked bar graph: Rehabilitate Rail Stations –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Rehabilitate Rail Stations	2,924	8,632	7,665	6,478	0
Rehab Rail Stations - Systemwide	0	1,975	5,925	5,925	0
Station Security Enhancements [GTT Program]	2,924	6,657	1,740	553	0

Funding/Description of Proposed Work/Major Elements: The FY 2019-2023 CIP includes \$25.7 million to upgrade and enhance rail stations systemwide. Upgrades to rapid-transit stations may include work such as rehabilitating stationhouses; repairing stairs, flooring, platforms, and canopies; removing graffiti and painting; and enhancing lighting and camera systems to provide greater security.

CTA’s Safe and Secure initiative will invest \$15 million to provide for security enhancements to be made to stations that include lighting, repairs, and other improvements. This multiple year effort is expected to touch over 100 stations throughout the system.

❖ Implement Security and Communication Projects

Purpose: Safety and security are of paramount importance for CTA. A professional security assessment of CTA’s system identified a priority investment in equipment and infrastructure to protect the public and CTA employees as well as ensure service continuity. The enhancement of security on the public transit system will further meet the goals of the CTA, which include providing a safe and friendly environment for riders. CTA’s security system project is an essential part of the agency’s goal of protecting the traveling public, CTA employees and critical transportation infrastructure from crime and acts of terrorism. It will also 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.

[Picture: CTA notice that states “Your security is our priority. CTA security cameras are installed throughout the station. Cameras are an important tool in our efforts to prevent crime and ensure safety.]

[Stacked bar graph: Implement Security & Communication Projects –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Implement Security & Communication Projects	9,450	13,925	8,004	6,580	5,931
Security Projects	5,943	5,940	5,917	5,917	5,931
Security Camera Improvements Systemwide [GTT Program]	3,507	7,985	2,087	663	0

Funding/Description of Proposed Work/Major Elements: FY 2019–2023 funding will continue to enhance the multi-agency investment between CTA and CPD by adding another layer of anti-terrorism precautions to protect CTA’s high-risk, high-consequence mass transit assets and operations from terrorist activities.

CTA’s Safe and Secure initiative will continue to replace, modernize, or install cameras systems throughout the entire CTA network. Work will include installing cameras at CTA rail stations, bus turnarounds, maintaining all operating cameras in a state of art condition, and installing monitors at all rail station kiosks.

Other 2019 funding will also be used to implement security strategies to conduct targeted surveillance, control access and stop intrusion. This CIP funding supports the continuation 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-attacks, against CTA’s critical infrastructure.

❖ Capital Improvement Program Management

Purpose: This project provides for various program administration teams to support CTA staff in the planning and management of the agency’s Capital Program.

Funding/Description of Proposed Work/Major Elements: FY 2019-2023 CIP will allocate funding for CTA’s Capital Improvement Program Management which provides for capital project administration associated with all Capital projects funded with federal and local funds in the Capital Improvement Program as a percentage of engineering labor charges. Chicago Transit Partners provides for professional services to manage implementation of CTA's Capital Construction projects. CTA’s Program Development staff develops and maintains the regional Transportation Improvement Plan (TIP) and the State Transportation Plan (STIP) as required under federal regulations.

[Graph: 2019-2023 CIP Program Management. In millions of \$]

2019	\$10.12
2020	\$12.72
2021	\$12.80
2022	\$11.54
2023	\$11.51
Total	\$58.69

❖ 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 2019–2023 funding continues to provide for the payment of principal and interest costs associated with financing the Capital Grant or Sales Tax bond series issued in 2004, 2006, 2008, 2010, and 2011. Funding has also been allocated to provide for the refinancing of Capital Grant bonds made in FY 2010, 2011, 2015 and 2017. CTA bond funds are used to augment the Authority’s infrastructure, facilities and rolling stock. Specifically, such projects 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 these projects is allocated at \$722.0 million for FY 2019-2023.

[Graph: 2019-2023 CIP Bond Repayment, Interest Cost, & Finance Cost. In millions of \$]

2019	141.9
2020	150.2
2021	143.3
2022	143.3
2023	143.3
Total	722.0

❖ Core Capacity Planning Studies

Purpose: Funding will support conceptual planning and National Environmental Policy Act (NEPA) compliance determination for the next phases of the Red & Purple Modernization (RPM) Core Capacity Expansion Program. CTA will also conduct planning, conceptual design, and public outreach efforts that will allow for the development of a Blue Line Core Capacity Program.

[Stacked bar graph: Core Capacity Planning Studies –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Core Capacity Planning Studies	809	324	0	0	0
Next Phases of Red Purple Modernization Core Capacity Expansion Program	405	0	0	0	
Blue Line Core Capacity Study	404	324	0	0	0

Funding/Description of Proposed Work/Major Elements: The planning study will determine elements of the next phases of RPM, including RPM Phase Two. It will include the capacity analysis, conceptual engineering, and early environmental review that are required to identify the next phases of RPM, stakeholder/outreach activities, and materials necessary to

request entry for RPM Phase Two into the Project Development phase of the FTA's Capital Investment Grant Program as a Core Capacity project. The RPM Program is being delivered in phases to bring improvements sooner to the people who rely on the CTA Red and Purple lines.

CTA will also conduct planning, conceptual design, and public outreach efforts that will allow for the development of a Blue Line Core Capacity Program. The Blue Line Core Capacity study will prepare the required materials to request entry into the Project Development phase of the Federal Transit Administration's (FTA) Capital Investment Grant Program as a Core Capacity project. This planning effort will identify a program of recommended improvements that will allow a 10% capacity increase along the Blue Line O'Hare branch.

❖ Signal Priority & Modernization (Ashland Avenue)

Purpose: 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 project will alleviate congestion, provide customers with a faster trip and reduce bus bunching.

Funding/Description of Proposed Work/Major Elements: The proposed CIP allocates \$8.8 million to this project in FY 2019-2023. 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 transit vehicles and the intersections and will allow for data collection and system management.

[Picture: Transit Signal Priority graphic stating "Up to 15% reduction in bus travel times, fewer red lights, fewer delays."]

[Graph: 2019-2023 CIP Signal Priority & Modernization. In millions of \$]

2019	8.8
2020	0
2021	0
2022	0
2023	0
Total	8.8

Support Facilities & Equipment

❖ Improve Facilities Systemwide

Purpose: This project will develop a transit improvement program to repair or replace facility deficiencies to ensure the efficiency of maintenance and operations. Planned work includes renewal initiatives for the following: (1) Modernization of rail yards throughout the system to restore, preserve, upgrade and improve the integrity and configuration of the twelve rail yard facilities; (2) Initial staging funds for the construction of a Non-Revenue Vehicle Shop; (3) Critical repairs at CTA facilities systemwide. It will allow CTA to address the deteriorated condition of these facilities, which affects reliability of service to CTA customers and creates safety issues for customers and employees.

CTA has an ongoing Facilities Preventive Maintenance program that addresses the necessary repairs/upgrades for all passenger facilities, the seven bus garages/shops, eleven rail maintenance shops, and three other maintenance/warehousing buildings.

[Picture: Inside of CTA facility.]



[Stacked bar graph: Improve Facilities Systemwide –funding by year. \$ in thousands. Data in table below.]

	2019	2020	2021	2022	2023
Improve Facilities - Systemwide	36,114	60,427	27,915	18,036	36,764
Office Building - Principal & Interest	6,187	6,190	6,190	6,186	6,189
Maintenance Facilities Rehab	23,879	7,900	7,900	7,900	0
Replace Non-Revenue 61st Rail Shop	0	29,625	9,875	0	26,625
Rail Facilities - Rail Yards	3,579	14,275	3,950	3,950	3,950
Critical Needs	2,469	2,437	0	0	0

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.

FY 2019 funding will support facility improvements, including upgrades to various support facilities throughout the system. Future CIP has been allocated in FY 2019-2023 to construct or improve CTA’s bus and rail facilities.

Capital Program Category Historical Comparison

[Graph: Stacked Bar graph of capital funding by asset categories for 2009-2023. There are four asset categories; Operating Offset, Financial, Infrastructure, Fleet.]

Asset Category	2009	2010	2011	2012	2013	2014	2015	2016
Operating Offset	221,212	158,569	146,416	0	0	0	0	0
Financial	85,153	67,338	88,544	226,858	152,921	154,214	157,612	160,433
Infrastructure	234,924	340,170	308,617	365,766	401,753	376,274	436,302	405,059
Fleet	139,654	576,136	110,162	574,945	317,095	187,416	561,611	72,333
Sub-Total Projects	680,943	1,142,214	653,739	1,167,569	871,769	717,903	1,155,526	637,825

Asset Category	2017	2018	2019	2020	2021	2022	2023
Operating Offset	0	0	0	0	0	0	0
Financial	163,290	163,791	162,518	160,302	149,559	149,510	149,451
Infrastructure	1,120,800	669,565	175,977	302,030	145,200	145,410	164,527
Fleet	87,942	63,932	69,519	119,114	111,047	114,288	167,198
Sub-Total Projects	1,372,032	897,287	408,014	581,445	405,806	409,208	481,176

The graph above compares the annual capital funding programmed across 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 funding make-up of the previous 10 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; 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 irregular funding levels for program categories. Significant funding was set aside for construction initiatives; the first program was funded with CTA and Federal funds in 2007-2009, and the second program was funded largely with State Bonds in 2012-2015. Starting in 2016 and continuing through 2023, CTA is making significant investments in rail line renewal with the ongoing work on the O'Hare Blue Line and the startup of the RPM Phase One project.

Programs for CTA rail fleet renewal are also reflected with the 2010, 2012 and 2015 increases in funding for the purchase of new *5000-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. From 2015 through 2017, CTA placed into service 425 new buses, overhauled more than 1,000 buses, and will overhaul an additional 208 buses in the fleet in 2018-2019. Going forward, CTA has contracted for 400 new *7000-Series* rail cars that are anticipated to be placed into service from 2021 to 2024.

CTA's cost of capital was 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 bonds 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 2013 through 2023.

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Capital Program Asset Category Comparison for FY 2019-2023

[Chart: 5 year capital program investments by year, by category. Data is presented in the following tables.]

FY 2019	\$558,810,036
BUS ROLLINGSTOCK	\$41,000,000
DEBT SRV	\$162,518,265
FACILITIES	\$29,927,048
INFORMATION TECHNOLOGY	\$495,250
POWER & WAY	\$5,994,182
RAIL ROLLINGSTOCK	\$55,117,637
RLE	\$0
RPM	\$173,082,895
SECURITY	\$9,449,954
STATIONS	\$2,923,716
SYSTEMWIDE	\$19,732,178
TRACK	\$58,568,910
YNB	\$0

FY 2020	\$866,209,561
BUS ROLLINGSTOCK	\$57,012,296
DEBT SRV	\$160,301,798
FACILITIES	\$54,710,427
INFORMATION TECHNOLOGY	\$2,170,250
POWER & WAY	\$17,844,257
RAIL ROLLINGSTOCK	\$130,668,301
RLE	\$8,049,400
RPM	\$307,173,482
SECURITY	\$13,924,532

STATIONS	\$8,631,633
SYSTEMWIDE	\$13,040,216
TRACK	\$72,194,901
YNB	\$20,488,067

FY 2021	\$558,520,527
BUS ROLLINGSTOCK	\$31,528,593
DEBT SRV	\$149,559,365
FACILITIES	\$25,058,095
INFORMATION TECHNOLOGY	\$1,700,000
POWER & WAY	\$7,764,135
RAIL ROLLINGSTOCK	\$94,105,042
RLE	\$32,197,602
RPM	\$146,992,816
SECURITY	\$8,004,260
STATIONS	\$7,664,963
SYSTEMWIDE	\$12,803,211
TRACK	\$29,811,565
YNB	\$11,330,879

FY 2022	\$419,948,147
BUS ROLLINGSTOCK	\$37,254,936
DEBT SRV	\$149,509,821
FACILITIES	\$11,850,000
INFORMATION TECHNOLOGY	\$1,700,000
POWER & WAY	\$1,133,461
RAIL ROLLINGSTOCK	\$74,324,012
RLE	\$0

RPM	\$100,000,000
SECURITY	\$6,580,342
STATIONS	\$6,477,856
SYSTEMWIDE	\$11,539,415
TRACK	\$19,578,303
YNB	\$0

FY 2023	\$481,176,375
BUS ROLLINGSTOCK	\$90,747,712
DEBT SRV	\$149,450,657
FACILITIES	\$30,575,000
INFORMATION TECHNOLOGY	\$1,700,000
POWER & WAY	\$0
RAIL ROLLINGSTOCK	\$76,450,641
RLE	\$0
RPM	\$100,000,000
SECURITY	\$5,931,000
STATIONS	\$0
SYSTEMWIDE	\$11,508,865
TRACK	\$14,812,500
YNB	\$0

5 Year Grand Total	\$2,884,664,646
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The RPM Phase One project is CTA's largest capital investment to date and represents the greatest share of the five-year CIP investments.

CTA has substantial financial commitments associated with the capital bond program that has funded over \$2.8 billion in system improvements from 2005 to present.

Given the significant constraints on capital funding, CTA effectively manages the allocation of capital investment funds to make substantial commitments to perform SOGR work throughout the system. The largest share of investments is

dedicated to the rail and bus fleets, which includes the purchase of next generation 7000-Series rail cars, plans to replace over 50% of the bus fleet, and future fleet overhauls as funding permits. The second-largest investment is being made to renew track as part of the FAST Tracks initiative, and to rehabilitate CTA facilities including maintenance facilities for bus and rail, and rail yards. Significant funding is also directed to renew/rehabilitate power distribution, stations, and security systems.

The greater share of CTA’s project investment in the five-year plan is oriented toward the rail system, indicative of the cost for CTA to maintain a dedicated right of way versus the public right of way, where CTA bus service is located. While the rail system is less costly to operate on a daily basis when compared to bus operations and provides significant regional benefits, the rail system requires extensive capital investment to maintain operating standards. Over 80% of CTA’s SOGR needs are associated with the rail system.

CTA’s largest capital investment to date is the Red and Purple Modernization (RPM) Phase One project totaling \$2.1 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.

[Table: Red Purple Modernization, in thousands of \$]

Funding Source	Amount	Percent
5309 –Federal Core Capacity	\$956,608	44.9%
Transit TIF/TIFIA Loan	\$622,000	29.2%
CTA bonds	\$355,953	16.7%
CTA Operating Funds	\$61,749	16.7%
CMAQ	\$125,000	5.9%
City TIF – Bryn Mawr	\$10,000	0.5%

FTA Core Capacity funds were made available from the Federal Transit Administration (FTA) to CTA for the RPM Phase One project where the corridor is currently over capacity. CTA entered into a Full Funding Grant Agreement (FFGA) with the FTA in January 2017 to secure funds of \$956.6 million for the project. CTA entered into an agreement with the City of Chicago to provide tax increment financing program funds from a newly-created Tax Increment Financing District, approved by the Chicago City Council and specifically authorized by the Illinois state legislature for the RPM project, to fund repayment of an anticipated \$622 million loan to cover project costs. CTA will also provide funding of \$417.7 million from internal sources, including proceeds of CTA bonds and some operating funds. Additionally, \$10 million of the City’s TIF funds and \$125 million of federal Congestion Mitigation and Air Quality (CMAQ) funding have been allocated for the RPM Phase One project.

## Competitive Grant Opportunities

CTA submitted grant applications seeking funds from numerous federal and state competitive grant programs, including the following programs:

- Bus and Bus Facilities/Clean Diesel grants
- Low or No Emission Vehicle Deployment Program (Low-No Program)
- Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grants program
- Invest in Cook (Chicago's Cook County Department of Transportation & Highways)
- Illinois Department of Transportation -- Statewide Planning and Research Funds
- Pilot Program for Transit-Oriented Development (TOD) Planning
- Transportation Infrastructure Finance and Innovation Act (TIFIA) credit assistance program
- RTA's Innovation, Coordination, and Enhancement program (ICE)
- Congestion Mitigation and Air Quality grant (CMAQ)
- Unified Work Program (UWP)
- Department of Homeland Security (DHS) grants

As noted above, CTA recently secured Federal Core Capacity funding; the RPM Phase One was the first project in the country to receive funding through the new program.

With a growing backlog of assets that are not in a SOGR based on existing capital funding levels, CTA continues to aggressively pursue these funding opportunities. CTA has requested funding from a variety of competitive sources, including the following:

- 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.

In 2017, FTA approved a Full Funding Grant Agreement (FFGA) for \$956 million of Core Capacity funds for Phase One of the RPM Project. As of this date, FTA has already allocated \$391 million of Core Capacity funds for the Project with the remaining funds to be received in future years. The Core Capacity funds will allow CTA to construct RPM Phase One.

- Low or No Emission Vehicle Deployment Program/Electric Buses – 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.

CTA is committed to replacing its older diesel buses, currently in service, with battery-powered, zero-emission, all-electric buses with en-route charging capabilities. In 2018, CTA was awarded \$2.2 million in Low-No Program funding to expand its electric bus fleet by purchasing electric buses and en-route chargers. CTA continues to request additional funding.



- Better Utilizing Investments to Leverage Development (BUILD) – CTA applied for U.S. DOT Build funds for the station relocation and construction of a new two-story Cottage Grove station on the Green Line. The Cottage Grove Station at Woodlawn Crossing will take underutilized retail property at the southeast corner of 63rd Street and Cottage Grove Avenue and transform it into a community hub as a Transit Oriented Development. The Project will include a new entrance to CTA’s Cottage Grove station, improved retail space, improved access to quality health care services, and the addition of office space where none exists today. This project will build on the momentum generated by other developments in the vicinity (including Preservation Of Affordable Housing’s Woodlawn Station and a new Jewel-Osco store) to transform Woodlawn into a vibrant center of commerce and social interaction.
- Illinois Department of Transportation (IDOT)/Statewide Planning and Research Funds (SPR) – IDOT conducted a call for projects for SPR funded projects. All proposed projects should be related to further studying or implementing a goal, strategy, or objective within the State’s Long Range Transportation Plan or one of the Department’s modal plans. IDOT evaluated projects based on their ability to further study or implement the Long Range Transportation Plan or one of the Department’s modal plans.

In response to IDOT’s call for projects for State Planning and Research Funds, CTA submitted four applications as follows:

1. CTA’s Blue Line Core Capacity Study/Awarded – Funds received will be used to prepare the required materials to request entry into the Project Development phase of the Federal Transit Administration’s (FTA) Capital Investment Grant Program as a Core Capacity project.
  2. CTA’s Asset Management System Enhancements/Awarded – Funds received will be to develop and deploy a web-based geographical interface for use by CTA’s infrastructure maintenance coordinators; and to consolidate asset data from numerous sources into CTA’s Enterprise Asset Management System.
  3. CTA’s Bus Slow Zones Improvement Initiative – Funding would be to improve the speed and reliability of CTA bus service along four key bus corridors.
  4. CTA’s Transit System Network Design Study – Funding would be to examine the existing service provision for both bus and rail with the goal of maintaining, reclaiming and growing transit ridership. In addition, this new transit network will set the foundation for future transit investments that will support the Chicago region’s economic vitality and quality of life.
- Pilot Program for Transit-Oriented Development (TOD) Planning – Funding would be The Federal Transit Administration (FTA) announced the opportunity in 2018 to apply for approximately \$25.79 million of funding under the Pilot Program for Transit Orientated Development (TOD) Planning (Catalog of Federal Domestic Assistance #20.500). FTA anticipates minimum grant awards of \$250,000 and maximum grant awards of \$2,000,000. As outlined in statute, the Pilot Program for TOD Planning is intended to fund comprehensive planning that supports economic development, ridership, multimodal connectivity and accessibility, increased transit access for pedestrian and bicycle traffic, and mixed-use development near transit stations. The program also encourages identification of infrastructure needs and engagement with the private sector. Consistent with statutory direction, FTA was seeking comprehensive planning projects covering an entire transit capital project corridor, rather than proposals that involve planning for individual station areas or only a small section of the corridor.

In FY 2018, CTA applied for \$1,480,000 in TOD funding for the Red Line Extension (RLE) Transit-Supportive Development Comprehensive Plan. CTA is proposing a New Starts project to extend the Red Line 5.3-miles south from the existing terminal at 95th Street to 130th Street and includes four new rail stations at 103rd Street, 111th Street, Michigan Avenue, and 130th Street. The study area East-West boundaries may be further refined during the course of the study upon further discussion with study partners but would still cover the full length of the corridor and areas around all the four proposed stations.

- Congestion Mitigation and Air Quality (CMAQ) Grant – The Federal CMAQ program funds surface transportation improvements designed to improve air quality and mitigate congestion. The Chicago Metropolitan Agency for Planning (CMAP) administers the Congestion Mitigation and Air Quality Improvement (CMAQ) Program.

CTA was awarded \$8.0 million in FY 2018-2022 CMAQ funds for the purchase of up to ten electric buses and two en-route chargers. In 2018, the Chicago Transit Board awarded a \$32 million contract for the purchase of 20 new, all-electric buses – the latest investment the CTA had made to completely modernize the agency’s bus fleet and make Chicago one of the greenest cities in the world. The new electric buses will give the CTA one of the largest electric bus fleets in the country. The CMAQ award combined with other funding will provide for the purchase of up to 20 all-electric buses and en-route chargers.

The CTA was awarded a \$125 million CMAQ grant that will support Phase One of the Red and Purple Modernization (RPM) Project. These funds will be awarded in two separate years. To date, CTA has received \$25 million for Engineering in FY 2018 and will receive the remaining \$100 million of the award for construction in FY 2020.

The Red and Purple Modernization corridor is a 9.6-mile stretch of track that was built close to a century ago from 1900 through the 1920’s. Most of this infrastructure is at the end of its useful lifespan. The Red Line is Chicago’s busiest rail line, serving some of the most densely populated neighborhoods in the country, and the number of riders along this corridor has grown significantly in recent years.

The RPM Phase One will completely rebuild the Lawrence, Argyle, Berwyn and Bryn Mawr stations and all the tracks and support structures for more than a mile adjacent to the stations. The stations will be accessible for the first time and include wider platforms, better lighting and modern amenities. The project will also construct a Red-Purple Bypass north of Belmont station trains to modernize the century-old Clark Junction where Red, Purple and Brown Line trains currently intersect. The bypass, which will carry northbound Brown Line trains up and over Red and Purple Line tracks, will eliminate the need for trains to stop and wait for other trains to cross, thereby allowing CTA to significantly increase the number of trains it runs along the Red Line, reducing overcrowding and meeting growing demand for transit service. The first phase of RPM includes the Red-Purple Bypass (RPB), the Lawrence to Bryn Mawr Modernization (LBMM), and the Corridor Signal Improvements (CSI).

The comprehensive work that will be performed under the RPM program is scheduled to be completed in phases, which allows CTA to make the greatest number of improvements while minimizing impacts on riders and the surrounding communities. Therefore, funding will also be allocated in phases.

CMAQ will also provide \$8.9 million 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. 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.

- Department of 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. It 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 the traveling public and critical transit infrastructure 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, reporting requirements, and other aspects of implementation.

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 2018, this program provided to the nation \$88 million of which CTA was awarded \$10.7 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.

- Cook County – Cook County has initiated a long range transportation plan and funding program called “Invest in Cook,” where local and regional governments have the opportunity to apply for assistance to help cover the cost of planning and feasibility studies, engineering design, and construction improvements that advance the priorities set forth in the long range transportation plan. CTA has received an award of \$235,000 for a traction power study on the Blue Line.
- 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, scope, costs and source of funding.

In FY 2019 CTA was awarded \$933,500 to fund two projects: Program Development and Red and Purple Lines Modernization (RPM) Core Capacity Program. The Program Development project will facilitate efforts to coordinate the provision of capital projects for customers in CTA's service area and to identify projects within the Chicago-area regional five-year Transportation Improvement Program (TIP). Likewise, the (RPM) project which starts July 1, 2018 to June 2021 will support conceptual planning and National Environmental Policy Act (NEPA) compliance determination for the next phases of the of the Red and Purple Modernization core capacity expansion program. The RPM program, which includes the Red and Purple Lines from Belmont station to Linden station in Wilmette, is one part of CTA's efforts to enhance the entire Red line and is identified as GO TO 2040 fiscally-constrained project. This project will include the capacity analysis, conceptual engineering, and early environmental review that are required to identify the next phases of RPM program.

- TIFIA Loan Program – The Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) established a federal credit (loan) program for eligible transportation projects through the USDOT. The savings from TIFIA financing come from two primary sources: (1) CTA draws TIFIA funds on an “as needed” basis rather than accruing interest on funds before they are used and (2) the interest rate on this borrowing is set at a rate lower than traditional financing. TIFIA financing is a highly recommended form of borrowing as it makes financing projects more affordable and maximizes borrowing capacity.

CTA has received Federal TIFIA loans 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 agreement to support the \$411 million Your New Blue program. In 2016, CTA received a TIFIA loan for \$254.9 million in funding as part of \$719.8 million project to purchase four hundred new 7000-Series rail cars.

In 2019, CTA will seek a TIFIA loan for \$622 million as part of the funding for the Red and Purple Modernization Project.

During FY 2019-2023, CTA will continue to aggressively pursue additional funding under these competitive grant programs.

Capital Funding Need – State of Good Repair (SOGR)

Nationwide Context

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 “2015 Status of the Nation’s Highways, Bridges and Transit: Conditions and Performance” report (known as the C&P report); this biennial report was issued to Congress jointly by FTA and FHWA in February 2017. The deferred maintenance and replacement backlog for public transit is estimated to be conservatively at \$89 billion (in 2012 dollars). This backlog is expected to grow by \$2.5 billion each year – unless sufficient dedicated funding is invested to slow or stop the growing maintenance deficit.

From 2010 through 2015, federal transit funding remained relatively flat, and only in 2016 with the FAST Transit Program Authorization have there been marginal increases. Going into FY 2019, the national transit SOGR backlog continues to grow and is approaching \$100 billion.

Beginning with the Moving Ahead for Progress in the 21<sup>st</sup> Century (“MAP-21”) transportation authorization bill passed in 2012, the FTA was directed to establish and implement a national Transit Asset Management (TAM) system, which entails the development of objective standards for measuring asset conditions and requiring recipients of financial assistance to develop a Transit Asset Management Plan (TAMP). The FTA issued final rulemaking in 2016 specifying how transit agencies are to comply. CTA has since established its own Transit Asset Management program to address these important and complicated issues.

Regional Investment Needs

CTA, Metra, and Pace have coordinated with the RTA starting in the 2000s to grapple with the sizable regional investment backlog. The RTA’s asset condition assessment, which was originally prepared in 2010 and last updated at the end of 2016, defines the region’s total capital reinvestment needs over a 10-year period; RTA’s assessment has estimated total needs at \$37.67 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 \$23.08 billion or 61.3% of the total regional amount. Approximately 54% (\$12.46 billion) of CTA’s 10-year reinvestment need of \$23.08 billion is needed to address assets that are past their useful life (the SOGR backlog). The remaining \$10.62 billion address the baseline, “normal” reinvestment needs expected over the 10-year period.

[Table: Regional Investment Needs; in billions \$]

Mode	SOGR Backlog	10 Yr. Normal Reinvestment	Total
Rail	\$11.05	\$7.84	\$18.89
Bus	\$1.39	\$2.73	\$4.12
Share	\$0.02	\$0.05	\$0.07
Total	\$12.46	\$10.62	\$23.08

CTA’s estimated baseline reinvestment need is roughly \$1 billion per year, based on the scope of its asset base and expected asset life spans. Given historical average funding below this amount, and average capital funding availability of \$577 million per year during the period FY 2019-2023, the backlog of assets beyond their useful life is expected to increase over time.

The lack of new and consistent state capital funding leaves the CTA with significant unfunded capital needs. Unpredictability and instability of state capital funding affects the CTA's abilities to plan and deliver robust capital programs. It is out of this need that CTA's Bond Program has developed into what it is today. However, it is not feasible to continue internal financing as a means to fill the state funding gap.

[Flowchart graphic. Box stating “\$23.08 billion total over the next 10 years” is on top. Arrow pointing down leads to another box which states “\$10.62 billion – to meet normal investment needs over 10 year”. Arrow pointing down leads to another box below which states, “\$485M annual deficit just to maintain system after SOGR needs met.”]

[Stacked bar graph of FY 2019-2023 CIP by funding source.]

	2019	2020	2021	2022	2023	TOTAL
Federal Funds	\$305,761	\$399,865	\$311,226	\$306,628	\$310,071	\$1,633,552
Federal 5309 Core RPM	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
RTA Funds	\$6,726	\$85,642	\$6,000	\$6,000	\$71,000	\$175,368
CTA Funds	\$146,322	\$280,703	\$141,294	\$7,320	\$105	\$575,744
5Yr. Avg	\$576,933	\$576,933	\$576,933	\$576,933	\$576,933	
SOGR	\$1,062,000	\$1,062,000	\$1,062,000	\$1,062,000	\$1,062,000	

#### Transit Asset Management and CTA Asset Conditions

CTA has established a Transit Asset Management program both in response to new TAM federal mandates and as a result of the need to manage system conditions and performance within constrained resources. The TAM program entails the adoption of an organizational policy for TAM, the development of a TAM Plan, and ongoing efforts to improve the quality and availability of asset condition data and the impacts of deferred investment.

Preliminary outputs from the TAM Program regarding CTA’s asset inventory and condition are provided below.

From an asset category perspective, the \$23.08 billion in need is split between approximately 82% for rail and 18% for bus assets. The breakout of SOGR Backlog by Asset Category type is shown in the chart below.

Asset Type	SOG R Backlog (in 2015 millions of \$)
Buses	185
Bus Facilities	945
Bus Guideway Elements	258
Bus Systems	0
Rail Facilities	502
Rail Guideway Elements	4,300
Rail Cars	1,329
Rail Stations	2,824
Rail Systems	2,094
Shared Facilities	2
Non-Revenue Vehicles	0

As part of the TAM Program, asset conditions are evaluated on a 1-5 scoring scale, with one indicating poor condition and five representing a like-new asset in excellent condition. This scoring scale aligns with FTA practices and recommendations and facilitates comparisons across asset classes.

[Graph: Stacked bar graph depicting condition rating of asset as a percent of entire asset group. Data listed in table below.]

Asset Type	Below Condition Rating 3	Condition Rating 3 or higher	Grand Total
Buses	60.00%	40.00%	100.00%
Buses	60.00%	40.00%	100.00%
Facilities	30.79%	69.21%	100.00%
Bus Garages	53.00%	47.00%	100.00%
Rail Stations	30.00%	70.00%	100.00%
Rail Terminal	25.00%	75.00%	100.00%
Rail Cars	53.00%	47.00%	100.00%
Rail Cars	53.00%	47.00%	100.00%
Rail Right of Way	51.26%	48.74%	100.00%
Grade Crossings	7.00%	93.00%	100.00%
Interlockings	55.00%	45.00%	100.00%

Structure	42.00%	58.00%	100.00%
Substations	77.00%	23.00%	100.00%
Third Rail	62.00%	38.00%	100.00%
Trackwork	35.00%	65.00%	100.00%
Wayside Signals	63.00%	37.00%	100.00%
Yards	58.00%	42.00%	100.00%
Grand Total	54.80%	45.20%	100.00%

Assets are compared against a Useful Life Benchmark (ULB) for a given asset class, which reflects the expected useful lifespan of the asset when new. Assets beyond their ULB are at greater risk of failing and causing service disruptions.

[Graph: Stacked bar graph of Useful Life Benchmark of Asset as a percent of entire asset group. Data detailed in table below.]

Asset Type	Past ULB	Under ULB	Grand Total
Buses	6.00%	94.00%	100.00%
Buses	6.00%	94.00%	100.00%
*Facilities	N/A	N/A	N/A
Bus Garages	N/A	N/A	N/A
Rail Stations	N/A	N/A	N/A
Rail Terminal	N/A	N/A	N/A
Rail Cars	19.00%	81.00%	100.00%
Rail Cars	19.00%	81.00%	100.00%
Rail Right of Way	29.75%	70.25%	100.00%
Grade Crossings	0.00%	100.00%	100.00%
Interlockings	27.00%	73.00%	100.00%
Structure	25.00%	75.00%	100.00%
Substations	49.00%	51.00%	100.00%
Third Rail	40.00%	60.00%	100.00%
Trackwork	15.00%	85.00%	100.00%
Wayside Signals	42.00%	58.00%	100.00%
Yards	33.00%	67.00%	100.00%
Grand Total	15.49%	84.51%	100.00%

*\*Comparison to ULB is of limited value for CTA facilities due to many having received various partial rehabilitations and renewals that have incrementally extended their effective useful life.*

Additional information on the specific condition challenges and mitigation strategies for CTA's various asset groups follows below.

Rail Stations

- Of CTA's 145 rail stations, 44 (30%) are considered to have condition deficiencies and are in need of rehabilitation or replacement;
- As of 2018, 43 stations (30%) are not ADA accessible;
- Water infiltration is a constant battle in subway stations. 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. CTA maintains over 200 escalators throughout the system;
- Elevators on CTA's 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 maintaining the accessibility of the system for the elderly, disabled, and families with strollers. CTA maintains approximately 160 elevators throughout the system. CTA invests annually to keep existing elevators and escalators operational.

#### Track Assets

- CTA maintains approximately 224 miles of revenue track on a mixture of ballasted roadbed, open-deck elevated structure, and direct fixation, plus 30 miles of track in rail car storage yards. Slow zones are established to provide safer service where rail right of way has deteriorated; as of July 2018, approximately 19.5 miles (8.8%) of CTA's rail system tracks are currently designated as slow zones. The Blue Line Forest Park Branch, Green Line South Main and Lake Street branches contain more than 60% of the entire rail system's slow zones. Capital track work projects are currently focused on these lines to remediate and prevent future slow zones.

#### Rail Structures

- CTA's rail system contains approximately 106 linear miles of rail guideway, including subway and elevated structures, 115 bridges and viaducts, 67 elevated station structures, and several standalone facility structures. Twenty-seven percent of structure systemwide is beyond the useful life benchmark and requires significant effort to maintain. CTA will replace several miles of old structure as part of the Red-Purple Modernization project, and continually performs component replacements on the steel elevated structure.

#### Rail Signals

- CTA maintains a signal system designed to permit the safe operation of trains over 224 revenue track miles. The primary assets are part of the cab signal system, made up of both wayside and carborne signals. Interlocking plants, consisting of numerous power-operated switches, signals and signal appliances, enable trains to leave one track and enter another when conditions are safe. Grade crossings at 29 locations alert pedestrian and automobile traffic of oncoming trains. Forty-one percent of wayside signals and twenty-six percent of interlockings are beyond their useful life benchmark, which impacts service reliability and capacity.

#### Substations

- The primary traction power distribution system assets are the 67 substations, five substation tie houses, 285 miles of cable, and 224.1 miles of third rail. Approximately 49% of CTA's substations in the system are beyond the recommended useful life of 30 years. As of 2018, 77% of all substations have a condition rating to be adequate or below.

#### Rolling Stock

- CTA's rail car fleet is composed of 1,500 rail cars across three different *Series*, acquired between 1981 and 2015. The current active bus fleet consists of 1,859 total vehicles of various make, model and manufacturer acquired



between 2000 and 2016. In recent years, CTA has placed into service 714 new *5000-Series* rail cars and has awarded a contract to procure 400 new *7000-Series* rail cars, yet 25% of CTA's rail fleet remains beyond its useful life guidelines. While over 90% of CTA's bus fleet is currently within the useful life benchmark, approximately 55% of CTA bus fleet will be due for replacement within the timespan of the five-year capital plan. As of mid-2018, the average age of CTA's bus fleet is 8.3years.

- CTA owns nearly 500 on-road and rail-borne vehicles that support CTA service, with an additional 250 leased vehicles. Types of vehicles include rubber wheeled vehicles such as sedans, trucks, and vans used for managing service and transporting revenue vehicles. In addition, CTA's heavy vehicles and equipment – such as cranes, off-road vehicles, and trailers – support the rail line operations. As of 2019, approximately 40% of the non-revenue vehicle stock is beyond the expected useful life and is due for replacement.

#### Maintenance Facilities

- CTA Maintenance facilities include seven bus garages and a heavy bus maintenance shop, 10 terminal rail maintenance shops and heavy rail maintenance shop, and three other maintenance/warehousing buildings. Administrative buildings include CTA's headquarters, control center, and primary warehouse. Bus garage facilities range in age from 23 to 100 years old, with a median age of 33. Rail maintenance shops are between 16 and 57 years old, and also have a median age of 33 years.
- Maintenance facilities require significant improvements to adequately support the bus and rail fleet. Many of the buildings that currently support the maintenance of the system are rated with significant condition deficiencies including bus garages (53%), rail shops (25%), and other facilities (40%).

## 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 \$2.9 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 section highlights the impact of capital investments on key areas of the operating budget.

As of 2017, investments in the bus fleet placed 425 new standard clean diesel buses into revenue service, renewing approximately 23% of the fleet, and reducing maintenance costs for this segment of the fleet by up to 30% over the next five to 10 years. Recent investments in the overhaul of CTA New Flyer Series bus fleet have reduced bus fleet material expenses and failure maintenance costs by over 50%; these costs were increasing prior to overhaul of these buses.

A total of 714 new *5000-Series* rail cars are now in service and represent over 50% of the rail fleet. As a result, CTA expects substantial annual costs savings in maintenance material and power costs in the range of \$8 to \$10 million annually. Meanwhile, the recent CTA procurement secures the purchase of 400 new *7000-Series* rail cars to be delivered beginning in 2021 and through 2024. Options to the procurement contract would provide for an additional 446 cars and are expected to be executed beginning in FY 2021/2022. The replacement of CTA's oldest fleet cars with modern efficiently powered vehicles will reduce operating and maintenance costs by up to 40% over the next decade.

The Red and Purple Modernization Phase One Project represent CTA's largest capital investment in the system to date. The \$2.1 billion investment along the corridor will provide many benefits including removing physical constraints that will allow for increased train capacity to meet ridership demands, increase train speeds, and improved 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 extends asset structure life by 60 to 80 years. 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 \$8.1 million in additional revenue, based on the FY 2016 average fare for rail (\$1.25). On a net basis, revenue is estimated to be approximately \$2.5 million more than the anticipated operating and maintenance cost increase.

A significant investment is being made to the Blue Line O'Hare Branch which will reduce the round-trip travel time between downtown to O'Hare Airport by 10 minutes compared with conditions before the project. The time savings not only produces a better, faster ride for customers, but also a reduction in the overall operating costs of the service.

CTA continues to focus on the renewal and SOGR work for the rail line structure systemwide. This includes recent investments made to the Brown (Ravenswood) Elevated, Blue (O'Hare), Red (Dan Ryan), Purple (Express) and Green (Lake/Laramie) lines to address slow zones over 21.3 miles of track, focusing on over 112,000 linear feet of track, which were restricted to speeds as slow as 15 mph. The signal system on the Brown (Ravenswood Loop Connector) Line is being replaced with a modern efficient signaling system.

In addition, investments continue to be made to upgrade the rail traction power system at strategic locations that include the Red, Brown and Blue Lines. Investments will provide for greater power capacity and redundancy to support the system.

Each of the project investments described above offer one or more of the following benefits to CTA and/or to the region: (1) operational savings; (2) maintenance cost reduction; (3) positive impact on ridership; (4) travel time reduction; (5) supports an economically competitive region; and (6) environmental sustainability or quality of life.

## HISTORY OF THE AGENCY

Before mass transit, Chicago was a “walking city,” limited in size by an area its population could easily travel on foot or horseback. As the population and settled area increased, the need for public transportation arose. These services were originally provided by private companies under public regulation.

The first public transportation vehicles in Chicago were horse-drawn carriages called omnibuses. The poor condition of the streets limited their utility, which led to the establishment of the first street railways in 1859, generally considered the earliest ancestor of today’s transit system in Chicago.

[Picture: Horse Drawn Carriage Car]

The street railways were superior to the omnibuses in that their running on rails provided a smoother ride and made them less susceptible to street conditions. But horses were an expensive mode of power, and the street railway companies looked for more efficient ways to carry the growing number of commuters. Various power sources were tested, but after 1882 many higher-ridership horsecar lines were successfully converted to cable cars. After 1890, lines began to be converted to electric power; all trolleys in Chicago were electrically powered by 1906.

[Picture: Cable Car]

Increased traffic congestion, as well as rising population densities and demand for high-capacity transit, led to the construction of the city's first elevated railways. Chicago’s first ‘L’ line, the Chicago and South Side Rapid Transit, opened on June 6, 1892. Two more companies whose lines served the West Side followed in 1893 and 1895; in 1897, the famous Loop elevated downtown was completed and acted as a common terminal for all the lines. By the turn of the century, an additional ‘L’ company serving the North Side opened. The first trains, powered by steam when they opened in 1892-93, were converted to electricity by 1898; all lines opened after 1895 were electric.

[Picture: 1890’s elevated train]

To attain greater efficiency and try to deal with lingering financial hardships, the ‘L’ and streetcar companies began to consolidate. In 1914, all streetcar companies began operating as a unified system known as the Chicago Surface Lines (CSL), despite remaining as separate companies. At its peak, the Chicago Surface Lines system operated along 1,100 miles of track and was the largest and most heavily-used streetcar system in the world.

Control of the four rapid transit ‘L’ companies was vested in a trust in 1911, which centralized some functions but left the underlying companies intact. But as part of the greater coordination, free transfers between the companies’ trains were allowed for the first time in 1913; this also marked the start of through-routing trains between the North and South sides. In 1924, the companies formally merged into the Chicago Rapid Transit Company (CRT).

Buses were first used in Chicago in 1917 by the Chicago Motor Bus Company; they became the Chicago Motor Coach Company (CMC) in 1922. The CMC’s routes were limited to Chicago boulevards and parks, where streetcars were not allowed to operate. CSL began limited use of some motor buses in 1927 and trolley buses in 1930, primarily as extensions of the streetcar system into outlying areas. However, buses would play a limited role in mass transit in Chicago until after World War II.

[Picture: 1917 double decker bus with open seating second level]

Strained finances combined with the hardships of the Great Depression placed both the CRT and CSL in bankruptcy and receivership by the early 1930s. Development of Chicago’s transit network continued, however, as federal Public Works Administration financing combined with transit-company funded city monies to allow construction of Chicago’s first subway under State Street, opening in 1943. A second subway under Dearborn Street was started concurrently with the State Street Subway but mothballed during World War II; it was completed and opened in 1951.

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

Public ownership of Chicago's mass transit system began after the War, with the creation of the Chicago Transit Authority (CTA) by the Illinois legislature in 1945. CTA issued \$105 million in revenue bonds to purchase assets of the CRT and CSL, and began operating 'L' train, streetcar, and limited bus service in and around Chicago on October 1, 1947. On October 1, 1952, CTA became the sole operator of Chicago transit when it purchased the Chicago Motor Coach system.

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

The CTA – empowered to control its own fare levels and service patterns and issue bonds, but receiving no subsidies and lacking taxing authority – immediately set about to unify the desperate private transit networks and modernize the system. Lightly-used services were discontinued or modified, and new equipment was purchased to retire aging vehicles, some almost 50 years old. The last streetcars were retired in 1958, replaced by buses. By 1960, the 'L' and surface systems had been thoroughly modernized.

New 'L' lines were built and others modernized, many in partnership with the city Department of Public Works – these included the Congress branch in the median of the newly-built Congress Superhighway, the nation's first rapid transit line in the median of an expressway (opened 1958), the Dan Ryan Line (opened 1969), and the Kennedy Extension (opened 1970). In 1964, The CTA obtained federal demonstration project funding to create the first "light rail" service, the Skokie Swift, utilizing five miles of the former North Shore Line interurban, which had been abandoned the previous year.

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

By the early 1970s, the popularity of car travel and declining ridership levels threatened the financial stability of the local public transit providers, including the CTA. To address these issues, the Illinois General Assembly created 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 financial oversight to the CTA, Metra and Pace. The RTA was also empowered to levy taxes, providing the first subsidies for local mass transit operating expenses.

[Picture: Blue and white RTA logo]

CTA's mission of modernization and expansion continued, with extensions to O'Hare Airport and Midway Airport opening in 1984 and 1993, respectively; these allowed Chicago to become one of the few cities in the world that has rail service to two major airports.

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

By the 1980s, much of the CTA's physical infrastructure was aging, some almost a century old, and a renewed focus was placed on rehabilitation, renovation and good state of repair. This led to projects to replace or rebuild many bus garages and rail terminals, as well as major projects to renovate existing rail lines. These projects included the extensive rehabilitation or rebuilding of the Green Line in 1994-96, the Cermak branch (now part of the Pink Line) in 2001-05, the Dan Ryan branch of the Red Line in 2004-06 and 2013, and the Brown Line in 2004-2010.

The 2000s brought advances in technology that greatly enhanced CTA customers' experience and the efficiency of the transit system overall. In 2009 and 2011 respectively, CTA launched Bus Tracker and Train Tracker, allowing customers to access information online and via text messaging, and receive email notification of predicted arrival times and service alerts. CTA's latest model of rail car – the 5000-Series – went into service from 2010 through 2015. These advanced cars result in a smoother, more comfortable ride and provide both operational and maintenance efficiencies. In 2014, CTA completed the transition to Ventra, a fare payment system built on open standards, enabling customers to 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 card and ticket ]

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.

Service Area	
Area	308.5 square miles of Chicago and 35 nearby suburbs
Population	3.2 million
Coverage	81% of public transit trips in the six-county Chicago metropolitan area

Bus	
Number of buses	1,859
Routes	128
Stops	10,718
Bus Route Miles	1,536
Bus Miles Traveled per Day	160,912
Ridership (2018 Forecast)	242.5 million

Daily Ridership (2018 Forecast)	
Average Weekday	1,508,716
Average Saturday	872,472
Average Sunday/Holiday	642,224

Rail	
Number of Rail Cars	1,500
Stations	145
Rail Track Miles	224
Rail Miles Traveled per Day	231,284
Ridership (2018 Forecast)	224.8 million

OPERATING FUNDING SUMMARY

The CTA’s total budgeted revenue for 2019 is \$1,552.1 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 to be \$707.7 million for 2019 and public funding is projected to be \$844.4 million. The following table represents 2019 estimated revenue by source.

[Table of Total Revenue budgeted for 2019]

Total Revenue – All Sources (in Thousands)	2019	Percentage
Fares and Passes	\$588,012	38%
Reduced Fare Subsidy	\$28,321	2%
Advertising, Charters and Concessions	\$38,758	3%
Investment Income	\$2,100	0%
Statutory Required Contributions	\$5,000	0%
All Other Revenue	\$45,555	3%
Public Funding	\$844,366	54%
Total Revenue	\$1,552,112	100%

[Graph: Pie chart of Total Revenue budgeted for 2019 (information provided in table above).]

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 budgeted to be \$707.7 million for 2019. 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 budgeted to be \$588.0 million in 2019 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. In 2018, CTA implemented a base full fare increase of \$0.25 and a 30-Day Pass price increase of \$5 that is projected to generate \$24 million in additional revenue in 2018. A fare change is not proposed in 2019. A small increase in revenue is anticipated due to a full year of the new U-Pass daily rate that was implemented in the Fall of 2018 and a continued shift from pay-per-use to passes.

## Reduced Fare Subsidy

This funding represents the reimbursement of revenues foregone by the Service Boards due to providing reduced and free fares to 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 has received only half of the historical reduced fare subsidy funds since 2015 as a result of state budget cuts. It is assumed that the full \$28.3 million subsidy will be restored in 2019.

## Advertising, Charters and Concessions

Advertising, charters and concessions revenue for 2019 is budgeted to be \$38.8 million. The bulk of this revenue is received through advertisement on buses and rail cars and in rail stations. This projection also includes: concession revenue from 91 concessions within the CTA's 145 rail stations, revenue generated from billboards, and revenue from Special Contract Guarantees. The contract revenue includes agreements for transportation services for the University of Chicago and other employers.

## Investment Income

The 2019 budget for investment income is \$2.1 million.

The interest rate variations from 2008 to 2019 are attributed to significant changes since the great recession of 2008. The Federal Funds Rates has slowly increased over the last 10 years, but has not yet reached pre-recession levels. The Federal Funds Rate has increased from near zero at the end of 2008 to 2.25 as of September 26, 2018.

The Federal Open Market Committee (FOMC) is expected to modestly raise short term rates once more in the third and fourth quarters of 2018 from 2.00 to 2.50.

[Table of Investment Income Levels 2008 – 2019 Budget]

Year	Investment Income (in millions)	Federal Funds Rate (at year end)
2008	\$3.8	0-0.25
2009	\$1.3	0.10
2010	\$0.6	0.20
2011	\$0.6	0.06
2012	\$0.7	0.16
2013	\$0.4	0.08
2014	\$0.5	0.12
2015	\$0.7	0.35
2016	\$1.5	0.50-0.75
2017	\$3.1	1.25-1.50
2018 Forecast	\$2.5	1.50-2.50
2019 Budget	\$2.1	2.50

## 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 Country]

Statutory Required Contributions (in millions)	2018
Contributions –City of Chicago	\$3.0
Contributions – Cook County	\$2.0
Total	\$5.0

## All Other Revenue

The CTA forecasts \$45.6 million in other revenue for 2019. Revenues in this category include safety and security grants, parking fees, rental revenue, third-party contractor reimbursements and filming fees. 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.

In 2018, a new source of revenue was included in the other revenue category. Starting in January 2018, the City of Chicago increased the ground transportation tax on ride-hailing services by \$0.15 to fund capital improvements on the CTA system, generating \$16 million annually. The CTA is leveraging this new funding source for security camera upgrades and capital improvements to modernize the rail system, including extensive upgrades to track and signal infrastructure on the Pink, Green, Brown, Blue and Red Lines.

## Public Funding

Most of the CTA's public funding for operating and capital needs is passed 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, primarily to 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.

The SFY 2019 budget passed in June 2018 includes a 1.5 percent surcharge levied on sales tax receipts, lowered from 2 percent in the SFY 2018 budget.



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

	Chicago Sales Tax Revenue	Suburban Cook 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 2019 Sales Tax Budget per the 1983 Formula for the Region is estimated to be \$955.4 million. After the state surcharge of 1.5 percent, the remaining amount of \$941.0 million is distributed to the RTA and three Service Boards as follows:

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

(in thousands)	Chicago Sales Tax	Suburban Cook Sales Tax	Collar County Sales Tax	Total
CTA	\$275,159	\$120,462	\$0	\$395,620
Metra	\$0	\$220,846	\$86,227	\$307,073
Pace	\$0	\$60,231	\$36,954	\$97,185
RTA	\$48,557	\$70,860	\$21,738	\$141,155
Total	\$323,716	\$472,399	\$144,919	\$941,034

Totals may not add 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.

#### 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. This fund is a continuing appropriation to the RTA. SFY 2018 appropriations cut PTF funds by 10 percent for one year but the SFY 2019 appropriations extended this cut for another year at a 5 percent reduction. The RTA uses these funds at its discretion to fund the needs of the Service Boards, RTA operations, debt service and capital investment.

#### 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.

#### 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 2019 toward operating costs.

#### 2019 RTA Proposed Service Board Operations Funding (\$ in thousands)

2019 Service Board Funding	RTA	CTA	Metra	Pace - Mainline	Pace - Paratransit	Total
Sales Tax (1983 Formula)	\$374,025	\$ 395,620	\$307,073	\$97,185		\$1,173,904
Sales Tax and PTF (PA 95-0708)		\$131,039	\$106,469	\$35,490	\$164,632	\$437,629
CTA - RTA Non-Statutory	\$(228,213)	\$228,213				
Real Estate Transfer Tax (25% PTF)		\$16,658				\$16,658
RTA Suburban Community Mobility Funds				\$25,856		\$25,856
RTA South Suburban Job Access Fund	\$(7,500)			\$7,500		
Joint Self-Insurance Fund Reserve			\$2,500			
Pace - RTA Non-Statutory	\$(4,657)			\$4,657		
State Funding for ADA						
RTA Agency Revenue	\$ 2,606					\$2,606
State Financial Assistance (ASA/AFA)	\$130,2300					
Total RTA Funds	\$266,561	\$771,529	\$416,042	\$170,688	\$164,632	\$1,789,453
Real Estate Transfer Tax (City of Chicago)		\$66,631				\$66,631
Total Funds	\$266,561	\$838,160	\$416,042	\$170,688	\$164,632	\$1,856,084
ICE Funding/State ADA funding		\$6,205	\$5,042	\$1,681	\$8,395	\$21,323
State Reduced Fare Reimbursement		\$28,322	\$3,138	\$2,610		\$34,070
Total Regional Public Funds	\$266,561	\$872,688	\$424,222	\$174,979	\$173,027	\$1,911,477

Totals may not add due to rounding.

2019 Budget - Operating Funding Allocation Chart (\$ in thousands)

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

[Table: Transit Agency 2019 funding and percentages]

(\$ in thousands)

Transit Agency	Funding	Percentage
CTA	\$838,160	45.2%
Metra	\$416,042	22.4%
Pace-Mainline	\$170,688	9.2%
Pace-Paratransit	\$164,632	8.9%
RTA	\$266,561	14.4%
Total	\$1,856,084	100.0%

Note: Percentages may not add due to rounding

[Table 2019 ICE and ADA funding by Agency]

(\$ in thousands)

2019 ICE Funding and ADA Funding	CTA	Metra	Pace	ADA
2019 ICE	\$6,205	\$5,042	\$1,681	
State ADA Funding				\$8,395
Total	\$6,205	\$5,042	\$1,681	\$8,395

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.

Fund Balance - Unrestricted Net Position

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 must balance with regard to anticipated revenues from all sources, including operating subsidies, costs of providing services, and funding operating deficits.

In addition to a structurally balanced budget, as part of the annual budget and as recommended by the Government Finance Officers Association (GFOA), the CTA is reporting on its unrestricted net position in the budget book.

Unrestricted net position is reported in compliance with generally accepted accounting principles (GAAP) and represents the portion of net position that is neither restricted nor invested in capital assets net of related debt. The unrestricted net position represents the long-term accumulation of non-cash transactions which are excluded from the annual

budget. These amounts include, but are not limited to, provision for injuries and damages in excess of (or under) budget, depreciation expense, pension expense in excess of pension contributions, actuarial adjustments, interest expense, and capital contributions.

The unrestricted net position is an accounting concept and is separate from annual budgeted revenues and expenses.

2015–2021 Fund Balance – Unrestricted Net Position (Dollars in thousands)

	Actual 2015	Actual 2016	Actual 2017	2018 Forecast	2019 Budget	2020 Plan	2021 Plan
Total Operating Expenses	\$1,444,126	\$1,464,142	\$1,450,840	\$1,490,170	\$1,552,112	\$1,587,511	\$1,620,097
Total System Generated Revenue	\$675,518	\$676,569	\$649,878	\$688,615	\$707,746	\$719,941	\$734,398
Funding Requirement	\$768,608	\$787,573	\$800,962	\$801,555	\$844,366	\$867,570	\$885,699
Public Funding	\$739,008	\$809,748	\$778,462	\$801,555	\$844,366	\$867,570	\$885,699
Short-term Borrowing	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Funding Available (PBV)	\$24,400	\$22,175	-\$22,500	\$0	\$0	\$0	\$0
Fund Balance - unrestricted net position:							
Beginning Balance	-\$1,949,268	-\$3,118,990	\$3,157,858	-\$3,245,337	-\$3,271,579	-\$3,273,706	-\$3,273,706
Net operating results (PBV)	\$24,400	\$22,175	-\$22,500	\$0	\$0	\$0	\$0
Less other obligations*	-\$1,180,325	-\$35,578	-\$45,745	\$0	\$0	\$0	\$0
Less capital expended from net position (PBV)**	-\$13,797	-\$25,465	-\$19,234	-\$26,242	-\$2,127	-\$798	\$0
Ending Balance	-\$3,118,990	-\$3,157,858	\$3,245,337	-\$3,271,579	-\$3,273,706	-\$3,273,706	-\$3,273,706

## 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 exchange agreements (e.g., debt related derivatives). 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. In December 2017, CTA issued \$22.5 million of such notes for operating purposes and the notes were fully repaid during 2018.

As of October 1, 2018, CTA had \$49.25 million of short-term debt obligations for certain capital projects. The notes will be repaid with long-term bonds.

#### 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 (principal) obligations as of December 31, 2018, 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: CTA Debt Obligations]

CTA Debt Obligations									
Credit	Series Name	Outstanding Principal as of December 31, 2018	Final Maturity	Debt Service Budget Payment	Security Pledge	Moody's Rating (Outlook)	S&P Rating (Outlook)	Kroll Rating (Outlook)	Fitch Rating (Outlook)
	Sales Tax	Series 2008A and 2008B ("POBs")	\$1,747,790,000	2040	Operating	Sales Tax & Transfer Tax	A3(stable)	AA(stable)	AA(stable)
Series 2010A and 2010B		516,270,000	2040	Capital	Sales Tax	A3(stable)	AA(stable)	AA(stable)	NR
Series 2011		476,905,000	2040	Capital	Sales Tax	A3(stable)	AA(stable)	AA(stable)	NR
Series 2014		555,000,000	2049	Operating	Sales Tax	NR	AA(stable)	AA(stable)	NR
Series 2017 (Second Lien)		296,220,000	2051	Operating	Second Lien Sales Tax	NR	A+(stable)	AA-(stable)	NR
Total Principal Outstanding		\$3,592,185,000							
GARVEES	2010 5307	\$63,895,000	2028	Capital	FTA 5307 Grant Receipts	A3(stable)	A(stable)	NR	BBB(stable)
	2011 5307	56,525,000	2029	Capital	FTA 5307 Grant Receipts	A3(stable)	A(stable)	NR	BBB(stable)
	2015 5307	104,270,000	2026	Capital	FTA 5307 Grant Receipts	NR	A(stable)	NR	BBB(stable)
	2017 5307	90,540,000	2026	Capital	FTA 5307 Grant Receipts	NR	A(stable)	NR	BBB(stable)
	2010 5309/5337	26,820,000	2028	Capital	FTA 5309/5337 Grant Receipts	A3(stable)	A+(stable)	NR	BBB(stable)
	2015 5337/5337	45,360,000	2026	Capital	FTA 5309/5337 Grant Receipts	NR	A+(stable)	NR	BBB(stable)
	2017 5337 / 5337	134,280,000	2026	Capital	FTA 5309/5337 Grant Receipts	NR	A+(stable)	NR	BBB(stable)
	Total Principal Outstanding	\$521,690,000							
Capital Leases	2008 (Oct 2013 Ref) Artics Hybrid	\$19,207,893	2020	Capital	CTA Lease Payments	NR	NR	NR	NR

	Bus Lease (PNC)								
	2008 COPs (April 2013 Ref) Flyer Bus Lease (BONY)	15,293,994	2020	Capital	CTA Lease Payments	NR	NR	NR	NR
	2006 PBC Bonds	64,310,000	2033	Capital	CTA Lease Payments	Baa1(stable)	A+(stable)	NR	NR
	Total Principal Outstanding	\$98,811,887							
TIFIA	95th Street Terminal (2014)	\$79,200,000	2050	Operating	CTA Farebox Revenue	NR	A+ (stable)	NR	NR
	Your New Blue (2015)	120,000,000	2052	Operating	CTA Farebox Revenue	NR	A+ (stable)	AA-(stable)	NR
	Railcars (2016)	254,900,000	2056	Operating	CTA Farebox Revenue	NR	A+ (stable)	AA-(stable)	NR
	Total TIFIA Loans	\$454,100,000							
	Total Principal Outstanding (all issues)	\$4,666,786,887							

NR – Not Rated; Neg – Negative

[Graph: Total CTA Annual Debt Service Obligations]

[Picture: Stacked Bar Graph of Total CTA Annual Debt Service Obligations. In \$]

PAYMENT YEAR	Operating Sales Tax ('08+'14+'17)	Capital Leases	Capital (FTA) Bonds	Capital Sales Tax ('10+'11)
2019	\$ 199,880,971.80	\$ 27,184,038.68	\$ 76,186,075.00	\$ 67,214,038.00
2020	\$ 199,884,186.80	\$ 20,641,826.12	\$ 74,930,275.00	\$ 67,273,288.00
2021	\$ 199,881,556.80	\$ 6,190,163.00	\$ 83,174,275.00	\$ 81,364,731.00
2022	\$ 199,884,261.80	\$ 6,189,788.00	\$ 62,672,775.00	\$ 81,363,872.00
2023	\$ 199,883,182.60	\$ 6,186,456.00	\$ 62,671,025.00	\$ 81,365,808.00
2024	\$ 199,882,373.80	\$ 6,189,175.00	\$ 62,670,225.00	\$ 81,366,704.50
2025	\$ 199,882,347.50	\$ 6,186,525.00	\$ 62,670,262.50	\$ 81,368,417.50
2026	\$ 199,882,580.95	\$ 6,187,981.00	\$ 62,666,650.00	\$ 81,363,707.50
2027	\$ 199,881,516.55	\$ 6,187,888.00	\$ 49,765,750.00	\$ 81,364,397.50
2028	\$ 199,881,561.85	\$ 6,185,719.00	\$ 49,758,000.00	\$ 81,369,190.00
2029	\$ 199,878,744.60	\$ 6,190,688.00	\$ 20,975,000.00	\$ 81,366,430.00
2030	\$ 199,883,057.70	\$ 6,187,138.00	\$ -	\$ 81,364,772.50
2031	\$ 199,882,424.35	\$ 6,189,413.00	\$ -	\$ 81,367,037.50
2032	\$ 199,884,077.85	\$ 6,186,725.00	\$ -	\$ 81,365,425.00

2033	\$ 199,883,181.80	\$ 6,188,288.00	\$ -	\$ 81,367,087.50
2034	\$ 199,878,520.00	\$ -	\$ -	\$ 87,558,342.50
2035	\$ 199,882,151.50	\$ -	\$ -	\$ 87,556,465.00
2036	\$ 199,883,375.75	\$ -	\$ -	\$ 87,552,157.50
2037	\$ 199,885,112.40	\$ -	\$ -	\$ 87,548,995.00
2038	\$ 199,877,866.45	\$ -	\$ -	\$ 87,559,765.00
2039	\$ 199,880,418.15	\$ -	\$ -	\$ 87,555,705.00
2040	\$ 199,882,753.30	\$ -	\$ -	\$ 87,553,982.50
2041	\$ 114,397,788.00	\$ -	\$ -	\$ -
2042	\$ 114,403,388.00	\$ -	\$ -	\$ -
2043	\$ 114,402,288.00	\$ -	\$ -	\$ -
2044	\$ 114,401,088.00	\$ -	\$ -	\$ -
2045	\$ 114,400,538.00	\$ -	\$ -	\$ -
2046	\$ 114,398,450.00	\$ -	\$ -	\$ -
2047	\$ 114,396,563.00	\$ -	\$ -	\$ -
2048	\$ 114,403,900.00	\$ -	\$ -	\$ -
2049	\$ 114,399,863.00	\$ -	\$ -	\$ -
2050	\$ 35,621,750.00	\$ -	\$ -	\$ -
2051	\$ 35,621,250.00	\$ -	\$ -	\$ -

## 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. The sales tax pledge for the 2017 Series is subordinate to the sales tax pledge for the 2008, 2010, 2011, and 2014 Series. 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, 2014, and 2017 Series Bonds.

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

On August 6, 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.

Under amendments to the Pension Code adopted by the Illinois General Assembly in 2008, the funding of the Retirement Plan is also subject to the following requirements:

- For each year through 2039, the estimated "funded ratio" of the Retirement Plan, which is the actuarial value of assets divided by the actuarial accrued liability, expressed as a percentage, must be at least 60 percent. If the funded ratio is projected to decline below 60 percent in any year before 2040, increased contributions will be required each year as a level percentage of payroll over the years remaining until 2040 so that the funded ratio does not decline below 60 percent.
- If the funded ratio actually declines below 60 percent in any year prior to 2040, increased contributions will be required each year as a level percentage of payroll during the years after the then current year so that the funded ratio is projected to reach at least 60 percent no later than 10 years after the then current year.
- Beginning in 2040, the minimum annual contribution to the Retirement Plan must be sufficient to bring the funded ratio to 90 percent by the end of 2059.
- Beginning in 2060, the minimum contribution must be an amount necessary to maintain the funded ratio at 90 percent.
- Two-thirds of any increase in required contributions is to be paid by the Authority and one-third by participating employees.

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.

Public Act 95-708 authorized the CTA to issue \$1.9 billion in pension obligation bonds to fund the pension and retiree health care and provided 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 are taxable bonds and 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 December 1, 2013 through December 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 April 6, 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. Further, CTA pays 35 percent of the Build America Bond interest directly from a federal subsidy CTA receives from the federal government. 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 November 4, 2011, the CTA issued the Sales Tax Receipts Revenue Bonds, Series 2011, in the amount of \$476,905,000. 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 annually 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 annually on December 1, 2041 through December 1, 2049. The debt service obligations are paid by operating funds.

#### 2017 Sales Tax Receipts Subordinate Revenue Bonds

On January 24, 2017, CTA issued the Sales Tax Receipts Subordinate Revenue Bonds, Series 2017, in the amount of \$296,220,000, and are subordinate to the Sales Tax Bonds: Series 2008 A&B, Series 2010 A&B, Series 2011, and Series 2014. The bonds were issued to pay for projects included in the Capital Improvement Plan. The Series 2017 bonds bear interest ranging from 4 percent to 5 percent. Scheduled interest on the 2017 bonds was funded through December 1, 2018 with proceeds of the 2017 bonds and interest thereon. Interest is payable semiannually on June 1 and December 1 and the bonds mature annually on December 1, 2041 through December 1, 2051. The debt service obligations are paid by operating funds.

[Picture: Stacked Bar Graph: Sales Tax Receipts Revenue Bonds Debt Service. In \$]

	TOTAL ST PRINCIPAL (\$)	TOTAL ST INTEREST (\$)	TOTAL ST DEBT SERVICED (\$)
PAYMENT YEAR			
2017	42,400,000	209,979,895	252,379,895
2018	44,935,000	207,447,220	252,382,220
2019	47,610,000	219,485,010	267,095,010

2020	50,520,000	216,637,475	267,157,475
2021	67,650,000	213,596,288	281,246,288
2022	71,600,000	209,648,134	281,248,134
2023	76,065,000	205,183,991	281,248,991
2024	80,865,000	200,384,078	281,249,078
2025	85,995,000	195,255,765	281,250,765
2026	91,535,000	189,711,288	281,246,288
2027	97,440,000	183,805,914	281,245,914
2028	103,735,000	177,515,752	281,250,752
2029	110,430,000	170,815,175	281,245,175
2030	117,570,000	163,677,830	281,247,830
2031	125,175,000	156,074,462	281,249,462
2032	133,275,000	147,974,503	281,249,503
2033	141,905,000	139,345,269	281,250,269
2034	157,285,000	130,151,863	287,436,863
2035	167,465,000	119,973,617	287,438,617
2036	178,305,000	109,130,533	287,435,533
2037	189,855,000	97,579,107	287,434,107
2038	202,165,000	85,272,631	287,437,631
2039	215,275,000	72,161,123	287,436,123
2040	229,245,000	58,191,736	287,436,736
2041	71,090,000	43,307,788	114,397,788
2042	74,635,000	39,768,388	114,403,388
2043	78,350,000	36,052,288	114,402,288
2044	82,250,000	32,151,088	114,401,088
2045	86,345,000	28,055,538	114,400,538
2046	90,795,000	23,603,450	114,398,450
2047	95,475,000	18,921,563	114,396,563
2048	100,425,000	13,978,900	114,403,900

2049	105,620,000	8,779,863	114,399,863
2050	32,310,000	3,311,750	35,621,750
2051	33,925,000	1,696,250	35,621,250

[Table: Schedule I Sales Tax and Transfer Receipts Revenue Bonds Series 2008A and 2008B Total Debt Service 2019-2040]

**SCHEDULE I: \$1,936,855,000 Sales and Transfer Tax Receipts Revenue Bonds**

(Public Acts 94-839 and 95-0708)

Series 2008A and 2008B Total Debt Service 2019-2040

PAYMENT YEAR	PRINCIPAL PAYMENT	INTEREST PAYMENT	TOTAL DEBT SERVICE	DEBT OUTSTANDING (as of 12/31)
				\$1,747,790,000
2019	\$36,695,000	\$119,878,184	\$156,573,184	1,711,095,000
2020	39,010,000	117,566,399	156,576,399	1,672,085,000
2021	41,465,000	115,108,769	156,573,769	1,630,620,000
2022	44,080,000	112,496,474	156,576,474	1,586,540,000
2023	47,120,000	109,455,395	156,575,395	1,539,420,000
2024	50,370,000	106,204,586	156,574,586	1,489,050,000
2025	53,845,000	102,729,560	156,574,560	1,435,205,000
2026	57,560,000	99,014,793	156,574,793	1,377,645,000
2027	61,530,000	95,043,729	156,573,729	1,316,115,000
2028	65,775,000	90,798,774	156,573,774	1,250,340,000
2029	70,310,000	86,260,957	156,570,957	1,180,030,000
2030	75,165,000	81,410,270	156,575,270	1,104,865,000
2031	80,350,000	76,224,636	156,574,636	1,024,515,000
2032	85,895,000	70,681,290	156,576,290	938,620,000
2033	91,820,000	64,755,394	156,575,394	846,800,000
2034	98,150,000	58,420,732	156,570,732	748,650,000

2035	104,925,000	51,649,364	156,574,364	643,725,000
2036	112,165,000	44,410,588	156,575,588	531,560,000
2037	119,905,000	36,672,324	156,577,324	411,655,000
2038	128,170,000	28,400,078	156,570,078	283,485,000
2039	137,015,000	19,557,630	156,572,630	146,470,000
2040	146,470,000	10,104,965	156,574,965	-
Total:	\$ 1,747,790,000	\$ 1,696,844,891	\$ 3,444,634,891	

[Table: Schedule II Sales Tax Receipts Revenue Bonds Series 2010A and 2010B Total Debt Service 2019-2040]

SCHEDULE II: \$550,000,000 Sales Tax Receipts Revenue Bonds				
Series 2010A and 2010B Total Debt Service 2019-2040				
PAYMENT YEAR	PRINCIPAL PAYMENT	INTEREST PAYMENT	TOTAL DEBT SERVICE	DEBT OUTSTANDING (as of 12/31)
				\$516,270,000
2019	\$10,915,000	\$31,333,751	\$42,248,751	505,355,000
2020	11,510,000	30,798,001	42,308,001	493,845,000
2021	12,095,000	30,214,444	42,309,444	481,750,000
2022	12,720,000	29,583,085	42,303,085	469,030,000
2023	13,405,000	28,900,021	42,305,021	455,625,000
2024	14,135,000	28,166,767	42,301,767	441,490,000
2025	14,930,000	27,372,380	42,302,380	426,560,000
2026	15,855,000	26,446,720	42,301,720	410,705,000
2027	16,835,000	25,463,710	42,298,710	393,870,000
2028	17,880,000	24,419,940	42,299,940	375,990,000
2029	18,985,000	23,311,380	42,296,380	357,005,000
2030	20,155,000	22,134,310	42,289,310	336,850,000
2031	21,400,000	20,884,700	42,284,700	315,450,000
2032	22,725,000	19,557,900	42,282,900	292,725,000
2033	24,135,000	18,148,950	42,283,950	268,590,000
2034	31,820,000	16,652,580	48,472,580	236,770,000
2035	33,785,000	14,679,740	48,464,740	202,985,000
2036	35,875,000	12,585,070	48,460,070	167,110,000
2037	38,090,000	10,360,820	48,450,820	129,020,000
2038	40,455,000	7,999,240	48,454,240	88,565,000
2039	42,955,000	5,491,030	48,446,030	45,610,000
2040	45,610,000	2,827,820	48,437,820	-
Total:	\$ 516,270,000	\$ 457,332,359	\$ 973,602,359	

[Table: Schedule III Sales Tax Receipts Revenue Bonds Series 2011 Total Debt Service 2019-2040]

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

Total:	\$ 476,905,000	\$ 354,622,970	\$ 831,527,970	
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[Table: Schedule IV Sales Tax Receipts Revenue Bonds Series 2014 Total Debt Service 2019-2049]

SCHEDULE IV: \$555,000,000 Sales Tax Receipts Revenue Bonds				
Series 2014 Total Debt Service 2019-2049				
PAYMENT YEAR	PRINCIPAL PAYMENT	INTEREST PAYMENT	TOTAL DEBT SERVICE	DEBT OUTSTANDING (as of 12/31)
				\$555,000,000
2019	\$-	\$28,596,788	\$28,596,788	555,000,000
2020	-	28,596,788	28,596,788	555,000,000
2021	-	28,596,788	28,596,788	555,000,000
2022	-	28,596,788	28,596,788	555,000,000
2023	-	28,596,788	28,596,788	555,000,000
2024	-	28,596,788	28,596,788	555,000,000
2025	-	28,596,788	28,596,788	555,000,000
2026	-	28,596,788	28,596,788	555,000,000
2027	-	28,596,788	28,596,788	555,000,000
2028	-	28,596,788	28,596,788	555,000,000
2029	-	28,596,788	28,596,788	555,000,000
2030	-	28,596,788	28,596,788	555,000,000
2031	-	28,596,788	28,596,788	555,000,000
2032	-	28,596,788	28,596,788	555,000,000
2033	-	28,596,788	28,596,788	555,000,000
2034	-	28,596,788	28,596,788	555,000,000
2035	-	28,596,788	28,596,788	555,000,000
2036	-	28,596,788	28,596,788	555,000,000
2037	-	28,596,788	28,596,788	555,000,000
2038	-	28,596,788	28,596,788	555,000,000
2039	-	28,596,788	28,596,788	555,000,000



2040	-	28,596,788	28,596,788	555,000,000
2041	50,180,000	28,596,788	78,776,788	504,820,000
2042	52,690,000	26,087,788	78,777,788	452,130,000
2043	55,325,000	23,453,288	78,778,288	396,805,000
2044	58,090,000	20,687,038	78,777,038	338,715,000
2045	60,995,000	17,782,538	78,777,538	277,720,000
2046	64,195,000	14,580,300	78,775,300	213,525,000
2047	67,565,000	11,210,063	78,775,063	145,960,000
2048	71,115,000	7,662,900	78,777,900	74,845,000
2049	74,845,000	3,929,363	78,774,363	-
Total:	\$ 555,000,000	\$ 783,119,402	\$ 1,338,119,402	

[Table: Schedule V: Sales Tax Receipts Revenue Bonds Subordinate Series 2017 Total Debt Service 2019-2051]

SCHEDULE V: \$296,220,000 Sales Tax Receipts Revenue Bonds				
Subordinate				
Series 2017 Total Debt Service 2019-2051				
PAYMENT YEAR	PRINCIPAL PAYMENT	INTEREST PAYMENT	TOTAL DEBT SERVICE	DEBT OUTSTANDING (as of 12/31)
				\$296,220,000
2019	\$-	\$14,711,000	\$14,711,000	296,220,000
2020	-	14,711,000	14,711,000	296,220,000
2021	-	14,711,000	14,711,000	296,220,000
2022	-	14,711,000	14,711,000	296,220,000
2023	-	14,711,000	14,711,000	296,220,000
2024	-	14,711,000	14,711,000	296,220,000
2025	-	14,711,000	14,711,000	296,220,000
2026	-	14,711,000	14,711,000	296,220,000
2027	-	14,711,000	14,711,000	296,220,000
2028	-	14,711,000	14,711,000	296,220,000

2029	-	14,711,000	14,711,000	296,220,000
2030	-	14,711,000	14,711,000	296,220,000
2031	-	14,711,000	14,711,000	296,220,000
2032	-	14,711,000	14,711,000	296,220,000
2033	-	14,711,000	14,711,000	296,220,000
2034	-	14,711,000	14,711,000	296,220,000
2035	-	14,711,000	14,711,000	296,220,000
2036	-	14,711,000	14,711,000	296,220,000
2037	-	14,711,000	14,711,000	296,220,000
2038	-	14,711,000	14,711,000	296,220,000
2039	-	14,711,000	14,711,000	296,220,000
2040	-	14,711,000	14,711,000	296,220,000
2041	20,910,000	14,711,000	35,621,000	275,310,000
2042	21,945,000	13,680,600	35,625,600	253,365,000
2043	23,025,000	12,599,000	35,624,000	230,340,000
2044	24,160,000	11,464,050	35,624,050	206,180,000
2045	25,350,000	10,273,000	35,623,000	180,830,000
2046	26,600,000	9,023,150	35,623,150	154,230,000
2047	27,910,000	7,711,500	35,621,500	126,320,000
2048	29,310,000	6,316,000	35,626,000	97,010,000
2049	30,775,000	4,850,500	35,625,500	66,235,000
2050	32,310,000	3,311,750	35,621,750	33,925,000
2051	33,925,000	1,696,250	35,621,250	-
Total:	\$ 296,220,000	\$ 419,278,800	\$ 715,498,800	

Capital Grant Receipt Revenue Bonds-Section 5307 and Section 5337 (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, 2012 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, 2024 thru 2026 of the 5337 Series 2008A bonds.

Refunding Series 2017 5307 bonds refunded the Series 2008A 5307 bonds maturing June 1, 2022 through 2026. Refunding Series 2017 5337 bonds refunded the Series 2008 5337 bonds maturing June 1, 2019 through 2026 and the Series 2008A 5337 bonds maturing June 1, 2019 through 2023.

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

On April 29, 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) 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, 2018.

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

On November 26, 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, 2018.

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

On May 19, 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 November 4, 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, 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, except for years 2027 and 2028 when there is no principal amortization.

**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.

**Capital Grant Receipts Revenue Bonds, Refunding Series 2017 (5307 and 5337)**

On August 16, 2017, 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 \$225,795,000, along with a premium of \$31,278,763 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 refunding the Series 2008A 5307 bonds maturing June 1, 2022 through 2026 as well as refunding the Series 2008 5337 bonds maturing June 1, 2019 through 2026 and the Series 2008A 5337 bonds maturing June 1, 2019 through 2023.

The Series 2017 bonds bear interest ranging from 2 percent to 5 percent. Interest is payable semiannually on June 1 and December 1, and the bonds mature serially from June 1, 2018 to June 1, 2026.

[Picture: Stacked Bar Graph: Capital Grant Receipts Revenue Bonds Section 5307 Debt Service. In \$]

	Total Principal	Total Interest
2018	27,000,000	16,206,650
2019	31,275,000	15,799,775
2020	31,585,000	14,236,025
2021	41,410,000	12,656,775
2022	22,980,000	10,586,275
2023	24,125,000	9,437,275
2024	25,350,000	8,213,725
2025	26,635,000	6,928,013
2026	27,975,000	5,588,650
2027	31,170,000	4,169,750
2028	32,725,000	2,611,250

2029	20,000,000	975,000
Total	342,230,000	107,409,163

[Picture: Stacked Bar Graph: Capital Grants Receipts Revenue Bonds Section 5309 and 5337. In \$]

	Total Principal	Total Interest
2018	19,690,000	9,777,308
2019	18,975,000	10,136,300
2020	19,735,000	9,374,250
2021	20,720,000	8,387,500
2022	21,755,000	7,351,500
2023	22,845,000	6,263,750
2024	23,985,000	5,121,500
2025	25,185,000	3,922,250
2026	26,440,000	2,663,000
2027	13,085,000	1,341,000
2028	13,735,000	686,750
Total	226,150,000	65,025,108

[Table: Schedule VI: Capital Grant Receipts Revenue Bonds (Federal Transit Administration Section 5307 & 5309 Formula Funds) Series 2008 Total Debt Service 2019]

<b>SCHEDULE VI: \$90,715,000 Capital Grant Receipts Revenue Bonds</b> <b>(Federal Transit Administration Section 5307 &amp; 5309 Formula Funds)</b> <b>Refunding Series 2010 Total Debt Service 2019-2028</b>				
PAYMENT YEAR	PRINCIPAL PAYMENT	INTEREST PAYMENT	TOTAL DEBT SERVICE	DEBT OUTSTANDING (as of 12/31)
				\$90,715,000
2019	\$-	\$4,535,750	\$4,535,750	90,715,000
2020	-	4,535,750	4,535,750	90,715,000
2021	-	4,535,750	4,535,750	90,715,000

2022	-	4,535,750	4,535,750	90,715,000
2023	-	4,535,750	4,535,750	90,715,000
2024	-	4,535,750	4,535,750	90,715,000
2025	-	4,535,750	4,535,750	90,715,000
2026	-	4,535,750	4,535,750	90,715,000
2027	44,255,000	4,535,750	48,790,750	46,460,000
2028	46,460,000	2,323,000	48,783,000	-
Total:	\$ 90,715,000	\$ 43,144,750	\$ 133,859,750	

[Table: Schedule VII: Capital grant Receipts Revenue Bonds (Federal Transit Administration Section 5309 Formula Funds) Series 2008A Total Debt Service 2019]

<b>SCHEDULE VII: \$56,525,000 Capital Grant Receipts Revenue Bonds</b>				
<b>Refunding Series 2011 Debt Service 2019-2029</b>				
<b>(Federal Transit Administration Section 5307 Urbanized Area Formula Funds)</b>				
<b>PAYMENT YEAR</b>	<b>PRINCIPAL PAYMENT</b>	<b>INTEREST PAYMENT</b>	<b>TOTAL DEBT SERVICE</b>	<b>DEBT OUTSTANDING (as of 12/31)</b>
				\$56,525,000
2019	\$-	\$2,864,525	\$2,864,525	56,525,000
2020	-	2,864,525	2,864,525	56,525,000
2021	-	2,864,525	2,864,525	56,525,000
2022	6,595,000	2,864,525	9,459,525	49,930,000
2023	6,920,000	2,534,775	9,454,775	43,010,000
2024	7,285,000	2,171,475	9,456,475	35,725,000
2025	7,665,000	1,789,013	9,454,013	28,060,000
2026	8,060,000	1,398,150	9,458,150	20,000,000
2027	-	975,000	975,000	20,000,000
2028	-	975,000	975,000	20,000,000
2029	20,000,000	975,000	20,975,000	-
Total:	\$ 56,525,000	\$ 22,276,513	\$ 78,801,513	

[Table: Schedule VIII: Capital Grant Receipts Revenue Bonds (Federal Transit Administration Section 5307 & 5309 Formula Funds) Refunding Series 2010 Total Debt Service 2019-2028]

<b>SCHEDULE VIII: \$176,920,000 Capital Grant Receipts Revenue Bonds</b> <b>Refunding Series 2015 Debt Service 2019-2026</b> <b>(Federal Transit Administration Section 5307 Urbanized Area Formula Funds)</b> <b>(Federal Transit Administration Section 5337 State of Good Repair Formula Funds)</b>				
PAYMENT YEAR	PRINCIPAL PAYMENT	INTEREST PAYMENT	TOTAL DEBT SERVICE	DEBT OUTSTANDING (as of 12/31)
				\$149,630,000
2019	\$31,580,000	\$7,481,500	\$39,061,500	118,050,000
2020	31,905,000	5,902,500	37,807,500	86,145,000
2021	41,745,000	4,307,250	46,052,250	44,400,000
2022	350,000	2,220,000	2,570,000	44,050,000
2023	370,000	2,202,500	2,572,500	43,680,000
2024	13,855,000	2,184,000	16,039,000	29,825,000
2025	14,550,000	1,491,250	16,041,250	15,275,000
2026	15,275,000	763,750	16,038,750	-
<b>Total:</b>	<b>\$ 149,630,000</b>	<b>\$ 26,552,750</b>	<b>\$ 176,182,750</b>	

[Table: Schedule IX: Capital Grant Receipts Revenue Bonds Refunding Series 2017 Debt Service 2019-2026 Federal Transit Administration Section 5307 Urbanized Area Formula Funds]

**SCHEDULE IX: \$225,795,000 Capital Grant Receipts Revenue Bonds**

Refunding Series 2017 Debt Service 2019-2026

(Federal Transit Administration Section 5307 Urbanized Area Formula Funds)

(Federal Transit Administration Section 5337 State of Good Repair Formula Funds)

PAYMENT YEAR	PRINCIPAL PAYMENT	INTEREST PAYMENT	TOTAL DEBT SERVICE	DEBT OUTSTANDING (as of 12/31)
				\$224,820,000
2019	\$18,670,000	\$11,054,300	\$29,724,300	206,150,000
2020	19,415,000	10,307,500	29,722,500	186,735,000
2021	20,385,000	9,336,750	29,721,750	166,350,000
2022	37,790,000	8,317,500	46,107,500	128,560,000
2023	39,680,000	6,428,000	46,108,000	88,880,000
2024	28,195,000	4,444,000	32,639,000	60,685,000
2025	29,605,000	3,034,250	32,639,250	31,080,000
2026	31,080,000	1,554,000	32,634,000	-
Total:	\$ 224,820,000	\$ 54,476,300	\$ 279,296,300	

**TIFIA Loans**

The Federal government passed the Transportation Infrastructure Finance and Innovation Act (TIFIA) in 1998 to provide federal credit assistance to surface transportation public entities 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 percent 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 percent) 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 percent) 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 percent. 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 percent) 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 percent 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 percent). 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 30, 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 percent) 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 percent 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 percent). 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 October 26, 2006, the Public Building Commission of Chicago (PBC) issued \$91.3 million of Building Revenue Refunding Bonds for the benefit of the CTA to refund the amount outstanding originally issued in 2003. 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 PBC used the proceeds of the 2003 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.

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.

### 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 \$32.1 million at December 31, 2017. 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 \$31.7 million as of December 31, 2017. Annual principal and interest debt service payments of \$13,085,425 are payable from 2018 to 2019, with the final debt service payment of \$6,542,712.64 due in 2020. A full 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 remaining to be paid on the COPs as of December 31, 2017, was \$22.6 million. Annual principal and interest debt service payments of \$7,911,700.48 are required to be made from 2018 to 2020. A full debt service schedule has not been included as the New Flyer Low Floor Bus Lease is a private placement.

[Picture: Stacked Bar Graph: Public Building Commission Lease on Behalf of CTA Debt Service. In \$]

	Total Principal	Total Interest
2018	2,785,000	3,403,969
2019	2,915,000	3,271,913
2020	3,065,000	3,122,413
2021	3,225,000	2,965,163

2022	3,390,000	2,799,788
2023	3,565,000	2,621,456
2024	3,760,000	2,429,175
2025	3,960,000	2,226,525
2026	4,175,000	2,012,981
2027	4,400,000	1,787,888
2028	4,635,000	1,550,719
2029	4,890,000	1,300,688
2030	5,150,000	1,037,138
2031	5,430,000	759,413
2032	5,720,000	466,725
2033	6,030,000	158,288
Total	67,095,000	31,914,242

[Table: Schedule X \$91,340,000 Building Revenue Bonds (Public Building Commission on behalf of Chicago Transit Authority) Series 2006 Lease Payment Schedule 2019-2033]

<b>SCHEDULE X: \$91,340,000 Building Revenue Bonds</b> (Public Building Commission on behalf of Chicago Transit Authority) Series 2006 Lease Payment Schedule 2019-2033				
PAYMENT YEAR	PRINCIPAL PAYMENT	INTEREST PAYMENT	TOTAL DEBT SERVICE	DEBT OUTSTANDING (as of 12/31)
				\$64,310,000
2019	\$2,915,000	\$3,271,913	\$6,186,913	61,395,000
2020	3,065,000	3,122,413	6,187,413	58,330,000
2021	3,225,000	2,965,163	6,190,163	55,105,000
2022	3,390,000	2,799,788	6,189,788	51,715,000
2023	3,565,000	2,621,456	6,186,456	48,150,000
2024	3,760,000	2,429,175	6,189,175	44,390,000
2025	3,960,000	2,226,525	6,186,525	40,430,000
2026	4,175,000	2,012,981	6,187,981	36,255,000

2027	4,400,000	1,787,888	6,187,888	31,855,000
2028	4,635,000	1,550,719	6,185,719	27,220,000
2029	4,890,000	1,300,688	6,190,688	22,330,000
2030	5,150,000	1,037,138	6,187,138	17,180,000
2031	5,430,000	759,413	6,189,413	11,750,000
2032	5,720,000	466,725	6,186,725	6,030,000
2033	6,030,000	158,288	6,188,288	-
Total:	\$ 64,310,000	\$ 28,510,273	\$ 92,820,273	

## 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]

- 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 15, 2018

RTA Budget Call. RTA releases the requirements that the Service Boards must follow for the development of their 2019 budget, two-year financial plan, and five-year capital program.

September 15, 2018	<p>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.</p> <p>The operating marks include estimates of available public 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.</p> <p>The capital marks provide 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.</p> <p>CTA develops a five-year capital improvement program that identifies the capital projects programmed for funding along with the source of funds to implement the capital projects.</p>
October 16, 2018	CTA Budget released to the public. The statute requires that documents be available for public inspection 21 days prior to the public hearing.
November 7, 2018	Public Hearing to be scheduled to receive comments from the public.
November 14, 2018	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 14, 2018	Chicago Transit Board vote. The Chicago Transit Board incorporates any changes and adopts the operating and capital fiscal year budget and financial plans.
November 15, 2018	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.
December 13, 2018	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 9, 2019	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 projects with 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.



## 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 Regional Transportation Authority (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, from system-generated sources on a budgetary basis.

### 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 Retiree Health Care Trust (RHCT) 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 and required recovery ratio. 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 and expense from bond transactions,
- Revenue and 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.

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 (Qualified Supplemental Retirement Plan) activities. Separate financial statements are presented for each category. 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 Qualified Supplemental Retirement Plan. The assets of the Qualified 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.

## 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 them. 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, and 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. CTA is also developing a Transit Asset Management system to assist in prioritizing future capital projects. 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.

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. Long-term ridership and public funding trends can also provide context for national 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. Chicago-area employment levels have now matched their pre-recession levels.

Growing employment levels combined with high downtown parking costs increase the relative value of public transportation. Decreasing gas prices, however, increase car use, lowering ridership and slowing down buses due to increased street congestion. More alternatives such as bike share and ride-hailing have also impacted CTA ridership in 2018.

In addition, the number of visitors to Chicago has increased in the past few years, with a record 55.2 million visitors to the city in 2017, an increase of 2.5 percent over 2016. 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 4,725,000 through August 2018 since reaching a low point of 4,226,000 in January 2010.

The 0.6 percent increase in payroll in the Chicago area from 2017 to 2018 year-to-date is outpaced by the national 1.3 percent increase during the same time period. However, there has been an increase of 11.8 percent in employment since the low point in 2010.

[Table: Non-Farm Employment 2008-2018]

Total Non-Farm Employment 2008-2018 (in thousands)											
(2018 is year-to-date monthly average, seasonally adjusted)											
Source: Bureau of Labor Statistics											
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
National	137,240	131,300	130,353	131,941	134,171	136,379	138,937	141,813	144,306	146,624	148,584
% Change	-0.5%	-4.3%	-0.7%	1.2%	1.7%	1.6%	1.9%	2.1%	1.8%	1.6%	1.3%
Chicago Area	4,525	4,288	4,243	4,302	4,373	4,441	4,506	4,593	4,653	4,699	4,725
% Change	-0.6%	-5.2%	-1.1%	1.4%	1.6%	1.6%	1.5%	1.9%	1.3%	0.9%	0.6%

Unemployment Rate

The Chicago metropolitan area seasonally-adjusted unemployment rate averaged 4.5 percent through August 2018. This compares to a 4.0 percent national average - the lowest rate since the year 2000. The Chicago area unemployment rate decreased by 1.4 percentage points compared to 2016, and 0.6 percentage points compared to 2017.

[Graph: Unemployment rates comparison 2008-2018 Chicago vs National]

	Chicago Area	National
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	9.3%	7.4%
2014	7.2%	6.2%
2015	6.0%	5.3%
2016	5.9%	4.9%
2017	5.1%	4.4%
2018	4.5%	4.0%

#### Fuel Prices

Nationally, consumer gas prices rose in 2016 and 2017. Through year-to-date 2018, prices have increased to levels exceeding 2015. Prices during this period have ranged from a low of \$1.77 in February 2016 to a high of \$2.91 in June 2018.

The average price for Unleaded Regular Gasoline in 2018 has increased 8.2 percent since the beginning of the year, with an average cost of \$2.75 per gallon through August.

Diesel fuel prices showed a similar pattern, with the monthly average falling from \$3.00 per gallon in January 2015 to \$2.00 per gallon in February 2016, but rising again in 2017. Through August, the 2018 year-to-date average is \$3.14 per gallon, with the price for August representing a 6.6 percent increase from the beginning of the year.

[Graph No. 1: Unleaded Regular Gas Price Per Gallon 2007-2017]

Year	Average Price Per Gallon
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	\$ 2.31
2017	\$ 2.41
2018	\$ 2.75



[Graph No.2: Diesel Price Per Gallon 2007-2017]

Year	Average Price Per Gallon
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	\$ 2.14
2017	\$ 2.65
2018	\$ 3.14

#### Consumer Price Index (CPI)

The CPI measures the average change over time in the prices paid by urban consumers for a fixed set of goods and services. An increase in the index, such as the one experienced from 2015 to 2017, means consumers have to pay more dollars to buy the same goods and services. Through August of 2018, the average CPI increased by 1.7 percent in the Chicago-area and by 2.0 percent nationally compared to 2017. Since 2016, the increase in the Chicago-area CPI was 3.6 percent and nationally 3.8 percent.

Graph: Consumer Price Index Change 2008-2018 National vs. Chicago]

Year	National	Chicago
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	-0.12%	-0.30%
2016	0.93%	0.66%
2017	1.76%	1.88%
2018	1.97%	1.68%

## 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. Since 2017, the first category experienced a slight increase of 3.1 percent, while fuel and iron and steel have increased more substantially at 10.7 and 10.6 percent, respectively. Since 2016, industrial commodities increased 6.3 percent and fuel and iron and steel have increased 24.2 and 25.4 percent, respectively.

[Graph: Producers Price Index Changes 2008-2018 for Industrial Commodities less Fuel, Fuel, Iron & Steel]

Year	Industrial Commodities less Fuel	Fuel	Iron & Steel
2008	6.0%	20.8%	22.5%
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	-0.4%	-9.1%	-4.4%
2017	3.1%	12.2%	13.4%
2018	3.1%	10.7%	10.6%

## Gross Domestic Product (GDP)

GDP measures the value of goods and services produced in an area in a given year. National Real GDP has improved since 2010, with a growth rate of 4.6 percent in 2017 when compared to 2016. The Chicago Metropolitan Area has shown a similar trend over the last decade, with a 4.4 percent growth from 2016 to 2017.

[Graph: GDP Growth Rate Change 2008-2017 National vs. Chicago]

Year	National	Chicago
2008	1.66%	-1.26%
2009	-2.04%	-2.14%
2010	3.78%	2.37%
2011	3.70%	3.52%
2012	4.11%	5.55%
2013	3.32%	1.37%
2014	4.41%	3.89%
2015	3.98%	4.33%
2016	2.78%	2.55%
2017	4.62%	4.37%

## 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. So far, the FOMC has increased the Federal Funds Rate by 25 basis points to a target range of 2.00 percent to 2.25 percent at its September 2018 meeting, the first time in a decade the FFR will be above inflation. Currently, the rate is the highest it has been since 2008, with growth throughout 2017 and year to date 2018. The Committee will monitor growth closely through the end of 2018 by weighing labor market conditions, inflation pressures and expectations, and financial developments. These factors will determine the timing and size of future adjustments. Market probabilities imply another chance of another increase by the end of the year. The FOMC expects that growth will continue through 2019, with the median projection being a 2.7 percent FFR.

[Graph: Federal Funds Rate 2008-2018]

Year	Average
2008	1.93%
2009	0.16%
2010	0.18%
2011	0.10%
2012	0.14%
2013	0.11%
2014	0.09%
2015	0.13%
2016	0.40%
2017	1.00%
2018	1.70%

## 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. The beginning of 2018 seemed to confirm that economic activity is improving with the tightening of the labor market and the strengthening of the investment sector compared to 2015 and 2016. Ten-year treasury bonds also imitated this strengthening in the first half of 2018, increasing from 2.4 percent in the last quarter of 2017 to 2.8 percent in the first quarter in 2018, and continuing to rise up to 2.9 percent in the second quarter. Daily yield rates in May of this year reached a high of 3.0 percent, which hasn't been seen since January 2014, and remained constant after that. Long-term bonds are being "dampened" by the economic uncertainty of escalating trade wars. Ultimately, however, ten-year treasury bonds are expected to rise again to 3.2 percent by year-end. This could benefit regular consumers, as more banks are matching the treasury rates.

[Graph: Ten-Year US Treasury Notes Yield 2008-2018]

Year	Average
2008	3.67%
2009	3.26%
2010	3.21%
2011	2.79%
2012	1.80%
2013	2.35%
2014	2.54%
2015	2.14%

2016	1.84%
2017	2.33%
2018	2.87%

### Historical Ridership

Over the last 20 years, ridership has been increasing nationally despite dips associated with recessions in the early 2000s and in 2009-2010. Since 2010, national ridership has increased 3.2 percent; however, ridership decreased in 2015 and again in 2016, with 2016 ridership decreasing 2.0 percent compared to 2015.

The Chicago Metropolitan Area's ridership has generally trended upward since the early 2000s. However, after a peak in the number of riders in 2012, ridership has declined returning to pre-recession numbers. As with the nation, 2016's ridership decreased 3.2 percent compared to 2015.

[Graph: National Historical Ridership 1996 to 2016 – In millions]

[Graph: Chicago Area Historical Ridership 1996 to 2016 – In millions]

	National	Chicago Area
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	10,409	645
2014	10,505	630
2015	10,439	630
2016	10,234	610

OPERATING STATISTICS

[Table: System Operating Statistics; Ridership, Expense, Revenue 2015-2017 Actuals, 2018 Forecast, 2019 Budget in USD]

Characteristics	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Budget
Ridership					
Avg. Daily Weekday	1,640,877	1,586,188	1,540,769	1,508,716	1,498,326
Avg. Daily Saturday	1,027,863	972,639	916,836	872,472	843,154
Avg. Daily Sunday	760,211	718,557	684,820	642,224	609,376
System Wide Ridership	515,964,831	497,704,252	479,435,218	467,340,237	461,260,891
Expense					
Top Operator Rate	32.82	32.82	32.82	35.01	36.07
Capital Expenditures	734,716,432	586,884,434	511,668,093	562,668,782	540,400,000
Revenue					
Avg. Fare per Trip	1.14	1.16	1.17	1.25	1.27
Public Funding per Trip	1.54	1.63	1.62	1.72	1.83

[Graph: Bar graph Systemwide Ridership from 2015 to 2019, in tens of thousands]

Year	System Wide Ridership
2015 Actual	515,965
2016 Actual	497,704
2017 Actual	479,435
2018 Forecast	467,340
2019 Budget	461,261

[Table: Bus Operating Statistics; Expense, Miles, Trips, Vehicles 2015-2017 Actuals, 2018 Forecast, 2019 Budget]

Characteristics	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Budget
<b>Expense</b>					
Scheduled Transportation Expense					\$408,362,334
Garage Maintenance Expense	\$375,580,292	\$390,180,472	\$397,621,567	\$404,445,438	
Support Expense	\$135,520,844	\$121,703,808	\$119,862,173	\$127,657,259	\$145,641,498
Heavy Maintenance Expense	\$19,169,749	\$20,581,964	\$21,160,420	\$22,496,797	\$24,047,113
Other Expenses	\$47,551,843	\$48,960,717	\$49,160,075	\$46,914,907	\$26,737,841
Total Operating Expense	<u>\$610,518,432</u>	<u>\$610,826,094</u>	<u>\$614,713,755</u>	<u>\$631,233,037</u>	<u>\$636,085,494</u>
Fuel Expense	\$49,829,780	\$32,738,322	\$28,757,370	\$33,482,000	\$44,084,294
<b>Miles</b>					
Annual Vehicle Revenue Miles	52,277,748	52,304,804	52,290,416	52,483,071	52,389,291
<b>Trips</b>					
Annual Unlinked Trips	274,288,766	259,058,440	242,524,560	242,524,560	237,960,331
<b>Vehicles</b>					
Annual Vehicle Revenue Hours	5,729,637	5,758,937	5,802,173	5,802,173	5,798,657
Vehicles Operated in Maximum Service	1,594	1,572	1,579	1,579	1,552
Vehicles Owned by CTA	1,891	1,888	1,868	1,868	1,859
Average Age of Vehicles	7.2	6.9	8.3	8.3	8.1

[Graph: Bar Graph Annual Bus Vehicle Revenue Hours 2015 to 2019, in thousands]

Year	Revenue Hours
2015 Actual	5,730
2016 Actual	5,759
2017 Actual	5,772
2018 Forecast	5,802
2019 Budget	5,799

[Table: Heavy Rail Operating Statistics; Ridership, Expense, Revenue 2015-2017 Actual, 2018 Forecast, 2019 Budget]

Characteristics	2015 Actual	2016 Actual	2017 Actual	2018 Forecast	2019 Budget
Expense					
Scheduled Transportation Expense	\$154,661,972	\$161,614,738	\$162,264,798	\$168,174,237	\$174,067,020
Terminal Maintenance Expense	\$49,078,596	\$48,938,815	\$52,059,484	\$57,414,166	\$54,821,079
Support Expense	\$41,134,476	\$41,617,321	\$43,469,378	\$44,849,606	\$48,303,548
Heavy Maintenance Expense	\$19,281,847	\$18,790,060	\$20,371,113	\$20,728,524	\$20,724,028
Rail Car Appearance Expense	\$13,135,097	\$14,964,653	\$14,253,604	\$14,937,649	\$16,708,377
Other Expenses	\$9,169,666	\$10,483,985	\$9,935,030	\$11,051,381	\$12,591,823
Total Operating Expense	<u>\$286,461,653</u>	<u>\$296,409,572</u>	<u>\$302,353,408</u>	<u>\$317,155,562</u>	<u>\$327,215,874</u>
Power Expense	\$28,817,929	\$29,282,792	\$27,372,603	\$30,659,518	\$34,371,908
Miles					
Annual Rail Car Revenue Miles	71,297,563	71,811,535	73,612,276	73,405,771	73,780,450
Trips					
Annual Unlinked Trips	241,676,065	238,645,812	230,204,047	224,815,677	223,300,560
Vehicles					
Annual Train Revenue Hours	663,942	674,258	677,161	678,335	666,789
Vehicles Operated in Maximum Service	1,134	1,140	1,140	1,144	1,144
Vehicles Owned by CTA	1,518	1,462	1,462	1,484	1,500
Average Age of Vehicles	15	16	17	18	19

[Graph: Bar Graph Annual Train Revenue Hours, in thousands]

Year	Revenue Hours
2015 Actual	664
2016 Actual	674
2017 Actual	677
2018 Forecast	678
2019 Budget	667

## PERFORMANCE MANAGEMENT

### 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:

[Table with performance areas and definitions]

Safe	The CTA will minimize the number of accidents involving customers, employees, and the general public.
On-Time	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.
Clean	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.
Courteous	The CTA will maintain the highest standards of customer service through timely, reliable, and clear communication with customers, considerate employees, and efficient operational practices.
Efficient	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 with CTA key performance indicators]

CTA Preliminary Monthly Performance (*)		2018 Monthly Target	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018
RIDERSHIP	Total Ridership (in millions)	41.4	36.6	35.1	39.9	38.9	41.1	39.4	39.2
	Rail Ridership (in millions)	21.7	17.4	16.6	19.0	18.5	19.6	19.5	19.4
	Bus Ridership (in millions)	19.7	19.2	18.5	21.0	20.4	21.5	19.9	19.8
	Total (Year to Date, in millions)	287.8	36.6	71.6	111.5	150.4	191.5	230.9	270.1
	% Change Over Prior Year (Year to Date)	-7.0%	-2.5%	-4.0%	-4.2%	-3.0%	-2.7%	-3.2%	-2.7%
ON-TIME	Rail Delays of 10 Minutes or More	78	95	106	83	83	87	100	105
	% of Slow Zone Mileage	N/A	8.5%	7.9%	8.0%	7.6%	9.8%	9.5%	8.8%
	% of Big Gap Intervals, Bus	4.0%	1.9%	2.8%	2.3%	2.4%	3.3%	3.5%	3.0%
	% of Bunched Intervals, Bus	3.0%	2.3%	3.0%	2.6%	2.9%	3.3%	3.5%	3.2%
EFFICIENT	Mean Miles Between Reported Rail Vehicle Defects	8,000	6,963	6,946	8,806	8,978	7,437	8,170	9,169
	Miles Between Reported Bus Service Disruptions Due to Equipment	5,000	5,651	5,434	6,305	6,651	5,339	5,522	5,575
	Average Daily Percent of Bus Fleet Unavailable for Service	12.6%	14.3%	13.4%	13.5%	13.3%	14.1%	14.6%	15.3%
	Average Daily Percent of Rail Fleet Unavailable for Service	11.0%	12.6%	12.7%	10.0%	10.1%	9.9%	9.9%	10.4%
SAFE	Bus NTD Security-Related Incidents per 100,000 miles	N/A	0.09	0.15	0.09	0.12	0.09	0.16	0.32
	Rail NTD Security-Related Incidents per 100,000 miles	N/A	0.11	0.07	0.11	0.05	0.02	0.17	0.12
	Bus NTD Safety-Related Incidents per 100,000 Miles	N/A	0.36	0.4	0.40	0.44	0.45	0.44	0.30
	Rail NTD Safety-Related Incidents per 100,000 Miles	N/A	0.08	0.11	0.03	0.05	0.08	0.03	0.10
CLEAN	Average Interior Rail Clean Inspection Score	90.0%	92.3%	92.0%	93.3%	93.3%	94.5%	94.2%	94.5%
	Average Interior Bus Clean Inspection Score	85.0%	86.7%	86.9%	87.4%	87.0%	86.0%	87.0%	85.0%
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	0:00:15	0:00:16	0:00:28	0:00:22	0:00:28	0:00:34	0:00:59

Reported Ramp Defects (Service Disruptions)	N/A	74	136	76	70	75	121	88
% Buses with Defective AVAS	2.0%	0.5%	0.4%	0.4%	0.3%	0.2%	0.3%	0.3%
Reported ADA Complaints	N/A	55	64	69	63	64	75	99

[Table: Definitions of CTA Monthly Performance Metrics]

CTA Monthly Performance Metrics		Definition
RIDERSHIP	Total Ridership (monthly, in millions)	Number of rides registered on the bus and rail systems.
	Rail Ridership (monthly, in millions)	Number of rides registered on the rail system.
	Bus Ridership (monthly, in millions)	Number of rides registered on the bus system.
	Total (Year to Date, in millions)	Number of rides registered on the bus and rail systems, year to date.
	% Change Over Prior Year (Year to Date)	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	Rail Delays of Ten Minutes or More	Rail delays of ten minutes or more reported to the Control Center by an Operator, a Controller, or a Supervisor.
	% of Slow Zone Mileage	Miles of revenue track that have slow zones. Slow zones range from 6 mph to 35 mph.
	% of Big Gap Intervals, Bus	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.
	% of Bunched Intervals, Bus	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

EFFICIENT	Mean Miles Between Reported Rail Vehicle Defects	Miles traveled during the month divided by the number of reported defects for the month.
	Miles Between Reported Bus Service Disruptions Due to Equipment	Miles traveled during the month divided by number of reported service disruptions due to equipment for the month.
	Average Daily Percent of Bus Fleet Unavailable for Service	Daily average number of buses unavailable for service for any reason divided by the total number of buses in the fleet.
	Average Daily Percent of Rail Fleet Unavailable for Service	Daily average number of rail cars unavailable for service for any reason divided by the total number of rail cars in the fleet.
SAFE	Bus National Transportation Database (NTD) Security-Related Incidents per 100,000 miles	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.
	Rail NTD Security-Related Incidents per 100,000 miles	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.
	Bus NTD Safety-Related Incidents per 100,000 Miles	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.
	Rail NTD Safety-Related Incidents per 100,000 Miles	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.
CLEAN	CTA Monthly Performance Metrics	Definition
	Average Interior Rail Clean Inspection Score	Monthly average Quality Inspection audit scores for the execution of Interior Cleans.

COURTEOUS	Average Interior Bus Clean Inspection Score	Monthly average Quality Inspection audit scores for the execution of Interior Cleans.
	% 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

- 308.5 square miles of Chicago and 35 nearby suburbs
- The service area has 3.2 million people in 2017

### Ridership

- Over 467.3 million trips projected for 2018
- Approximately 1.5 million trips per average weekday in 2017

## Operations Departments

### Bus Operations and Maintenance

- On average, provided 800,744 rides per weekday in 2017.
- Maintains reliable service with over 4,000 bus operators, driving 1,859 buses, traveling 160,912 miles each weekday, over 120 routes, serving 10,718 bus stops.
- Manages seven Bus Garages and one Heavy Maintenance Shop.
- At the end of 2017, the average age of the fleet was 8.2 years old.

### Rail Operations and Maintenance

- On average, provided 740,026 rides per weekday in 2017.
- Maintains reliable service with over 800 rail operators and 1,500 rail cars, traveling 231,284 miles each weekday, over 224 miles of track, across eight lines, servicing 145 stations.
- Rail Operations manages twelve operating terminals and nine administrative terminals.
- Rail Maintenance manages nine Rail Terminals and one Heavy Maintenance Shop.
- At the end of 2017, the average age of the fleet was 16.8 years old.

### Facilities Maintenance

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

## Infrastructure Department

### 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.

### Construction

- Ensures 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 conforms to all applicable standards, regulations, and requirements.
- Oversees and integrates program management and construction management services to assist in the monitoring and controlling of multiple capital construction projects.
- Develops uniform procedures and processes that assist in the design, construction, and administration of the capital program.

- Oversees construction projects that are performed by other organizations (IDOT, CDOT, etc.) that impact the CTA system as well as other private work adjacent to the CTA system.

#### Engineering

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

#### Real Estate

- Manages all CTA owned and leased real estate.
- Responsible for CTA’s Art Program.

#### Support Departments

##### 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 Management

- Maintains, supports, and upgrades all CTA technology infrastructure, including computer hardware, application software, and communications equipment.
- Responsible for all infrastructure related to communication systems.
- Manages and delivers technology projects to modernize and make the CTA more efficient while providing greater convenience and safety to customers.

##### 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 to develop 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 (includes Customer Service)

- 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.

#### 2018 Performance by Department

##### Bus Operations

Bus Operations provides over 242.5 million rides per year, or over 52 percent 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 at least two times the scheduled interval.

Bus Operations hosts weekly and monthly discussion sessions with Bus Operators regarding service reliability and 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 Bus Emergency Communication System (CAD/AVL) to monitor the routes and make real-time adjustments to service. Bus Operations work with the Control Center to utilize Clever CAD to send real time messages to Bus Operators.

Through July of 2018, Bus Operations maintained a big gaps average of 2.7 percent, below the 2018 target of 4.0 percent. Intervals bunched have averaged 3.0 percent through July 2018, meeting the year's target of 3.0 percent. 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.]

Bus Operations Performance Measures	2018 Target	2018 YTD Performance (Jan-July)	Service Level with Proposed Budget
% of Big Gap Intervals	4.0%	2.7%	4.0%
% Intervals Bunched	3.0%	3.0%	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 1,859 buses. This includes both mechanical maintenance and regular cleaning of bus interiors and exteriors.

The CTA has completed the receipt of 425 (300 base and 125 option #1) of the new Nova 7900 Series buses. The final option order of 25 buses will be delivered in Q4 2018. The oldest buses in the current fleet, the 6400 series Nova, are currently being replaced by the 7900 series. To date, only 103 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 (Road Calls) reported by the Control Center. As part of the performance management process, Bus Maintenance set a goal of providing a fleet reliability of 3,950 miles between defects in 2018. 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.]

Bus Maintenance Performance Measures	2018 Target	2018 YTD Performance (Jan-July)	Service Level with Proposed Budget
Mean Miles between Defects	3,950	5,782	3,950
Bus General Clean Quality Inspection Score	85%	86.6%	85%

[Table with mean miles between road calls by month for 2016 to 2018. The 2018 target is 3,950 in a given month.]

Month	2016	2017	2018	2018 Target
Jan	7,564	5,562	5,651	3,950
Feb	7,594	7,442	5,434	3,950
Mar	7,046	5,626	6,305	3,950
Apr	8,845	4,954	6,651	3,950
May	8,620	5,037	5,339	3,950
Jun	7,384	5,160	5,522	3,950
Jul	7,047	6,209	5,575	3,950
Aug	6,385	7,479		3,950
Sep	7,444	7,195		3,950
Oct	5,786	6,799		3,950



Nov	6,070	7,233		3,950
Dec	4,651	6,541		3,950

### Rail Operations

The Rail Operations division of the Chicago Transit Authority is committed to being top performers, while maintaining a safe work environment, and being accountable in all aspects of its daily operation. It strives to deliver quality service that exceeds customers' expectations.

In order to constantly improve the rail customer's experience, a top priority for Rail Operations is to focus on reducing major delays (delays to service that exceed ten minutes). The target in 2018 was 78 or fewer major delays per month that can be attributed to Rail Operations, Rail Maintenance, and Power & Way. The average number of monthly major delays from January to July 2018 is 94. In 2017, the average number of major delays was 78, or right on the target. In 2016, the average number of major delays was 75, or 4 percent under the target.

[Table: Major Rail delays by month and year 2016-2018. The target is 78 in a given month.]

Month	2016	2017	2018	2018 Target
Jan	66	84	96	78
Feb	47	65	113	78
Mar	82	87	83	78
Apr	73	70	103	78
May	67	69	120	78
Jun	96	105	115	78
Jul	109	78	124	78
Aug	95	85		78
Sep	61	66		78
Oct	58	93		78
Nov	57	55		78
Dec	84	99		78

### 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.

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).

[Table: Rail mean miles between defects]

Month	2016	2017	2018	2018 Target
Jan	8,946	9,212	6,963	8,000
Feb	10,302	10,320	6,946	8,000
Mar	11,463	10,043	8,806	8,000
Apr	11,175	9,362	8,978	8,000
May	10,996	8,414	7,437	8,000
Jun	8,926	7,761	8,170	8,000
Jul	8,548	7,444	9,169	8,000
Aug	8,088	8,426		8,000
Sep	9,699	8,142		8,000
Oct	10,265	7,669		8,000
Nov	11,197	7,669		8,000
Dec	8,709	7,008		8,000

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, the CTA had seen increased Mean Miles between Defects through 2017. However, 2018 has seen a slight decrease to an average of 8,067 miles through July 2018 (compared to just 8,937 miles in the same time frame in 2017). In 2015, the CTA raised the target for this metric 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, has further enhanced the performance and reliability of the CTA Rail Fleet. Another step in this progression will be the addition of the 7000 Series Fleet which will allow the Authority to retire the oldest 2600 Series cars. With the additional cars, Rail Maintenance will have a young or recently overhauled fleet.

[Table: Rail Maintenance Performance Measures.]

Rail Maintenance Performance Measures	2018 Target	2018 YTD Performance (Jan-July)	Service Level with Proposed Budget
Mean Miles between Defects	8,000	8,067	8,000
Rail General Clean Quality Inspection Score	90%	93.4%	90%

## Power and Way

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 & 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.

[Table: Slow zones with columns for month (July 2016 to July 2018), lineal feet of slow zones and percent of total lineal feet]

Month	Total Lineal Feet of Slow Zone	% of Total Lineal Feet
Jul-16	73,850	6.3%
Aug-16	77,364	6.6%
Sep-16	86,540	7.4%
Oct-16	107,586	9.1%
Nov-16	116,023	9.9%
Dec-16	115,186	9.8%
Jan-17	95,765	8.1%
Feb-17	96,757	8.2%
Mar-17	93,686	8.0%
Apr-17	92,813	7.9%
May-17	89,744	7.6%
Jun-17	92,561	7.9%
Jul-17	96,698	8.2%
Aug-17	101,251	8.6%
Sep-17	102,312	8.7%
Oct-17	98,800	8.4%
Nov-17	100,717	8.6%
Dec-17	105,536	9.0%
Jan-18	100,114	8.5%
Feb-18	94,281	8.0%
Mar-18	94,602	8.0%
Apr-18	88,824	7.6%
May-18	114,942	9.8%
Jun-18	111,563	9.5%
Jul-18	103,087	8.8%

### Facilities Maintenance

Facilities Maintenance operates, maintains, repairs, and cleans CTA properties and equipment. CTA Facilities Maintenance 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 an independent 3<sup>rd</sup> party contractor.

[Table: Elevator up-time by month 2016-2018. Target is 98%]

Elevator				
Month	2016	2017	2018	2018 Target
Jan	99.2%	99.2%	98.9%	98.0%
Feb	99.4%	98.9%	97.2%	98.0%
Mar	99.5%	99.2%	99.0%	98.0%
Apr	99.5%	99.3%	98.1%	98.0%
May	99.6%	99.2%	98.6%	98.0%
Jun	99.2%	98.7%	97.4%	98.0%
Jul	99.5%	99.5%	96.4%	98.0%
Aug	98.4%	99.0%		98.0%
Sep	98.9%	98.6%		98.0%
Oct	98.7%	97.3%		98.0%
Nov	99.1%	98.2%		98.0%
Dec	98.5%	98.4%		98.0%

[Table: Escalator up-time by month 2016-2018. Target is 96%]

Escalator				
Month	2016	2017	2018	2018 Target
Jan	97.5%	96.9%	95.3%	96%
Feb	96.3%	95.8%	95.2%	96%
Mar	97.3%	97.3%	97.5%	96%
Apr	97.8%	98.2%	97.5%	96%
May	97.8%	97.4%	96.8%	96%
Jun	97.0%	96.0%	97.0%	96%
Jul	97.0%	96.8%	95.9%	96%
Aug	96.6%	97.4%		96%
Sep	96.3%	92.5%		96%
Oct	97.4%	82.9%		96%
Nov	96.0%	87.1%		96%
Dec	93.6%	91.4%		96%

Elevator and Escalator uptimes reached their targets of 98 percent and 96 percent, respectively, for the majority of 2018, with dips in January, February, and July in Escalator and dips in February, June and July in Elevator.

[Table: Facilities Performance Measures.]

Facilities Performance Measures	2018 Target	2018 Performance (Jan-Jul)	Service Level with Proposed Budget
Elevator Uptime	98.0%	97.9%	98.0%
Escalator Uptime	96.0%	96.5%	96.0%

### Technology Management

The Technology Management Department provides necessary technology solutions and services to support the CTA and its riders. 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. Bus garages, rail yards, and transit stations have greatly expanded camera coverage for enhanced safety and security.

CTA's underground cellular network was also 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.

In addition to technology infrastructure upgrades, Technology Management is also responsible for the day-to-day reliability of CTA applications and online customer-facing tools, including the Bus and Train Trackers. CTA Tracker information is now available to riders by e-mail, text messaging, and online. There are approximately 34 million Bus Tracker requests per year. A new deployment of Dynamic Scheduling is also scheduled to commence in 2019. This will enhance CTA's ability to provide bus information when there are street closures, special events, or emergencies through dynamic modification of bus scheduling as well as an enhancement to Bus Tracker which would allow for accurate tracking to continue when the bus is on route but detoured.

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.]

Technology Performance Measure	2018 Target	2018 YTD Performance (Jan-July)	Service Level with Proposed Budget
Bus Tracker Application Availability	99.5%	99.9%	99.9%
Train Tracker Application Availability	99.5%	100.0%	99.5%

### 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 has developed 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 and Marketing

The CTA’s Communications and Marketing Department is responsible for a wide range of communications and marketing functions, all designed to provide clear, concise, timely, and helpful information to CTA customers and Chicago and suburban residents. Communications has four business units: (1) Communications/Media Relations; (2) Customer Information; (3) Customer Service and (4) Marketing. Each unit uses a variety of print, electronic and telephone channels to inform customers about CTA service, projects and programs. All CTA communications are designed to help customers and stakeholders understand and efficiently use CTA buses and trains in Chicago and its suburbs.

[Table: Customer service hotline wait times in hours-minutes-seconds. The target is 2 minutes.]

	2016	2017	2018	2018 Target
Jan	0:00:13	0:00:11	0:00:15	0:02:00
Feb	0:00:14	0:00:10	0:00:16	0:02:00
Mar	0:00:17	0:00:12	0:00:28	0:02:00
Apr	0:00:12	0:00:09	0:00:22	0:02:00
May	0:00:11	0:00:09	0:00:28	0:02:00
Jun	0:00:13	0:00:11	0:00:34	0:02:00
Jul	0:00:12	0:00:11	0:00:59	0:02:00
Aug	0:00:11	0:00:14		0:02:00
Sep	0:00:13	0:00:19		0:02:00
Oct	0:00:11	0:00:22		0:02:00
Nov	0:00:12	0:00:15		0:02:00
Dec	0:00:10	0:00:18		0:02:00

Communications/Media Relations prepares a wide range of communications materials, from collateral materials and responses to media outlets, to public presentations and social media content.

Customer Information is responsible for all customer-facing communications efforts related to service, from signage and wayfinding and publications like maps and brochures, to digital display screens and other electronic channels, including all CTA social media channels. The department also manages CTA’s graphic branding and standards.

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. The department manages CTA’s Customer Service hotline, 1-888-YOUR-CTA, and e-mail address ([feedback@transitchicago.com](mailto:feedback@transitchicago.com)), and also handles inquiries via U.S. Mail.

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 2018 and has consistently exceeded that target.

Call volumes average 330 calls daily, and the Customer Feedback Programs group responds to an average of 196 emails daily.

[Table: Communications Performance Measures.]

Communications Performance Measures	2018 Target	2018 YTD Performance (Jan-Jul)	2019 Service Level with Proposed Budget
Average Call Response Time (Overall)	2:00	0:29	2:00

COMPARATIVE PERFORMANCE ANALYSIS

Peer Comparison

Overview

To illustrate the CTA’s performance in relation to its peers, the following comparative performance analysis utilizes the 2016 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
- 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)

[Table: Comparative Agency Profiles]

Agency	City	Population of Service Area	Square Miles of Urban Area Served	Fleet Size	Rapid Rail Track Miles*
CTA	Chicago	3,272,000	309	3,327	265.0
MBTA	Boston	3,109,000	1,873	3,080	108.0
NYCT	New York	8,550,000	321	12,881	832.5
SEPTA	Philadelphia	3,817,000	839	2,843	99.8
WMATA	Washington, D.C.	3,720,000	950	3,779	292.3
MARTA	Atlanta	1,560,000	573	1,100	103.7
LACMTA	Los Angeles	8,627,000	1,513	4,172	169.9

\* - 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.

Definitions of Comparative Performance Measurement

<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.



Area	Indicator	Definition
Service Efficiency	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.
Cost Effectiveness	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.
Service Maintenance & Reliability	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.
Service Level Solvency	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]

Numbers in millions unless otherwise noted	CTA	MBTA	LACMTA	NYCT	SEPTA	WMATA
	Chicago	Boston	Los Angeles	New York City	Philadelphia	Washington D.C.
Operating Expense	\$801	\$410	\$1,026	\$2,779	\$628	\$591
Capital Funds Expended	\$129	\$76	\$266	\$130	\$115	\$238
Fare Revenue	\$280	\$86	\$243	\$860	\$174	\$141
Vehicle Revenue Miles	52.3	22.7	68.5	86.8	39.8	39.4
Vehicle Revenue Hours	5.7	2.2	6.5	12.3	3.9	3.9
Passenger Miles	633.6	296.9	1,217.7	1,553.7	587.7	399
Total Number of Unlinked Trips	259.0	112.9	297.6	743.7	182.5	127.7
Total Number of Mechanical Failures (thousands)	8.5	1.3	5.7	9.0	5.0	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 most efficient in expense per vehicle revenue hour.

[Table: Operating expense per vehicle revenue mile]

Transit agency	Expense per Mile
LACMTA	\$ 14.98
WMATA	\$ 15.00
CTA	\$ 15.32
SEPTA	\$ 15.78
MBTA	\$ 18.06
NYCT	\$ 32.02

[Table: Operating expense per vehicle revenue hour]

Transit agency	Expense per Hour
CTA	\$ 140.91
WMATA	\$ 151.54
LACMTA	\$ 157.85
SEPTA	\$ 161.03
MBTA	\$ 185.63
NYCT	\$ 225.93

### Cost Effectiveness

Both measures show that CTA urban bus had better performance than the peer average in the area of cost effectiveness. It ranked first for lowest operating expense per unlinked trip and third for lowest operating expense per passenger mile.

[Table: Operating expense per passenger mile]

Transit agency	Expense per Mile
LACMTA	\$0.84
SEPTA	\$1.07
CTA	\$1.26
MBTA	\$1.38
WMATA	\$1.48
NYCT	\$1.79

[Table: Operating expense per unlinked trip]

Transit agency	Expense per unlinked trip
CTA	\$ 3.09
SEPTA	\$ 3.44
LACMTA	\$ 3.45
MBTA	\$ 3.63
NYCT	\$ 3.74
WMATA	\$ 4.63

## 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 8.6 years. The CTA came in under the peer average in miles between major mechanical defects, ranking last among the group.

[Table: Average age of fleet]

Transit agency	Age	Peer Average
CTA	6.9	8.66
NYCT	7.4	8.66
LACMTA	7.6	8.66
WMATA	7.6	8.66
SEPTA	8.8	8.66
MBTA	11.6	8.66

[Table: Miles between major mechanical failures]

Transit agency	Mile	Peer Average
CTA	75,000	162,724
WMATA	81,000	162,724
SEPTA	118,000	162,724
NYCT	173,000	162,724
LACMTA	214,000	162,724
MBTA	228,000	162,724

## 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 lower than average level of capital funds expended per passenger trip.

[Table: Fare recovery ratio]

Transit agency	Fare Recovery Ratio	Peer Average
MBTA	21.0%	25.4%
LACMTA	23.7%	25.4%
WMATA	23.9%	25.4%
SEPTA	27.7%	25.4%
NYCT	30.9%	25.4%
CTA	35.0%	25.4%

[Table: Capital funds expended per passenger trip]

Transit agency	Capital Funds Expended per Passenger Trip	Peer Average
NYCT	\$ 0.17	\$ 0.85
CTA	\$ 0.35	\$ 0.85
SEPTA	\$ 0.63	\$ 0.85
MBTA	\$ 0.67	\$ 0.85
LACTMA	\$ 0.89	\$ 0.85
WMATA	\$ 1.86	\$ 0.85

## Heavy Rail

### Comparative Characteristics of Heavy Rail

Numbers in millions unless otherwise noted	CTA	MARTA	MBTA	NYCT	SEPTA	WMATA
	Chicago	Atlanta	Boston	New York City	Philadelphia	Washington D.C.
Operating Expense	\$593	\$226	\$353	\$5,559	\$197	\$1,002
Capital Funds Expended	\$266	\$99	\$155	\$2,559	\$109	\$710
Fare Revenue	\$301	\$75	\$222	\$3,351	\$107	\$574
Vehicle Revenue Miles	71.8	22.3	22.4	347.0	17.3	77.9
Vehicle Revenue Hours	4.0	0.8	1.5	19.0	0.9	3.2
Passenger Miles	1,445	477	612	11,009	452	1,476
Total Number of Unlinked Trips	238.6	71.9	174.5	2,673.2	101.9	249.2
Total Number of Mechanical Failures (individual occurrences)	225	791	348	3,097	59	1,512

### 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 37.6 percent and 43.9 percent below the peer average, respectively.

[Graph: Operating expense per vehicle revenue mile]

Transit Agency	Expense per Mile
CTA	\$ 8.26
MARTA	\$ 10.13
SEPTA	\$ 11.39
WMATA	\$ 12.86
MBTA	\$ 15.76
NYCT	\$ 16.02
Peer Average	\$ 13.23

[Graph: Operating expense per vehicle revenue hour]

Transit Agency	Expense per Hour
CTA	\$ 148.25
SEPTA	\$ 211.83
MBTA	\$ 232.24
MARTA	\$ 269.05
NYCT	\$ 291.96
WMATA	\$ 316.09
Peer Average	\$ 264.23

#### Cost Effectiveness

CTA had the lowest operating expense per passenger mile amongst its peers, and it bested the peer average operating expense per unlinked trip by 15 cents.

[Graph: Operating expense per passenger mile]

Transit Agency	Expense per Passenger Mile
CTA	\$ 0.41
SEPTA	\$ 0.44
MARTA	\$ 0.47
NYCT	\$ 0.50
MBTA	\$ 0.58
WMATA	\$ 0.68
Peer Average	\$ 0.53

[Graph: operating expense per unlinked trip]

Transit Agency	Expense per Unlinked Trip
SEPTA	\$ 1.93
MBTA	\$ 2.02
NYCT	\$ 2.08
CTA	\$ 2.49
MARTA	\$ 3.14
WMATA	\$ 4.02
Peer Average	\$ 2.64

#### 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 2016. The CTA continued to excel in Miles between Major Mechanical Failures, beating the peer average by nearly 190 percent.

[Graph: Average age of fleet]

Transit Agency	Average Age (in Years)
CTA	15.8
NYCT	22.5
WMATA	22.5
SEPTA	23.7
MARTA	26.8
MBTA	28.0
Peer Average	24.7



[Graph: Miles between major mechanical failures]

Transit Agency	Number of Miles
MARTA	28,000
WMATA	52,000
MBTA	64,000
NYCT	112,000
SEPTA	293,000
CTA	319,000
Peer Average	109,869

#### 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: Fare recovery ratio]

Transit Agency	Fare Recovery Ratio
MARTA	33.2%
CTA	50.8%
SEPTA	54.3%
WMATA	57.3%
NYCT	60.3%
MBTA	62.9%
Peer Average	53.6%

[Graph: Capital funds expended per passenger trip]

Transit Agency	Capital Funds Expended per Trip
NYCT	\$ 0.96
SEPTA	\$ 1.07
CTA	\$ 1.11
MARTA	\$ 1.38
MBTA	\$ 2.16
WMATA	\$ 2.85
Peer Average	\$ 1.68

## SUSTAINABLE INITIATIVES AND CLIMATE CHANGE IMPACT AT CTA

### Sustainable Transportation

In August 2018, CTA became a signatory to the American Public Transportation Association's (APTA) Sustainability Commitment, marking the first time that CTA will participate alongside peer agencies in this national program to improve the environmental footprint of public transit. Components of the APTA Sustainability Commitment include making sustainability a part of the Authority's strategic objectives, establishing a program to educate staff on sustainability, and conducting an inventory of emissions and resource use. CTA will work toward these APTA targets throughout 2019, with a goal of making its own operations as green and energy efficient as possible. CTA continually seeks to reduce its environmental impact by utilizing efficient trains and buses, and by operating them in ways that conserve resources and minimize emissions and waste.

Beyond CTA's internal operations, its public transit services provide a sustainable mode of transportation for the Chicago area at large. CTA's transit services deliver region-wide environmental benefits while meeting the transportation needs of local riders and visitors alike, whether traveling to work, school, airports, hospitals, or other Chicago-area destinations. Each weekday, CTA replaces the equivalent of about 400,000 vehicles on regional roads. A full eight-car CTA train replaces more than 600 cars, and a full 60-foot articulated CTA bus replaces more than 70 cars.

By offering riders an alternative to driving, CTA provides the direct benefits of reduced traffic congestion, lower energy consumption, and improved air quality through decreased vehicle emissions. CTA's bus and rail systems also enable compact development, which is a more efficient pattern of land use than urban sprawl. Compact development shortens commuting distances and times, reduces the need for individual car ownership, encourages vibrant neighborhoods, and makes the most efficient use of land and energy resources.

#### [Chart: 2018-2019 Highlights]

- 20 new all-electric buses & 5 fast-chargers under contract
- 25 new clean diesel buses
- 200+ hybrid buses overhauled
- 250+ rail cars overhauled
- Energy efficiency upgrades at "L" stations & maintenance facilities
- APTA Sustainability Commitment signed
- Design Excellence Award for the Oak Park Blue Line sustainable station conceptual design

### Clean Vehicles and Efficient Operations: CTA Bus System

The CTA maintains a fleet of 1,859 buses that provide about 800,000 rides on an average weekday. In recent years, CTA has made strategic investments in the bus fleet to improve fuel efficiency, which reduces both operating costs and tailpipe emissions.

In July 2018, more than two years of planning and interdepartmental collaboration culminated in CTA's award of a \$32 million contract for 20 new all-electric, 40-foot transit buses with zero tailpipe emissions. The contract also includes five high-powered, overhead fast-chargers; the design and construction of the charging station infrastructure; and the installation of the chargers. Funding for the project is coming from a mix of federal sources including competitive grants awarded to CTA through the FTA's Low or No Emission Vehicle Program and the U.S. EPA's Clean Diesel Funding Assistance Program. The e-buses will be manufactured by Proterra at their U.S. production facilities.

The new e-buses are scheduled to begin service in 2019 on the #66 Chicago Ave route, which runs east-west about 10 miles one-way between the Navy Pier bus terminal and the Chicago Ave & Austin Boulevard bus terminal. The charging stations will be installed at these two terminals, enabling the e-buses to charge “en-route” while in service and effectively operate with unlimited range. In addition to reducing diesel emissions in neighborhoods along the Chicago Ave route, the e-buses will provide a quieter and smoother ride for passengers.

[Picture: Back of CTA electric bus.]

CTA’s operation of the Proterra e-buses will build on its expertise developed over the past four years of operating two all-electric buses made by New Flyer. When CTA added the two New Flyer e-buses to its fleet in the fall of 2014, they were among the first e-buses in revenue service anywhere the country. Still in service daily on a variety of bus routes, the New Flyer e-buses continue to perform well in Chicago’s tough environment of extreme heat and cold with heavy passenger loads. While these e-buses charge on a slow-charger in the garage today, they will be retrofitted in 2019 to be able to fast-charge on a high-powered charger. CTA plans to install an overhead fast-charger at the Midway bus terminal in 2019 so that the New Flyer e-buses can serve routes that circulate from this location.

In addition to investing in the e-bus fleet, CTA is continuing to upgrade the diesel bus fleet with new clean diesel buses and overhauls to existing buses. In the fall of 2018, CTA will receive the last 25 of a total order of 450 new 40-foot, clean diesel buses manufactured by Nova (the 7900 Series). The new buses, which are replacing a portion of the older 6400 Series buses, have an estimated 20% improvement in fuel economy and about 90% lower emissions of key air pollutants than older models. Once all of the new Novas are in service, they will represent nearly 25% of CTA’s entire bus fleet.

Hybrid buses currently make up about 13% of CTA’s bus fleet. CTA is performing a mid-life overhaul of more than 200 articulated, 60-foot, hybrid buses; the process is 64% complete as of the fall of 2018 and will continue into 2019. The hybrid overhaul includes the installation of new electric fan radiator technology. Based on CTA testing of this technology, the new fans result in an estimated 10% improvement in the buses’ fuel economy.

#### Clean Vehicles and Efficient Operations: CTA Rail System

CTA’s electric rail service operates eight rail lines on 224.1 miles of track. It is a highly efficient motorized transport mode, operating on low-friction steel composite rails. On an average weekday, CTA provides about 740,000 rides throughout the rail system.

Nearly half of the rail cars in CTA’s 1,500-car fleet are the new 5000 Series model. The 5000 Series cars are the first in CTA’s fleet to feature alternating-current (AC) propulsion systems with regenerative braking technology. This technology enables a train to regenerate electricity when it brakes. The regenerated electricity goes back into the third rail to power another train on the system that is accelerating at the same time. CTA estimates that the new 5000 Series cars reduce annual rail system electricity usage by at least 10 percent. As CTA integrated the 5000 Series rail cars into the fleet, it was able to retire the oldest and least energy efficient cars throughout the system.

[Picture: CTA railcar at platform.]

CTA awarded a contract to CRRC Sifang America for production of the next model of rail cars, the 7000 Series, in March 2016. A year later, CRRC Sifang America broke ground on the manufacturing facility where the 7000 Series rail cars will be built, located on South Torrence Avenue near East 136th Street. The 7000 Series rail cars will eventually replace the remaining older half of CTA’s existing rail fleet. Similar to the 5000 Series, the 7000 Series will feature regenerative braking and additional energy efficient technologies including LED lighting, LED signage, and advanced controls for heating and air conditioning. The new cars have a stainless steel body designed for durability and long life. The design also enables the recycling of materials when the cars are decommissioned at the end of their useful life.

In addition to purchasing new rail cars, CTA is overhauling older rail cars to extend their useful life, improve customer experience, and reduce energy usage. In August 2018, CTA completed the overhauls of all 257 of the 3200 Series rail cars in the fleet. In each rail car, the overhaul included the replacement of more than 40 outdated incandescent and

tube fluorescent lights with LED lights, which save energy and improve light quality and signage readability for CTA riders.

CTA received an “Invest in Cook” grant award from the Cook County Department of Transportation and Highways to analyze the electrical infrastructure that powers the Blue Line. Begun in the spring of 2018 and ongoing into 2019, the objective of this study is to identify locations on the Blue Line that will need electrical infrastructure upgrades to support new rail cars and more frequent service due to increased ridership. A component of this study is an analysis of the energy efficiency that rail cars provide when they regenerate power while braking. To date, CTA’s oldest rail cars – the 2600 Series – have operated on the Blue Line, but in late 2018, CTA will begin testing 5000 Series cars on this line, and eventually the 7000 Series may operate on this line. Both the 5000s and 7000s will provide regenerative braking benefits. Also in connection with this project, CTA is reviewing the energy usage of stationary rail cars in the yards and determining steps to minimize this usage both overnight and during the mid-day off-peak period.

### Efficient Facilities

CTA operates a highly diverse portfolio of facilities, ranging widely in function, size, age, and geography. CTA’s transit services rely critically on these facilities – from “L” stations, to the Control Center, to vehicle maintenance shops, to the Headquarters office. Collectively, CTA’s buildings consume about \$10 million in electricity and \$4 million in natural gas each year, representing a substantial opportunity for savings. Over the past few years, CTA has made significant progress in identifying, evaluating, and implementing projects that increase energy efficiency throughout its facilities.

[Picture: CTA blue line Damen station platform.]

In total since 2015, CTA has achieved savings of \$1 million each year from avoided energy consumption and received over \$1.9 million in energy efficiency incentives from utilities. Lighting upgrades improve safety and customer experience, in addition to saving energy, reducing maintenance costs, and lowering CTA’s electric bills. In 2018 and continuing into 2019, CTA is performing comprehensive lighting replacements as part of broader station renovation projects at Green Line and Blue Line stations. Existing fluorescent lighting fixtures will be replaced with durable, energy efficient LED fixtures throughout the stationhouses and platform areas. CTA is working closely with lighting contractors to ensure that all newly installed LED fixtures are approved by ComEd and eligible to receive energy efficiency rebates; CTA will apply for ComEd rebate funding upon completion of the projects.

CTA prioritizes energy efficiency in employee-facing facilities as well as customer-facing facilities. Throughout 2018, CTA implemented numerous upgrades to natural gas boiler systems in its large maintenance buildings. These upgrades will yield improved heating efficiency, better work environments for employees, and utility cost savings this upcoming winter and onward. Upgrades include the replacement of four large natural gas boilers, installation of automated system controls, pipe insulation, and repair or replacement of broken steam traps. Collectively, the projects are anticipated to earn more than \$200,000 in energy efficiency rebates from Peoples Gas, on top of reductions in annual natural gas consumption and cost, and savings on maintenance.

CTA was proud to find out that its Blue Line Vision Study was selected to receive a 2018 Design Excellence Award from the Chicago Chapter of the American Institute of Architects. The award recognizes yet unbuilt projects that “address relevant social, cultural, and environmental challenges, as well as technological innovations.” Through this project, CTA and its project partners – the Village of Oak Park, engineering and design consultant WSP, and architecture firm Muller & Muller – developed a leading-edge, sustainable design for the Blue Line Oak Park station. Analysis determined that a sustainable station design for Oak Park would optimally include high-efficiency windows, walls, and roofing; motorized natural ventilation openings; energy efficient external and internal lighting; and a flat-panel solar photovoltaic system on the stationhouse roof and platform canopy. The conceptual sustainable station design created for this study is intended to serve as a model that could be applied throughout CTA’s rail system.

### Climate Change Impact on the CTA

CTA is engaged in ongoing efforts to increase the resilience of its infrastructure, operations, and ridership to the effects of climate change – both observed effects today and more severe effects projected in the future. In an effort to mitigate

the impact of climate change, CTA partners with multiple local, regional and national agencies on resilience planning projects, including the Chicago Metropolitan Agency for Planning's (CMAP) "On To 2050" Comprehensive Regional Plan and the City of Chicago's participation in the Rockefeller Foundation's 100 Resilient Cities Program. CTA is also participating in the Illinois Commerce Commission's NextGrid study, which is examining the policies, programs, and technologies necessary to ensure a modern and resilient electrical grid for the future.

[Picture: Bus Routes with CTA-reported Flood Incident Hotspots.]

In the spring of 2018, CTA – in collaboration with RTA, Pace, and consultant AECOM – completed a report analyzing the resiliency of its bus service in the event of flooding, which is anticipated to become more frequent due to climate change. The Bus Flooding Resilience study was funded by an IDOT Regional Green Transit Grant to RTA. Using extensive data from CTA, RTA, and City of Chicago sources, AECOM developed tools to help CTA maintain efficient bus service in the event of street flooding, including re-route maps, communication plans for operators and customers, and estimates of cost impacts. Over the summer, CTA joined RTA in presenting results and recommendations from the study to CMAP's Environment and Natural Resources Committee, the Illinois Chapter of the American Society of Civil Engineers, and staff from the Chicago Department of Transportation (CDOT). Project partners are continuing to work toward the implementation of recommendations, particularly those regarding coordinated capital planning for flood mitigation projects.

The Urban Transportation Center at the University of Illinois at Chicago (UIC) is currently working with Argonne National Laboratory on a project funded by FTA to study the resiliency of the transit system in the Chicago area. Study leaders from UIC have interviewed CTA staff to gather input for simulations of the transit system's response to disruption at various scales, whether climate-related impacts or any other sources of disruption. The goal of the project is to offer transit agencies a decision support tool that connects with real-time data sources to aid transit operators in significantly enhancing the planning for, operation in, and recovery from emergency situations.

CTA's Red and Purple Modernization (RPM) project and Your New Blue project are both major investments in the resiliency and efficiency of CTA's rail system for years to come. While riders will experience such benefits as more frequent service, less crowded trains, and smoother rides, the projects also help make CTA's critical infrastructure more robust in terms of electric power reliability, protection from water infiltration, and modernization of signal controls.

FARE STRUCTURE

CTA is maintaining the following fare structure for the 2019 Budget.

[Table: Fare Structure by Fare Group]

Fare Group	Current Fare Structure (Effective 7 January 2018)
CTA Regular Fare Types	
Full Fare Bus <sup>[1]</sup>	\$2.25
Full Fare Rail <sup>[1]</sup>	\$2.50
Full Fare Cash (Bus Only)/PAYG <sup>[2]</sup>	\$2.50
Transfer <sup>[3]</sup>	\$0.25 (1 <sup>st</sup> ), free (2 <sup>nd</sup> )
Ventra Single Ride Ticket <sup>[4]</sup>	\$3.00
1-Day/24-Hour Pass	\$10.00
3-Day/72-Hour Pass	\$20.00
7-Day Pass	\$28.00
7-Day Pass (CTA/Pace)	\$33.00
30-Day Pass (CTA/Pace)	\$105.00
Metra Link-Up	\$55.00
CTA Reduced Fare Types <sup>[5]</sup>	
Reduced Fare Bus	\$1.10
Reduced Fare Rail	\$1.25
Reduced Fare Cash (Bus Only)	\$1.25
Transfer <sup>[3]</sup>	\$0.15 (1 <sup>st</sup> ), free (2 <sup>nd</sup> )
30-Day Reduced Pass	\$50

CTA Student Fare <sup>[6]</sup>	
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

O'Hare Station Fare <sup>[7]</sup>	
Full Fare on Ventra cards, Ventra Tickets, Cash or PAYG	\$5.00

Stadium Express Bus	
#128 Soldier Field Express <sup>[8]</sup>	\$5.00 round-trip \$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 transactions.
4. Single Ride Ticket Fare includes transfer for bus and rail.
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.



COMPARATIVE FARE STRUCTURE

Each transit agency has its own card-based system and fares. Comparable fares are reflected here, as of September 20, 2018.

[Table: Comparative Fare Structure and Historical Fare Structure 1991 - Present]

CITY SYSTEM	Bus Fare	Express Bus Fare	Rail Fare	30-Day/Monthly Pass Cost	Reduced Fare (Senior/Disabled)
CHICAGO CTA (proposed)	\$2.25	---	\$2.50	\$105.00	\$1.10 - Bus / \$1.25 - Rail
ATLANTA (MARTA)	\$2.50	---	\$2.50	\$95.00	1.00
NEW YORK CITY (MTA)	\$2.75	\$6.50	\$2.75	\$121.00	1.35
PHILADELPHIA (SEPTA)	\$2.00 <sup>1</sup>	---	\$2.00 <sup>1</sup>	\$96.00	Senior: Free / Disabled: \$1.25
BOSTON (MBTA)	\$1.70	\$4 (Inner) / \$5.25 (Outer)	\$2.25	\$84.50	\$0.85 – Bus / \$1.10 – Rail
WASHINGTON D.C. (WMATA)	\$2.00	\$4.25 Regular / \$2.10 Senior & Disabled	\$2.00 - \$6.00 <sup>2</sup>	\$135 <sup>3</sup>	\$1.00
LOS ANGELES (LACMTA)	\$1.75	\$2.50 Regular / \$1.35 Senior & Disabled	\$1.75	\$100.00	\$0.75 Rush Hours / \$0.35 Non-Rush Hours

[Table: Historical fare Structure 1991 – Present]

Year	Bus Fare	Rail Fare	Transfer	7-Day Pass	30-Day Pass	Reduced Fare
1991-1998	\$1.50	\$1.50	\$0.30	\$20	\$60-\$88	\$0.75
1999-2003	\$1.50	\$1.50	\$0.30	\$20	\$75	\$0.75
2004 - 2005	\$1.75	\$1.75	\$0.25	\$20	\$75	\$0.85
2006 - 2008	\$1.75	\$2.00	\$0.25	\$20	\$75	\$0.85
2009 - 2012	\$2.00	\$2.25	\$0.25	\$23	\$86	\$0.85
2013 - 2017	\$2.00	\$2.25	\$0.25	\$28	\$100	\$1.00 – Bus / \$1.10 - Rail
2018 - current	\$2.25	\$2.50	\$0.25	\$28	\$105	\$1.10 – Bus / \$1.25 - Rail

ACRONYMS & GLOSSARY

AA	Alternatives Analysis
ADA	Americans with Disabilities Act
APB	Accounting Principles Board
APTA	American Public Transportation Association
ASAP	All Stations Accessibility Plan
AVAS	Automated Voice Annunciation System
BAB	Build America Bonds
BRT	Bus Rapid Transit
BUILD	Better Utilizing Investments to Leverage Development
CAC	Capital Advisory Committee
CBO	Congressional Budget Office
CDOT	Chicago Department of Transportation
CIG	Capital Investment Grant
CIP	Capital Improvement Program
CMAP	Chicago Metropolitan Agency for Planning
CMAQ	Congestion Mitigation and Air Quality Improvement Program
COP	Certificate of Participation
CPD	Chicago Police Department
CPI	Consumer Price Index
CSL	Chicago Surface Lines
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
FEJA	Future Energy Jobs Act
FFGA	Full Funding Grant Agreement
FFR	Federal Funds Rate
FFY	Federal Fiscal Year
FHWA	Federal Highway Administration
FOMC	Federal Open Market Committee
FTA	Federal Transit Administration
FY	Fiscal Year
GAAP	Generally Accepted Accounting Principles
GARVEE	Grant Anticipation Revenue Vehicles
GASB	Governmental Accounting Standards Board
GDP	Gross Domestic Product
GFOA	Government Finance Officers Association
GTT	City of Chicago Ground Transportation Tax
HTF	Highway Trust Funds
ICE	Innovation, Coordination and Enhancement Fund of RTA
IDOT	Illinois Department of Transportation

IT	Information Technology
JARC	Job Access and Reverse Commute Program
LACMTA	Los Angeles County Metropolitan Transportation Authority
LPA	Locally Preferred Alternative
MAP-21	Moving Ahead for Progress in the 21 <sup>st</sup> Century
MBTA	Massachusetts Bay Transportation Authority
NEPA	National Environmental Policy Act
NTD	National Transit Database
NYCT	New York City Transit
PBC	Public Building Commission of Chicago
PBV	Positive Budget Variance
PE	Preliminary Engineering
PMP	Project Master Plans
POB	Pension Obligation Bond
PPI	Producer Price Index
PTF	Public Transportation Fund
RETT	Real Estate Transfer Tax
RHCT	Retiree Health Care Trust
RLE	Red Line Extension
ROW	Right of Way
RPM	Red and Purple Modernization Project
RTA	Regional Transportation Authority
SCADA	Supervisory Control and Data Acquisition
SCIP	Strategic Capital Improvement Program
SEPTA	Southeastern Pennsylvania Transportation Authority
SFY	State Fiscal Year
SMS	Safety Management System
SOGR	State of Good Repair
SPR	Statewide Planning & Research
STIP	State Transportation Improvement Program
STO	Scheduled Transit Operations
SWAP	Sheriff's Work Alternative Program
TAM	Transit Asset Management
TIF	Tax Increment Financing
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGGER	Transit Investments for Greenhouse Gas and Energy Reduction
TIP	Transportation Improvement Program
TOD	Transit-Oriented Development
TSGP	Transit Security Grant Program
TSP	Traffic Signal Prioritization
ULB	Useful Life Benchmark
UPRR	Union Pacific Railroad
UPS	Uninterrupted Power Supply
USDOT	United States Department of Transportation
UWP	Unified Work Program
UZA	Urbanized Area
WMATA	Washington Metropolitan Area Transit Authority
YNB	Your New Blue

#### 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.

#### All Stations Accessibility Plan (ASAP)

The All Stations Accessibility Strategic Plan is a comprehensive plan to make CTA's rail stations 100% accessible in the next 20 years. The plan outlines short-term and long-term accessibility projects including a blue-print for making the remaining 42 rail stations fully accessible over the next two decades, along with repairs and upgrades to existing 160 rail station elevators.

#### Alternatives Analysis (AA) Study

To conduct the Study is the first step of the FTA's process to qualify 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.

<p><b>American Public Transportation Association (APTA)</b>  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.</p>
<p><b>Articulated Bus</b>  A high-capacity passenger bus that flexes in the middle.</p>
<p><b>Automated Voice Annunciation System (AVAS)</b>  The Automatic Voice Annunciation System (AVAS) is an on-board passenger announcement program which coordinate with 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.</p>
<p><b>Better Utilizing Investments to Leverage Development (BUILD)</b>  BUILD is a supplementary discretionary grant program to build and repair critical pieces of freight and passenger transportation networks. Previously known as Transportation Investment Generating Economic Recovery, or TIGER Discretionary Grants, this program is dedicated to funding projects that have a significant local or regional impact.</p>
<p><b>Big Gap</b>  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.</p>
<p><b>Bond</b>  An interest-bearing promise to pay a specified sum of money on a specified date in the future.</p>
<p><b>Build America Bonds (BAB)</b>  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.</p>
<p><b>Bureau of Labor Statistics (BLS)</b>  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.</p>
<p><b>Bus Rapid Transit (BRT)</b>  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 and provides greater service reliability and customer convenience.</p>
<p><b>Capital Advisory Committee (CAC)</b>  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.</p>

<p><b>Capital Budget</b> A formal plan of action for a specified time period for purchases of fixed assets using capital grants.</p>
<p><b>Capital Expense</b> Capital expenses are those expenses that are related to purchasing a capital asset or making an improvement to a capital asset that materially increases its value or useful life. These expenses are not used for ordinary day-to-day operating expenses of a business, such as salaries, utilities and insurance. Capital assets include vehicles, infrastructure, land, improvements to land, easements, buildings, building improvements, machinery, equipment, works of art and historical treasures, and all other tangible or intangible assets that are used in operations and that have initial useful lives extending beyond a single year.</p>
<p><b>Capital Investment Grant</b> Funds received from grantor funding agencies used to finance construction, renovation, and major repairs or the purchase of machinery, equipment, buildings, or land.</p>
<p><b>Capital Improvement Program (CIP)</b> 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.</p>
<p><b>Certificate of Participation (COP)</b> A lease-financing agreement is used by public entities to acquire real property. Under the agreement, regular payments are made over the annually renewable contract for the acquisition and use of the property. COPs were used to finance the purchase of 200 (40-foot) New Flyer low floor buses and equipment.</p>
<p><b>Chicago Department of Transportation (CDOT)</b> The Chicago Department of Transportation (CDOT) is responsible for public way infrastructure, including planning, design, construction, maintenance, and management.</p>
<p><b>Chicago Metropolitan Agency for Planning (CMAP)</b> 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.</p>
<p><b>Collar Counties</b> The five counties that surround Cook County as identified in the RTA Act: Will, Kane, DuPage, Lake, and McHenry counties.</p>
<p><b>Congestion Mitigation &amp; Air Quality Improvement Program (CMAQ)</b> A program created by the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 that provides funding for transportation projects that improve air quality and reduce traffic congestion.</p>
<p><b>Congressional Budget Office</b> Branch of the federal government that provides economic data to Congress.</p>

<p><b>Consumer Price Index (CPI)</b>  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).</p>
<p><b>Corridor</b>  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).</p>
<p><b>CTA Board Member Terms of Office</b>  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.</p>
<p><b>Department of Homeland Security (DHS)</b>  This agency that is responsible for ensuring the safety and security of the United States from terrorist attacks and other disasters.</p>
<p><b>Depreciation</b>  An accounting term that recognizes the loss in <b>value</b> of a <b>tangible fixed asset</b> over time attributable to <b>deterioration</b>, <b>obsolescence</b>, and impending retirement. Applies particularly to physical assets like vehicles, equipment, and structures.</p>
<p><b>Disadvantaged Business Enterprise (DBE)</b>  The Disadvantaged Business Enterprise (DBE) program is intended to ensure nondiscrimination in the award and administration of contracts.</p>
<p><b>Discretionary Funds</b>  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.</p>
<p><b>Employees' Retirement Plan</b>  A single-employer, defined benefit pension plan covering substantially all full-time permanent union and nonunion employees.</p>
<p><b>Energy Information Administration (EIA)</b>  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.</p>
<p><b>Environmental Impact Statement (EIS)</b>  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.</p>
<p><b>Environmental Protection Agency (EPA)</b>  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.</p>

<p><b>Fare</b> The amount charged to passengers for bus and rail services.</p>
<p><b>Farebox</b> Equipment used for the collection of bus fares.</p>
<p><b>Farecard</b> Electronic fare media used for payment of fares.</p>
<p><b>Federal Fiscal Year (FFY)</b> The Federal Fiscal Year (FFY) is the accounting period for the federal government which begins October 1 and ends September 30.</p>
<p><b>Federal Funds Rate</b> 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.</p>
<p><b>Federal Highway Administration (FHWA)</b> The Federal Highway Administration (FHWA) is an agency within the U.S. Department of Transportation that supports State and local governments in the design, construction, and maintenance of the Nation's highway system.</p>
<p><b>Federal Open Market Committee (FOMC)</b> 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.</p>
<p><b>Federal Transit Administration (FTA)</b> The federal agency which provides financial and planning assistance to help plan, build, and operate rail, bus, and paratransit systems through grant programs.</p>
<p><b>Federal Insurance Contributions Act (FICA)</b> Social Security payroll taxes are collected under the authority of FICA.</p>
<p><b>Financial Accounting Standards Board (FASB)</b> 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.</p>
<p><b>Financial Plan</b> 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.</p>
<p><b>Fiscal Year (FY)</b> 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.</p>



**Fixing America's Surface Transportation (FAST) Act**

The Fixing America's Surface Transportation (FAST) Act was enacted in 2015 and authorizes \$305 billion over fiscal years 2016 through 2020 for highways; highway and motor vehicle safety; public transportation; motor carrier safety; hazardous materials safety; rails; and research, technology, and statistics programs.

**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 (See Unrestricted Net Assets)**

**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.

**Future Energy Jobs Act (FEJA)**

The Future Energy Jobs Act (FEJA) went into effect as Illinois law on June 1, 2017. It expands energy efficiency programs, provides job training in renewable energy, and increases investment in solar and wind power in Illinois.

**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.

**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.

**Grant Anticipation Revenue Vehicles (GARVEE)**

Grant Anticipation Revenue Vehicles (GARVEEs) is a debt instrument issued when moneys are anticipated from future federal reimbursement of debt service and related financing cost under Section 122 of Title 23, United States Code.

**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.

#### Ground Transportation Tax (GTT)

The City of Chicago Ground Transportation Tax applies to businesses that provide ground transportation vehicles for hire in Chicago to passengers. A \$0.15 per-ride fee starting in 2018 with a \$0.05 increase starting in 2019 on ride-hailing services or transportation network providers will be added as part of the Ground Transportation Tax (GTT) to fund CTA capital improvements. (See Ride-hailing Fee.)

#### 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.

#### 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 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.

<p><b>Intermodal</b> Transportation by more than one mode (bus, train, etc.) during a single journey.</p>
<p><b>Interval</b> 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.</p>
<p><b>Job Access and Reverse Commute Program (JARC)</b> 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.</p>
<p><b>Job Order Contracting (JOC)</b> 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 and construction project procurement costs by awarding long-term contracts for a wide variety of renovation, repair, and construction projects.</p>
<p><b>Locally Preferred Alternative (LPA)</b> 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.</p>
<p><b>London Interbank Offered Rate (LIBOR)</b> 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.</p>
<p><b>Major Delay – Rail</b> An instance where a train experiences a delay to service of ten minutes or more.</p>
<p><b>Mean Miles Between Defects</b> The average mileage a train accrues before experiencing a defect.</p>
<p><b>Metra</b> 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.</p>
<p><b>Moving Ahead for Progress in the 21st Century (MAP-21)</b> 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.</p>
<p><b>National Environmental Policy Act (NEPA)</b> 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.</p>

<p><b>National Transit Database (NTD)</b> The FTA’s primary national database for statistics on the transit industry.</p>
<p><b>New Starts</b> FTA discretionary program that is the federal government’s primary financial resource for supporting locally-planned, implemented, and operated transit “guideway” capital investments.</p>
<p><b>Non-Farm Payroll</b> 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.</p>
<p><b>Non-Operating Funds</b> Capital grant monies to fund expenses.</p>
<p><b>Non-Revenue Vehicle</b> Vehicles that do not carry fare-paying passengers and are used to support transit operations.</p>
<p><b>Operating Budget</b> Annual revenues and expenses forecast to maintain operations.</p>
<p><b>Operating Expenses</b> 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.</p>
<p><b>Operating Revenues</b> 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.</p>
<p><b>Organization of Petroleum Exporting Countries (OPEC)</b> OPEC is an intergovernmental organization of 12 developing countries made up of <a href="#">Algeria</a>, <a href="#">Angola</a>, <a href="#">Ecuador</a>, <a href="#">Iran</a>, <a href="#">Iraq</a>, <a href="#">Kuwait</a>, <a href="#">Libya</a>, <a href="#">Nigeria</a>, <a href="#">Qatar</a>, <a href="#">Saudi Arabia</a>, the <a href="#">United Arab Emirates</a>, and <a href="#">Venezuela</a>. OPEC has maintained its headquarters in <a href="#">Vienna</a> since 1965.</p>
<p><b>Pace</b> 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.</p>
<p><b>Paratransit Service</b> 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.</p>
<p><b>Passenger Miles</b> The sum of the distances traveled by passengers.</p>
<p><b>Pay-As-You-Go Funding</b> A practice of financing expenditures with funding that is currently available rather than borrowed.</p>

<p><b>Pension Obligation Bonds (POB)</b> 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).</p>
<p><b>Performance Management</b> 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.</p>
<p><b>Positive Budget Variance (PBV)</b> The amount by which a service board comes in favorable to available funding from the RTA in a given budget year. RTA policy allows the service boards to retain these funds in an unrestricted fund balance which can be used for capital projects or one time operating expenses.</p>
<p><b>Power Washing - Facilities</b> The deep cleaning of a CTA station or facility using pressure washing equipment.</p>
<p><b>Preliminary Engineering (PE)</b> 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.</p>
<p><b>Preventive Maintenance</b> 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.</p>
<p><b>Producer Price Index (PPI)</b> 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.</p>
<p><b>Proprietary Fund</b> 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.</p>
<p><b>Public Building Commission (PBC)</b> Formed in 1956, this City of Chicago organization provides professional management of the city's public construction projects.</p>
<p><b>Public Funding</b> Funding received from the RTA or other government agencies.</p>
<p><b>Public Transportation Funds (PTF)</b> 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.</p>

<p><b>Real Estate Transfer Tax (RETT)</b>  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.</p>
<p><b>Real Time Bus Management (RTBM)</b>  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 and routes and archives the data in real-time.</p>
<p><b>Recovery Ratio</b>  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.</p>
<p><b>Reduced Fare</b>  Discounted fare for children ages 7 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.</p>
<p><b>Reduced Fare Reimbursement</b>  Reimbursement of revenue lost by the Service Boards due to providing reduced fares to students, elderly and the disabled. The CTA recovers a portion of the cost of trips with both the fare revenue and operating subsidies. The reimbursements are made from the State of Illinois to cover a portion of 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.</p>
<p><b>Regional Transportation Authority (RTA)</b>  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.</p>
<p><b>Regional Transportation Authority Act (RTA Act)</b>  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.</p>
<p><b>Retiree Health Care Trust (RHCT)</b>  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.</p>
<p><b>Revenue Bond</b>  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.</p>
<p><b>Revenue Equipment</b>  Includes vehicles that carry fare-paying passengers and equipment used for the collection of fares.</p>
<p><b>Ride</b>  A trip taken by passengers on the bus or rail system.</p>

<p><b>Ride-hailing Fee</b>  A \$0.15 per-ride fee starting in 2018 with a \$0.05 increase starting in 2019 on ride-hailing services such as Uber and Lyft to be collected by the City of Chicago as part of the Ground Transportation Tax (GTT) to fund CTA improvements.</p>
<p><b>Ridership (Unlinked Passenger Trips)</b>  Total number of rides. Each passenger is counted each time that person boards a vehicle.</p>
<p><b>Right-of-Way (ROW)</b>  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.</p>
<p><b>Rolling Stock</b>  Public transportation vehicles, including rail cars and buses.</p>
<p><b>RTA Sales Tax</b>  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.</p>
<p><b>Run</b>  Rail or bus operator's assigned period(s) of work on a given day.</p>
<p><b>Safety Management System (SMS)</b>  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.</p>
<p><b>Scheduled Transit Operations (STO)</b>  The scheduled transit operations classification includes bus operators, motormen, and conductors.</p>
<p><b>Service Boards</b>  CTA, Metra commuter rail, and Pace suburban bus system, as referred to by the Regional Transportation Authority Act.</p>
<p><b>Sheriff's Work Alternative Program (SWAP)</b>  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.</p>
<p><b>Slow Zone</b>  Sections of track where trains must reduce speed in order to safely operate rail service.</p>

**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 Fiscal Year (SFY)**

The State of Illinois' Fiscal year begins July 1 and ends June 30.

**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.

**Statewide Planning & Research Funds (SPR)**

An Illinois Department of Transportation competitive grant program funding projects related to studying or implementing a goal, strategy, or objective within the State's Long Range Transportation Plan or one of the Department's modal plans.

**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.

**Supervisory Control and Data Acquisition (SCADA)**

A control system that collects and operational data and is used to control and manage rail service.

**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.

**Tax Increment Financing (TIF)**

Tax Increment Financing (TIF) is a special funding tool used by the City of Chicago to promote public and private investment across the city.

**Transit Asset Management System (TAM)**

A system for procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles to provide safe, cost-effective, and reliable public transportation. TAM uses transit asset condition to guide how to manage capital assets and prioritize funding to improve or maintain a state of good repair.



<p><b>Transit-Oriented Development (TOD)</b>  A type of economic development which includes a mixture of housing, office, retail and/or other amenities integrated into a walkable neighborhood and located within a half-mile of public transportation.</p>
<p><b>Transit Security Grant Program (TSGP)</b>  The Transit Security Grant Program is administrated by FEMA to support transportation infrastructure security activities.</p>
<p><b>Transportation Infrastructure Finance and Innovation Act (TIFIA)</b>  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.</p>
<p><b>Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER)</b>  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.</p>
<p><b>Transportation Improvement Plan (TIP)</b>  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.</p>
<p><b>Top Operator Rate</b>  The top hourly rate paid to CTA bus and rail operators, based on employee seniority within the job, as specified by the union contract.</p>
<p><b>Trip</b>  A one-way bus or train trip from origin to destination terminal.</p>
<p><b>Traffic Signal Prioritization (TSP)</b>  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.</p>
<p><b>Useful Life Benchmark (ULB)</b>  The measure agencies use to track the performance of revenue vehicles (rolling stock) and service vehicles (equipment) to set their performance measure targets. Assets beyond their ULB are at greater risk of failing and causing service disruptions.</p>
<p><b>Unified Work Program (UWP)</b>  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.</p>

**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.

**Unrestricted Net Assets**

The portion of net assets that is neither restricted nor invested in capital assets net of related debt. These funds are considered by CTA to represent the available fund balance.

**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, Metra 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.

[INSIDE OF BACK COVER]

[Picture: Platform of Cermak-McCormick Place Station – Green Line)

[BACK COVER]

[Picture: CTA Logo]

Chicago Transit Authority

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