

2016-20 Capital Improvement Plan

Introduction

Providing cost-effective, safe, clean, and reliable public transportation services depends on the maintenance and upkeep of the Authority's capital assets and the capital-intensive nature of the Authority's operations make long term financial planning indispensable. In turn though, the ability to fund these capital needs must continually be weighed against the financial resources required to support the regular operations of the Authority.

The proposed 2016–2020 Capital Improvement Plan (CIP) continues the Authority's ongoing process to align available financial resources with programmed capital projects directed towards achieving a State of Good Repair (SGR) throughout its vehicle fleets, capital assets, and infrastructure. Effective planning helps facilitate this process by providing a framework to schedule capital improvements based on the condition or SGR of capital assets, the availability of financial resources, and the evaluation of requested capital projects. The current process prioritizes capital infrastructure requests and needs and aligns its ongoing capital program with available Federal, State, Local and non-traditional funding resources.

The financial demands to meet a SGR throughout the Authority's capital assets remain at a high level, but the decision to balance scheduled activities with funding limits the number of budgeted projects in any given year and, in essence, has moved the CIP from a five to an eight-year plan. The 2016-20 CIP presented here includes the first five programmed years of the Authority's Capital Program, with out-year projects, covering 2021–2023, under preliminary development.

Organization of the Capital Improvement Plan

This chapter contains the 2016-2020 Capital Improvement Plan of the Authority. The first year reflects the Board approved RTA Capital and RTA Development Fund budget appropriations for the FY 2016 capital projects. The following four years of the CIP highlight planned, but not yet approved, out-year capital projects of the Authority. Capital projects and their associated budgets included in these out-years are subject to change based on financial circumstances, revised project time lines or in capital priorities.

A summary of the Authority's capital assets will help put these projects into perspective. The size, age, and service requirements of the bus and rail fleets are used in support of capital projects including the ongoing Bus Improvement Programs and maintenance needs of the Rail Fleets. Similarly, the age, purpose and maintenance history of the RTA's facilities provide a basis for reconstruction and rehabilitation decisions as the CIP is developed. Development of a Transit Asset Management (TAM) database that will assist in refining this process by providing a basis to prioritize the needs of capital assets based on their condition remains underway.

This chapter describes the planning process for the capital program, including the method for establishing budget appropriation authority. It explains the chain of events involved and its relationship to the development of the Transportation Improvement Program (TIP). During this process, the Capital Improvement Financial Policies and Criteria help focus the plan on the priority areas that guide decision making during the Capital Improvement process.

The Financial Capacity section explains Federal, State and Local funding sources and debt management as it relates to the Authority. It will also discuss the impact of capital investment decisions on the Operating Budget.

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The final section is devoted to the details of the 2016 Capital Improvement Budget and the four out-years of the overall 2016-2020 CIP. Smaller locally funded projects included in the RTA Capital Fund are listed in Department order, while the larger, grant and/or locally funded capital projects included in the RTA Development Fund projects are organized by capital project categories and reflect specific funding sources, supporting those projects.

Capital Assets

The principal share of expenditures planned within the 2016–20 CIP focuses on attaining a State of Good Repair (SGR) for the Authority’s capital assets. Highlights include completion of the ADA Key Station program, an on-going track rehabilitation plan, reimbursement of preventive maintenance and other expenses generated within the Operating Budget, and the maintenance and upgrade of capital assets throughout the Authority. It continues to emphasize the backlog of needed capital improvements throughout the Authority’s infrastructure and facilities. The age of the Authority’s primary facilities, including their history in terms of original in-service dates, rehabilitations, and additions are shown below in Figure CIP-1. These facilities and others are briefly discussed on the following pages.

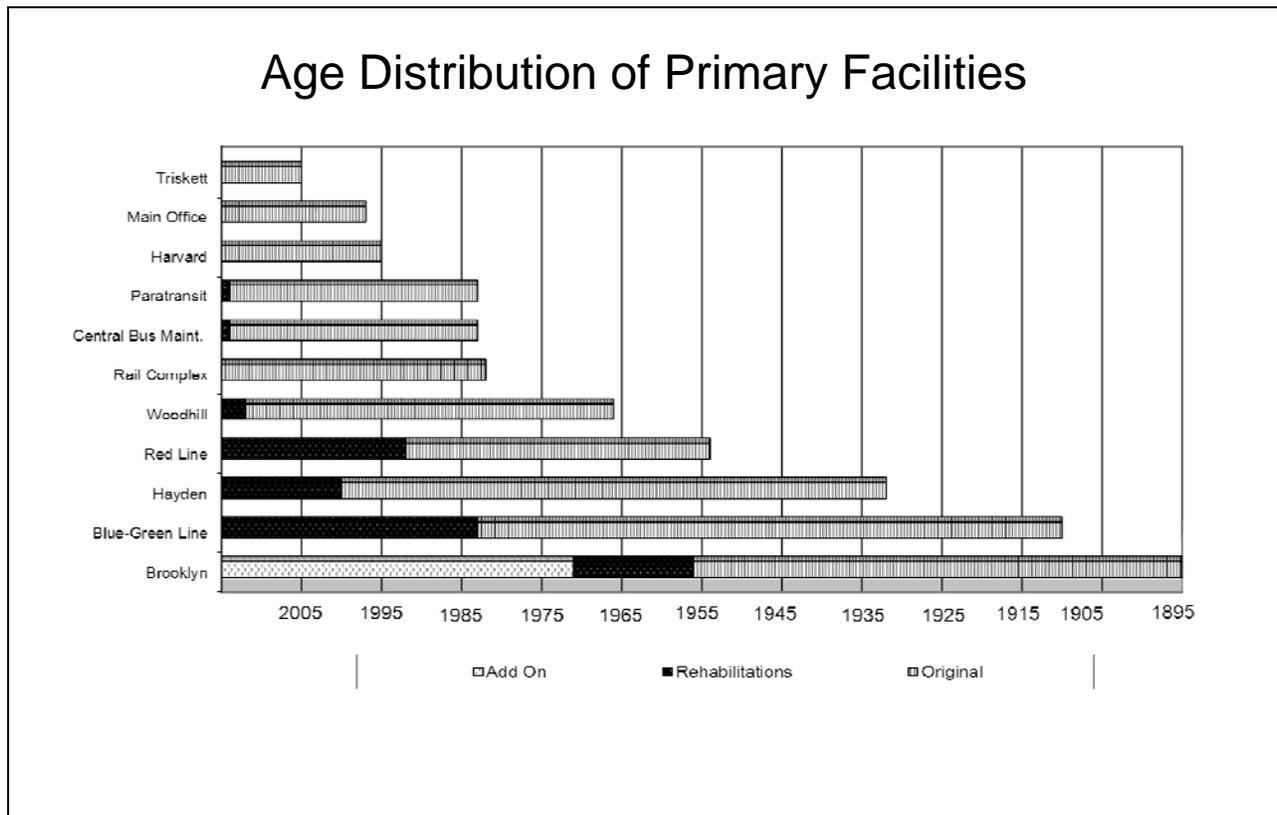


Figure CIP–1: Age Distribution of GCRTA Primary Facilities

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Facilities

Brooklyn Garage Facility

The Brooklyn Garage was originally built in 1895 with additions in both 1955 and 1969. It remained in service as a bus facility until 2003. The facility is under a regular maintenance schedule and awaiting a potential buyer.

Bus District Garage Facilities

The Authority has two active large bus district garages:

1. **Triskett Garage** is located at 13405 Lakewood Heights Boulevard. It was originally put into service in 1958 with a new replacement garage opening in 2005 at this location. Installation of a CNG fueling station, along with a project to address any CNG building compliance issues is programmed in 2017 capital improvement program. West side service and trolley operations are operated from this garage.
2. **Hayden Garage** at 1661 Hayden Avenue was constructed in 1932, with two major additions in 1952 and 1968. It was rehabilitated in 1998 and a SGR project that included the replacement of six hydraulic lifts, fire suppression and HVAC systems, and 16 overhead doors was completed in FY 2014. Installation of a CNG fueling station was completed in FY 2015 and work is underway to address remaining CNG related building improvements with completion scheduled in FY 2016. East side service and the HealthLine buses are operated from this garage.

Central Bus Maintenance Facility

The Central Bus Maintenance Facility (CBM), at 2500 Woodhill Road, was put into service in 1983 and houses a remanufacturing division, diagnostic center, bus service & maintenance area, and central inventory stores. Various facilities improvements and lift replacements, funded from a Federal SGR grant award, were completed in 2014. Work is underway on remaining CNG building improvements at this facility with completion scheduled in FY 2016.

Customer Service Centers

The GCRTA has two Customer Service Centers located at the Tower City Rapid Station Rotunda in downtown Cleveland and on the first floor of the GCRTA Main Office Building.

Harvard Garage Facility

The Harvard Garage opened for service as a bus garage in 1995 and has not been used as an operating district since FY 2010. In FY 2014, the Authority entered a License Agreement with Cuyahoga County renting a portion of the facility to help defray cost. The facility is under regular schedule maintenance and currently being used to store transit vehicles and host training classes.

Main Office Building

The Main Office Building, a renovated warehouse in the downtown Cleveland Warehouse District, located at 1240 West Sixth Street, opened in September of 1997. This facility houses the administrative functions of the Authority and the Authority's Communication Center.

Paratransit Facility

The Paratransit Facility, at 4601 Euclid Avenue, was completed in 1983 and houses all Paratransit functions including scheduling, dispatching and both revenue and non-revenue vehicle repairs. In FY 2014, a propane fueling station was installed at the Paratransit Garage and in FY 2015 related propane related building enhancements and a 24-month rehabilitation project, including various facilities and equipment upgrades were completed.

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Park-N-Ride Lots

One objective of the GCRTA is to provide rail and/or bus Park-N-Ride services for all major commuter corridors within Cuyahoga County. As such, the GCRTA provides over 8,300 parking spaces at 21 of its rapid stations and operates seven bus Park-N-Ride lots in Berea, Brecksville, Rocky River, Strongsville, North Olmsted, Euclid and Westlake with more than 1,680 parking spaces.

Passenger Shelters

There are approximately 1,400 bus shelters located throughout the Authority's bus system at the close to 6,100 bus stops that are cleaned, maintained or replaced on a regular basis throughout the year.

Rail District Complex

The Rail District Complex, located at 6200 Grand Avenue, went into service in late 1982. It houses Rail Headquarters, the Central Rail Maintenance Facility (CRMF), which handles all mechanical, body, and electrical repairs for the rail fleet, the Central Rail Service Building, the RTA Rail Yards, and is the location of the Authority's Transit Police Headquarters. In FY 2014, a total roof replacement project for these facilities was completed and in FY 2015, a multi-year Central Rail Lift Rehab program was implemented to replace and upgrade rail car lifts at this facility to ensure safety and to meet operational needs.

Transit Centers

Transit Centers provide heated customer waiting areas and roadways to allow several bus routes to meet and transfer passengers. RTA has six Transit Centers located in Fairview Park at Westgate Shopping Center, Euclid, North Olmsted, Maple Heights at Southgate Shopping Center, Parma at the Parmatown Mall, and near Cleveland State University (Stephanie Tubbs Jones Transit Center) with more than 900 combined parking spaces.

Woodhill Garage Facility

The Woodhill Garage opened in 1966 as a bus garage and remained in service until 1998. It is currently being used as a training facility and houses the Authority's new bus operator training simulator and the Authority's Print Shop operations. In 2015, this facility underwent rehabilitation to remodel a portion of the facility to expand work areas for the electronic repair shop, operators training classroom, and print shop equipment enhancements.

Rail System

Right-of-Way

RTA owns 65 miles of rail lines (32.5 miles of joint rail) used for the operation of its rapid transit system including twenty-seven miles of light rail and thirty-eight miles of heavy rail track. To address potential issues related to MAP-21 and the new FAST Act requirements, the Authority is involved in a multi-year program that will establish SGR needs throughout its rail system that will help to prioritize on-going rehabilitation programs. The right-of-way of the Rail System includes 63 track bridges, 53 passenger stations, 17 propulsion power substations, overhead electrical catenary wires, signals, switches, and associated rail infrastructure all of which are included in a regular maintenance program to maintain a state of good repair.

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Blue, Green & Waterfront Lines (Light Rail)

The Blue, Green and Waterfront Lines comprise the RTA's Light Rail (LR) System. From the downtown Tower City Station, the Blue and Green lines run on shared track east to Shaker Square, where they separate. From there, the Blue Line follows Van Aken Boulevard to its termination at Warrensville-Center Road, while the Green Line travels along Shaker Boulevard and terminates at Green Road. The Waterfront Line runs from Tower City through the Flats East Bank development area, near First Energy Football Stadium and the Rock and Roll Hall of Fame, and terminates at the Muni Parking Lot.

Most of the 13.5-mile LR lines, with the exception of the 2.2-mile Waterfront Line extension added in 1996, were originally constructed between 1913 and 1920. The Authority's Light Rail System has 35 stations; including three it shares with the Red Line at Tower City, the East 34th/Campus and East 55th Street Stations. The entire Light Rail System, including tracks, infrastructure, and stations was reconstructed between 1980 and 1984.

In FY 2013, a reconstructed Woodhill Station was opened and in FY 2015, the reconstructed Lee/Van Aken Station opened. Also in FY 2015, the Light Rail Crossings rehabilitation program continued with completion of three crossings, one on the Green Line at Southpark Blvd. and two on the Waterfront line at Robert Lockwood Dr. and St. Clair Avenue, and the completion of the multi-year Shaker Square Crossings and Junctions rehabilitation project. In FY 2016, there is a combined \$11.32 million of capital improvement projects scheduled along the Light Rail system. These include the rehabilitation of three Light Rail crossings at Main Street on the Waterfront Line and at Southington Road and West Park Boulevard on the Green Line, and the reconstruction of two Green Line Stations at Warrensville/Shaker Blvd. and Lee Road/Shaker Blvd. and the East 116th St. Light Rail Trunk Line Station.

Red Line (Heavy Rail)

The RTA's Heavy Rail (HR), or Red Line, runs on joint tracks for 19 miles from its eastern terminal at the Louis Stokes Station at Windermere, located in East Cleveland, through the Tower City Station in downtown Cleveland to its western terminal at Cleveland Hopkins International Airport. There are 18 stations along the line, eight east of downtown, one at Tower City in downtown Cleveland, and nine west of downtown. Fifteen of the Red Line stations were originally constructed between 1954 & 1958. The remaining three stations, including the Line's western terminal at the Cleveland Hopkins Airport, were put into service in 1967.

Since 2000 the Authority has completely renovated or reconstructed ten of its Red Line Station, with two, Cedar – University and Little Italy – University Circle Rapid Station recently completed. In FY 2015 other infrastructure projects that were finished including the rehabilitation of Red Line track from the S-Curve to W. 117th St. Station and from Kinsman Ave. to the Cedar-University Station, and work commenced on a \$15.1 million reconstruction of the Brookpark Station and a \$8.90 million project to reconstruction Track 8 and rehabilitate Platform 7 at Tower City. During FY 2016, a combined budget of \$7.76 million is programmed for heavy rail projects including the first of two years for the East 34th Street Station reconstruction for \$3.4 million and \$3.85 million for improvements at the Brookpark and Puritas Substations.

The 2016-20 CIP of the Authority continues to commit a significant amount of resources towards achieving a SGR in its Light & Heavy Rail Systems infrastructure including the reconstruction, rehabilitation and upgrades to train stations, power substations and electrical systems, train controls, and its on-going track and station rehabilitation programs.

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Bridges/Tunnels

The GCRTA is responsible for the maintenance and inspection of 63 track bridges owned within its right-of-way. This includes four station bridges, eight highway bridges, nine service/access bridges, one transit tunnel, five fly-over bridges on the Red Line, and the ¾ mile long viaduct bridge over the Cuyahoga River. The GCRTA also has joint responsibility for inspecting and maintaining the substructures of 100 city and county highway bridges that span the rail tracks. A majority of these bridges were built before 1930 and now require major repairs.

Since 2000, 18 track bridges, seven street bridges, including the shared Light Rail Trunk Line Bridge, and the Airport Tunnel have been completely rehabilitated and the closed Rockefeller Bridge demolished. In FY 2015, the rehabilitation of CRMF Road Bridge at East 37th and East 81st & 83rd Street were completed. After completion of engineering & design services programmed in prior year for track bridges, construction work will begin on three track bridges in FY 2016 including a combined \$10.5M for the reconstruction of track bridges at East Blvd., East 92nd Street, and to begin rehabilitation work on the Viaduct Track Bridge. The out-years of this CIP includes engineering & design services and reconstruction work on four track bridges, the first construction phase on the complete rehabilitation of the Viaduct Bridge, and an on-going inspection program to monitor the condition of each track bridge owned by the Authority.

Tower City Station

The Tower City Station, is the only downtown station for both the Heavy (Red Line) and Light Rail (Blue, Green, and Waterfront Lines) systems and operates as the main connection point for the Authority's rail lines. Originally constructed and opened in 1930 for passenger rail service, modified in 1955 to accommodate the Authority's rail services, it was completely reconstructed in the late eighties as part of an overall re-development of the entire Tower City complex.

In FY 2015, \$8.90 million was programmed for the rehabilitation of Platform 7 (to serve as a temporary station) and the reconstruction of Track 8 (west-bound track) located under Tower City that will begin in FY 2016. Work also continues on a FY 2015 project to replace two sets of escalators (long and short) at the Tower City Station that will be completed prior to the Republican National Convention in mid-2016.

Revenue Vehicle Fleets

Conventional Buses

There were 428 vehicles in the GCRTA bus fleet at the end of 2015. Compared to the prior year, 114 vehicles have been retired or are in the process of being replaced under the bus improvement program. During FY 2015, 90 new 40-FT CNG vehicles entered service, 12 Trolley vehicle buses, scheduled to arrive in the second quarter of 2016, and 16 40-FT CNG vehicles were ordered. The Authority's current fleet includes 223 40-foot transit buses; 40 60-foot articulated diesel buses; 21 60-foot articulated hybrid bus rapid transit (BRT) vehicles; 20 40-foot and 14 45-foot commuter buses; 6 29-foot circulator/trolley buses; 11 29-foot trolley buses; 3 articulated diesel rapid transit vehicles (RTV), and 90 40-foot CNG vehicles. The FTA defines the useful life of a bus to be the lesser of 12 years or 500,000 miles and the average age of the large bus fleet was 7.6 years at the end of FY 2015. The age distribution of the Authority's large bus fleet is shown in Figure CIP-2 on the next page.

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The Authority's goal is to replace approximately 1/14 of its large bus fleet every year (30 to 35 buses) and to accommodate any increases in peak vehicle requirements. This hasn't been possible until recent budget years due to the lingering impact of the recession and other higher priority capital needs of the Authority, but the 2016 – 20 CIP continues a planned bus replacement program, begun in 2013, that should average close to 35 buses per year over a five-year period.

A regular bus replacement program will:

1. Reduce operating maintenance costs;
2. Improve the reliability of the fleet;
3. Distribute maintenance efforts more evenly;
4. Reduce the Authority's vulnerability to large groups of bus defects; and
5. Prevent one-time large purchases.

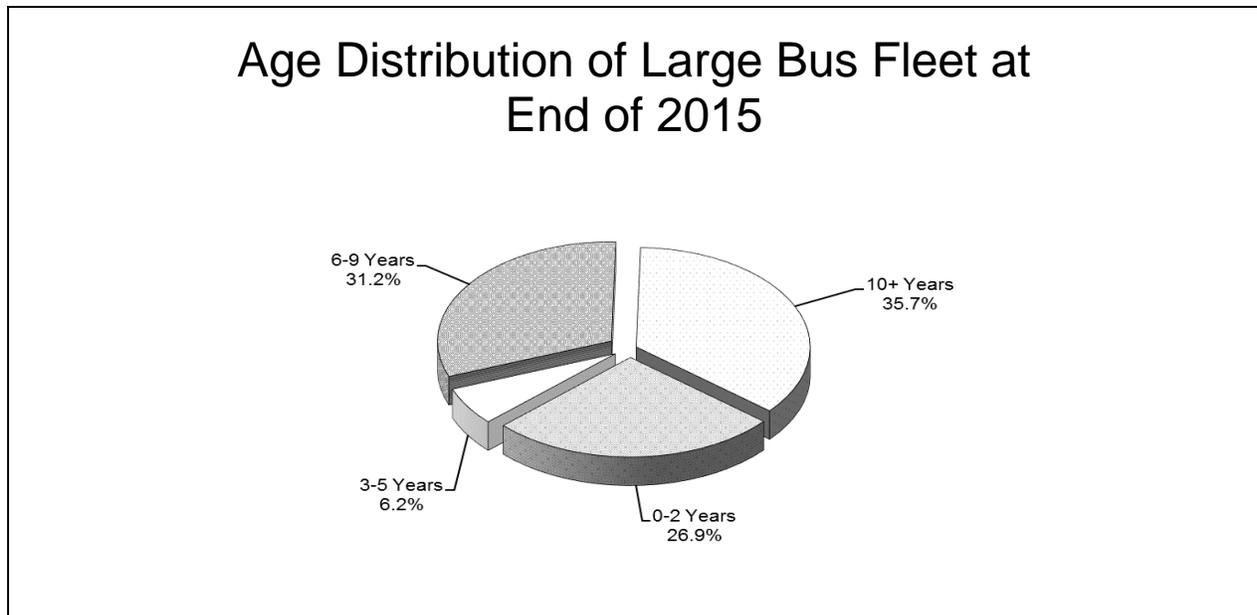


Figure CIP-2: Age Distribution of Bus Fleet

Programmed orders in future years of this CIP depends upon the availability of non-formula funding, but they are expected to further lower the average age of the Authority's big bus fleet to approximately 6.4 years at the end of 2020. All current and future ordered GCRTA buses are compliant with the Americans with Disabilities Act (ADA) and, with the exception of the trolley buses and BRT vehicles, are equipped with bicycle racks.

Paratransit Buses

The Authority's Paratransit Program transports senior citizens and disabled persons on an advanced reservation basis. Including twenty replacement propane fueled vehicles there are 80 ADA compliant, wheelchair-equipped buses in active service in the Paratransit fleet with an average age of 5.2 years at the end of FY 2015. In late FY 2015, 20 replacement MV-1 vehicles, scheduled for delivery in early FY 2016, were ordered that will lower the average age of this fleet to approximately 4.4 years by the end of FY 2016. In 1991, the Board adopted a policy to provide for the integration of fixed rail and bus services with Paratransit services into a

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network of services comparable to what is available to the general public. This continuing policy is designed to maintain full system accessibility and provide compliance with ADA and U.S. Department of Transportation Regulations.

Rail Vehicles

RTA owns a combined 108 heavy and light rail vehicles for its rail operations. The average age of the Authority's combined rail fleet at the end of 2015 was 34 years old. In recent years a midlife overhaul of the Authority's Light Rail (LR) and Heavy Rail (HR) fleets was completed, and in prior year 2015 an interior overhauls was implemented and completed. Both mid-life projects were initiated to economically extend the useful life of the Authority's rail vehicle fleets approximately 12 years beyond their normal expected operating life of 25 to 30 years, but in the near future, the Authority will be facing significant replacement costs for both of its rail fleets.

There are 60 active Tokyu HR vehicles, purchased in 1984 and 1985, which operate on the Red Line. The peak service requirements for the Red Line during rush hours are 18 cars, while special events require 36 cars. The 48 active Breda LR vehicles, acquired between 1981 and 1983, run on the Blue, Green, and Waterfront Lines of the Authority. Vehicle requirements for LR peak rush hour service are 13 cars, and 28 cars are required for special event services.

Capital Improvement Planning Cycle

The Capital Improvement Planning Cycle is longer than the operating budget process due to the preparation, scope, and cost involved with the projects. Grant-funded projects must be identified well in advance of planned execution so that applications can be filed and approved. Furthermore, construction projects must be preceded by preliminary engineering and design work to determine the scope and specifications of the project.

The Calendar of Events, on the next page, depicts the revised Capital Improvement and TIP planning cycles for the 2016-20 Capital Improvement Plan (CIP). The process began in March, 2015 when the Office of Management and Budget (OMB) reviewed the budgeting policies and set the parameters for the Capital Budget, and concluded in August with the Board Adoption of the recommended 2016-20 CIP followed by submission to NOACA for inclusion in the TIP/STIP.

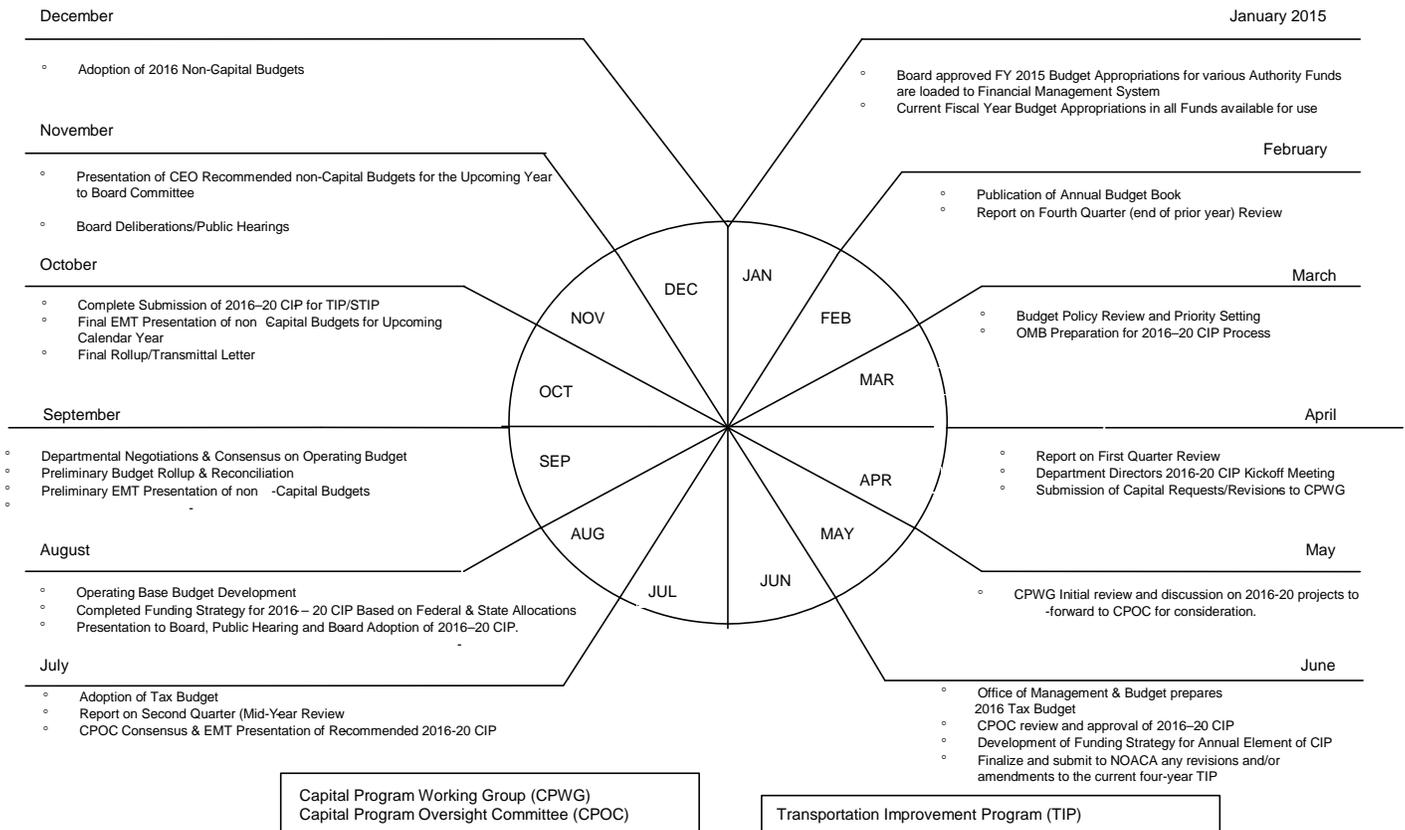
At the start of the CIP development process, an initial review is done by OMB and various departments to assess the status of projects included in the current year's Capital Improvement Budget. This review includes any variances with programmed project timelines, availability of grant funds, and an inter-departmental review of data and resources required for the upcoming CIP. The Authority's Divisions and Departments are then provided a detailed set of instructions and follow-up meetings with staff are held that include a review of the information required for capital project requests, clarification of Department and Division requests and an overview of anticipated funding for the upcoming capital budget year.

In May, June and early July, OMB staff and the Capital Program Working Group (CPWG) reviewed all submitted capital project requests for consistency with the needs of the Authority's infrastructure, funding availability, the Authority's Long Range Plan, the current Transportation Improvement Plan (TIP), and the annual strategic planning process. Projects were then prioritized in accordance with RTA's capital priority areas – ridership, state of good repair, health & safety, mandates, efficiencies, environmental impact, and transit oriented development and in turn forwarded to the Capital Program Oversight Committee (CPOC) which includes the Executive Management Team of the Authority. The CPOC was formed to develop and monitor the Capital Program and to authorize the five-year Capital Program with projected grant, local and non-traditional revenue sources. After initial meetings with the Deputy General Managers

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at the division level and with the General Manager and the Executive Management Team at the organizational level, the recommended Capital Budgets for the 2016-20 CIP were finalized.

This was followed, in July, by a comprehensive mid-year review that assessed the status of the current year's Capital Improvement Budget. Based on the mid-year review, the CIP for 2016-20 was finalized and presented to the Board of Trustees' Finance Committee in August for discussion, review and at which time approval was given.



Transportation Improvement Program

The planning cycle for grant-funded projects begins with the development of the Authority's CIP for incorporation into the Transportation Improvement Program (TIP). The TIP documents transportation related capital projects within the region for which Federal funding will be requested. Projects must appear in the TIP to receive funding consideration. The Northeast Ohio Area-wide Coordinating Agency (NOACA) is responsible for bi-annually preparing the four-year plan for this area with the GCRTA responsible for preparing the transit component of the plan for Cuyahoga County.

The GCRTA Long-Range Plan and its related five-year Strategic Plan guides the CIP and TIP. These plans articulate the types of services and markets the Authority expects to serve. The Authority's preparation of projects for inclusion in the TIP began in March when departments request revisions, additions, or deletions to the previous year's CIP. The Budget Calendar of Events reflects the TIP process and how it corresponds to the Capital Improvement planning cycle. Capital project requests are prioritized by the Capital Projects Working Group (CPWG)

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and, in turn, are submitted to the Capital Program Oversight Committee (CPOC) for review and approval.

The proposed Capital Budgets for the upcoming calendar year are presented to the Board of Trustees committees; further defined depending on funding allocations for the new Federal fiscal year and any revisions to the original Capital Budgets will be submitted for Board approval in December and through NOACA, incorporated into the current four-year TIP prior to the new Federal Fiscal Year. Revisions to existing projects and/or amendments to add new projects are submitted on a quarterly basis for review and inclusion in the revised TIP/STIP.

Capital Budget Appropriations

The budget process culminates when the Board approves the budget and establishes appropriation authority for the upcoming Fiscal Year. With respect to the Capital Budget, appropriation authority varies depending on which of the two Capital Improvement Funds, either the RTA Capital or the RTA Development Fund, supports the project.

The RTA Capital Fund includes capital projects funded from the Sales & Use Tax revenue. In general, these capital projects are less than \$150,000, have a useful life of less than 5 years, are routine in nature, and usually directly tie to daily operations. This Fund is subdivided into Routine Capital projects, for the acquisition of non-revenue vehicles and equipment, and Asset Maintenance projects, that include minor rehabilitation projects at Authority facilities.

The RTA Development Fund primarily includes capital projects with a value greater than \$150,000, a useful life greater than five years, and includes all of the large multi-year rehabilitation/reconstruction and expansion projects of the Authority. All grant-funded projects are accounted for in the RTA Development Fund and projects in this Fund are normally supported through various combinations of Federal and State of Ohio grants, local matches for these grants, debt service and/or 100 percent local funds.

Budget authority for both RTA Capital and RTA Development Fund projects are established when the Board of Trustees approves the annual Capital and other Fund Budgets of the Authority. The Board also approves grant applications and the acceptance of awards, which commits the Authority to providing matching funds when grant funds are drawn. Once approved, the Authority may draw against the grant until the project is completed or the time limit on the grant has expired. Grant awards can only fund projects specified in the application unless the Federal Transit Administration (FTA) or grantor agency approves an amendment.

Capital Improvement Financial Policies

The Board of Trustees has established a set of financial policies including some to ensure that adequate funds are regularly invested in maintaining the Authority's capital assets. These policies, which are highlighted in the Budget Guide, are used as goals for planning and controlling. They are as follows:

- An amount equivalent to at least 10 and not more than 15 percent of Sales & Use Tax revenues shall be allocated to the Capital Improvement Fund on an annual basis.
- Capital Improvement Funds shall be used to account for the construction and acquisition of major capital facilities, vehicles, and equipment.

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- The percent of capital maintenance outlay to capital expansion outlay will be a minimum of 15 percent and a maximum of 85 percent.
- The Authority will strive to take advantage of all available Federal and State grants and other financing programs for capital improvements.

Capital Improvement Criteria

Capital project requests for consideration in the 2016–20 CIP far exceeded available resources. As a result, established guidelines are used to prioritize project requests for funding. The following criteria provide a basis for preliminary capital investment decisions and include:

- **The value and useful life of the capital asset**
 - To be included in the Capital Improvement Plan, the asset must have a value of \$5,000 or more and have a useful life exceeding one year. If financed by debt, the useful life should exceed the term of the bond.
- **The availability of resources to fund the Capital Improvement, including grant resources**
 - The availability of grant resources against which local funds can be leveraged greatly enhances the likelihood of approval.
- **The age and condition of the capital asset**
 - Assets that are older and in poor condition generally rank higher on the rehabilitation or replacement list. Specific vehicle rehabilitation or replacement programs have been established for buses, rail cars, and non-revenue vehicles.
- **The relative cost to the Authority for the benefit obtained**
 - Benefits may be measured in terms of avoided cost or the ability of the improvement to recover the capital investment within a given period.
- **Value engineering considerations with regard to the scheduling/order of projects**
 - The relationship between projects is an important consideration in the scheduling of construction projects. For example, major rehabilitation to a bridge on a rail line might coincide with a track rehabilitation to achieve economies and avoid a duplication of effort.

Priority Areas

In addition to these criteria, all capital projects must relate to one of the following priority areas to be considered for approval. Capital projects, which address multiple priority areas, have a greater likelihood of approval.

During this planning cycle, priority areas of the Authority were defined as:

- **Ridership** – Maintaining current riders and attracting new customers
- **State of Good Repair** – Maintaining the Authority’s current ‘core business’ through investments in projects which are necessary in order to operate the existing infrastructure or add an additional dimension/mode to existing systems

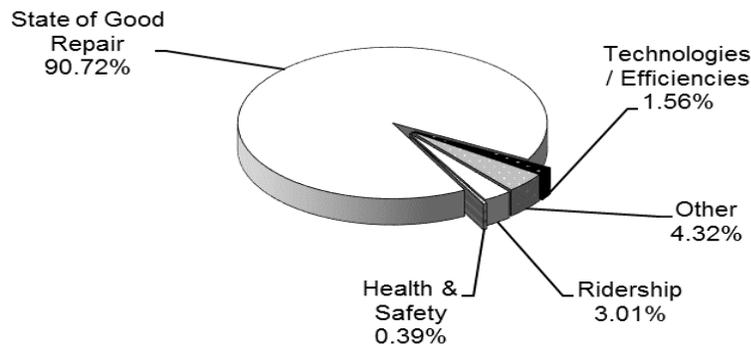
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- **Health and Safety** – Ensuring the physical well-being of the Authority’s customers, employees, and the general public
- **Mandates** – Ensuring compliance with Federal and State mandates such as the Clean Air Act and Americans with Disabilities Act
- **Technologies/Efficiencies** – Instituting improvements which can produce operating efficiencies and make better use of resources or implementing projects which minimize additional operating expenses
- **Environmental Impact** – Investing in equipment, adapting facilities or enhancing service infrastructure to support overall environmental benefits such as improved air quality
- **Transit Oriented Development** – Investing in projects that stimulate the development of current property with opportunities for private investment, increased revenue and ridership and encouraging partnerships with other organizations

Figure CIP-3 on the following page reflects the distribution of approved 2016 Capital Improvement projects by capital priority area. The largest portion of the 2016 Capital Budget appropriations, \$51.4 million or 90.7 percent, are for projects included within the State of Good Repair category that maintain or improve existing Authority capital assets. This is followed by the Other Projects category that includes projects that have an environmental impact, are for mandated programs, or for transit oriented development with \$4.3 million, or 4.3 percent with the remaining categories making up the balance of the budgeted capital projects.

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2016 Capital Projects by Priority Area
(Millions)



Priority Area	2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2016-20
Ridership	\$1.71	\$0.34	\$0.34	\$0.34	\$0.34	\$3.06
Health & Safety	\$0.22	\$0.22	\$0.23	\$0.23	\$0.25	\$1.15
State of Good Repair	\$51.43	\$51.78	\$58.38	\$75.87	\$61.06	\$298.51
Technologies/Efficiencies	\$0.88	\$7.66	\$10.45	\$0.46	\$3.81	\$23.25
Other	\$2.45	\$2.45	\$2.45	\$2.45	\$2.46	\$12.26
Total	\$56.69	\$62.45	\$71.86	\$79.34	\$67.90	\$338.24

Figure CIP-3: Capital Projects by Priority Area

Financial Capacity

The nature of public transit requires that the Authority pursue a capital-intensive budget. The Authority's capacity to support its ongoing CIP depends on the availability of governmental grants, local matching funds, and the ability to issue bonds. During the eighties and through the mid-nineties, the RTA favored a pay-as-you-go method, maximizing the benefits of Federal and State grant programs, and utilizing debt financing sparingly. Beginning in the mid-nineties, the use of debt significantly increased to meet the financial needs of an extremely aggressive Capital Improvement Program. This led to a significant increase in the overall debt service of the Authority – one that requires principal and interest payments that will exceed \$23.0 million in FY 2016 for existing debt service.

At the end of FY 2015, the Authority will have a combined \$136.9 million of outstanding debt among eight outstanding debt issues. They are, along with their original amounts, \$67.2 million issued in 2004, \$38.5 million issued in 2006, \$35.0 million of bonds and \$27.4 million of

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refunded bonds issued in 2008, a \$25.0 million issuance and \$17.4 million refunding issuance in 2012, a \$29.4 million refunding issuance in 2014, and a combined \$50.4 million issuance and refunding issuance in 2015. Current plans are to issue \$25 to \$30 million of additional debt early in FY 2017 that will be used as the local match for programmed grant funded capital projects or for locally funded capital projects.

In addition to determining the method of financing a project, capital investment decisions by the Authority also take into account a project's impact on operating costs. If a new facility is built, the operating budget must be capable of supporting any additional costs or be positioned to take advantage of any efficiencies.

Federal Sources

As reflected in Figure CIP-4 on the following page, Federal grants will provide an estimated \$68.3 million or nearly 80.0 percent of the Authority's capital improvement revenue stream during FY 2016 and over the five-year CIP is expected to provide approximately 70 percent of the funding needs for the Authority's programmed capital projects. Most major Federal grant programs require a local match, normally 20 percent, though in some isolated grant awards a 10 percent or no local match is required. Through FFY 2013, Federal grant programs had been modified by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), and confirmed by both the Transportation Equity Act for the Twenty First Century (TEA-21) and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) adopted in 2005.

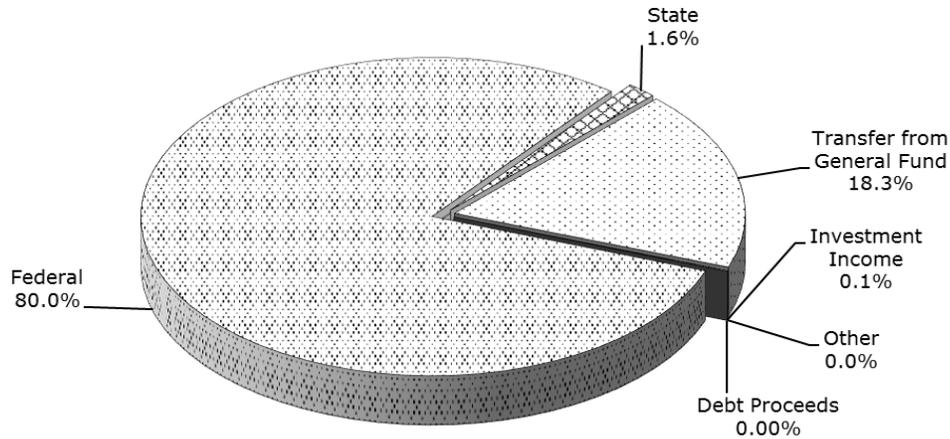
SAFETEA-LU had been extended several times since and in FY 2012 a new Transportation Act, "Moving Ahead for Progress in the 21st Century" (MAP-21), was approved by Congress. It established some certainty over available FTA funds for future transit construction projects, but changes in Federal formula calculations for grant awards, inclusion of new census data in the determination of formula grants, incorporation of operating statistics relative to all transit agencies, and consolidation and/or elimination of some grant programs had a negative impact upon financial resources for the Authority's capital improvement program.

The primary impact of the MAP-21 legislation was in a change to the formula allocation for the Authority's rail systems. Prior to MAP-21 the Rail Modernization grant was allocated through a formula favorable to the Authority and other "older" rail systems in America. Now though, rail formula funds are allocated through a State of Good Repair (SOGR) program that incorporates both population and operating statistics into the formula allocations resulting in a reduction of formula funds for the rail system. Though the MAP-21 legislation clarified available financial resources in the short-term, the long-term Federal funding commitment to public transportation remains uncertain.

At the end of 2015, a new Transportation Act titled "Fixing America's Surface Transportation (FAST) Act is expected to be approved by Congress. It will not only incorporate many of the initiatives included in the MAP-21 legislation by focusing on the SOGR of capital assets, but is expected to increase current FTA formula funding for the Authority by a projected \$2.0 million on an annual basis with most coming in the Rail SOGR formula grant.

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FY 2016 Capital Improvement Revenue
By Source (Millions)



	2013 Actual	2014 Actual	2015 Estimate	2016 Budget	2017 Plan	2018 Plan
Transfer from General Fund	\$15.77	\$15.87	\$15.51	\$15.58	\$15.61	\$15.63
Investment Income	\$0.10	\$0.07	\$0.07	\$0.06	\$0.06	\$0.06
Federal	\$59.80	\$58.20	\$63.86	\$68.25	\$64.62	\$63.88
State	\$0.26	\$2.05	\$1.38	\$1.38	\$1.38	\$1.38
Debt Proceeds	\$0.00	\$0.00	\$30.00	\$0.00	\$25.00	\$0.00
Other	\$0.00	\$0.07	\$0.00	\$0.00	\$0.00	\$0.00
Total	\$75.93	\$76.26	\$110.82	\$85.28	\$106.68	\$80.95

Figure CIP-4: Capital Improvement Revenue by Source

Urbanized Area Formula - Section 5307 Capital Grants

Urbanized Area or Capital grants were originally provided under Section 5307 of the Urban Mass Transportation Act of 1964. Resources were and continue to be allocated to urban areas according to a formula and are matched on an 80 percent Federal and 20 percent local basis. This program has been continued under the new MAP-21 legislation, though several changes were made that led to a small reduction in the annual award of these funds. In addition, changes due to MAP-21 included the elimination of the Job Access & Reverse Commute (JARC) Section 5316 program, which with the local match had provided over \$12.21 million for operating costs associated with this program over a six year period. The program was incorporated into the Section 5307 formula award as an eligible reimbursement in the MAP-21 and FAST legislations, but no additional resources were provided to continue the program.

After declining from a high of \$32.64 million in FFY 2009 to \$28.74 million in FFY 2012 available Federal funding from this grant program has been relatively static in recent Federal Fiscal Years. In FFY 2015, with the local match included, the Authority received \$29.08 million from its

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Section 5307 award a slight increase from the prior year amount of \$28.97 million. Prior to that, Section 5307 grant awards for the Authority totaled \$27.78 million in FFY 2013 and \$28.70 million in FFY 2012. Future allocations under the upcoming FAST 21 legislation are estimated at \$29.50 million, near the amount currently received under the MAP-21 legislation.

State of Good Repair – Section 5337

Since ISTEA, Federal participation for the former Section 5309 award program has been distributed at the Federal Transit Administration's (FTA) discretion on an 80 percent Federal, 20 percent local basis. The ISTEA also instituted a multi-tier formula to allocate Section 5309 Rail Modernization grants, one that historically favored the older established rail systems including the GCRTA. This formula allocation remained the same in the now expired SAFETEA-LU legislation.

The MAP-21 legislation eliminated the Section 5309 Rail Modernization award program, replacing it with the Section 5337 State of Good Repair (SGR) grant program. It also eliminated the historical Section 5309 funding formula allocation, replacing it with one that relied upon operational statistics of a transit agency compared to totals of all transit agencies as well as use of the 2010 UZA Census data. The new formula is one that favors areas with growing populations along with expanding transit services over those with a relatively static UZA population and rail service and has resulted in the loss of close to \$4.0 million for rail formula award funds over the last two years.

The last Federal allocation for the Section 5309 – Rail Modernization Award was an indication of the financial impact the Authority faced under the MAP-21 legislation. Including the 20 percent local share, the last Rail Modernization award in FFY 2012 totaled \$17.26 million. Since then, the Authority has received \$14.16 million in FFY 2013, \$15.38 million in FFY 2014 and \$15.10 million in FFY 2015. Under the new FAST Act though, the Authority expects to receive approximately \$17.00 million per year – an increase of nearly \$2.0 million per year for needed state of good repair capital projects. Though a significant increase, the Authority will still receive from this formula grant remains than under the former Section 5309 Rail Modernization award.

Bus & Bus Facilities – Section 5339

This is a smaller formula award that provides additional capital funding for the replacement, rehabilitation, and purchase of buses and related equipment and to construct bus-related facilities. Funding for this award under the MAP-21 Act has been relatively stable with \$2.33 million received in FFY 2013, \$2.43 million in FFY 2014, and again in FFY 2015. Under the FAST Act, this amount is expected to decrease slightly to an estimated \$2.30 million with similar amounts received in future years of the CIP.

Non-Traditional Federal Sources

Non-traditional Federal awards, including competitive and earmark grants, fall outside of the programs discussed above, but these have been impacted by the MAP-21 and subsequent FAST legislation. The Section 5316 program for the Jobs Access Reverse Commute (JARC) that reimbursed operating expenses related to the Authority's reverse commute program was eliminated. Additionally, grant award funding for an annual ADA Reimbursement grant award, which reimbursed the Operating Budget an average of \$3.17 million between FY 2011 – 2015 has lapsed resulting in a loss of revenue for the General Fund.

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In the past the Authority has been successful in competing for non-traditional or competitive awards that provided the necessary resources to enable a number of important capital projects to be completed. The Authority will continue to seek and submit applications for needed SGR capital project as any competitive grant award become available in the future.

Recent non-traditional awards the Authority has received include a Career Pathways Development award of \$985,754 received in FY 2015 that will be used by the Authority for a work force development program. In FY 2013 a TIGER III grant award for \$15.63 million was received for construction work on the Little Italy - University Circle Station & rehabilitation of the Mayfield Road Track Bridge and two non-formula awards were executed totaling a combined \$8.69 million for the Clifton Boulevard Transit Enhancement project. Earlier, in FY 2012, the Authority received two competitive grant awards. One for \$3.96 million for improvements at the Brookpark & Windermere Red Line Stations and the Strongsville Park-N-Ride and a second, for \$1.61 million for the rehabilitation & expansion of the Southgate Park-N-Ride lot and to rehabilitate the Triskett, North Olmsted Park-N-Ride, and Sprague/Fair parking lots.

Including the local share, the Authority also received \$30.2 million of capital funding from non-traditional Federal sources in FY 2011 for three awards totaling \$16.4 million for the reconstruction of the Cedar - University Red Line Station, a combined \$8.20 million in operating assistance awards, \$5.30 million for State of Good Repair projects at the Authority's bus garages, and \$287,000 for a workforce development program. Lastly in FY 2009, the Authority received \$45.7 million of 100% Federal share grant funding through the Federal Stimulus program (ARRA) that supported an additional year's worth of unfunded programmed capital project budgets within the current CIP.

State Sources

Administered through the Ohio Department of Transportation (ODOT), the State can contribute up to one-half of the local match portion of the Federal grant programs. In the past, the State contributed State grants in this form, but in recent years, it has focused on contributions that are project-specific rather than for local match contributions and it utilizes available Federal, rather than State, awards. In FY 2012, the Ohio Transit Preservation Partnership Program (OTPPP) awarded \$2.6 million of Federal funds for the reconstruction of the Red Line Airport Tunnel and \$1.89 million of Federal funds were awarded in FY 2013, for the Authority's Revenue Vehicle Camera and DVR program. In FY 2014 the Authority received a \$2.62 million OTPPP award for replacement 40-Ft buses and in FY 2015 a \$1.96 million award for four replacement trolley buses was executed. In future budget years the Authority will continue to submit applications to the State in support of the multi-year bus improvement program.

Local Sources

The Capital Improvement Budget requires local resources to support the match for most grant-funded projects as well as to support 100 percent locally funded projects in both the RTA Capital and RTA Development Funds. In FY 2016, the combined local contribution for the Authority's capital program of \$38.58 million are from two transfers included within the General Fund. The first is a \$15.58 million transfer to the RTA Capital Fund to cover locally funded capital expenditures within the Capital Funds. The second, a \$23.01 million transfer from the General Fund to the Bond Retirement Fund, is to cover projected debt service payments for the upcoming year. In recent years these two transfers have grown from a combined \$34.09 million in FY 2013, to \$36.36 million in FY 2014, to \$37.97 million in FY 2015 and are expected to continue this pattern into future budget years.

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Debt Management

Although major capital improvements are mostly funded by Federal and State capital grants, the Authority is required to pay a percentage of most grant-funded projects from its own local sources. Debt sales are used for this purpose as well as to pay for major 100 percent locally funded projects. In FY 2015 Revenue Bonds (RB) were issued for \$30.0 million in new debt and \$21.4 million in a refunding issuance. All of the Authority's outstanding debt at the end of FY 2015 will mature by December 2034. The \$136.88 million balance of outstanding debt at the end of 2015 will require principal and interest payments of \$23.01 million in 2016.

Debt Limitations

As a regional transit authority, Ohio law permits the Authority to issue both unvoted and voted general obligation bonds. In the past, only unvoted general obligation bonds have been issued. As the name implies, unvoted debt is issued without the vote of the electorate, within the limitations provided under State law. General obligation bonds are secured by a pledge of the 'full faith and credit' of the Authority which is backed by the power to levy and collect ad valorem property taxes. Current debt obligations have not required the use of ad valorem property taxes to pay debt service but have been supported by the Authority's other revenue sources.

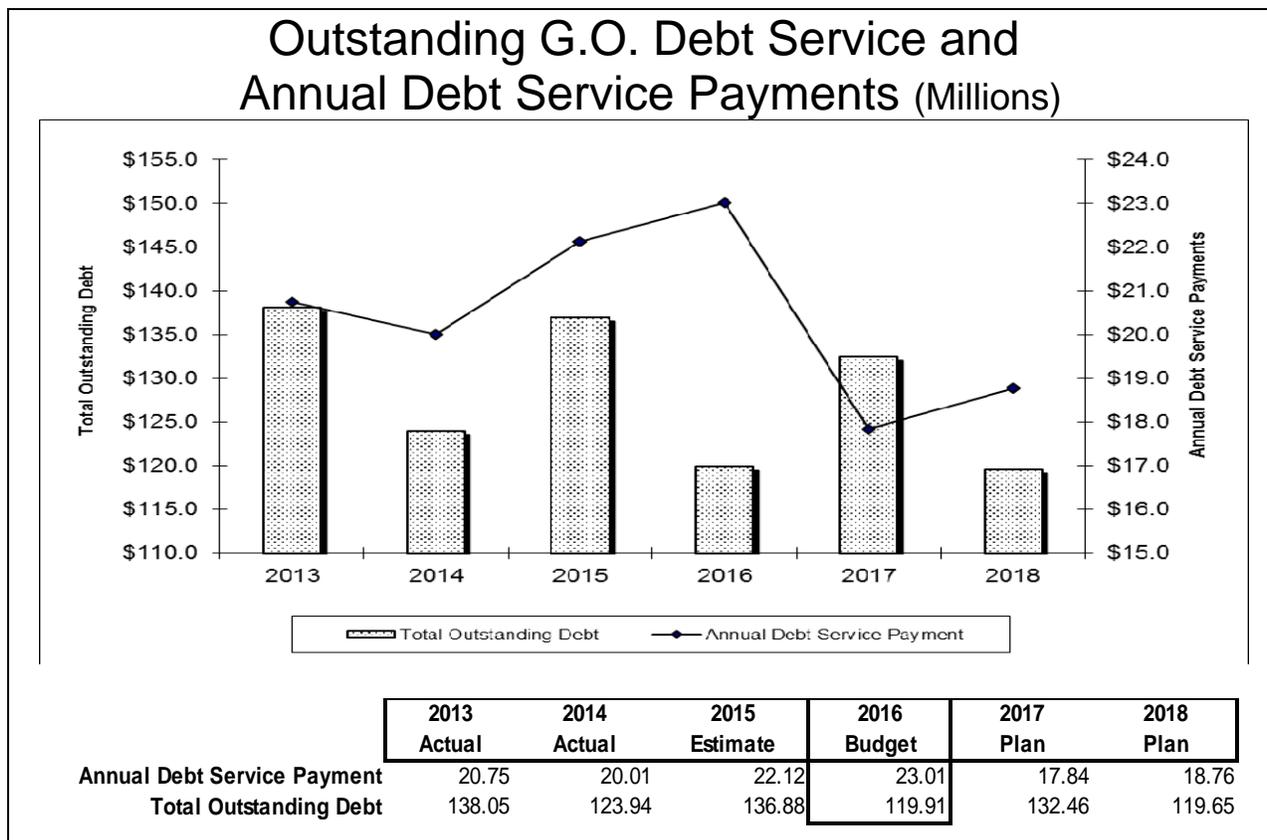


Figure CIP-5: Outstanding G.O. Debt Service & SIB Loan and Annual Debt Service Payments

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There are three limitations related to the Authority's ability to issue General Obligation debt:

- I. Section 306.40 of the Ohio Revised Code limits the principal amount of bonds that are supported by property taxes to five percent of the assessed valuation within the Authority's territory. The assessed valuation of property within Cuyahoga County applicable to the GCRTA at the end of 2015 of \$27.73 billion limits the amount of available debt to \$1.39 billion. This limitation is not currently very restrictive to the Authority in view of the large dollar limit and its applicability only to debt supported by property taxes.
- II. The second limitation, also contained in Section 306.40 of the Ohio Revised Code, restricts annual principal and interest payments on the Authority's unvoted general obligation bonds to one-tenth of one percent (0.1 percent) of the assessed valuation. Based on the assessed valuation of \$27.73 billion, annual debt servicing capacity would be close to \$27.73 million. This provision applies to all debt issued by the Authority and is the most restrictive of the limitations, though it exceeds current debt payment levels.
- III. The third constraint derives from both the Ohio Constitution and the Ohio Revised Code. Article XII, Section 11, of the Constitution requires that any political subdivision incurring debt must provide for the levying of taxes sufficient to pay principal and interest on that debt. Section 2 of the same Article and Section 5705.02 of the Ohio Revised Code limits to ten mills (one mill equals \$1 of tax for each \$1,000 of assessed valuation) for the amount of taxes that may be levied without a vote of the citizens.

This 'indirect' limit on unvoted debt prohibits the county and all political subdivisions from jointly levying property taxes above ten mills without a vote of the people. Thus, the ability of the Authority to issue unvoted general obligation debt is 'shared' with overlapping political subdivisions. As these entities issue debt subject to the 10-mill limitation, the amount of room available for other subdivisions' debt is reduced. Political subdivisions include Cuyahoga County, various municipal corporations, school districts, and townships within the taxing district.

At its establish rate of 9.9917 mills, total outstanding debt issued by various public entities within the County is just below the unvoted ten-mill limit, which continues to limit the Authority's ability to issue General Obligation Bonds. If this were possible, as the Authority's total annual debt service is limited to 1.0 mill, based on the direct limitation described above in section II, the Authority could issue approximately \$95 million of unvoted debt assuming a 20-year maturity and a 4.0 percent interest rate. Its ability to issue more general obligation debt though remains limited under the third constraint, in that the total outstanding debt issued as of year-end 2015 by various public entities within the County exceeds the unvoted ten-mill limit. Due to this restraint in previous years, the Authority issued new debt of \$25.0 million in Revenue Bonds, rather than General Obligation Bonds, in 2012 and a new issuance of \$30 million in 2015.

Operating Impacts

A benefit of considering the Operating and Capital Budgets concurrently is the ability to gauge the impact of Capital Improvement decisions on the Operating Budget. In 2016 the financial requirements and programmed activities within the Authority's capital program will impact the Operating Budget in a number of ways including:

- The Trustees' commitment to contribute a portion of sales & use tax revenues to the Capital Improvement Fund transfers resources that could be used to support operations. In the upcoming year, this amount is budgeted at \$15.58 million.

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- In tandem with increased capital requirements to meet achieve a SGR the challenges with securing needed grant award funds from Federal, State and other intergovernmental agencies continues to place pressure on the General Fund to contribute increasingly significant amounts of financial resources to the Capital Improvement Fund.
- Estimated debt service and interest payments of \$23.01 million will require a General Fund transfer to the Bond Retirement Fund to offset the debt in FY 2016 further limiting the amount available for operating expenditures.
- Some Operating Budget expenditures, primarily personnel costs within the Engineering & Project Development Department and other Authority departments, are incurred in support of ongoing activities within capital construction projects. Eligible costs are reimbursed to the General Fund as revenue from the RTA Development Fund. In FY 2016, this activity will result in a projected \$1.7 million in grant funded reimbursements to the General Fund.
- Formula grant funds are eligible to be used to reimburse preventive maintenance (PM) activities with the Operating Budget. For the five fiscal years covering FY 2006 thru FY 2010, \$141.19 million of Federal formula capital grants were used for this purpose. In the following five fiscal years, 2011 – 2015, the improved financial position of the Authority allowed formula funding for preventive maintenance activities to be reduced to \$75.36 million and the redirected for needed capital improvements. In FY 2015, PM activities were budgeted and are expected to end the year at \$17.50 million. In FY 2016, PM activities are budgeted to increase to \$20.0 million as the service needs of the Operating Budget draw resources from the Capital program.
- The capital program helps to maintain the Authority's capital assets in a state of good repair that facilitates improved delivery of transportation services and helps to reduce maintenance costs incurred in the operating budget.
- Daily activities within the FY 2016 General Fund or Operating Budget are supported by \$4.14 million of budget appropriation for various capital projects included within the RTA Capital Fund. These generally include smaller (less than \$150,000), equipment & non-revenue vehicle purchases and facilities maintenance activities and are exclusively supported by local funds from Sales & Use Tax revenue.

Capital Project Categories

The combined 2016–2020 Capital Improvement Plan (CIP) totals \$338.24 million of capital budget appropriations over the five year plan with projects sorted among eight capital project categories – Bus Garages, Buses, Equipment & Vehicles, Facilities Improvements, Other Projects, Preventive Maintenance/Operating Reimbursements, Rail Projects, and Transit Centers. For the approved 2016 CIP, two categories comprise \$41.90 million, or 74.1 percent, of the combined \$56.69 million capital budget appropriations. The largest with \$21.72 million is the Rail Project category, followed by the Preventive Maintenance/Operating Expense projects category with \$20.18 million. These are followed by the Facilities Improvements category with \$8.94 million, and four remaining categories totaling \$5.84 million within the approved capital budget as shown in Figure CIP-6 on the next page.

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Reflecting the challenging financial picture the Authority faces, the largest budgeted category over the five-year CIP remains to be the grant funded reimbursements of preventive maintenance and other operating expenses with \$100.90 million, or 29.8 percent of the CIP budget over the five years. This is followed by Rail Projects with \$80.75 million, 23.9 percent, and the Bus Improvement Programs, with \$74.21 million or 21.9 percent, followed by the other remaining categories to a lesser degree as prioritized by the needs assessment and corresponding allocation of available capital funds.

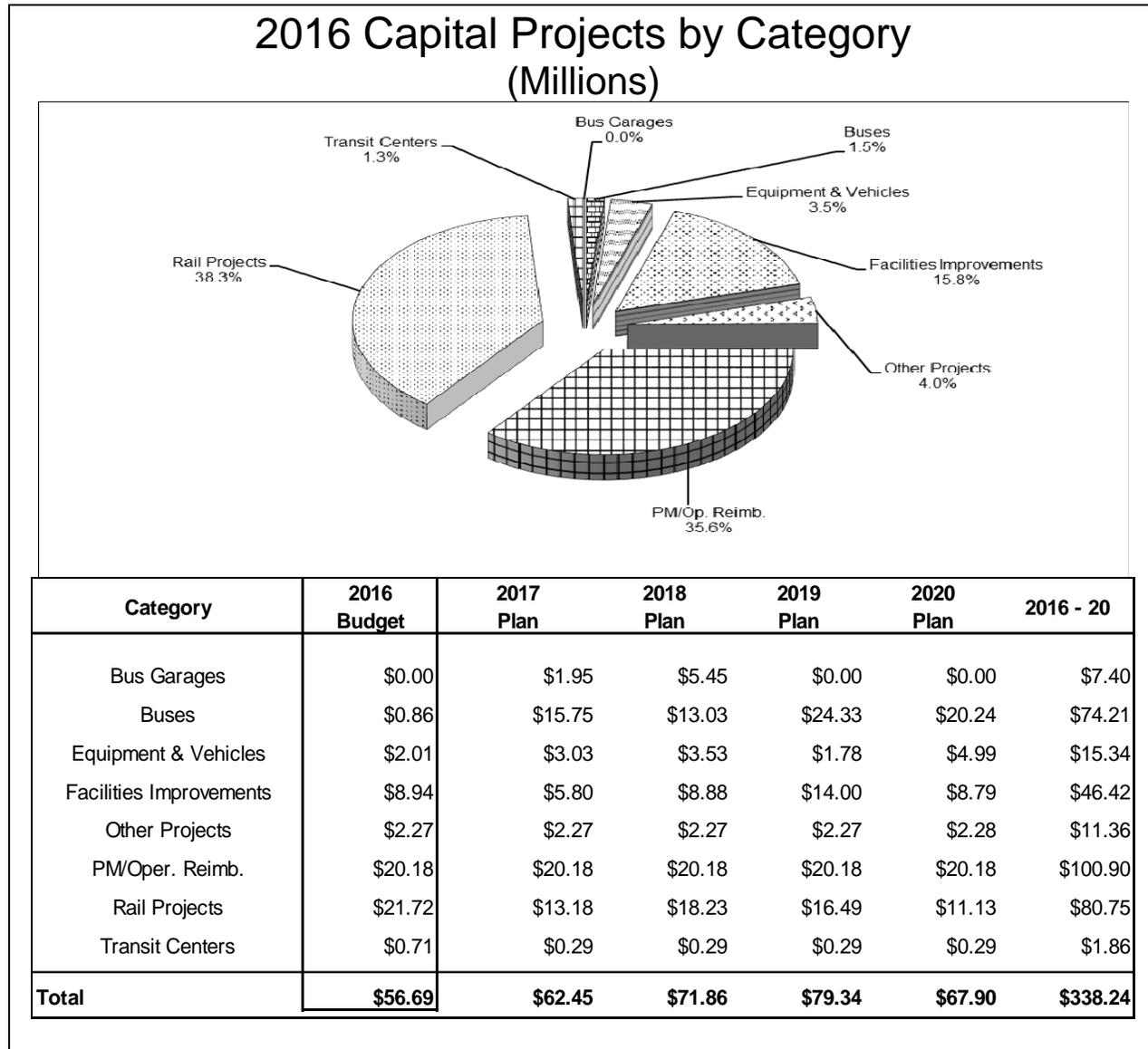


Figure CIP-6: Capital Projects by Category

RTA Capital Fund

The RTA Capital Fund is a fund for smaller capital projects and includes more routine expenditures. Projects within this fund are generally less than \$150,000 and have a useful life not exceeding five years. Items included in the RTA Capital Fund are segregated into two types: Routine Capital, which includes the acquisition of non-revenue vehicles and small

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equipment, and Asset Maintenance, which covers small rehabilitation projects to maintain the Authority's existing assets. The RTA Capital Fund is 100 percent locally funded, almost exclusively through sales tax contributions by way of a transfer from the Operating Budget.

Figure CIP-7 presents the fund balance analysis for the RTA Capital Fund. Other than a small amount of investment income, the main source of revenue is the sales & use tax revenue 'set aside' transfer from the General Fund to the RTA Capital Fund which began in 1989. Anticipated revenue in FY 2016 will include \$15.58 million of programmed transfers from the General Fund and investment income of \$9,500. The transfer amount, in combination with the General Fund transfer of \$23.01 million to the Bond Retirement Fund brings the total commitment to Capital to \$38.59 million or 18.2 percent of the projected 2016 sales & use tax revenue.

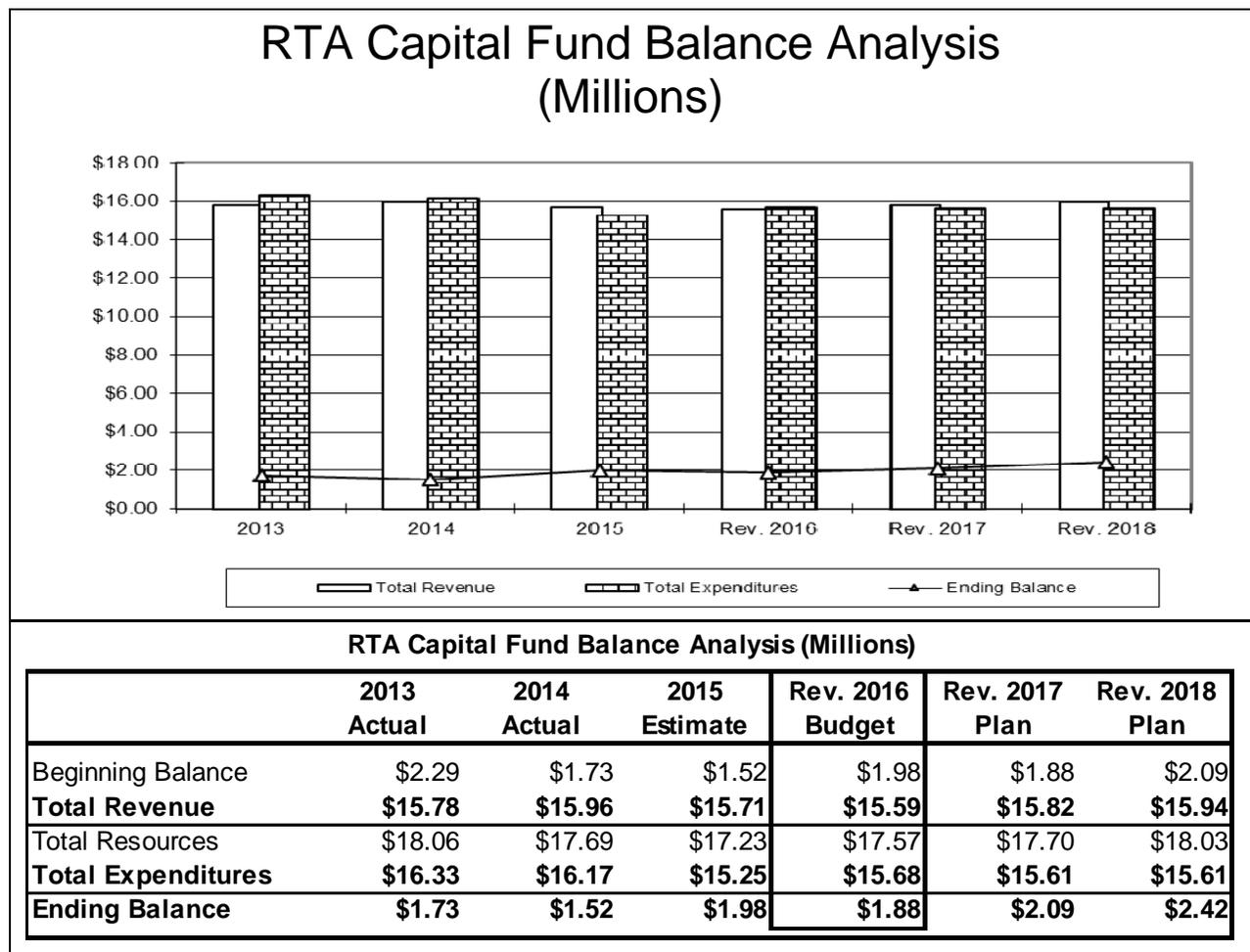


Figure CIP-7: RTA Capital Fund Balance Analysis

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RTA Capital Fund Balance Analysis

	2013 Actual	2014 Actual	2015 Estimate	2016 Budget	2017 Plan	2018 Plan
Beginning Balance	2,286,108	1,731,677	1,523,036	1,980,120	1,885,178	2,091,480
Revenue						
Transfer from General Fund	15,770,044	15,874,745	15,693,139	15,579,812	15,808,307	15,930,977
Investment Income	5,200	13,200	13,200	9,500	7,250	7,500
Other Revenue	0	72,916	0	0	0	0
Total Revenue	15,775,244	15,960,861	15,706,339	15,589,312	15,815,557	15,938,477
Total Resources	18,061,352	17,692,538	17,229,375	17,569,433	17,700,735	18,029,957
Expenditures						
Asset Maintenance	1,083,402	1,627,995	1,675,000	1,900,000	1,825,000	1,850,000
Routine Capital	1,776,018	2,807,251	1,925,000	2,450,000	2,250,000	2,250,000
Transfer to RTA Development Fund	13,470,255	11,734,255	11,649,255	11,334,255	11,534,255	11,509,255
Total Expenditures	16,329,675	16,169,501	15,249,255	15,684,255	15,609,255	15,609,255
Ending Balance	1,731,677	1,523,036	1,980,120	1,885,178	2,091,480	2,420,702

Budgeted FY 2016 expenditures or cash flows within the RTA Capital Fund of \$15.68 million include \$1.90 million for Asset Maintenance or facilities projects, \$2.45 million for Routine Capital or equipment purchases, and a \$11.33 million transfer into the RTA Development Fund for use on providing the local match on grant awards and 100 percent locally funded projects. The estimated 2016 ending balance of \$1.89 million is a decrease from prior years due to an increase in routine capital to maintain a state of good repair for non-revenue vehicles and equipment pools for various projects throughout the Authority.

Asset Maintenance Projects

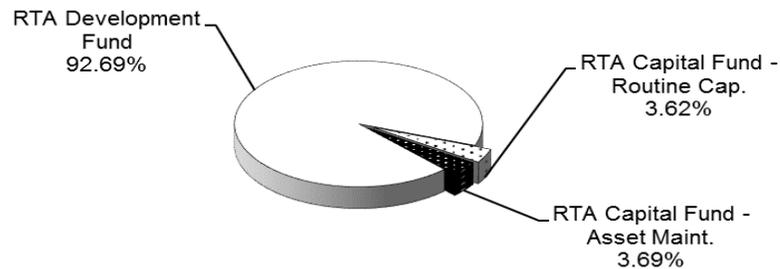
Asset Maintenance projects are locally funded facilities projects that maintain, repair, or rehabilitate an existing capital asset of the Authority. These include projects of smaller scope duration and expense than those included in the RTA Development Fund. The duration of these projects is often less than one year with the cost generally not exceeding \$150,000 and a useful life of less than five years.

The FY 2016 budget appropriation for Asset Maintenance projects is \$2.09 million representing 3.7 percent of the overall FY 2016 Capital Improvement Budget (see Figure CIP-8) on the next page. Most of this amount is budgeted within two areas of the Authority, with the largest portion of \$1.02 million or 48.6 percent within the Engineering and Project Development Department, which is responsible for coordinating larger construction-related asset maintenance projects throughout the entire Authority. This is followed by the \$440,000, or 21.0 percent of all Asset Maintenance projects, budgeted within the Assets & Configuration Management Department for smaller cost facilities projects within the Operations Division and the Main Office facility.

Remaining budgeted projects within Asset Maintenance are for location specific facilities projects, energy efficiency lighting retrofits throughout the Authority, or in the Asset Maintenance Contingency project for unanticipated facilities improvements needs throughout the year.

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2016 Capital Project Budgets by Fund (Millions)



2016 CIP Project Budget Appropriation by Funding Type (Millions)

	2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2016-20
RTA Cap. Fund - Routine Capital	\$2.05	\$2.54	\$1.92	\$1.96	\$1.67	\$10.14
RTA Cap. Fund - Asset Maintenance	\$2.09	\$1.98	\$1.94	\$1.99	\$1.88	\$9.88
RTA Development Fund	\$52.55	\$57.94	\$67.99	\$75.39	\$64.35	\$318.21
Total	\$56.69	\$62.45	\$71.86	\$79.34	\$67.90	\$338.24

Figure CIP-8: Capital Project Budgets by Fund

Routine Capital Projects

This category includes the purchase of vehicles and equipment, where each unit has a value of at least \$5,000 and a useful life greater than one year. Furthermore, these items are generally less than \$150,000 in cost, in many cases have a useful life of five years or less, and are designed to efficiently meet the identified operational equipment needs within the General Fund or Operating Budget. As such, the expectation for Routine Capital projects is the approved budget appropriations are fully committed, if not expensed within the calendar year.

As indicated in Figure CIP-8 and the charts on the following pages, the budget appropriation for Routine Capital projects accounts for \$2.05 million, or 3.6 percent, of the 2016 CIP Budget. Reflecting the support of daily operations, the greatest portion of the budget appropriation for Routine Capital projects in the 2016 CIP is within the Operations Division, which has a combined \$1.44 million or 70.2 percent of the total. More than half, \$785,000 is programmed for the non-revenue vehicle lease or replacement program followed by \$435,556 for equipment pool projects throughout various Operating Division Departments and a budgeted Transit Police Department security pool program of \$220,000.

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GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY 2016 - 2020 CAPITAL IMPROVEMENT PLAN RTA CAPITAL FUND							
ASSET MAINTENANCE (FACILITIES) PROJECTS							
Department / Project Name	Project Number	2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2016-20 Total
31 PARATRANSIT DISTRICT							
Interior Garage Cleaning/Painting	P32315079	0	125,000	0	0	0	125,000
		0	125,000	0	0	0	125,000
32 RAIL DISTRICT							
Training Room Renovations	P32325069	100,000	0	0	0	0	100,000
WFL Booth Replacements (5)	P32325079	0	75,000	0	0	0	75,000
		100,000	75,000	0	0	0	175,000
33 ASSET & CONFIG. MGT.							
Administration Facilities Maint. Pool	P32335159	60,000	60,000	60,000	70,000	70,000	320,000
Elevator/Escalator Maintenance Pool	P32335259	100,000	100,000	100,000	100,000	100,000	500,000
Operating Facilities Maintenance Pool	P32335359	150,000	150,000	160,000	160,000	175,000	795,000
Passenger Facilities Maintenance Pool	P32335459	130,000	150,000	150,000	160,000	160,000	750,000
		440,000	460,000	470,000	490,000	505,000	2,365,000
39 FLEET MANAGEMENT							
Make-Up Air Units - Paint/Prep Shops	P32395069	185,000	0	0	0	0	185,000
Install High Speed Doors (#15 & #19)	P32395079	0	115,000	0	0	0	115,000
Replace Skylights & Smoke Hatches	P32395089	0	0	172,000	0	0	172,000
Bus Districts Lift Rebuilds/Rehab's	P47395059	50,000	50,000	50,000	50,000	50,000	250,000
		235,000	165,000	222,000	50,000	50,000	722,000
57 PROGRAMMING & PLANNING							
Transit Waiting Environment	P28575059	50,000	50,000	50,000	50,000	50,000	250,000
		50,000	50,000	50,000	50,000	50,000	250,000
80 ENG. & PROJECT DEV.							
Facilities - ADA Projects	P32805049	100,000	100,000	125,000	125,000	150,000	600,000
East 9th St. Station Stair Replacement	P32805169	166,000	0	0	0	0	166,000
Passenger Facilities Maint. Pool	P32805149	250,000	250,000	300,000	300,000	325,000	1,425,000
Operating Facilities Maint. Pool	P32805249	500,000	500,000	525,000	525,000	550,000	2,600,000
Paratransit Parking Lot Expansion	P32805089	0	0	0	200,000	0	200,000
		1,016,000	850,000	950,000	1,150,000	1,025,000	4,991,000
67 OFFICE OF MGT. & BUDGET							
Energy Retrofits	P32675339	100,000	100,000	100,000	100,000	100,000	500,000
Asset Maintenance Contingency	P49995059	150,000	150,000	150,000	150,000	150,000	750,000
		250,000	250,000	250,000	250,000	250,000	1,250,000
TOTAL ASSET MAINTENANCE		2,091,000	1,975,000	1,942,000	1,990,000	1,880,000	9,878,000

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GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY 2016 - 2020 CAPITAL IMPROVEMENT PLAN RTA CAPITAL FUND							
ROUTINE CAPITAL (EQUIPMENT) PROJECTS							
Department / Project Name	Project Number	2016 Budget	2017 Plan	2018 Plan	2019 Plan	2020 Plan	2016-20 Total
12 EXECUTIVE							
NOACA Dues	P49120149	57,700	57,700	58,500	58,500	59,000	291,400
CLE Works Dues	P49120249	30,000	30,000	30,000	30,000	30,000	150,000
Outside Legal Services - Leg. Review	P49120349	87,500	90,000	90,000	91,500	92,500	451,500
		175,200	177,700	178,500	180,000	181,500	892,900
32 RAIL DISTRICT							
Rail District Equipment Pool	P47320149	335,556	252,017	112,018	92,019	2,020	793,630
		335,556	252,017	112,018	92,019	2,020	793,630
34 TRANSIT POLICE							
Security Improvements Pool	P44340249	220,000	220,000	230,000	230,000	250,000	1,150,000
		220,000	220,000	230,000	230,000	250,000	1,150,000
39 FLEET MANAGEMENT							
Non-Revenue Vehicle Imp. Program	P46390159	300,000	300,000	300,000	300,000	300,000	1,500,000
NRVIP - Lease Payments: 2016-19	P46390169	450,000	450,000	450,000	450,000	450,000	2,250,000
Overhead Catenary Repair Vehicle	P46390279	0	300,000	0	0	0	300,000
Fleet Management Equipment Pool	P47390349	35,000	82,000	60,000	0	0	177,000
		785,000	1,132,000	810,000	750,000	750,000	4,227,000
46 HAYDEN DISTRICT							
Hayden District Equipment Pool	P47460169	80,000	185,000	0	50,000	0	315,000
		80,000	185,000	0	50,000	0	315,000
49 TRISKETT DISTRICT							
Triskett District Equipment Pool	P47490159	20,000	35,000	0	20,000	0	75,000
		20,000	35,000	0	20,000	0	75,000
61 INFORMATION TECHNOLOGY							
IT Systems Development Pool	P42610149	125,000	125,000	130,000	130,000	130,000	640,000
PC Replacement Program	P42610169	125,000	125,000	125,000	125,000	125,000	625,000
Thin Client Replacement Program	P42610179	0	100,000	0	0	0	100,000
Kiosk Replacement Program	P42610189	0	0	150,000	150,000	25,000	325,000
Laser Printer Replacement Program	P42610299	0	0	0	50,000	25,000	75,000
		250,000	350,000	405,000	455,000	305,000	1,765,000
62 SUPPORT SERVICES							
Office Equipment/Furniture Pool	P43620149	35,000	35,000	35,000	35,000	35,000	175,000
		35,000	35,000	35,000	35,000	35,000	175,000
67 OFFICE OF MGT. & BUDGET							
Routine Capital Contingency	P49990159	150,000	150,000	150,000	150,000	150,000	750,000
		150,000	150,000	150,000	150,000	150,000	750,000
TOTAL ROUTINE CAPITAL		2,050,756	2,536,717	1,920,518	1,962,019	1,673,520	10,143,530
RTA CAPITAL FUND TOTAL		4,141,756	4,511,717	3,862,518	3,952,019	3,553,520	20,021,530

2016 - 2020 Capital Improvement Plan

RTA Development Fund

The Authority's Capital Improvement Funds are used to account for the acquisition, construction, replacement, repair, and renovation of major capital facilities and equipment. The RTA Development Fund is the largest and includes large rehabilitation & expansion projects and the Authority's Long Range projects. In general, RTA Development Fund projects are greater than \$150,000 and have a useful life of more than five years. This Fund is primarily, but not exclusively, supported through Federal grant awards.

Federal Capital grants received by the Authority normally require local match funds, normally 20 percent, be set aside and available for Capital Improvement projects. During the budget process, local match requirements as well as potential locally funded projects are reviewed and resources provided through Sales & Use Tax contributions transferred from the RTA Capital Fund, available proceeds from debt sales, and interest income.

In 2013, \$13.47 million was transferred from the RTA Capital Fund to the RTA Development Fund to provide the local match for Operating Budget expense reimbursements and to cover other locally funded expenditures within the RTA Development Fund. The transfer decreased to \$11.73 million in FY 2014 and remained relatively stable in FY 2015 at \$11.65 million. The amount will decrease to \$11.33 million in FY 2016 and before increasing to \$11.53 million in FY 2017 and \$11.51 million in FY 2018 due to the financial demands of the Authority's capital program.

Other local funding sources include debt service, revenue bonds, and interest income. The Authority last issued debt, \$25.0 million of Revenue Bonds, in FY 2012 to support capital project activities and an additional debt service of approximately \$25.00 million is expected in FY 2015. Interest income has varied over the years from a high of \$115,389 in FY 2012 to an estimated low of \$53,000 in FY 2016 due to fluctuations in the interest rates and fund balance over the years

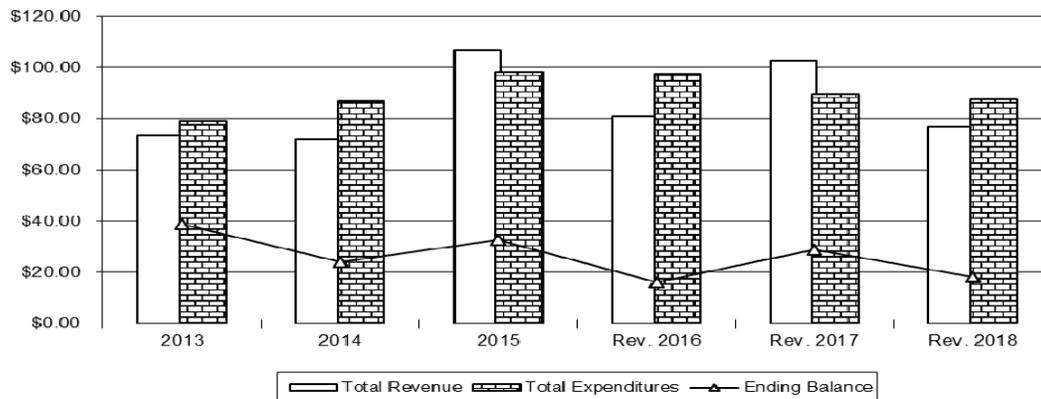
Figure CIP-9, on the following page, presents the fund balance analysis for the RTA Development Fund. The balance normally alternates between decreases and increases over the years depending upon new debt service issuances, the Authority receiving a competitive non-formula grant award, and scheduled construction activities for the year. At the end of FY 2012, the fund balance was \$44.44 million. Capital construction activities over the following years drew the fund balance down as it declined to \$38.92 million at the end of FY 2013 and to \$27.27 million at the end of FY 2014. It increased in FY 2015 due to the issuance of Revenue bonds and is expected to decrease to \$16.13 million at the end of FY 2016 before again increasing to \$28.98 million in FY 2017 due to a planned debt service in that year.

Federal funding resources flow into the Authority through the FTA Grant funds. When grant-funded capital improvements are made, funds are paid to the Authority from the Federal Government via wire transfer. Payments to vendors are then paid from the Authority and the assets acquired are accounted for in the capital funds. A similar process is in place to draw down State grant funds.

As reflected in the fund balance statement on the following page various funding sources including various Federal capital grants, a planned debt service, State Capital grants, and 100-percent local funds will help support expected expenditures or cash outlays of \$97.5 million in 2016. Please note that expenditures within the Fund Balance Analysis are presented on a cash basis and attempts to estimate the actual cash flow expenditures. Thus, the expenditure estimates will differ from the budget appropriations included in the 2016-20 CIP, which are based upon the establishment of the necessary budget appropriation for the capital projects.

2016 - 2020 Capital Improvement Plan

RTA Development Fund Balance Analysis (Millions)



	2013 Actual	2014 Actual	2015 Estimate	Rev. 2016 Budget	Rev. 2017 Plan	Rev. 2018 Plan
Beginning Balance	\$44.44	\$38.92	\$23.91	\$32.61	\$16.13	\$28.98
Total Revenue	\$73.63	\$72.03	\$106.95	\$81.02	\$102.59	\$76.82
Total Resources	\$118.07	\$110.96	\$130.86	\$113.63	\$118.73	\$105.80
Total Expenditures	\$79.14	\$87.05	\$98.25	\$97.50	\$89.75	\$87.50
Ending Balance	\$38.92	\$23.91	\$32.61	\$16.13	\$28.98	\$18.30

Figure CIP-9: RTA Development Fund Balance Analysis

RTA Development Fund Balance Analysis

	2013 Actual	2014 Actual	2015 Estimate	2016 Budget	2017 Plan	2018 Plan
Beginning Balance	44,440,121	38,924,890	23,911,529	32,610,942	16,132,855	28,975,768
Revenue						
Debt Service	0	0	30,000,000	0	25,000,000	0
Transfer from RTA Capital Fund	13,470,255	11,734,255	11,649,255	11,334,255	11,534,255	11,509,255
Investment Income	95,725	54,038	53,000	53,000	54,000	54,000
Federal Capital Grants	59,795,463	58,199,720	63,862,500	68,250,000	64,620,000	63,875,000
State Capital Grants	264,693	2,046,063	1,384,658	1,384,658	1,384,658	1,384,658
Other Revenue	0	0	0	0	0	0
Total Revenue	73,626,136	72,034,076	106,949,413	81,021,913	102,592,913	76,822,913
Total Resources	118,066,257	110,958,966	130,860,942	113,632,855	118,725,768	105,798,681
Expenditures						
Capital Outlay	79,141,367	87,047,437	98,250,000	97,500,000	89,750,000	87,500,000
Other Expenditures	0	0	0	0	0	0
Total Expenditures	79,141,367	87,047,437	98,250,000	97,500,000	89,750,000	87,500,000
Ending Balance	38,924,890	23,911,529	32,610,942	16,132,855	28,975,768	18,298,681

2016 - 2020 Capital Improvement Plan

RTA Development Fund Projects

In 2016, the combined budget appropriation for RTA Development Fund projects accounts for most, \$52.55 million or 92.7 percent, of the Authority's Capital Improvement Budget for the upcoming year (see Figure CIP-8). The inclusion of capital projects within this fund is based upon the establishment of budget appropriation authority and includes projects that may have already received grant-funding, projects in the preliminary application stage, those included in the Transportation Improvement Program (TIP), larger projects supported by 100 percent local funds, or projects without an identified funding source.

The following highlights some of the larger programmed RTA Development Fund Improvement Projects programmed for FY 2016. The \$52.55 million budget is lower than in past years due to third quarter 2015 Board approval of an amendment to increase the RTA Development Fund budget by \$15.86 million for five projects that would have normally been included in the 2016 CIP.

Please refer to page at the end of this section for a complete list of projects included within the five-year RTA Development Fund CIP.

Bus Garages - \$0.0 million

More than \$15.06 million of previous year's capital projects including ones to prepare the Hayden Garage and the Central Bus Maintenance Facility for the introduction of CNG fueled buses and bus storage lots at the Hayden and Triskett Garages are currently underway in this category. No new projects are included in the 2016 CIP, but the out years of the 2016-20 CIP includes two projects to prepare the Triskett Garage for the introduction of CNG fueled buses currently scheduled for FY 2018.

Bus/Paratransit Improvement Programs - \$855,766

The 2016 CIP continues to focus on bus replacements and the SGR of the Authority's existing revenue fleets through a multi-year bus spare parts program to improve the dependability of the Authority's bus fleet. Programmed capital budget appropriations include \$465,766 to replace one (1) 40-Ft CNG buses, and \$390,000 for bus and Bus spare parts. Depending upon the success in securing additional non-formula grant funds for replacement buses there is a possibility the Board will be requested to approve an increase of budget appropriation to this category in the second half of 2016.

Equipment & Vehicles - \$132,000

All budget appropriation within this category with the RTA Development Fund in FY 2016 are for the continuation of prior year grant funded information technology projects including Data Center, Intranet Development and Network improvements.

Facilities Improvements - \$6.85 million

The combined Facilities Improvements budget appropriation of \$6.85 million in 2016 are concentrated on rehabilitation projects of track bridges throughout the Authority's Rail System. Including \$4.30 million to rehabilitate the track bridge at East 92nd Street over CSX tracks and \$2.09 million for the initial phase of reconstructing Viaduct Bridge and a secondary Viaduct Drainage & Concrete repair project. The category also includes \$462,000 for a grant funded improvement project for various facilities throughout the Authority.

2016 - 2020 Capital Improvement Plan

Other Projects - \$2.09 million

The 2016 budget for this project category includes two unfunded projects - a \$2.0 million budget contingency project and a \$93,750 for various transportation studies depending upon the availability of grant funds.

Preventive Maintenance / Operating Budget Reimbursements - \$20.18 million

This category includes two projects to reimburse the General Fund for activities the Operating Budget. The largest of these is for preventive maintenance reimbursements with a 2016 budget appropriation for \$20.0 million, or 38.1 percent of the 2016 RTA Development Fund appropriation. The other programmed project within this category includes budget appropriation of \$180,000 for grant funded reimbursements of the Travel Trainer program.

Rail Projects- \$21.72 million

In FY 2016, the Rail Projects category includes a wide diversity of capital projects and, as in most prior CIP's, is one of the largest of the CIP. Major programmed areas within this category include \$11.16 million for the rehabilitation/reconstruction of Rail Stations, \$6.12 million for various track rehabilitation projects, and a combined \$3.90 million for substation, electrical, and train signal improvements throughout the system.

Major station projects in FY 2016 include \$5.60 million for the reconstruction of the East 116th Light Rail Trunk Line Station, \$3.40 million for the first of two years of funding to reconstruction the Heavy & Light Rail East 34th Street Station, \$950,000 for a second head house of the East 105th Street and a combined \$1.21 million for other various stations rehabilitation. The \$6.21 million for track rehabilitation and reconstruction projects includes \$4.39 million for the Light Rail Crossings Improvement Program and \$1.82 million for various rail engineering and infrastructure improvements. Though not included in the FY 2016 CIP,

It is important to note that though the reconstruction of Tower City (TC) Track 8 and rehabilitation of TC Platform 7 were not included in the FY 2016, having been included in a third quarter 2015 budget amendment for a total of \$9.25 million is expected to commence in the second quarter of 2016.

Transit Centers / Bus Loops – \$708,783

The 2016 capital budget includes \$288,783 for various grant funded passenger enhancements throughout the Authority and \$420,000 for bus shelters associated with phase one of the Opportunity Corridor project.

Transit 2025 Long Range Plan

The purpose of the Long Range Plan of the Authority is to support its Mission and Policy goals by providing a guide for developing a balanced, multi-modal transit system that meets the mobility needs of Cuyahoga County residents and all visitors safely, efficiently, and cost-effectively.

The original plan was drafted in 1998 and updated in 2004 to reflect the existing system's state of repair; the future plans of key stakeholders, and the economic conditions of the region. In 2008, RTA initiated an update of the Long Range Plan, titled the "GCRTA Strategic Plan" that was completed in 2012. The goals of the Plan are to help determine the course of projects and services within GCRTA that can result in the increase of ridership, increase in revenues, and

2016 - 2020 Capital Improvement Plan

bring the system into a state of good repair while being grounded in the economic and the financial reality of public transportation funding in Northeast Ohio.

The existing Key Transit 2025 project elements include exploring the feasibility of additional Bus Rapid Transit projects in other major travel corridors; completing the Transit Center Network; Initiating Transit-Oriented Development Projects; continuing to implement the Transit Waiting Environment (TWE) Program; and reconstructing various Rapid Transit Stations as part of the FTA ADA Key Station requirement agreement.

**GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
2016 - 2020 CAPITAL IMPROVEMENT PLAN
RTA DEVELOPMENT FUND**

ANTICIPATED FUNDING SOURCE							
CATEGORY / PROJECT NAME	PROJECT NUMBER	CALENDAR YEAR					TOTALS 2016-2020
		2016	2017	2018	2019	2020	
<u>BUS GARAGES</u>							
<u>BUS GARAGES</u>							
Triskett CNG Loading Station FY 2018 100% Local Funds 3,500,000	P22800X80	0	0	3,500,000	0	0	3,500,000
Triskett CNG Building Compliance FY 2017 100% Local Funds 1,950,000 FY 2018 100% Local Funds 1,950,000	P22800X70	0	1,950,000	1,950,000	0	0	3,900,000
TOTAL - BUS GARAGES		0	1,950,000	5,450,000	0	0	7,400,000
<u>BUS REPLACEMENTS</u>							
<u>BUS IMPROVEMENT PROGRAM</u>							
2015-2017 Bus Improvement Program SFY 2016 ODOT UTP Award 1,730,822 SFY 2017 ODOT UTP Award 1,730,822 SFY 2017 ODOT CMAQ Grant (Committed 2015-17) 4,328,125 SFY 2018 ODOT CMAQ Grant (Committed 2015-17) 4,328,125 FFY 2015 Federal Formula Grant 465,766 FFY 2016 Federal Formula Grant 9,496,616 FY 2017 100% Local Funds 150,000 FFY 2017 Federal Formula Grants 4,435,400 FY 2018 100% Local Funds 125,000	P11390160	465,766	11,377,438	10,619,347	4,328,125	0	26,790,676

**GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
2016 - 2020 CAPITAL IMPROVEMENT PLAN
RTA DEVELOPMENT FUND**

ANTICIPATED FUNDING SOURCE								
CATEGORY / PROJECT NAME	PROJECT NUMBER	CALENDAR YEAR					TOTALS 2016-2020	
		2016	2017	2018	2019	2020		
<u>BUS REPLACEMENTS - Cont.</u>								
<u>BUS IMPROVEMENT PROGRAM - Cont.</u>								
2018-2020 Bus Improvement Program	40,243,322	P10390190	0	0	0	20,000,000	20,243,322	40,243,322
SFY 2018 ODOT CMAQ Grant (Committed 2018-20)	2,125,000							
SFY 2019 ODOT CMAQ Grant (Committed 2018-20)	10,887,500							
SFY 2018 ODOT UTP Award	1,730,822							
SFY 2019 ODOT UTP Award	1,730,822							
SFY 2018 ODOT OTPPP Award	3,125,000							
SFY 2019 ODOT OTPPP Award	3,125,000							
FFY 2018 Federal Formula Grant	4,500,000							
FY 2019 To Be Determined (TBD)	8,519,178							
FFY 2019 Federal Formula Grant	4,500,000							
Sub-Total: Bus Improvement Program			465,766	11,377,438	10,619,347	24,328,125	20,243,322	67,033,998
<u>PARATRANSIT IMPROVEMENT PROGRAM</u>								
2016-18 Paratransit Buses		P12390160	0	0	2,412,400	0	0	2,412,400
FFY 2017 Federal Formula Grant	1,250,000							
FY 2018 100% Local Funds	1,162,400							
Sub-Total: Paratransit Improvement Program			0	0	2,412,400	0	0	2,412,400
<u>TROLLEY REPLACEMENT PROGRAM</u>								
Replacement Trolley Program		P10390150	0	3,875,000	0	0	0	3,875,000
FY 2017 100% Local Funds	3,875,000							
Sub-Total: Replacement Trolley Program			0	3,875,000	0	0	0	3,875,000
<u>BUS SPARE PARTS PROGRAM</u>								
2014-18 Bus Capital Spare Parts Program		P16390140	390,000	110,000	0	0	0	500,000
FFY 2015 Federal Formula Grant	390,000							
FFY 2016 Federal Formula Grant	110,000							
BRT Bus Capital Spare Parts Program		P16390150	0	386,704	0	0	0	386,704
FFY 2016 Federal Formula Grant	386,704							
Sub-Total: Bus Capital Spare Parts Program			390,000	496,704	0	0	0	886,704
TOTAL - BUSES			855,766	15,749,142	13,031,747	24,328,125	20,243,322	74,208,102

**GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
2016 - 2020 CAPITAL IMPROVEMENT PLAN
RTA DEVELOPMENT FUND**

ANTICIPATED FUNDING SOURCE								
CATEGORY / PROJECT NAME	PROJECT NUMBER	CALENDAR YEAR					TOTALS 2016-2020	
		2016	2017	2018	2019	2020		
<u>EQUIPMENT & VEHICLES</u>								
<u>MANAGEMENT INFORMATION SYSTEM</u>								
Ultramain Version 9 Upgrade FFY 2017 Federal Formula Grant	1,115,951	P42350180	0	0	1,115,951	0	0	1,115,951
Network Infrastructure - Networks FFY 2016 Federal Formula Grant FFY 2017 Federal Formula Grant	166,600 166,600	P42610120	0	166,600	166,600	0	0	333,200
Network Infrastructure - Data Center FFY 2016 Federal Formula Grant FFY 2017 Federal Formula Grant	235,000 235,000	P42610220	0	235,000	235,000	0	0	470,000
Network Infrastructure - Phone System FFY 2016 Federal Formula Grant FFY 2017 Federal Formula Grant	189,000 189,000	P42610320	0	189,000	189,000	0	0	378,000
Internet - Intranet Development FFY 2015 Federal Formula Grant FFY 2016 Federal Formula Grant FFY 2017 Federal Formula Grant	132,000 80,000 80,000	P42610520	132,000	80,000	80,000	0	0	292,000
Radio System Replacement FFY 2019 Federal Formula Grant	3,500,000	P44800190	0	0	0	0	3,500,000	3,500,000
Sub-Total: Management Information System			132,000	670,600	1,786,551	0	3,500,000	6,089,151
TOTAL - EQUIPMENT & VEHICLES			132,000	670,600	1,786,551	0	3,500,000	6,089,151

**GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
2016 - 2020 CAPITAL IMPROVEMENT PLAN
RTA DEVELOPMENT FUND**

ANTICIPATED FUNDING SOURCE							
CATEGORY / PROJECT NAME	PROJECT NUMBER	CALENDAR YEAR					TOTALS 2016-2020
		2016	2017	2018	2019	2020	
<u>FACILITIES IMPROVEMENTS</u>							
<u>BRIDGE REHABILITATION</u>							
Track Bridge Inspection Program FY 2017 Local Funds 460,000 FY 2019 Local Funds 475,000	P20800160	0	460,000	0	475,000	0	935,000
Track Bridge Rehab. - Viaduct Drainage & Concrete Repairs FY 2016 Local Funds 1,546,000 FFY 2016 Federal Formula Grant 1,985,600	P20800160	1,546,000	1,985,600	0	0	0	3,531,600
Track Bridge Rehab. - Viaduct Bridge Rehab: Phase 1 FY 2016 Local Funds 545,000 FY 2018 (TBD) 6,210,000	P20800260	545,000	0	6,210,000	0	0	6,755,000
Track Bridge Rehab. - West 117th Street FY 2017 Local Funds 450,000 FFY 2018 Federal Formula Grant 4,580,000	P20800260	0	450,000	0	4,580,000	0	5,030,000
Track Bridge Rehab - Ambler Avenue FY 2018 Local Funds 30,000 FY 2019 Local Funds 250,000	P20800160	0	0	30,000	250,000	0	280,000
Track Bridge Rehabilitation - CSX & East 92nd St. FFY 2015 Federal Formula Grant 3,000,000 FY 2016 Local Funds 1,300,000	P20800170	4,300,000	0	0	0	0	4,300,000
Track Bridge Rehabilitation - Canal Road FY 2018 Local Funds 215,000 FFY 2019 Federal Formula Grant 2,750,000	P20800170	0	0	215,000	0	2,750,000	2,965,000
Sub-Total: Bridge Rehabilitation		6,391,000	2,895,600	6,455,000	5,305,000	2,750,000	23,796,600

**GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
2016 - 2020 CAPITAL IMPROVEMENT PLAN
RTA DEVELOPMENT FUND**

ANTICIPATED FUNDING SOURCE							
CATEGORY / PROJECT NAME	PROJECT NUMBER	CALENDAR YEAR					TOTALS 2016-2020
		2016	2017	2018	2019	2020	
<u>FACILITIES IMPROVEMENTS (Cont.)</u>							
<u>SYSTEM-WIDE FACILITIES</u>							
Tower City - East Portal Concrete Repairs	P26800170	0	501,400	0	6,230,000	0	6,731,400
FY 2017 Local Funds	501,400						
FY 2019 (TBD)	6,230,000						
State of Good Repair Projects	P32800250	462,406	429,510	481,724	477,061	4,162,890	6,013,591
FFY 2015 Federal Formula Grant	462,406						
FFY 2016 Federal Formula Grant	429,510						
FFY 2017 Federal Formula Grant	481,724						
FFY 2018 Federal Formula Grant	477,061						
FFY 2019 Federal Formula Grant	4,162,890						
Sub-Total: System-Wide Facilities		462,406	930,910	481,724	6,707,061	4,162,890	12,744,991
TOTAL - FACILITIES IMPROVEMENTS		6,853,406	3,826,510	6,936,724	12,012,061	6,912,890	36,541,591

**GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
2016 - 2020 CAPITAL IMPROVEMENT PLAN
RTA DEVELOPMENT FUND**

ANTICIPATED FUNDING SOURCE							
CATEGORY / PROJECT NAME	PROJECT NUMBER	CALENDAR YEAR					TOTALS 2016-2020
		2016	2017	2018	2019	2020	
<u>OTHER PROJECTS</u>							
<u>OTHER</u>							
Planning Studies (Transportation for Livable Communities Initiative)	P49570120	93,750	93,750	93,750	93,750	93,750	468,750
SFY 2015 NOACA STP Grant	93,750						
SFY 2016 NOACA STP Grant	93,750						
SFY 2017 NOACA STP Grant	93,750						
SFY 2018 NOACA STP Grant	93,750						
SFY 2019 NOACA STP Grant	93,750						
RTA Development Fund Contingency 2016 - 20 (TBD)	TBD P49990150	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	10,000,000
TOTAL - OTHER PROJECTS		2,093,750	2,093,750	2,093,750	2,093,750	2,093,750	10,468,750
<u>PREVENTIVE MAINTENANCE/OPERATING REIMBURSEMENTS</u>							
<u>PREVENTIVE MAINTENANCE/OPERATING REIMBURSEMENTS</u>							
2008 New Freedom Program (Mobility Management Only)	P49310180	180,000	180,000	180,000	180,000	180,000	900,000
SFY 2015 Section 5317 NOACA New Freedom Prog	180,000						
SFY 2016 Section 5317 NOACA New Freedom Prog	180,000						
SFY 2017 Section 5317 NOACA New Freedom Prog	180,000						
SFY 2018 Section 5317 NOACA New Freedom Prog	180,000						
SFY 2019 Section 5317 NOACA New Freedom Prog	180,000						
Preventive Maintenance Expenses	P51670160	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	100,000,000
FFY 2015 Federal Formula Grant	20,000,000						
FFY 2016 Federal Formula Grant	20,000,000						
FFY 2017 Federal Formula Grant	20,000,000						
FFY 2018 Federal Formula Grant	20,000,000						
FFY 2019 Federal Formula Grant	20,000,000						
TOTAL - PREVENTIVE MAINT./OPERATING REIMB.		20,180,000	20,180,000	20,180,000	20,180,000	20,180,000	100,900,000

**GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
2016 - 2020 CAPITAL IMPROVEMENT PLAN
RTA DEVELOPMENT FUND**

ANTICIPATED FUNDING SOURCE							
CATEGORY / PROJECT NAME	PROJECT NUMBER	CALENDAR YEAR					TOTALS 2016-2020
		2016	2017	2018	2019	2020	
<u>RAIL PROJECTS</u>							
<u>ELECTRICAL SYSTEM</u>							
OCS Replacement and Upgrade Plan FFY 2015 Federal Formula Grant FFY 2016 Federal Formula Grant FFY 2017 Federal Formula Grant	P21320150	131,159 141,848 153,409	141,848	153,409	0	0	426,416
Substation Replacement - Van Aken/Warrensville FFY 2016 Federal Formula Grant	P21800160	0 1,742,000	1,742,000	0	0	0	1,742,000
Substation Replacement - East 120th Street FFY 2016 Federal Formula Grant FFY 2017 Federal Formula Grant	P21800240	0 165,400 3,800,000	165,400	3,800,000	0	0	3,965,400
Substation Replacement - Puritas Avenue FFY 2015 Federal Formula Grant FFY 2016 Federal Formula Grant	P21800390	2,691,350 1,026,250	1,026,250	0	0	0	3,717,600
Substation Replacement - W. 117th Street FFY 2017 Federal Formula Grant FFY 2018 Federal Formula Grant	P21800390	0 3,900,000	0	151,000	3,900,000	0	4,051,000
Replace Brookpark Transformer / Rectifier (SS-4) FFY 2016 Federal Formula Grant	P21800X70	1,026,191	0	0	0	0	1,026,191
Replace W. 25th / Ohio City Transformer / Rectifier FFY 2017 Federal Formula Grant	P21800X80	0 526,191	0	526,191	0	0	526,191
Substation Improvement Program FFY 2019 Federal Formula Grant	P21800X00	0 3,850,000	0	0	0	3,850,000	3,850,000
Sub-Total: Electrical System		3,848,700	3,075,498	4,630,600	3,900,000	3,850,000	19,304,798

**GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
2016 - 2020 CAPITAL IMPROVEMENT PLAN
RTA DEVELOPMENT FUND**

ANTICIPATED FUNDING SOURCE								
CATEGORY / PROJECT NAME	PROJECT NUMBER	CALENDAR YEAR					TOTALS 2016-2020	
		2016	2017	2018	2019	2020		
<u>RAIL PROJECTS - Cont.</u>								
<u>TRAIN CONTROL / SIGNALS</u>								
CAB Signal System Replacement (Railcars) FFY 2017 Federal Formula Grant	985,750	P26800170	0	0	985,750	0	0	985,750
Cab Signaling - East 79th to Shaker Square FFY 2017 Federal Formula Grant	3,904,514	P26800240	0	0	3,904,514	0	0	3,904,514
Red Line Signal System Replacement (Design) FFY 2017 Federal Formula Grant	1,000,000	P26800270	0	0	1,000,000	0	0	1,000,000
Fiber Optic System Software/Hardware Upgrades FY 2016 Local Funds FFY 2016 Fed. Formula Grant FY 2017 Local Funds FFY 2017 Fed. Formula Grant	500,000 4,476,760 212,640 2,810,600	P26800440	500,000	4,689,400	2,810,600	0	0	8,000,000
Sub-Total: Train Control / Signals			500,000	4,689,400	8,700,864	0	0	13,890,264

**GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
2016 - 2020 CAPITAL IMPROVEMENT PLAN
RTA DEVELOPMENT FUND**

ANTICIPATED FUNDING SOURCE							
CATEGORY / PROJECT NAME	PROJECT NUMBER	CALENDAR YEAR					TOTALS 2016-2020
		2016	2017	2018	2019	2020	
<u>RAIL PROJECTS - Cont.</u>							
<u>TRACK REHABILITATION</u>							
Track Reconstruction Program	P23320290	0	0	0	4,600,000	3,000,000	7,600,000
FFY 2018 Federal Formula Grant		4,600,000					
FFY 2019 Federal Formula Grant		3,000,000					
Rail Profile Grinding Program	P23320170	0	488,029	1,488,534	1,779,719	0	3,756,282
FFY 2016 Federal Formula Grant			488,029				
FFY 2017 Federal Formula Grant			1,488,534				
FFY 2018 Federal Formula Grant			1,779,719				
Rail Infrastructure Program	P23320150	952,771	864,421	686,458	1,500,000	1,500,000	5,503,650
FFY 2015 Federal Formula Grant		952,771					
FFY 2016 Federal Formula Grant			864,421				
FFY 2017 Federal Formula Grant			686,458				
FFY 2018 Federal Formula Grant		1,500,000					
FFY 2019 Federal Formula Grant		1,500,000					
Westpark Diamond Crossover Rebuild	P23800160	38,273	459,270	0	0	0	497,543
FFY 2015 Federal Formula Grant		38,273					
FFY 2016 Federal Formula Grant		459,270					
On-Call Rail Engineering Services	P23800240	200,000	200,000	200,000	200,000	200,000	1,000,000
FFY 2015 Federal Formula Grant		200,000					
FFY 2016 Federal Formula Grant		200,000					
FFY 2017 Federal Formula Grant		200,000					
FFY 2018 Federal Formula Grant		200,000					
FFY 2019 Federal Formula Grant		200,000					
On-Call Rail Maintenance Services	P23800340	500,000	0	500,000	0	500,000	1,500,000
FFY 2015 Federal Formula Grant		500,000					
FFY 2017 Federal Formula Grant		500,000					
FFY 2019 Federal Formula Grant		500,000					

**GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
2016 - 2020 CAPITAL IMPROVEMENT PLAN
RTA DEVELOPMENT FUND**

ANTICIPATED FUNDING SOURCE								
CATEGORY / PROJECT NAME	PROJECT NUMBER	CALENDAR YEAR					TOTALS 2016-2020	
		2016	2017	2018	2019	2020		
<u>RAIL PROJECTS - Cont.</u>								
<u>TRACK REHABILITATION - Cont.</u>								
Light Rail Crossings Improvements FFY 2015 Federal Formula Grant	4,391,400	P23800430	4,391,400	0	0	0	0	4,391,400
Light Rail Trunk Retaining Wall Rehab. Phase 1 FY 2016 Local Funds	130,000	P23800440	130,000	0	0	0	0	130,000
Tower City 10 and 13 Track Replacement FFY 2017 Federal Formula Grant FFY 2018 Federal Formula Grant FFY 2019 Federal Formula Grant	347,288 4,509,835 2,083,725	P23800370	0	0	347,288	4,509,835	2,083,725	6,940,848
Sub-Total: Track Rehabilitation			6,212,444	2,011,720	3,222,280	12,589,554	7,283,725	31,319,723
<u>RAIL STATION REHABILITATION</u>								
Lee/Shaker Light Rail Station Reconstruction FY 2016 Local Funds	500,000	P24800340	500,000	0	0	0	0	500,000
Brookpark Road Heavy Rail Station Reconstruction FY 2016 Local Funds	477,525	P24800260	477,525	0	0	0	0	477,525
East 116th Street LRV Station Rehabilitation FFY 2015 Federal Formula Grant	5,600,000	P24800370	5,600,000	0	0	0	0	5,600,000
Farnsleigh Station Reconstruction (ADA Compliance) FFY 2015 Federal Formula Grant FFY 2017 Federal Formula Grant	224,580 1,671,928	P24800440	224,580	0	1,671,928	0	0	1,896,508
Opportunity Corridor Ph. 2: E. 105th St. Station 2nd Headhouse FY 2016 Local Funds	950,000	P24800370	950,000	0	0	0	0	950,000

**GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
2016 - 2020 CAPITAL IMPROVEMENT PLAN
RTA DEVELOPMENT FUND**

ANTICIPATED FUNDING SOURCE							
CATEGORY / PROJECT NAME	PROJECT NUMBER	CALENDAR YEAR					TOTALS 2016-2020
		2016	2017	2018	2019	2020	
<u>RAIL PROJECTS - Cont.</u>							
<u>RAIL STATION REHABILITATION - Cont.</u>							
East 34th Station Reconstruction (ADA Compliance)	P24800540	3,410,886	3,400,000	0	0	0	6,810,886
FFY 2015 Federal Formula Grant	3,410,886						
FFY 2016 Federal Formula Grant	3,400,000						
Sub-Total: Rail Station Rehabilitation		11,162,991	3,400,000	1,671,928	0	0	16,234,919
TOTAL - RAIL PROJECTS		21,724,135	13,176,618	18,225,672	16,489,554	11,133,725	80,749,704
<u>TRANSIT CENTERS</u>							
Enhanced ADA Access (Enhancement Items)	P30800X60	288,783	288,783	288,785	285,115	285,115	1,436,581
FFY 2015 Federal Formula Grant	288,783						
FFY 2016 Federal Formula Grant	288,783						
FFY 2017 Federal Formula Grant	288,785						
FFY 2018 Federal Formula Grant	285,115						
FFY 2019 Federal Formula Grant	285,115						
Opportunity Corridor Phase 1: Bus Stations	P30800X60	420,000	0	0	0	0	420,000
FFY 2015 ODOT Grant	420,000						
TOTAL - TRANSIT CENTERS		708,783	288,783	288,785	285,115	285,115	1,856,581
TOTAL RTA DEVELOPMENT FUND		52,547,840	57,935,403	67,993,229	75,388,605	64,348,802	318,213,879
TOTAL RTA CAPITAL FUND		4,141,756	4,511,717	3,862,518	3,952,019	3,553,520	20,021,530
TOTAL CAPITAL IMPROVEMENT PLAN		56,689,596	62,447,120	71,855,747	79,340,624	67,902,322	338,235,409