



Finance & Administration Committee

Information Item IV-A

January 14, 2016

Capital Program Review

Washington Metropolitan Area Transit Authority
Board Action/Information Summary

☐ Action ☒ Information

MEAD Number:
201692

Resolution:
☐ Yes ☒ No

TITLE:

FY11 - FY15 Capital Deliverables and Status Update

PRESENTATION SUMMARY:

Metro's Capital Program between FY2011 and FY2015.

PURPOSE:

The Finance and Administration Committee will be informed on the status, delivery rates and success of the Capital Program between FY2011 and FY2015.

DESCRIPTION:

Key Highlights:

- Starting July 2010 the Washington Metropolitan Transit Authority embarked on an ambitious six year, \$5 billion capital improvement program codified through the Capital Funding Agreement (CFA).
- At the end of the fifth year (FY2015) \$3.7 billion has been invested through the capital program or 74 percent of the \$5 billion six year plan.

Background and History:

Metro entered into a new CFA with contributing jurisdictions in July 2010 which set forth a framework for funding capital improvements between FY2011 and FY2016. The total estimated cost for the CIP was \$5 billion through the CFA. Although over 100 projects were funded through this agreement some of the primary goals articulated for the FY2011 – FY2016 capital program were:

- Funding NTSB recommendations
- Replacement and maintenance of vehicles
 - Replacement of 1000 series railcars
 - Replacement of 100 buses a year
- Renewal of the rail lines and stations
 - Including Grosvenor-Strathmore to Silver Spring and National Airport to Stadium Armory
- Facility Renewal
 - Replacement of three bus garages
 - Rehabilitation of three bus garages and three rail yards

Metro has invested \$3.7 of the \$5 billion into capital improvements between FY2011 and FY2015.

Discussion:

Capital investments have been made through nine major categories, with the most significant investment occurring in vehicles (rail, bus and MetroAccess). Between FY2011 and FY2013 the amount invested through the CIP increased each year as contracts were issued and work began. However, starting in FY2014 and continuing into FY2015 the amount invested each year declined due to vendor delays in delivering buses and new railcars, inefficiencies in project management, along with changes in capital processes as a result of the Federal Management and Oversight (FMO) audit.

Table 1. Capital Investments by Category (in millions)

CIP Categories	FY11	FY12	FY13	FY14	FY15	Total
Vehicles / Vehicle Parts	\$281	\$249	\$231	\$144	\$195	\$1,100
Rail System Infrastructure Rehabilitation	88	165	187	166	104	711

Passenger Facilities	79	91	113	123	92	499
Maintenance Facilities	34	67	93	134	95	423
Systems and Technology	57	71	83	81	100	391
Track and Structures	56	80	73	67	58	334
Maintenance Equipment	11	25	53	27	29	145
Other Facilities	2	20	13	30	24	88
Project Management and Support	4	2	1	18	17	43
Total	\$611	\$770	\$846	\$790	\$715	\$3,733

Major items accomplished by category include:

Vehicles/Vehicle Parts (total invested \$1.1 billion)

- Buses Rehabilitated: 481 out of 1,525
- Buses Replaced: 423 out of 1,525
- MetroAccess Vehicles Replaced: 825 out of 650 (at the end of FY2015) of which 750 were replacements and 75 were expansion vehicles due to increased ridership between FY2014 and FY2015.
- Railcar Options Issued: 1000 series railcar replacement option

Rail System Infrastructure Rehabilitation (total invested \$711 million)

From FY2011 to FY2015, 99 percent of all investment in this category occurred through three projects: Red Line Rehabilitation Stage One, Orange/Blue Line Rehabilitation Stage One and National Transportation Safety Board Recommendation.

Major work completed under Red Line Stage One and Orange/Blue Line Rehabilitation include:

- New Stairs: Bethesda, Foggy Bottom
- Platform Repair: Brookland, Fort Totten, Rockville, Shady Grove, Silver Spring, Takoma, Twinbrook, White Flint, Deanwood
- Station Canopy / Skylight Repair: Brookland, Fort Totten, Rhode Island Ave, Silver Spring, Takoma
- Ceiling Tile Replacement: Dupont Circle, Farragut North, Gallery Place, Metro Center, Stadium Armory, Potomac Ave, Eastern Market, Capitol South, Smithsonian, Federal Triangle, Rosslyn, Arlington Cemetery
- Kiosk Upgrades: Potomac Ave, Eastern Market, Capitol South, Federal Center SW, L'Enfant Plaza, Smithsonian, Metro Center, Pentagon City, Brookland, Dupont Circle, Farragut North, Gallery Place, Judiciary Square, Metro Center, Rhode Island Ave, Silver Spring, Takoma, Union Station
- Uninterrupted Power Supply (UPS) Upgrades: Dupont Circle, Takoma, Union Station, New Carrollton, Landover, Deanwood, Minnesota Ave, Capitol South, Federal Center SW, Smithsonian, Federal Triangle, Pentagon, Pentagon City
- Signage Improvements: Dupont Circle, Farragut North, Judiciary Square, Rhode Island Ave, Takoma, Union Station, Stadium Armory, Potomac Ave, Eastern Market, Capitol South, Federal Center SW, L'Enfant Plaza, Smithsonian, Federal Triangle, McPherson Square, Farragut West, Foggy Bottom, Rosslyn, Arlington Cemetery, Pentagon, Pentagon City, Crystal City
- ADA Tile Installation: Brookland, Dupont Circle, Fort Totten, Rhode Island Ave, Rockville, Shady Grove, Silver Spring, Takoma, Tenleytown, Twinbrook, White Flint, Deanwood, Potomac Ave, Eastern Market
- Tie Breakers Replacement: Brentwood Yard, Fort Totten, Takoma, Union Station, New Carrollton, Landover, Cheverly, Minnesota Ave, Stadium Armory, Eastern Market, Capitol South, L'Enfant Plaza, Smithsonian, McPherson Square, Foggy Bottom, Rosslyn, Arlington Cemetery, Pentagon, Pentagon City, Crystal City
- Traction Power Substation Rehabilitation: Farragut North, Rhode Island Ave, Takoma, Union Station, Cheverly, Minnesota Ave, Stadium Armory, Eastern Market, Federal Center SW, Smithsonian, Metro Center, Foggy Bottom, Rosslyn
- AC Room Rehabilitation: Rhode Island Ave, Stadium Armory, Potomac Ave, Eastern Market, Capitol South, Federal Triangle, Rosslyn
- HVAC Equipment Rehabilitation: Brookland, Dupont Circle, Farragut North, Fort Totten, Gallery Place, Judiciary Square, Metro Center, Rhode Island Ave, Silver Spring, Takoma, Union Station

Through both operating and capital investments 25 of 29 National Safety Transit Board (NTSB) recommendations were closed by the end of FY2015. Major capital work completed under the NTSB Recommendation projects include:

- Replaced 2,085 track circuits out of 2,351

- Replaced 336,000 LF of power cable
- Completed the removal of wayside work equipment
- Replaced all #8 mainline turnouts into guarded turnouts

The four outstanding NTSB recommendations will all be completed under the capital program and include:

- Replacing all 1000 series railcars
- Implement a Wayside Worker Warning System
- Replace all Generation 2 GRS Track Circuits
- Ensure onboard event recorders in railcars are properly functioning

Passenger Facilities (total invested \$499 million)

- Station Rehabilitations:
 - Minor: Addison Rd, Anacostia, Archives, Arlington Cemetery, Benning Road, Braddock Rd, Branch Ave, Capitol Heights, Capitol South, Clarendon, Cleveland Park, College Park, Columbia Heights, Congress Heights, Crystal City, Deanwood, Dunn Loring, Dupont Circle, East Falls Church, Eastern Market, Eisenhower, Farragut North, Federal Center, Forest Glen, Fort Totten (B & E lines), Gallery Place (B & F lines), Georgia Ave, Glenmont, Judiciary Square, King Street, Largo Town Center, Medical Center, Metro Center (A & C lines), Minnesota Ave, Morgan Blvd, Naylor Road, NoMa-Gallaudet, Naylor Road, Pentagon, Pentagon City, Prince George's Plaza, Potomac Ave, Shaw-Howard, Silver Spring, Southern Ave, Suitland, Takoma, Tenleytown, U Street, Union Station, Van Ness, Vienna, Waterfront, West Falls Church, West Hyattsville, Wheaton, and White Flint
 - Major: Addison Rd, Arlington Cemetery, Ballston, Bethesda, Branch Ave, Brookland, Capitol South, Cheverly, College Park, Columbia Heights, Court House, Deanwood, Dupont Circle, Eastern Market, Farragut North, Farragut West, Federal Center, Federal Triangle, Foggy Bottom, Fort Totten (B & E lines), Franconia-Springfield, Friendship Heights, Gallery Place (B & F lines), Glenmont, Greenbelt, Grosvenor-Strathmore, Huntington, Judiciary Square, Landover, L'Enfant Plaza (D & F lines), McPherson Square, Metro Center (A & C lines), Minnesota Ave, Mt. Vernon, Navy Yard, Naylor Rd, New Carrollton, Pentagon, Pentagon City, Prince George's Plaza, Rhode Island Ave, Rockville, Ronald Reagan Washington National Airport, Rosslyn, Shaw-Howard, Smithsonian, Southern Ave, Stadium Armory, Suitland, Tenleytown, Union Station, Van Dorn St., Virginia Square, West Hyattsville, and Woodley Park
- Elevators Rehabilitated: 44 out of 317
- Escalators Rehabilitated: 148 out of 618
- Escalators Replaced: 27 out of 618

Maintenance Facilities (total invested \$423 million)

- Start of construction for the new test track and railcar commissioning facility
- Rehabilitation of eight railcar cranes at Shady Grove, Brentwood, Alexandria, Branch Ave and West Falls Church Rail Yards
- Rehabilitation of railcar hoists at Brentwood and Alexandria Rail Yards
- Restroom Rehabilitation at Shady Grove, Brentwood, Alexandria, and New Carrollton Rail Yards
- Replacement of 23 overhead doors at Alexandria and New Carrollton Rail Yards
- Renovation of the three oldest bus garages – Western, Northern, Landover
- Renovation of two material storage facilities – Metro Supply and Landover Open Storage
- ADA Tile Installation: Forest Glen, Cleveland Park, Shaw – Howard University, Benning Road, Capitol Heights, Waterfront, West Hyattsville, Landover, Eisenhower, Grosvenor, Braddock Road
- Mezzanine Station Lighting Improvements: Judiciary Square, Metro Center, Gallery Place, Smithsonian, L'Enfant Plaza, Ballston, Crystal City, Farragut West, McPherson Square, DuPont Circle, Clarendon, Virginia Square, Farragut North, Medical Center, Friendship Heights, Cleveland Park, Van Ness, Woodley Park, Union Station, Eastern Market, Courthouse, Federal Triangle, Federal Center SW, Capital South, Pentagon City, Foggy Bottom, Navy Yard, Capitol Heights, Benning Road, Waterfront, Archives, Stadium Armory, Potomac Ave, Glenmont

Systems and Technology (total invested \$391 million)

- PeopleSoft Financials upgrades and Human Capital Management (HCM) implementation
- Upgrade of seven Tie Breaker Stations
- Upgrade of two Traction Power Substations
- Start of the pilot project for the New Electronic Payment Program which tested the use of a new payment protocol on rail and bus.

Track and Structures (total invested \$334 million)

- Running Rail Replacement: 337,234 LF out of 2,985,698 LF
- Fasteners Replaced: 142,155 out of 588,270
- Crossties Replaced: 83,464 out of 310,946
- Joints Eliminated: 5,218

Maintenance Equipment (total invested \$145 million)

- Purchase of locomotive prime movers, ballast removal vacuum vehicles, flat cars, switch production tampers, flashbutt prime movers, de-icer cars and Hi rail cranes.
- Installation of wheel truing machines at Greenbelt, Shady Grove, and New Carrollton rail yards
- Installation of a wheel press at the Brentwood rail yard
- Purchase of a track geometry vehicle

Other Facilities (total invested \$88 million)

- Construction of a new District 2 Police Substation
- Construction of a new MTPD Special Operations Division Facility

Project Management and Support (total invested \$43 million)

- Starting in FY2014 and continuing in FY2015 the third party contracts for CIP project management and engineering support for the entire program was moved to Project Management and Support.

Every fiscal year between FY2011 through FY2015 Metro has experienced challenges in spending the full amount of the approved budget. Between FY2011 and FY2012 spending increased as the new capital program was implemented. In FY2013, Metro invested the most in the capital program. Starting in FY2014 and continuing into FY2015 investment through the capital program decreased for various reasons including vendor delays in bus and railcar deliveries, the purchase of materials requiring longer manufacturing times and construction projects starting later than forecasted.

Table 2. Historical Capital Approved Budgets and Spending

	FY11	FY12	FY13	FY14	FY15
Approved Budget	\$862	\$1,042	\$1,073	\$996	\$1,102
Actual Expenses	611	770	846	790	715
% Spent	71%	74%	79%	79%	65%

An inability to deliver the approved capital program can be attributed to five main principal reasons.

Management Controls: Insufficient management controls were put in place to establish formal processes and procedures to initiate projects, efficiently monitor progress based on scope and schedule and validate budget requests for future years based on schedule.

Contract Delays: Except for FY2011, which had a significant amount of contracts open prior to the new funding agreement, historically contracts have been opened during the year that funding was requested. Although at the end of the fiscal year significant portions of the budget were under contract it did not translate into spending for that year.

- **Track Maintenance Equipment:** Contracts for this project began to be issued in FY2012 with major expenses occurring in FY2013. Between FY2011 and FY2013 this project was among the top projects with the most unspent funding mainly due to the timing of contract awards compared to when the funds were originally budgeted.
- **NTSB Recommendations:** In December 2010 the Board approved a resolution creating 19 new projects to address a portion of the NTSB recommendations that resulted from the 2009 Fort Totten accident. In FY2012 this project was one of the top five projects with the largest unspent budget and a significant portion was not under contract. Starting in FY2013 and moving forward this project was better budgeted to reflect lessons learned and the percentage able to be invested each year continued to rise to a maximum of 93 percent in FY2015.
- **Bus Replacement:** In FY2011 the new bus contract was issued late and subsequently the delivery and payment for the buses occurred in the first quarter of FY2012.

Schedule Delays: A significant factor in underspending occurred because of delays in executing the contract schedule by either Metro or the vendor.

- Bus Replacement: During FY2015 the bus manufacturer was purchased by another party and this significantly delayed the receipt of new buses as a new agreement and changes in the bus model needed to be addressed.
- Royal Street Bus Garage Replacement: This project has been one of the top five projects with the largest unspent budget for a number of years. Starting in FY2012 this project was delayed pending litigation between the local community and the county. This lawsuit was finalized in FY2013 and the construction contract was awarded in FY2014. In FY2015 this project experienced delays due to permitting.

Changing Priorities: The impact to performing capital improvements in an operating system can be significant. As new needs are identified projects currently under contract need to be reevaluated and prioritized and this can cause both slippage in schedules and additional costs through delay claims.

- Red Line Rehabilitation Stage One: Prior to the 2009 Fort Totten accident the Red Line Rehabilitation Stage One project was the number one capital priority. After the accident this project's priority changed and as necessary safety work was advanced the track access granted for this project was reduced. For example in FY2011 this project was scheduled to begin phase 1 work but could not, due to necessary automatic train control (ATC) work being performed at Silver Spring. As a result the contract was modified to advance a different phase of work, but this resulted in slippage to the schedule and delays in the project.

Compliance: The implementation of new processes as a result of the FMO Audit released in late spring 2014 impacted capital spending. As a result expenses related to non-federally compliant procurements were removed from projects, usage of the Job Order Contract (JOC) contracting vehicle was scaled back, timesheets for all capital labor became requirements.

There have been numerous lessons learned as Metro has implemented the aggressive rebuilding campaign funded by the most recent CFA. To improve the delivery of the capital program staff is focused on improvements in three main areas:

Capital program development and prioritization process: A formal process to initiate and approve new capital projects is necessary to improve capital performance. This process will clearly articulate the business case for the project and set the scope and deliverables. An annual capital prioritization process is currently being developed, which will ensure high priority projects are funded.

Focus on deliverables: Over the past five years both internal and external reporting and management of the capital program has primarily focused on expenditures. Moving forward internal reporting and management of the capital program will measure success based on adherence to scope, accuracy of schedule and the production of deliverables.

Improve forecasting techniques: An intense focus on aligning budgets based on scope, schedule and forecast is underway. This effort will ensure the correct funding is being requested by fiscal year.

Award smaller, more narrowly focused contracts: Moving forward staff is focusing on contracts with a narrower defined scope, which will allow WMATA to be more nimble as priorities change.

Streamline track access procedures: Inefficiencies occurred in the past due to track access procedures not being centrally managed.

In the current fiscal year, FY2016, investments are being made at a faster pace when compared to FY2015. At the end of November, \$302 million or 25 percent of the capital program had been spent compared to \$176 million in November of FY2015. Although spending in FY2016 is improved, there are large capital projects that could significantly impact the delivery of the capital program including:

- 1000 Series Rail Car Replacement
- Bus Replacement
- Orange/Blue Line Rehabilitation Stage One
- Southern Avenue Bus Garage Replacement
- Rail Yard Facility Repairs
- Rail Power System Upgrades
- Royal St. Bus Garage Replacement (Cinder Bed Road)

In February staff will return to the Board with the second quarter results of the capital program and a more

detailed analysis of the status of the capital program along with risks will be presented.

In December the Proposed Budget was presented to the Board, which included the FY2017 – FY2022 Capital Improvements Program. This \$6 billion capital program focuses on safety-related and state of good repair investments. In FY2017 staff is proposing to spend \$1.1 billion on these types of investments. The lessons learned are being incorporated into the development of the FY2017 capital program, but there are still risks. Currently nine projects represent 53 percent of the total FY2017 capital program. Delays in these projects will significantly impact WMATA's ability to deliver the capital program as planned.

- 1000 Series Rail Car Replacement (Proposed Budget: \$201.6 million): The contract for the railcar procurement has been issued and the vendor has started delivery of the vehicles. The main risk to this project is the vendor's ability to deliver railcars to WMATA that meet the contract specifications. The current forecast assumes that 12 railcars per month will be delivered.
- Bus Replacement (Proposed Budget: \$65 million): The contract for bus procurements has been issued and in FY2017 the vendor needs to meet the delivery schedule.
- Railcar Rehabilitation Program (Proposed Budget: \$59 million): This project funds the scheduled overhaul of railcar components and is mainly comprised of the cost for WMATA personnel to complete the work. This project meets annual spending targets, so the risk of not delivering the program is small.
- Rail Lifecycle Overhaul (Proposed Budget: \$61 million): This project funds the capital portion of the necessary preventative maintenance to keep the WMATA railcar fleet in a state of good repair and is mainly comprised of the cost for WMATA personnel to complete the work along with the necessary materials. This project meets annual spending targets, so the risk of not delivering the program is small.
- Orange/Blue Line Rehabilitation Stage One (Proposed Budget: \$59 million): This project funds the first stage of the rehabilitation of the Orange and Blue Lines. The contract for this work has been issued and construction is expected to be completed by the fourth quarter of FY2017. Major risks for this project including continuing to ensure the contractor is granted access to complete the final tasks and processing modifications to the contract in a timely fashion.
- Southern Avenue Bus Garage Replacement (Proposed Budget: \$31.4 million): This project funds the construction of the replacement garage for the current Southern Avenue Bus Garage. The contract has been issued and the vendor has started construction activities. The major risk is the ability of the vendor to meet milestones as scheduled.
- Rail Yard Facility Repairs (Proposed Budget: \$31.2 million): This project funds the rehabilitation of Alexandria, Brentwood and New Carrollton rail yards. The contract for the rehabilitation efforts has been issued and the vendor has started activities. The major risk in FY2017 is the ability of the contractor to meet milestones as scheduled. Currently this project is estimated to be completed in the fourth quarter of FY2017 with contract close-out activities extending into FY2018.
- Track Rehabilitation (Proposed Budget: \$48.4 million): This project rehabilitates track structures and is the main vehicle for the replacement of running rail, crossties, fasteners, insulators and switches. It is mainly comprised of the cost for WMATA personnel to complete the work. This project meets annual spending targets, so the risk of not delivering the program is small.
- Radio & Cellular Infrastructure Renewal Project (Proposed Budget: \$45 million): This project funds the replacement of WMATA's existing radio infrastructure and is one of the agency's top safety priorities. Of the nine projects that could impact WMATA's ability to deliver the FY2017 program, this is the only project that does not currently have a contract in place. Staff is forecasting awarding the contract during the summer of 2016.

The FY2017 budgeting process has just begun with an estimated budget approval in April. Staff will adjust the proposed budgets to reflect updated FY2016 schedules, new Federal Transit Authority safety directives, and input from the Board and public.

FUNDING IMPACT:

This is an information item to present a progress report on the Capital Program and Budget. No specific action with a budget impact is requested at this time.

TIMELINE:

Previous Actions	October 2014 - State of Good Repair Review November 2015 - FY2016 First Quarter Budget Update
Anticipated actions after presentation	February 2016 - FY2016 Second Quarter Budget Update January - March 2016 - Board Discussions and public/stakeholder outreach April 2016 - Budget adoption and execution of renewed CFA

RECOMMENDATION:

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Washington Metropolitan Area Transit Authority

Capital Program Review

Finance & Administration Committee
January 14, 2016



Purpose

Update the Board and Public on major deliverables in the Capital program between FY2011 to FY2015



FY2011-FY2016 Capital Budget Process



✓ Commitment to six year (FY11-FY16) \$5 billion program



Primary Goals of Approved FY2011-FY2016 CIP

- Funding of NTSB Recommendations
- Replacement and maintenance of vehicles
 - Replacement of 1000 series railcars
 - Replacement of 100 buses a year
- Renewal of the rail lines and stations
 - Including Grosvenor-Strathmore to Silver Spring and National Airport to Stadium Armory
- Facility Renewal
 - Replacement of three bus garages
 - Rehabilitation of three bus garages and three rail yards



FY2011 – FY2015 Accomplishments

Vehicle Purchases

CFA Commitment

Rehab ~100 buses/yr

Replace ~100 buses/yr

Purchase 1,145
MetroAccess vans by
FY2016

Issue 1K railcar option

Start taking delivery of
replacement cars by
FY14



Delivered by FY15

Rehabbed ~ 96 buses/yr

Replaced ~ 85 buses/yr

Purchased 825
MetroAccess vans

Issued 1K railcar option

No delivery of
replacement cars



New Buses



New Access Vans



FY2011 – FY2015 Accomplishments

Track and Structures

CFA Commitment

Install 30 turnouts/yr

Install 57K LF of Rail/yr

Install 15K Fasteners/yr

Install 8K ties/yr

Upgrade #8 turnouts



Delivered by FY15

Installed ~34 turnouts/yr

Installed ~ 67K of rail/yr

Installed ~ 28K fasteners/yr

Installed ~ 16K ties/yr

Upgraded all #8 turnouts



Fastener Replacement



Joint Elimination



DRAFT

FY2011 – FY2015 Accomplishments

Station Improvements

CFA Commitment: Renewal of the rail lines and stations: Including Grosvenor-Strathmore to Silver Spring and National Airport to Stadium Armory

- ✓ New Stairs: 2 Stations
- ✓ Platform Repair: 9
- ✓ Station Canopy / Skylight Repair: 5
- ✓ Ceiling Tile Replacement: 12
- ✓ Kiosk Upgrades: 18
- ✓ Station Rehabilitations: 60 minor and 60 major
- ✓ Station Mezzanine Lighting Upgrades: 45 Mezzanines at 34 Stations



A01 Metro Center (Pre-Construction)
Mezzanine Pre Avg = 2.93 FC



A01 Metro Center (Post-Construction)
Mezzanine Post Avg = 25.7 FC



FY2011 – FY2015 Accomplishments

Elevators and Escalators

- ✓ Elevators Rehabilitated: 44
- ✓ Escalators Rehabilitated: 148
- ✓ Escalators Replaced: 27



Branch Ave Escalator Replacement



Woodley Park Escalator Rehabilitation



FY2011 – FY2015 Accomplishments

Facility Improvements

CFA Commitment: Facility Renewal (Replacement of three bus garages; rehabilitation of three bus garages and three rail yards)

- ✓ Completed Railcar Commissioning Facility and 90% complete with Test Track
- ✓ Completed Construction of the New District 2 Police Substation
- ✓ Completed Construction of the Special Operations Division Facility
- ✓ Rehabilitation of 8 railcar cranes at Shady Grove, Brentwood, Alexandria, Branch Ave and West Falls Church Rail Yards
- ✓ Replaced 23 overhead doors at Alexandria and New Carrollton Rail Yards
- ✓ Rehabilitation of Western, Northern and Landover Bus Garages



New District II Police Station



Landover Bus Garage
(removal of underground storage tanks)



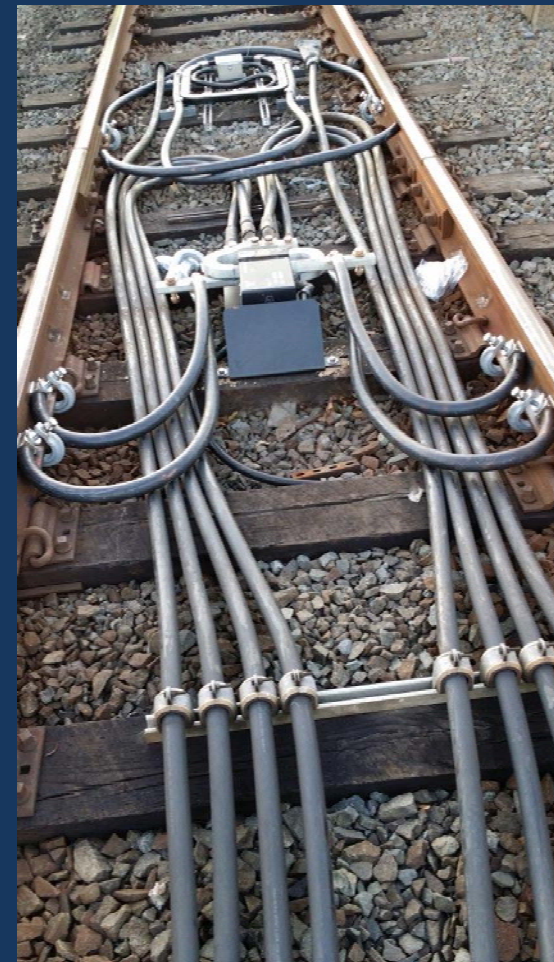
FY2011 – FY2015 Accomplishments

2009 NTSB Recommendations

25 of 29 recommendations issued in 2009 have been closed.

Outstanding Recommendations:

- Replace all 1000 series railcars
 - Delivery started in FY2016 / Planned completion in December 2017
- Implement a Wayside Worker Warning System
- Replace all Generation 2 Track Circuits
 - 89% complete with final completion forecasted summer 2016
- Ensure onboard event recorders function properly
 - Event recorders on all 4K cars have been installed and documentation has been submitted confirming that all installation and software issues have been resolved.



Track Bond



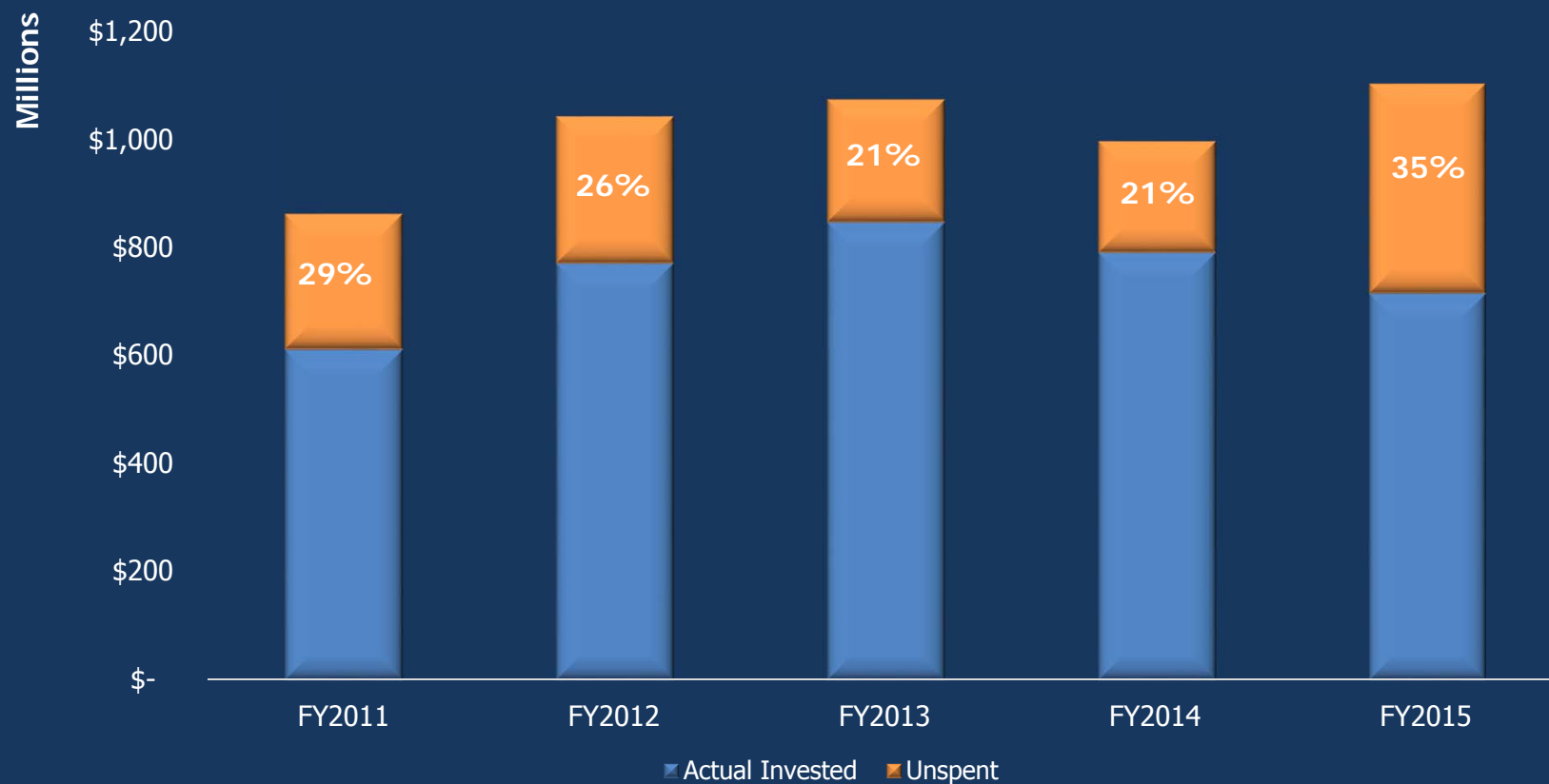
FY2011 – FY2015 Investments by Major Category

Over \$3.7 billion has been invested through the Capital Improvement Program

CIP Categories (millions)	FY2011	FY2012	FY2013	FY2014	FY2015	Total
Vehicles/ Vehicle Parts	\$281	\$249	\$231	\$144	\$195	\$1,100
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Grand Total	\$611	\$770	\$846	\$790	\$715	\$3,733



Capital Improvement Invested: FY2011 – FY2015





Principal Reasons for Underspending

- Management Controls
- Contract Delays
- Schedule Delays
- Changing Priorities
- Aggressive Commitments
- Compliance



Lessons Learned

- Capital program development and prioritization process
- Focus on deliverables (measure scope, schedule, budget)
- Improve forecasting techniques (monitor and control every month)
- Award smaller, more narrowly focused contracts
- Streamline track access procedures



Next Steps

- February 2016
 - FY2017 – FY2022 CIP Budget Discussion
 - FY2016 Second Quarter CIP Update
- April 2016
 - Budget Approval
- July 2016
 - Start of New Fiscal Year (FY2017)