

OTHER PROJECTS

Transitway ADA Improvements

Department: Transit

Phase: Complete

Completion Date: Not Available **Funding Source(s):** Gas Tax Funding

Completion Percentage: 100%
Capital Budget: N/A

PROJECT BACKGROUND

The Americans with Disability Act (ADA) is a civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public.

Every bus within the Miami-Dade Transit's fleet is equipped with a wheelchair lift. In addition to fulfilling this requirement, all features of the Transitway are in compliance with ADA regulations. Consideration was taken to ensure that all bus stations are fully accessible to populations with physical disabilities.

PROJECT DESCRIPTION/ SCOPE OF WORK

Provide accessibility to the Transitway by constructing sidewalks, ramps and crosswalks, at those locations missing these pedestrian improvements in unincorporated areas identified in the Quarter Mile Accessibility Report.

PROJECT SCHEDULE/STATUS

Since this project was not included or directed as part of the Ballot Question, Ordinance or Amendment, its implementation and budget falls outside the scope of the People's Transportation Plan (PTP) Five-Year Plan. The project is no longer PTP funded.

FISCAL IMPACT

The \$100,000 of PTP funding reflected in the previous Capital Budget Plan has been revised to Gas Tax funding.



2. Lehman Yard Rehab and Expand Phase 1

Department: Transit

Phase: Construction

Completion Date: September 2018

Funding Source(s): PTP/Surtax

Completion Percentage: 98%

Capital Budget: Project #674560 (See Page 319)



PROJECT BACKGROUND

In 2002, the test track and storage tracks were included in Miami-Dade Department of Transportation and Public Works (DTPW's) Capital Improvement Plan approved by the Board of County Commissioner's for financing by the People's Transportation Plan (PTP) Bond Program. This rehabilitation and expansion is necessary to provide the required vehicle storage capacity and vehicle transition process facility in support of the procurement of the new Rail Vehicle (136) fleet.

PROJECT DESCRIPTION/ SCOPE OF WORK

Construct five storage tracks and two maintenance-of-way tracks at the existing Lehman Center Metrorail Facility. This work includes implementation of a train control system, Closed Circuit Television (CCTV), telephone systems and traction power connection along with the addition of track switches remotely controlled by the existing control panel at the Lehman Yard Tower. The Lehman Yard expansion will provide 24/7 testing capability for the existing fleet, increase efficiency, and will support the transition from decommissioning the old fleet to the acceptance of the new fleet.

PROJECT SCHEDULE/STATUS

This project is about 98% complete. It is being implemented using a Design/Build Procurement method in conjunction with the Lehman Center Test Track (page 166). The estimated completion timing including testing and startup, is September 2018 versus March 2017 in FY 2016-21 Five-Year Plan Update and for April 2013 in the Initial FY 2011-16 Five-Year Plan.

FISCAL IMPACT

Total estimated cost is \$12.517 million with \$11.851 million expended.

DTPW has estimated the project's annual electrical cost estimate is \$480,000 (\$360,000 for Test Track, \$120,000 for Yard Rehab-Expansion, and identified the annual preventive maintenance and repair cost estimate is \$585,000 (\$325,000 for Test Track, \$260,000 for Yard Rehab-Expansion).



3. Transit Operations System (TOS) Replacement

Department: Transit

Phase: Construction
Completion Date: August 2017
Funding Source(s): ARRA/PTP

Completion Percentage: 78%

Capital Budget: Project #671460 (See Page 328)



PROJECT BACKGROUND

The Transit Operations System is over 20 years old and at the end of its life cycle with numerous software limitations. Miami-Dade Department of Transportation and Public Works (DTPW) is the only transit property currently utilizing this software. This project replaces the current manual processes of DTPW mission-critical Operator Workforce Management System with state-of-the-art technology automating fundamental operational functions such as operator bidding, dispatching, work assignment, bus availability, time keeping and operator performance management.

PROJECT DESCRIPTION/ SCOPE OF WORK

Enable interfacing with other DTPW systems including the fixed-route scheduling system, Automated Fare Collection - Smart card system (see page 179), Miami-Dade County Payroll System, Computer-Aided Dispatch/Automated Vehicle Location System (CAD/AVL, see page 54 for further detail on the upgrade to fleet management infrastructure and its passenger convenience systems integration), Enterprise Asset Management System, Random Drug and Alcohol Substance Abuse System, Disciplinary Action Reporting System and the Automatic Passenger Counter system (page 179). This new system will greatly improve line-up timing and process. This allows for a high number of concurrent operators bidding while complying with the Collective Bargaining Agreement with the local Transit Workers Union, as well as significant improvements in bus and rail operational effectiveness and efficiencies by reducing labor costs and increasing data accuracy.

PROJECT SCHEDULE/STATUS

Project overall completion is 78% complete, as assessed by project manager based on amount of expenditure. The current estimated completion date is August 2017.

FISCAL IMPACT

The estimated project cost is \$5.73 million. A total of \$4.5 million has been expended of which \$4.189 million was funded with Federal Transportation Administration funds.



4. Infrastructure Renewal Program (IRP)

Department: Transit

Phase: Varies (by Project)

Completion Date: Varies
Funding Source(s): PTP/Surtax
Completion Percentage: Varies

Capital Budget: Project #677200 (See Page 318)

PROJECT BACKGROUND

This program is to maintain Miami-Dade Department of Transportation and Public Work's (DTPW's) infrastructure and replace or upgrade physical assets according to normal replacement cycles. The Infrastructure Renewal Program (IRP) focuses on such areas as bus overhauls, rehabilitation of bus and rail facilities, and systems and equipment. Projects 4a – 4i are a part of the Infrastructure Renewal Program. Some IRP projects are funded by non-Peoples' Transportation Plan (PTP) revenue sources (i.e. FTA, FDOT, etc.), and such IRP projects are no longer reflected in the Five-Year Plan.

PROJECT DESCRIPTION/ SCOPE OF WORK

Maintain infrastructure, replace and/or upgrade physical assets according to normal replacement cycles.

PROJECT SCHEDULE/STATUS

This is an on-going project.

FISCAL IMPACT

The total cost of the IRP includes estimated costs for projects 4a-4i; IRP projects funded by non-PTP revenue sources and \$12.5 million of Surtax funds provided annually for the IRP Plan (page 211) by the Citizens' Independent Transportation Trust.

Many of the projects proposed are multi-year projects which may require subsequent funding.



4a. Automated Fare Collection Modernization

Department: DTPW

Phase: Implementation

Completion Date: FY 2018 **Funding Source(s):** PTP/Surtax

Completion Percentage: N/A

Capital Budget: Project #6730051 (See Page 313)

PROJECT BACKGROUND

The EasyCard system is a successful multi-agency contactless smart card solution, installed in 2008. There has been many industry advances since the implementation of the EasyCard system. The current back office technology legacy state poses technical limitations that inhibit incorporating many industry advancements, including mobile ticketing and smart phone technology. Due to its legacy card processing structures, purchases made online are not available for immediate use with the EASY Card as it takes up to 48 hours to process and load on EASY Cards to Metrobuses.

The provider has designed solutions to enable its existing customers to modernize in a cost effective and seamless manner. The opportunity exists for the Department of Transportation and Public Works (DTPW) to extend the life of the existing system and bring it to the state of the art in features, functions, and passenger experience.

PROJECT DESCRIPTION/ SCOPE OF WORK

Extend the life of existing fare collection system and update system with current state of the art features, and functions, enhancing passenger experience through technology. Also, implement a mobile application based ticketing system that would make the purchase of transit fare more convenient.

The scope of work includes, but is not limited to, the overhaul of existing Ticket Vending Machine (TVM) software, faregates, point-of-sale terminals, and Ticket Office Machines at Customer Service Centers.

Employment of Cloud approach to facilitate a comprehensive solution, offering riders a mobile ticketing solution while modernizing existing fareboxes and faregates to mitigate replacement costs. Utilizing the existing devices allows riders to continue to use EASY Cards or cash while offering an option to use mobile ticketing features seamlessly integrated with all existing devices.

The cloud based mobile enhanced fare system also provides real-time data and real-time trip planning tools which provide improved customer service, reduce wait times while boarding transit, reduce lines at TVM's, and reduce the need to carry cash or fare cards. Additionally, the mobile application provides powerful tools to implement transit ridership rewards programs as well as parking services.



PROJECT SCHEDULE/STATUS

Design & Build Project Schedule (High Level)

Months after NTP
0
2
5
7
7
7
8
15
16
17
18

FISCAL IMPACT

The estimated cost of the project is \$15.0 million.



4b. Infotainment Upgrade to Miami-Dade Transit Bus Fleet

Department: Transit

Phase: Deleted

Completion Date: FY 2016-17 **Funding Source(s):** PTP/Surtax

Completion Percentage: N/A
Capital Budget: N/A

PROJECT BACKGROUND

The Department of Transportation and Public Works (DPTW) implemented Computer Aided Dispatch/Automated Vehicle Locator (CAD/AVL) technology across the entire Metrobus Fleet. Following the conclusion of the evaluation process negotiations were held which yielded significant technical and commercial gains beyond the requirements of the solicitation which included a 10 vehicle pilot for Infotainment.

PROJECT DESCRIPTION

Implement Infotainment System upgrade. The Infotainment solution enhances the overall experience for riders, increases ridership, improves communication with riders for their navigation and potentially raises revenues thru advertising. Infotainment affords DTPW ridership with visual and auditory content, that can consist of time and location based triggered content (for advertising, local attractions...etc.).

The solution utilizes ruggedized but vibrant Liquid Crystal Display enclosures that can be mounted in multiple locations on-board and can be custom configured to optimally serve DTPW's needs. This project will ensure Infotainment is installed across the entire fleet.

PROJECT SCHEDULE/STATUS

Project is currently in the Planning phase. The estimated completion date is FY 2016-17.

FISCAL IMPACT

The estimated cost for this project is \$5,120,000 for the full fleet hardware and installation.



4c. Private Branch Exchange (PBX) Telephone System Upgrade to Voice Over Internet (VoIP) Protocol

Department: Transit

Phase: Planning
Completion Date: 2019
Funding Source(s): PTP/Surtax

Completion Percentage: N/A

Capital Budget: Project #2000000434 (See Page 329)

PROJECT BACKGROUND

The current phone infrastructure has reached its useful life and is in dire need of an upgrade. Implementing Voice over IP (VoIP) in all properties (all three MetroBus garages and the Lehman Center) will not only provide the department with cutting-edge technology and an industry proven standard, but also decrease operating expenditures, as it utilizes the existing Ethernet infrastructure.

PROJECT DESCRIPTION

Implement a VoIP network that replaces the current Private Branch Exchange (PBX) system at all three MetroBus garages and the William Lehman Center. The project entails:

- Installation of new wiring, where needed
- Installation and configuration of new switches, where needed
- Installation of new VoIP telephone equipment; and
- Removal of the old PBX equipment

PROJECT SCHEDULE/STATUS

Site surveys have been conducted, and recommendations for the implementation have been issued based on the information gathered. The estimated completion date is 2019.

FISCAL IMPACT

The estimated project cost is \$4.04 million.



4d. Traffic Signal Prioritization Expansion to Congestion Management Plan

Department: Transit

Phase: Deleted

Completion Date: 2018

Funding Source(s): PTP/Surtax

Completion Percentage: N/A
Capital Budget: N/A

PROJECT BACKGROUND

The Department of Transportation and Public Works (DPTW) Traffic Signals and Signs Division has been working closely with the Florida Department of Transportation (FDOT) Traffic Engineers at their District 6 SunGuide Traffic Management Center, in Miami, to view video feeds of traffic congestion during peak hours through cameras installed along various corridors. This collaborative effort has resulted in adjustments to and creation of additional signal timing plans in an attempt to relieve observed traffic delays. As a result, a Congestion Management Plan has been created. Part of this plan includes Traffic Signal Prioritization (TSP) Expansion and integration with DTPW's Computer Aided Dispatch/Automated Vehicle Locator (CAD/AVL) System.

PROJECT DESCRIPTION

Implement TSP technology for DPTW routes that traverse the Congestion Management Corridors. TSP technology is a methodology whereby buses regularly traveling on surface roads are given priority passage through signalized intersections to improve their on-time service. TSP operation calls for special logic programmed in the traffic controller installed at the signalized intersection to be invoked once a designated Transit bus is detected within a defined proximity of an eligible signalized intersection. Once TSP operation is invoked, this special logic extends the green phase of the signal and informs the centralized system that this action was taken for monitoring, logging and operational evaluation purposes.

PROJECT SCHEDULE/STATUS

Project is currently in the Planning phase. This estimated completion date is 2018.

FISCAL IMPACT

The estimated cost is \$800,000 for professional services to facilitate the integration.



4e. Government Station – Fire Suppression System

Department: Transit

Phase: Planning/Study

Completion Date: 2019
Funding Source(s): PTP/Surtax
Completion Percentage: N/A

Capital Budget: Project# 671560 (See Page 310)

PROJECT BACKGROUND

The Government Center Metrorail station is located near the intersection of Northwest First Street and First Avenue, a part of the Stephen P. Clark Government Center Building. It opened to service May 20, 1984. The deteriorating conditions of the Fire Sprinkler System have made the Department of Transportation and Public Works conduct a Feasibility Study at this station to observe deficiencies and propose solutions.

PROJECT DESCRIPTION

Study and repair existing Government Center station fire suppression system. The final report of the study will contain analysis, conclusions, and recommendations.

PROJECT SCHEDULE/STATUS

The estimated completion date is 2019.

FISCAL IMPACT

The estimated cost of this project is \$3.932 million. The total amount expended is \$154,000.



4f. Fire Alarm Installation at Rail Stations

Department: DTPW

Phase: Testing Completion Date: 2017

Funding Source(s): PTP/Surtax

Completion Percentage: 70%

Capital Budget: Project# 2000000104 (See Page 320)

PROJECT BACKGROUND

The Fire Alarm Control Panels (FACP) at the Metrorail stations were obsolete, and unable to support additional circuits required to automatically open the fare gates in case of fire. In addition, the FACPs were not listed to report to UL listed Proprietary stations.

PROJECT DESCRIPTION

The project involves replacing the FACPs with modern units capable of opening the fare gates in case of fire, and reporting to a UL Listed Proprietary station. In addition, notification devices (speaker and strobes) will be installed throughout the stations to warn patrons of fire. Each FACP will be connected to monitoring computers located at Central Control via fiber optic cable.

PROJECT SCHEDULE/STATUS

Project is 70% complete based on the amount expended. The scheduled completion date is 2017. A short extension may be needed in order to allow for the installation of additional devices and for the testing of the systems by Transit personnel.

FISCAL IMPACT

The estimated project cost is \$3.0 million. The total amount expended is \$2.476 million.



4g. Data Transmission Replacement

Department: DTPW

Phase: Cancelled

Completion Date: 2017

Funding Source(s): PTP/Surtax

Completion Percentage: 15%

Capital Budget: N/A

PROJECT BACKGROUND

The Data Transmission System is used to transfer the following information between the Metromover Central Control facility and the Metromover stations: Breaker Status and support facilities failures to Central Control, ATO equipment data and status to and from Central Control, Central Control breaker request to the stations, and bias numbers to the train control computer for data logging. The Data Transmission plays a key role in the operations, safety and management of the Metromover System.

PROJECT DESCRIPTION

The project's scope includes the complete replacement of the existing Central Control and Wayside Data Transmission System, High Speed Processing equipment and the equipment at Metromover Central Control that is used to send commands and receive indications from the Metromover Stations. The existing equipment is obsolete and the longevity of the equipment's service life has resulted in reduced overall reliability. New equipment will replace the existing and will result in reduced operational costs, improved reliability, and maintenance support and parts availability by the new equipment manufacturers.

PROJECT SCHEDULE/STATUS

The project is anticipated to be advertised in the fourth quarter of 2017 and will be implemented in tandem with the modernization of the Metromover Control Center.

FISCAL IMPACT

The total project is estimated to cost \$93,000. Approximately \$51,000 has been expended.



4h. Replace Mover Platform LCD Signs & DVR Control Unit

Department: DTPW

Phase: Construction

Completion Date: 2017

Funding Source(s): PTP/Surtax

Completion Percentage: 100%

Capital Budget: N/A

PROJECT BACKGROUND

The Project Scope encompasses the purchase of updated replacement parts for the LCD Station Signs and Sign controllers at all the Mover Stations. The current signs were originally installed in 1994 as part of the Omni and Brickell Extensions. Replacements parts are no longer available from the original equipment manufacturer. Also the project was revised to include the installation of a Digital Video Recorder (DVR) system encompassing Metro Mover and Metro Buses.

PROJECT DESCRIPTION

The signs will be updated with Light Emitting Diodes (LED) technology which offers improved reliability. Due to efficiencies in the purchase and implementation of the system we are able to include the purchase of DVR equipment and associated parts.

PROJECT SCHEDULE/STATUS

The project is complete.

FISCAL IMPACT

The initial project cost was \$2.367 million for Metromover LCD systems only. The revised scope includes the installation of a DVR system-wide facility encompassing Metro Buses which increased the project cost to \$2.62 million. The total amount expended on this project is \$1.799 million.



4i. Infrastructure Renewal Plan

Department: DTPW
Phase: Ongoing
Completion Date: Various
Funding Source(s): PTP/Surtax
Completion Percentage: Various

Capital Budget: Project #677200 (See Page 318)

The following presents descriptions of projects that were prioritized within the approved budget levels and funded with Revenue Bonds. The list of Infrastructure Renewal Plan projects is subject to change. The user department must receive prior approval by the Citizens' Independent Transportation Trust (CITT) before any change can become effective. Replacement projects may include items funded within the Operating Budget.

IRP Project Name	Scope						
Solar Panels for Buses	Retrofit up to 300 buses with roof mounted solar panels that will keep batteries charged when the buse are not operated for extended periods of time. This will extend the life of the batteries and eliminate the need to jump start buses when buses are not operated on weekends. Active project						
Systems Software and Hardware Upgrade	Upgrade all Engineering Systems Hardware and Software as recommended by the manufacturers. The upgrades will address any operational and security related issues that may arise. Also, the purchase of test and maintenance equipment will be included in the purchase. Active project						
Replacement of Tactiles and Barriers at Metromover Stations	Provide detectable warning safety edge tiles and between-car barrier (BCB) system in compliance with the DOT ADA regulations. Each station features two 80 LF Platform Structures and require tiles and BCB on both sides of the platform. The scope includes labor, materials, tools, appliances, equipment and other means of construction for performing and completing the work. Active project						
Rail Circuit Breaker Refurbishment	Rail circuit breaker refurbishment/retrofit and switchgear preventative maintenance at rail substations. Active project						
Replacement of Metrorail Train Wash	Purchase materials and equipment to complete the installation of a new five (5) brush wash module, rinse modules (2), chemicals dispensing and fully automated operating systems for the Metrorail Train Wash at the William Lehman Facility. Active project						
Purchase Rail Wheel Press Machine	Purchase of a new Railcar Wheel Press Machine needed to support the (136) rail cars the department is procuring to replace the existing railcar fleet. Active project						
Bus Garage Plumbing	Overhaul existing bathrooms at the Central Bus Facilities. This project also has Federal Transit Administration (FTA) funds. Active project						
Metromover Traction Power Cables Replacement	Remove/replace the Eight Street Substation to Brickell Station T2 transformer 13,200 volts three phase cables. The 350 mcm three phase cables is routed in the cables tray underneath the guideway. Remove /replace the Third Street Substation 111 breaker load side 250 mcm three phase cable to 0L6 power rail. Also, remove/replace the Switch 1 grounding switch three phase 3/0 cables and 3/0 jumper cables (Outer Loop). Active project						
Railcar Cleaner Platform Replacement Project	Upgrade the existing Cleaning Platform located at the William Lehman Center. The existing wooden platform is in need of constant repair. Active project						
William Lehman Facility (WLF) - Vehicle Maintenance Bathroom	Contracted services for the renovation of the WLF (6601 NW 72nd Avenue, Miami, Florida 33166), Vehicle Maintenance Bathroom to ensure proper sanitation for employees working in the Vehicle Maintenance shop. Active project						



IRP Project Name	Scope						
40 Foot Hybrid Buses for Replacement (5307)	Procure four (4) forty-foot hybrid diesel /electric transit buses for replacement of buses that are eligib for retirement. This project also has Federal Transit Administration (FTA) funds. Active project						
Publications Warehouse Forklift Purchase	Purchase new forklift. The current forklift is over 18 years old and inoperable. Active project						
Liquid Crystal Display (LCD) Electronic Signage at Bus Stops	Purchase and/or Install Liquid Crystal Display (LCD) Electronic passenger information signage at bus stops. Active project						
Automatic Passenger Counter Modernization Bus	Install Infrared Sensor Counter on buses. Active project						
Fueling Terminal Modernization	Upgrade fueling terminal to IP Base. Active project						
Lehman Yard Facility Wireless Network	Provide outdoor wireless connectivity at the Lehman Yard Facility. Active project						
Data Closets Uninterruptible Power Supply (UPS) Replacement	Replace Data Closets Uninterruptible Power Supply (UPS). Active project						
Purchase of 2 HY-Rail Crew cab Trucks	Purchase support vehicles for the Track and Guideway maintenance division. Active project						
Hydraulic Mobile Bus Lifts	Provide 36 individual hydraulic mobile lifts for the Miami-Dade Department of Transportation and Public Works (DTPW) Stertil-Koni model # ST-1072-SS or ALM Model # WE-18 (as modified to DTPW specifications), or approved equal. Each mobile lift set shall consist of four columns. Each set shall consist of four (4) primary columns and each primary column shall operate as a primary of secondary column interchangeable without any modifications. The system shall be equipped with a selector interchangeable without any modifications. The system shall be equipped with a selector switch to permit the selection of four columns when operating as a set of six (6) columns. Each mobile lift set shall be designed to permit combining columns in pairs to compose systems of up to six (6) columns. Definition of set: A standard set of lifts consists of four hydraulic mobile columns, all primary design operation, used to lift buses as specified in Section 3. DTPW sometimes uses six (6) columns sets to lift the 60-foot buses. At least 15,000 lb. capacity per column. All columns shall be operated synchronously from any control panel on any column. Active project						
Safety Walkway Sections for the Metromover Test Track	Prepare a set of biddable construction documents for the construction of two safety walkway sections at the Metromover Test Track. This is a safety concern, because when the Metromover vehicles doors open at the stations on the Test Track, there is no fall protection for the technicians. The anticipated scope of work includes construction documents, assistance during the dry run process, response to comments, review shop drawings send the necessary coordination with Miami-Dade Transit and all the appropriate agencies. Active project						
Uninterruptible Power Supplies (UPS) – Mover and Rail	Replace Mover Systems Uninterruptible Power Supplies (UPS) at all the equipment rooms on the OMNI, Brickell, Inner, and Outer Loop. There are 28 UPS locations including Government Center. Parts are not available beyond the 10-year point and replacement of the equipment is necessary. Active project						
Metrorail Electronic Real-time Signage	Phase 2 Wi-Fi at Metrorail Stations/Electronic Signage Information Systems (ESIS). See (Electronic Signage Information System (ESIS) page 55) for further detail. Active project						
Traction Power Rectifier Transformer	Replace 28-year-old rectifier transformers used in the Miami-Dade Transit Metrorail System. Active project						



IRP Project Name	Scope
Replace Dadeland North Parking Garage Space Count Sign and install parking space counters at Dadeland South, Earlington Heights, South Miami, Okeechobee, Dr. Martin Luther King, Jr. and Santa Clara Metrorail Stations	Replace light-emitting diode (LED) Available Parking Spaces signs for the upper and lower levels at the Dadeland North Parking Facility, Computer hardware, Software and parking space occupied detectors for Americans with Disability Act designated parking spaces. Installation of parking space counters at Dadeland South, Earlington Heights, South Miami, Okeechobee, Dr. Martin Luther King, Jr. and Santa Clara Metrorail Stations Active project
Overhaul Metrorail Wheel Turning Machine @ William Lehman Center (WLC)	Overhaul wheel turning machine used at the William Lehman Center Palmetto Yard. This overhaul will extend the life expectancy of this machine that has been used for the past 30 years, with a standard activity rate of 16 hours a day. Active project
Traction Power Crane Truck	Purchase crane truck for Traction Power to be used to perform work related to man-hole covers, high voltage cable pull, and cable spool lifts. Active project
Metrorail Bathrooms	Repair and renovate public restrooms at the 30-year-old Metrorail stations. Active project
Fare Collection Emerging Technology Enhancements and Regional Expansion	Implement enhancement and regional expansions to the Automated Fare Collection System (AFCS) based on the existing Contract 8481-2/22-1. The contract includes an option to purchase additional equipment and service for expansions and modifications. Active project
WFL Railcar Office Space	Renovate office space to include the procurement of all furnishings, project management services and
Renovation	construction. Active project
Traction Power Three Reel Trailer	Purchase high voltage trailer cable pull and is necessary for the replacement of the 30- year old Traction Power cables. Active project
Metrorail Railcar Floor Replacement	Install Nora Flooring in 60 railcars. The railcars to be replaced have deteriorated sub-flooring, which is evidence as "soft floors". The process also includes removal and replacement of interior seating, panels, and sanctions. Active project
Metromover Public Address System Replacement	Replace existing Public Address System at all Metromover Stations. The Scope of Work includes the replacement and upgrade of all electronic components in the Paging chain. The distribution wiring will also be upgraded. Active project
Rail Public Address System Replacement	Replace existing Public Address System at all Metrorail Stations. The Scope of Work includes the replacement and upgrade of all electronic components in the Paging chain. The distribution wiring will also be upgraded. Active project
Metromover Canopies & Escalator Replacement	See People's Transportation Plan (PTP) Amendment item for further detail, page 169. Active project
Garage Fire Suppression	Replace and upgrade the fire suppression system at four parking garages built with the original Metrorail system: Okeechobee, Dadeland North, Dadeland South and Earlington Heights. Active project
Dadeland North (DLN) Vehicle Containment Barriers	Repair and replace vehicle containment barrier cables as specified and approved by Miami-Dade County Building and Neighborhood Compliance. This project is complete.
Metromover Public Address System Replacement	Replace existing Public Address System at all Metromover Stations. The Scope of Work includes the replacement and upgrade of all electronic components in the Paging chain. The distribution wiring will also be upgraded. This project is complete.
Mover 13kv Transformers	Systems Engineering: Mover 13kv Transformers This project is complete.



IRP Project Name	Scope
Mover Fiber Emergency Project	Fiber Replacement Project Scope involves the following components: - Replacing and installing Fiber Optic Cable throughout the Metromover System. - Installing new Fiber Optic equipment at all stations and at Central Control. - Replacing PLC equipment at all stations and at Central Control. - Installing Giga-Bit Ethernet at all stations. - Add Wireless networking capability to all stations. The \$3.2 million cost is 100% federally funded. This project also includes Replacement & Installation of Metromover Closed Circuit Television. It expands the Video System by installing new digital cameras at all Metromover Station Platforms as well as providing local Network Video Recorders for independent 24/7recording. The cameras will be networked into the Video System and new digital displays will be installed at the Mover Central Control. This project is being consolidated with the Fiber Project due to its dependency on the fiber installation. It is in progress and Implementation was expected to be complete by December 2012. The \$698K project is federally funded with American Reinvestment and Recovery Act (ARRA) funds. This project is complete.
Repair and Restoration of Existing Douglas Road Metrorail Station Park and Park-and-Ride Lot Underneath Guideway	Provide safety and operational upgrades to the parking surfaces, landscaping, fencing, and illumination in the existing unused parking lot. The work will provide approximately an additional 50 parking spaces. The scope of work includes the preparation of complete contract documents for bidding, estimated construction cost, permits, inspections, construction administration, County administration and project contingency. The scope of work shall include all the necessary coordination with Miami-Dade Transit (MDT) and the Miami-Dade Building Department. Any environmental mitigation work, which might be due to contamination issues that may arise during construction, is not included. This is a Capital Improvement Project (CIP), which is being included on the Infrastructure Renewal Plan due to MDT's necessity in obtaining funding for the proposed project. (\$32,901 spent from other federal and state sources) with a total project cost of \$232,901. This project has been cancelled and will be incorporated to the Douglas Joint Development.
Metrorail Palmetto Station-Americans with Disabilities Act (ADA) Assessment	Study at Rail Station and corrective work has been completed.
40-Year Recertification @ Central Building #1	Perform 40-year recertification inspection/repairs. This project is complete.
40-Year Recertification @ Central Buildings #4 and #5	Perform 40-year recertification inspection/repairs. This project is complete.
Procurement of Mobile Lifts	Purchase four mobile lifts use for the removal and installation of transmissions, differentials and other Heavy Components on large trucks, buses and other heavy duty vehicles. This project is complete.
Armored Trucks (4) Metromover Bicentennial Park Station Rehabilitation	Purchase four (4) Armored truck vehicles. This project is complete. Replace eight-foot-high chain link fence around station perimeter, replace aluminum slats ceiling with new support system at ground level, replace recessed lamps at suspended ceiling, testing on electrical circuits to assure proper function, Install new light poles for exterior lights circuits and lamps, repair low voltage communication system, replace three signs / two maps cabinets, replace damaged Plexiglas panels at Canopies Entrances, replace stairs metal plates, rehabilitation of elevator and escalators, install fire cabinets, replace expansion joints between platform and elevator structure, replace tact tiles, Fare Collection system recovery, roof replacement at Electrical Room, repair cracks at exterior walls and Electrical Room, general painting and landscaping. For further discussion including non-Infrastructure Renewal Program (IRP) funding, see page 216. This project is complete.



IRP Project Name	Scope
Multi-Channel Voice Recorder	Replace existing analog recorders within the Transit System with new digital voice recording systems. These recorders will replace the existing equipment which is now obsolete. The new system will integrate audio with the existing NICE system while implementing redundancy, include five digital voice recording units, network attached storage devices, personal computers, system software and miscellaneous hardware. The new system will streamline the method of retrieving recorded messages by enabling them to be accessed through the network. This project is complete.
Waste Water Treatment System	Replace existing oil water separators at all four pressure cleaning operations with a more sophisticated and advance waste water treatment system at all three Bus Maintenance Facilities. This project is complete.
Replacement of Bus Digital Video Recorder (DVR)	Replace onboard digital video recorder (DVR)'s which are obsolete and beyond their useful life. This project is complete.
Inspection Vehicles for the MIC Extension	Purchase two (2) inspection vehicles for monitory vehicle inspections of the Mainline. This project is complete.
Mover Video Project Closed Circuit Television (CCTV)	Install Avigilon Software as the CCTV application, and (2) Upgrade the CCTV monitors in CCF. The funding increase is covered by the Infrastructure Renewal Program (IRP). This project is complete.



Bicentennial Park Station

Department: Transit

Phase: Complete

Completion Date: November 1, 2014
Funding Source(s): ARRA, PTP & Gas Tax

Completion Percentage: 100% Capital Budget: N/A



PROJECT BACKGROUND

The Bicentennial Park Station was closed for almost 15 years due to repeated vandalism, resulting in deterioration and dismantling of Station components, utilities and stolen parts. Consequently, there were several instances of unforeseen work identified by the Contractor during construction. Reassessment of the deteriorated and unforeseen field conditions revealed that some equipment repair and upgrades were required to optimize Station operations and enhance patron safety.

PROJECT DESCRIPTION/ SCOPE OF WORK

Perform rehabilitative work necessary to reopen Bicentennial Metromover Station, including replacement of the existing elevator, escalator including canopy, ceiling and fencing; improvements such as grading, paving, drainage, painting and landscaping; removal of the existing fare collection turnstiles; and repair of communications system. Several station safety and security measures are to be implemented: new branch circuit wiring and a new Light Emitting Diode (LED) lighting system with high-intensity lighting capability to replace the existing lighting system, additional security lighting in station areas that will connect pedestrians to the adjacent museums, a new electronic safety and security system (fire and intrusion alarms), and new Closed Circuit Television (CCTV), cameras at station entrances on the ground level for monitoring by safety and security personnel.

PROJECT SCHEDULE/STATUS

Construction was completed in November 2014 versus September 2013 expected in FY 2015-20 Five-Year Plan Update. The project is also included in the July 2008 Board of County Commission Resolution R-851-08 originally establishing the list of projects for the Miami-Dade Economic Stimulus Plan program, which accelerates the County's capital program by moving funded projects through the contracting award process at a quicker pace. The station reopening supports the new Art and Science Museums being built by the County at the site.

FISCAL IMPACT

This project is 100% complete, as of November 2014, with American Recovery and Reinvestment Act, People's Transportation Plan and Gas Tax funding. The total cost is \$2.19 million.

The operations and maintenance cost of the completed station is estimated at \$349,000 per year.



6. Palmetto Station Traction Power Substation (TPSS)

Department: Transit

Phase: Complete

Completion Date: June 1, 2014 Funding Source(s): FTA (ARRA)

Completion Percentage: 100% Capital Budget: N/A



PROJECT BACKGROUND

The electrical power needs at the Palmetto Extension were supplied by the Okeechobee and Lehman Yard Traction Power Sub Station (TPSS); this supply was marginal and at times insufficient for the operation.

PROJECT DESCRIPTION/ SCOPE OF WORK

Construct two dedicated 13.2 Kilo Volts (KV) feeder lines from Florida Power and Light (FPL) required to support the operation of this new TPSS, which is the same design as the other existing TPSS. Further, the new Metrorail vehicles require higher minimum operating voltage. Since the new vehicles will be more sensitive to low voltage conditions and will be under warranty, it was imperative that this substation be built at this location to correct the low voltage situation and to be in place before the delivery of the first prototype Metrorail vehicles scheduled arrival.

PROJECT SCHEDULE/STATUS

The project is complete, including testing and startup.

This new TPSS was built at the existing Palmetto Metrorail Station to reduce failures on the current transit Metrorail vehicles. The substation supports the existing Palmetto Station facilities and supports all traction power requirements between the Palmetto and Okeechobee Stations. In addition, it interfaces with the communication system and Central Control.

FISCAL IMPACT

The total project cost was \$13.072 million, of which \$12.3 million was American Recovery and Reinvestment Act (ARRA) funded.



7. Northeast Passenger Activity Center (Now Northeast Transit Hub Enhancements)

Department: Transit

Phase: Construction

Completion Date: FY 2018
Funding Source(s): PTP/FDOT

Completion Percentage: 93%

Capital Budget: Project# 6730101 (See Page 311)



PROJECT BACKGROUND

The original scope of the Northeast Passenger Activity Center (NEPAC) project was to replace and/or supplement the existing bus terminal located in the vicinity of the Mall at 163rd Street. It would be an enhanced bus hub to connect circulator, regional, and premium bus routes within the area.

After extensive discussion with the City of North Miami Beach, it was determined that this original scope was infeasible. Subsequently, the project scope was revised. Miami-Dade Department of Transportation and Public Works (DTPW) now proposes to make improvements for two existing transit hubs - NE 163rd Street Mall and at Aventura Mall.

PROJECT DESCRIPTION/ SCOPE OF WORK

Improve capacity, drainage, pavement, shelters, lighting, Americans with Disabilities Act, signage, and transit access at both sites which are major destinations with important bus connections and serve the northeast area. The new project is known as the Northeast Transit Hub Enhancements (NETHE).

The proposed improvements at the Aventura Mall (NETHE – Aventura Mall) will no longer be done under DTPW's project. It will be performed as part of the Aventura Mall's Mall Expansion project. Expected completion timing for the NETHE – 163rd Street Mall project is FY 2018.

PROJECT SCHEDULE/STATUS

The transit improvements at the Aventura Mall (NETHE Aventura Mall) were completed by the Aventura Mall, as part of the Mall Expansion Project, on March 10, 2016. The Aventura Mall Transit Center opened on March 15, 2016. All bus service within the Aventura Mall has been relocated to the new Transit Center.

FISCAL IMPACT

Total cost for NETHE Hub is estimated at \$5.35 million, to include People's Transportation Plan (PTP) and State funding. Approximately, \$5.317 has been expended on this project.



8. Park-and-Ride Kendall Drive (SW 127th Avenue)

Department: Transit

Phase: Construction

Completion Date: 2018

Funding Source(s): PTP / FDOT

Completion Percentage: 93%

Capital Budget: Project #671610 (See Page 323)

PROJECT BACKGROUND

The park-and-ride at Kendall Drive required a license agreement with the Florida Power and Light Company for the approximately 2.8 acres of FPL property located at Kendall Drive and SW 127thAvenue.

PROJECT DESCRIPTION/ SCOPE OF WORK

Construct a park-and-ride facility, with approximately 183 parking spaces.

PROJECT SCHEDULE/STATUS

Construction is estimated to be completed by July 2018. This project is 93% complete based on expenditure amount.

FISCAL IMPACT

Approximately \$1.651 million has been expended on this project with \$357,000 remaining. The project's Preliminary Design was completed May 2011 and Notice to Proceed was issued January 2011. In July 2013, this project was approved by Miami-Dade County Planning and Zoning Department for a land use variance.

The Department of Transportation and Public Works was unable to negotiate the terms and approval of the license agreement with FPL prior to expiration of both the original and supplemental agreements expiration dates. As a result, the Florida Department of Transportation (FDOT) agreed to provide a new Joint Participation Agreement (JPA) in the amount of \$874,365. This funding, along with the required local equal match (i.e., from Surtax funds), will provide the \$1.748 million needed to complete design and construction.

A Supplemental JPA with FDOT in the amount of \$379,900 was executed in June 2010, increasing the total budgeted project cost from \$2.660 million to \$2.760 million.



9. Park-and-Ride at SW 168 Street and Transitway

Department: Transit

Phase: Complete

Completion Date: April 1, 2011 **Funding Source(s):** PTP / FDOT

Completion Percentage: 100%
Capital Budget: N/A

PROJECT BACKGROUND

This park-and-ride facility is located north of SW 168 Street and east of SW 97 Avenue – adjacent to the Transitway, sits on 1.68 acres and includes 149 parking spaces. The facility allows connection to several bus routes.

PROJECT DESCRIPTION

The Department of Transportation and Public Works (DTPW) is proposing to upgrade the existing park-and-ride facility in two phases. In Phase 1, DTPW is proposing to add 300 parking spaces to the 149 existing parking spaces for the park-and-ride lot located at SW 168th Street and the Transitway for a total of 449. This phase would require acquiring additional property. DTPW would mill and resurface the entire existing parking lot, upgrade pavement markings, construct additional sidewalks and access points to improve pedestrian access, construct a canopy along the Transitway for passenger cover and comfort, add bicycle parking facilities, provide a kiss-and-ride drop-off area and upgrade parking to include additional disabled parking, stroller parking, vanpool/carpool parking, and electric vehicle parking with associated charging stations.

In Phase 2, the current park-and-ride facility will be modernized to a 450-space three-level garage. Improvements will include additional sidewalks and improved non-motorized circulation between the site, the Transitway station, and shared-use path. Other enhancements include secure high-capacity bicycle parking, a kiss-and-ride drop-off area, additional disabled parking, stroller parking, vanpool/carpool parking, electric vehicle charging spaces, and bike/car sharing capacity.

PROJECT SCHEDULE/STATUS

The scheduled completion date is yet to be determined.*

*In October 2017, DTPW submitted a United States Department of Transportation Investment Generating Economic Recovery (TIGER) Grant Application for Phase 2 improvements. In the event DTPW is awarded the TIGER Grant, Phase 1 of the SW 168th Street park-and-ride expansion project will be cancelled and DTPW will only proceed with Phase 2 of the project.



FISCAL IMPACT

Phase 1

The estimated project cost for the design and construction of the Phase 1 improvements to the park-and-ride lot at the South Dade Transitway and SW 168th Street is \$4,290,000.

*Note – DTPW will cancel Phase 1 of this project and proceed directly to Phase 2 in the event DTPW is awarded the TIGER grant

Phase 2

The estimated project cost for the design and construction of the Phase 2 improvements to the park-and-ride lot at the South Dade Transitway and SW 168th Street is \$9,000,000.

*Note – DTPW will postpone Phase 2 of this project and only implement Phase 1 in the event DTPW is not awarded the TIGER grant.



10. Park-and-Ride at SW 344 Street and Transitway

Department: Transit

Phase: Construction

Completion Date: 2020

Funding Source(s): PTP/Surtax/FDOT/FTA

Completion Percentage: 72%

Capital Budget: Project #671610, (See Page 323)

PROJECT BACKGROUND

The Department of Transportation and Public Works is planning to build a park-and-ride facility to be located west of the southern terminus of the Transitway Extension to Florida City Segment II. The facility will be located between SW 344th Street (Palm Drive) and NW Second Street and from NW Second Avenue to NW Third Avenue, adjacent to the South Miami-Dade Transitway in Florida City.

PROJECT DESCRIPTION/ SCOPE OF WORK

Construct park-and-ride facility at SW 344th Street to incorporate bus bays, a roundabout for buses using the Transitway, passenger shelters, large surface parking lot for patrons (approximately 260 spaces), a "kiss and ride" drop off area, and rest/break facility for Bus Operators.

PROJECT SCHEDULE/STATUS

This project is 72% complete based on the expenditure amount. Final Design and right-of-way acquisition phases are complete. The Federal Transit Administration (FTA) issued a "Finding of No Significant Impact" Statement on 4/15/2010 for the Environmental Assessment that is the expected level of environmental documentation required for this project. Construction began in January 2014 and project completion is anticipated in FY 2020.

FISCAL IMPACT

Total project cost is estimated at \$10.8 million, also includes grants and Joint Participation Agreements providing FTA and Florida Department of Transportation funds, same the initial FY 2011-16 and the FY 2016-21 Five-Year Plans. The total amount expended is \$7.759 million.



11. NW 215th Street Parcel (Land Acquisition)

Department: Transit

Phase: Complete

Completion Date: Not Available **Funding Source(s):** PTP/Surtax

Completion Percentage: 100% Capital Budget: N/A



PROJECT BACKGROUND

As part of the Short-Term Transit Improvement Options Task Force, Miami-Dade Department of Transportation and Public Works, in conjunction with the Metropolitan Planning Organization, Florida Department of Transportation, and other key partners identified the purchase of the parcel at NW 27th Avenue and NW 215th Street as strategic and necessary for short, mid and long term public transit use.

The property is approximately 14 acres of vacant land located at the intersection of the SR 821/Homestead Extension of Florida's Turnpike (HEFT) and NW 27thAvenue, across from Calder Casino and Race Course and SunLife Stadium. Because of its prime location at the intersection of arterial roadways and major sporting venues, the property is a strategic parkand-ride location for the NW 27th Avenue Enhanced Bus Service (EBS) project and is required for this corridor improvement.

This particular parcel will serve as the northern most end- of- the- line and park-and-ride/transit terminal location for all current and future alternatives EBS, Bus Rapid Transit, and Heavy Rail Transit. The unimproved site is forecasted to have approximately 350 parking spaces, short-term parking/kiss-and-ride, and eight bus bays.

Development would contain institutional, office and retail components in an environment that encourages pedestrian activity with a defined, transit oriented center.

PROJECT DESCRIPTION/ SCOPE OF WORK

Acquire parcel located at NW 27th Avenue and NW 215th Street.

PROJECT SCHEDULE/STATUS

The acquisition of the parcel is complete.

FISCAL IMPACT

The total amount expended for this project was \$5.025 million.



12. Capital Expansion Reserve Fund Project Listing

Department: Transit Phase: On-going

Completion Date: On-going

Funding Source(s): PTP Capital Reserve Fund

Completion Percentage: On-going

Capital Budget: N/A (Refer to Individual Projects Below)

PROJECT BACKGROUND

In December 2010, the Board of County Commissioners adopted Resolution R-1202-10. This resolution was to clarify the intent of the Capital Expansion Reserve Fund. The requirements of the revised Ordinance 02-116 included expansion of the transit system beyond the Miami Intermodal Center (MIC)-Earlington Heights (Orange Line Phase 1) project and required that the funds from the Capital Reserve Fund be used for debt service on the MIC-Earlington Heights project as well as other improvements, including, but not limited to, North and East-West Corridor expansion projects.

PROJECT DESCRIPTION/ SCOPE OF WORK

The Citizens' Independent Transportation Trust (CITT) has identified and approved a number of projects for use of capital expansion reserve funds:

- 1) Project Development & Environment (PD&E) Study for *Downtown-Beach Connector* (light rail successor to Baylink, See Strategic Miami Area Rapid Transit (SMART) Plan page 229)
- 2) Tri-Rail to Downtown to the Miami Central Station (an incremental step of the Northeast Corridor, page 78)
- 3) PD&E Study for **South Dade Corridor** (formerly known as Extension to Florida City, See SMART Plan, page 229)
- 4) PD&E Study for *East-West Corridor* (See SMART Plan, page 229); and
- 5) Transportation Planning Organization (TPO) Project Implementation Plan (IP) (See page 262).

PROJECT SCHEDULE/STATUS

The CITT continue to set aside 10 percent of the County's annual share of Surtax funds to be placed in the Capital Expansion Reserve Fund.

FISCAL IMPACT

The total amount of capital expansion reserve funds that has been set aside by the CITT is approximately \$65 million as of September 30, 2017. The total amount committed to the above projects is approximately \$38 million.



13. Toll Plaza Diesel Tank Removal Project

Department: Transit

Phase: Deleted

Completion Date: N/A
Funding Source(s): N/A
Completion Percentage: N/A
Capital Budget: N/A

PROJECT BACKGROUND

This item from the FY 2010-11 Capital Budget (shown as Florida Department of Transportation (FDOT) project #607540) was a duplicate of the SW 312th Street Road Widening project (see page 135) and deleted as of the FY 2011-12 budget cycle.

PROJECT DESCRIPTION/ SCOPE OF WORK

See SW 312th Street Road Widening project (see page 135).

PROJECT SCHEDULE/STATUS

See SW 312th Street Road Widening project (see page 135).

FISCAL IMPACT

See SW 312th Street Road Widening project (see page 135).



14. Additional Elevators at Dadeland North Metrorail Station Project

Department: Transit

Phase: Procurement of Consultant

Completion Date: December 2021 **Funding Source(s):** PTP / FDOT

Completion Percentage: 9%

Capital Budget: Project #2000000104 (See Page 320)

PROJECT BACKGROUND

Dadeland North Metrorail station parking garage located at 8300 South Dixie Highway was built in 1983 and a subsequent 10-story parking garage was later completed in 1994. The parking garage is equipped with four elevators, which are located in the center of the building and are equidistant from the emergency exit stairs at both ends.

Since initial construction, Dadeland North Metrorail station's use has increased dramatically. Of the 17 Metrorail stations that provide parking, Dadeland North has the largest number of parking spaces (1,963) and is consistently filled to maximum capacity before 7:00 a.m. during the weekdays.

PROJECT DESCRIPTION/ SCOPE OF WORK

Construct two additional elevators, one at each end of Dadeland North Metrorail parking garage, to alleviate the evening rush hour congestion; thereby shortening the waiting period for passengers returning to their vehicles.

PROJECT SCHEDULE/STATUS

Project is under the procurement of a design consultant. The anticipated completion date is December 2021.

FISCAL IMPACT

The total estimated project cost is \$5.350 million. A Joint Participation Agreement with the Florida Department of Transportation (FDOT) will provide \$974,929 in State funding for the construction of two additional elevators in the Dadeland North Metrorail Station parking garage facility. FDOT has agreed to program additional funding for this project in fiscal year 2016.

The current annual operating and maintenance (O&M) costs for the Dadeland North Metrorail Station and parking garage facility is approximately \$755,000. Upon completion of this project, the O&M cost is estimated to increase by approximately \$35,000 to \$790,000 and will be funded through Miami-Dade Transit's operating budget.



15. Park-and-Ride Facility at Quail Roost Drive (SW 184 Street and Transitway)

Department: Transit

Phase: Construction

Completion Date: 2020

Funding Source(s): PTP/Surtax/FDOT Completion Percentage: Not Available

Capital Budget: Project #671610(See Page 323)

PROJECT BACKGROUND

The proposed Quail Roost park-and-ride (P&R) Facility is located at SW 184 Street and the South Miami-Dade Transitway. Originally, it was proposed to include a surface parking lot located on a 3.2 acre tract owned by Miami-Dade County. In January 2011, Miami Dade County submitted a Categorical Exclusion to comply with the National Environmental Policy Act (NEPA) requirement.

In February 2017, the Department of Public Housing and Community Development in partnership with the Department of Transportation and Public Works (DTPW) released a Request for Proposals seeking for experienced developers to design and construct a mixed-income housing development with commercial uses adjacent to the existing Transitway stop as well as structured parking with spaces reserved for transit patrons. The proposed transit oriented development increased the site from 3.2 acres to a total of 8.5 acres. Therefore, a new environmental document that encompasses the 8.5 acres must be prepared in order to comply with the NEPA requirement.

PROJECT DESCRIPTION/ SCOPE OF WORK

The Development Plan is left to the discretion of the proposer; however it must provide a fully integrated transit-oriented development with housing, commercial space and transit amenities. A successful proposal will minimally provide 500 housing units, 10,000 square feet of commercial space (after a full market analysis is conducted), a P&R garage with 261 spaces exclusively for transit users and parking spaces to support the housing and commercial components. DTPW will conduct an environmental study of the 8.5 acre site to comply with all NEPA requirements.

PROJECT SCHEDULE/STATUS

Construction is expected to be completed by 2020.

FISCAL IMPACT

This project is funded with Federal, State and Local funds. Approximately \$3,989,477 in funding is available to support development of the parking garage, walkways and canopies connecting to the Transitway. The Transit funds breakdown is as follows: Federal Transit Administration (FTA) \$1,096,077, Florida Department of Transportation (FDOT) \$1,446,700 and Local Match \$1,446,700. Transit funds are reimbursable after work has been completed and the developer/contractor has demonstrated compliance with federal requirements. The developer is required to maintain separate finances for the Transit component. This funding is contingent upon clearing the environmental assessment with the FTA and negotiating a Joint Participation Agreement between FTA, FDOT, Miami-Dade County, and the successful proposer. Funding to support the above mentioned items will be available for reimbursement after December 31, 2017. The Transit component must be completed as part of the initial phase, but no later than three (3) years from the commencement date of the lease.



16. Park and Ride South Miami Dade Transitway and SW 112 Avenue (Land Acquisition)

Department: DTPW

Phase: Acquisition

Completion Date: 2018

Funding Source(s): PTP/Surtax/FDOT Completion Percentage: Not Available

Capital Budget: Project #671610, (See Page 323)

PROJECT BACKGROUND

On October 7, 2008, the Board of County Commissioners approved a Lease Agreement between Inmobillaria Baleares, LLC and Miami-Dade County for a 6.8 acre parcel of land, which is being used by the Miami-Dade County for a park-and-ride. The term of the lease is for one year and is renewable on a year to year basis. The County would like to exercise its option under the Lease to purchase the property, under Article 8 of the Lease Agreement, if the two sides cannot agree on a price the County shall hire two independent appraisers to establish a value.

PROJECT DESCRIPTION/ SCOPE OF WORK

Acquire existing parking lot aka Target Site located at SW 112 Avenue and SW 204 Street, adjacent to the Transitway. The Department of Transportation and Public Works (DTPW) currently leases the demised premises and having ownership will allow the department full control of the land and gain a greater cost saving over the life of the property by eliminating the cost associated with yearly leasing.

The project is needed as part of the DTPW's initiative to acquire more "park-and-ride Lots" in order to meet its organizational goals. The unused parking lot north of and adjacent to the south Miami-Dade Transitway, south of SW 203 Terrace and northeast fronting SW 113 Road and theoretical west of SW 112 Avenue.

PROJECT SCHEDULE/STATUS

Estimated completion date is 2018.

FISCAL IMPACT

The total cost of this project is estimated to be \$5.2 million; half of which will come from the Florida Department of Transportation.



17. Strategic Miami Area Rapid Transit (SMART) Plan

Department: DTPW

Phase: Planning

Completion Date: TBD **Funding Source(s):** Various

Completion Percentage: Not Available

Capital Budget: Project # 672670 (See Page 326)

PROJECT BACKGROUND

The Strategic Miami Area Rapid Transit (SMART) Plan will expand the Miami-Dade Metrorail system with rapid transit options along six (6) critical corridors that are linked to local, regional, national, and global economic markets, as highlighted below. Another critical component of the SMART Plan will be a network of Express Buses that will connect the SMART Rapid Transit corridors on limited access facilities, promoting the active expansion of the South Florida Express Lanes Network with the implementation of six (6) identified Bus Express Rapid Transit express lane concepts. This innovative approach effectively expands the reach of transit in the Miami urbanized region.

- Beach Corridor: Highest tourist demand in region with major employment centers
- East-West Corridor: Heaviest commuter travel for international, state and local businesses
- **Kendall Corridor:** One of the most congested arterial roadways with highest demand to Central Business District (CBD)
- North Corridor: Critical regional mobility linkage for statewide transit and freight expansion
- Northeast Corridor: One of the nation's largest urban areas with over 5.5 million residents
- South Corridor: Fastest population growth in Miami-Dade County

About 1.7 million people live within a 2-mile radius of the SMART Plan alignments, representing approximately 63% of the most populous county in Florida (see maps on following maps). As an example, residents represented in the South Corridor, such as Homestead, travel 2:15 hours each way, each day to reach the Central Business District. This represents additional traffic cost in the commute time, or time wasted, due to lack of mobility options and traffic congestion. The SMART Plan will provide mobility options so people can make better use of their time. In the case of the South Corridor, implementation of rapid transit may reduce trip time up to 45 minutes.

In 2002, Miami-Dade voters approved a half penny sales surtax to demonstrate a local commitment to mass-transit expansion. This local commitment indicates the desire and dedication of Miami-Dade County to seek and implement alternative transportation modes to connect all areas of the community. This dedicated funding source is available to match State and Federal funds for the implementation of this plan. It is anticipated that the overall cost of the SMART plan is approximately \$3.6 billion. State and Federal funding partnerships will be critical to deliver these projects (see attached table for estimated costs by corridor).

In September 2015, the Miami-Dade Transportation Planning Organization (TPO) Governing Board adopted Resolution Number 31-15, which amended the FY 2016 Transportation Improvement Program to delete selected Enhanced Bus Service Projects and reallocate said funds to three new projects as follows: "Implementation of Bus Rapid Transit along NW 27th Avenue, Flagler Street, and Kendall Drive Transit Corridors." However, bus purchase components of the Biscayne, Flagler and NW 27th Avenue Express Bus Service projects remain funded and are proceeding in order to provide near-term capacity improvements along these corridors.



On February 16, 2016, the TPO Governing Board unanimously approved a policy to set as "highest priority" the advancement of rapid transit corridors and transit supportive projects for the Miami-Dade County. As a result, TPO staff and Governing Board members embarked on a peer exchange whereby they visited similar urban areas who have successfully implemented their respective comprehensive transit plans. At the same time, the TPO Transit Solutions Committee met locally to obtain and consider input from transportation partner agencies, elected officials, and the public at large for a plan that they then developed and recommended for approval by the full TPO Board.

On April 21, 2016, the TPO Governing Board officially adopted and endorsed the proposed SMART Plan. To ensure the SMART Plan moves forward, the TPO Governing Board directed the Miami-Dade TPO Executive Director to work with the TPO Fiscal Priorities Committee to determine the costs and potential sources of funding for Project Development and Environment (PD&E) studies for the projects, and to also take all necessary steps to implement the SMART Plan.

PROJECT DESCRIPTION

The SMART Plan is a bold infrastructure investment program that will significantly improve transportation mobility and will provide a world-class system that will support economic growth and competitiveness in the global arena. Miami is a global hub representing not only the Gateway of the America's, but also the Nation's southeast capital for international freight and cargo, as well as the number one passenger cruise port in the world. Miami-Dade Mayor Carlos A. Gimenez has declared that the advancement of transportation infrastructure is the top priority for Miami-Dade County which is the most populous county in Florida, representing 2.7 million residents living in the Miami Urbanized Area of over 5.5 million people. In addition, the TPO has prioritized the advancement of the SMART Plan, which is strongly supported by public and private sector partners, residents, and elected officials. The SMART Plan represents a vision for our region that is both strategic and far-reaching, creating a system of multiple transportation options by leveraging existing infrastructure, and integrating technology at the highest levels. The plan is comprehensive, proactive and supports the future population and employment growth anticipated in our region. The Federal Highway Administration estimates the annual cost of congestion to motorists in urban areas is approximately \$7 billion. This represents a significant cost and economic disadvantage that if not addressed, will result in urban areas like Miami being left behind. Miami-Dade County has become a region of global significance that attracts people from all over the world to live, work and play. Labor force and employment growth in Miami-Dade greatly exceeded national growth from 2010 to 2015. Research shows that Transit Mobility directly affects quality of life and economic vitality. As Miami-Dade continues to grow, the SMART Plan will ensure that current and future residents will have the most efficient and effective transportation network to get to where they are going, faster and safer. The SMART Plan represents mobility insurance for our region.

The Miami-Dade County transportation team is working to change the approach to mobility by creating a system that offers multiple options throughout the county, leverages existing infrastructure, and integrates technology at the highest levels. There are limited opportunities to widen and/or build new roads, therefore the need to extend mass-transit system represents a balanced approach necessary to address roadway congestion and connect communities to educational and employment centers. This balanced approach is needed to ensure the community continues to grow and thrive in the future.

In order to improve livability and ensure economic growth in the future, it is important to improve mobility in Miami-Dade County. Miami-Dade County's SMART Plan helps accomplish this by connecting major airport and seaport facilities to the rest of our population and ultimately the entire United States. The goal is to make Miami-Dade County a car-optional community by ensuring that mass-transit options are available everywhere in the County and region.

PROJECT SCHEDULE/STATUS

See Below Miami-Dade County Rapid Transit Corridor Plan.



FISCAL IMPACT

Project cost associated with the SMART Plan will be updated and refined upon completion of a future PD&E studies for each corridor. Capital Reserve Funding, amongst other funding sources, has been approved to fund the PD&E Studies for Beach Corridor, East-West Corridor and South-Dade TransitWay.

Capital Reserve Funding has also been approved to fund the TPO Project Implementation Plan (IP). The Project IP is designed to support the PD&E phase of the project by fully engaging all of the stakeholders in the corridor through a multiagency partnership.

	MIAMI-DADE COUNTY'S STRATEGIC MIAMI AREA RAPID TRANSIT (SMART) PLAN							
F	DOT				e June 28, 2017 TP Miami-Dade Transportation Planning Organization			COUNTY
Corridor Name	Limits	Corridor Length (miles)	Lead Agency	Start Date	End Date	FTA Class of Action (COA)	Recent Milestone	Upcoming Milestone
North Corridor (NW 27th Avenue)	Miami Intermodal Center (MIC) to NW 215th Street	12	FDOT-6	Jun-16	Aug-18	Anticipated Dec 2017		Alternatives Public Workshop Nov 2017
Beach Corridor	Miami Beach Convention Center to the Miami Design District (at or near NE 41st Street and NE 2nd Avenue	9.7	DTPW	May-17	Mar-18	TBD		Elected Officicals July 26, 2017. Public Kick-off scheduled for July 26th & 27th 2017.
East-West Corridor	Miami Intermodal Center (MIC) to Florida International University (FIU)	11	DTPW	Apr-17	Mar-18	TBD	Public Kick-off held June 13th and 15th 2017	Corridor Workshops Fall 2017
South Corridor	Florida City to Dadeland South Metrorail Station	20	DTPW	Apr-17	Mar-18	Environmental Assessment (EA)	Public Kick-off held May 31, 2017	Corridor Workshops Fall 2017
Tri-Rail Coastal Link (Northeast/ FEC Corridor)	Downtown Miami to City of Aventura (Miami-Dade segment)	13.5	FDOT-4; DTPW	On Hold	On Hold	TBD	N/A	N/A
Kendall Corridor	SW 167th Avenue to Dadeland Area Metrorail Stations	10	FDOT-6	Jun-16	Aug-18	TBD	Identification of Viable Alternatives 6/9/17. PAT Meeting #2 June, 29, 2017 to present viable alternatives	Alternatives Public Workshop Oct 2017







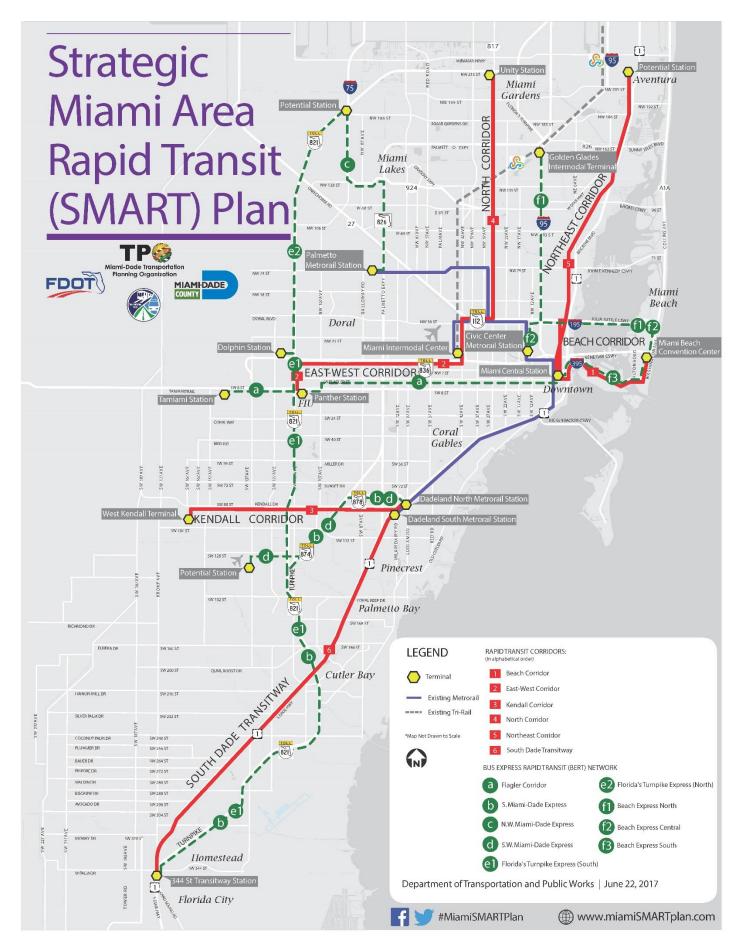
SMART PLAN BUS EXPRESS RAPID TRANSIT (BERT) NETWORK



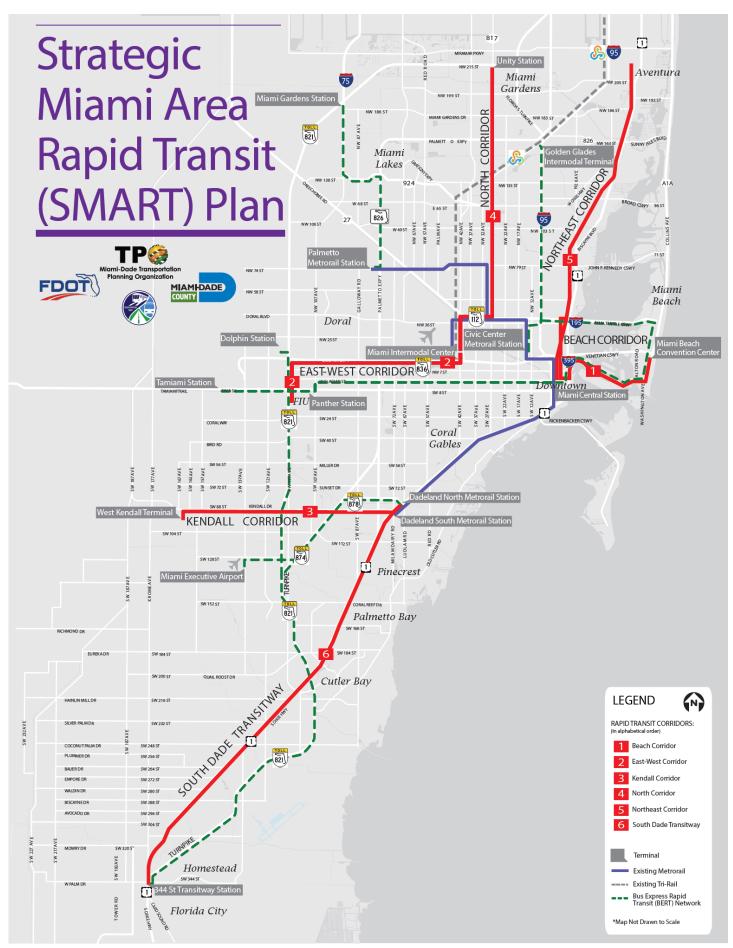


Project Name	SMART PLAN Route #	Location	Project Description	Distance (miles)	Commission District
Flagler Corridor	а	Flagler from SR-821/HEFT/SW 14/th Avenue to	Route will provide Bus Rapid Transit (BRT) service along Flagler Street from SR- 821/HEFT to Mami Central Station. Headways will vary depending on the operating plan, which includes local bus service and limited stop service.	15.4	5, 6, 10, 11, 12
S Miami-Dade Express	b	SW 344 St. Transitway Station/Dadeland North Metrorail Station Route will provide express bus service from the SW 344th Street Park-and-Ride along the Transitway to the Dadeland North Metrorail Station. Headways will be 10 minutes during peak hours.		24.7	7, 9
NW Miami-Dade Express	С	Mami Gardens Station / Palmetto Metrorail Station	Route will provide express bus service from the Mami Gardens Station to the Palmetto Metrorail Station. Headways will be 10 minutes during peak hours	8.9	12
SW Miami-Dade Express	d		Route will provide express bus service from the Marni Executive Airport to the Dadeland North Metrorail Station. Headways will be 10 minutes during peak hours.	8.5	7, 11
Florida's Turnpike Express (South)	e1		Route will provide express bus service from the SW 344th Street Park-and-Ride along the Transitway to Dolphin Station. Headways will be 10 minutes during peak hours.	28.0	9, 11
Florida's Turnpike Express (North)	e2		Route will provide express bus service from the FIU Panther Station to the Mami Gardens Station. This route will operate all day with 20 minute headways.	14.4	12,13
Beach Express North	f.1	Golden Glades Intermodal Terminal/Mami Beach	Route will provide express bus service from Golden Glades Intermodal Terminal to the Mami Beach Convention Center. Headways will be 10 minutes during peak hours and 20 minutes during off-peak hours. Service Span will be from 5:30am to 8:00pm.	13.8	2, 5
Beach Express Central	f.2	Civic Center Metrorall Station/Miami Beach	Route will provide express bus service from Civic Center Metrorall Station to the Mami Beach Convention Center. Headways will be 10 minutes during peak hours and 20 minutes during off-peak hours. Service Span will be from 5:30am to 9:00pm.	8.7	3, 5
Beach Express South			Route will provide express bus service from Mami Central Station to the Mami Beach Convention Center. Service will run all day with 10 minute headways. Service Span will be from 5:00am to 2:00am.	6.3	3, 5
	128.7				











18. Park-and-Ride Lot Expansion at South Miami-Dade Transitway and SW 152nd Street – NEW

Department: DTPW

Phase: Planning on Date: 2022

Completion Date: 2022
Funding Source(s): Various

Completion Percentage: Not Available

Capital Budget: Project #671610, (See Page 323)

PROJECT BACKGROUND

The SW 152nd Street park-and-ride lot is one of five park-and-ride facilities that have been the focus of the Department of Transportation and Public Works (DTPW) planning efforts to implement various infrastructure, service and operational improvements to address existing and future travel demands.

The SW 152nd Street park-and-ride lot facility is located at the Palmetto Golf Course on 9300 SW 152nd Street. This is a joint-use parking facility shared between DTPW and Miami-Dade County Department of Parks, Recreation and Open Spaces (PROS). Metrobus routes 31 Busway Local, 34 Busway Flyer, 38 Busway MAX, 52, 57, 252 Coral Reef MAX, and 287 Saga Bay MAX all provide connecting service to the SW 152nd Street Miami-Dade Transitway Station. The park-and-ride lot has 362 parking spaces of which 200 spaces are designated for DTPW's use. The current parking utilization rate is 100 percent.

In October 2014, the existing conditions at the SW 152nd Street park-and-ride lot were evaluated and deficiencies identified based upon a field review and collaboration with the Transportation Planning Organization and DTPW. The field review included an assessment of physical, operational and safety conditions at the facility. The deficiencies identified included evidence of cracking and depressions in the existing pavement, inadequate number of parking spaces, which includes Americans Disability Act (ADA) parking spaces. Restriping is needed at the crosswalk. The pedestrian access is substandard and needs ADA improvements. There is no passenger drop-off or bicycle facilities provided and improved signage is needed throughout the facility.

PROJECT DESCRIPTION

DTPW is proposing to upgrade the existing park-and-ride facility in two phases. In Phase 1, DTPW is proposing to add 84 parking spaces to the 362 existing parking spaces for the park-and-ride lot located at SW 152nd Street and the Transitway for a total of 446. In addition, DTPW would mill and resurface the entire existing parking lot, upgrade pavement markings, construct additional sidewalks and access points to improve pedestrian access, construct a canopy along the Transitway for passenger cover and comfort, add bicycle parking facilities, provide a kiss-and-ride drop-off area and upgrade parking to include additional disabled parking, stroller parking, vanpool/carpool parking, and electric vehicle parking with associated charging stations.

In Phase 2, the current park-and-ride facility will be modernized to a 511-space four-level garage. Improvements will include additional sidewalks and improved non-motorized circulation between the site, the Transitway station, and shared-use path. Other enhancements include secure high-capacity bicycle parking, a kiss-and-ride drop-off area, additional disabled parking, stroller parking, vanpool/carpool parking, electric vehicle charging spaces, and bike/car sharing capacity. Facility improvements would be constructed on property owned by PROS. As part of DTPW's agreement to expand station parking, recreational amenities will also be incorporated into the design such as a community center, a



soccer field, three tennis courts and six basketball courts. These additional PROS amenities are not part of the Transportation Investment Generating Economic Recovery (TIGER) grant application and will be funded through independent sources.

PROJECT SCHEDULE/STATUS

The scheduled completion date for Phase 1 is 2021. The schedule completion date for Phase 2 is to be determined.

*In October 2017, DTPW submitted a United States Department of Transportation TIGER Grant Application for Phase 2 improvements. In the event DTPW is awarded the TIGER Grant, Phase 1 of the SW 152nd Street park-and-ride expansion Project will be cancelled and DTPW will only proceed with Phase 2 of the project.

FISCAL IMPACT

Phase 1

The estimated project cost for the design and construction of the Phase 1 improvements to the park-and-ride lot at the South Dade Transitway and SW 152nd Street is \$4,510,000. A Joint Participation Agreement (JPA) will provide \$265,000 in State Fiscal Year (SFY) 2017 Florida Department of Transportation (FDOT) park-and-ride program funding for design activities. Bond proceeds from the Charter County Transportation Sales Surtax (Surtax) will be used as the 50% local match for FDOT's 2017 park-and-ride program funding as well as for the remaining construction costs. Approximately \$4,245,000 of surtax funds will be required in total.

*Note – DTPW will cancel Phase 1 of this project and proceed directly to Phase 2 in the event DTPW is awarded the TIGER grant.

Phase 2

The estimated project cost for the design and construction of the Phase 2 improvements to the park-and-ride lot at the South Dade Transitway and SW 152nd Street is \$10,000,000. A TIGER Grant will be used to fund \$4,750,000 of the construction activities. Additionally, a JPA with FDOT will provide \$265,000 in SFY 2017 FDOT park-and-ride program funding for design activities. Bond proceeds from the Surtax will be used as the 50% local match for FDOT's 2017 park-and-ride program funding as well as for the remaining construction costs. Approximately \$4,985,000 of Surtax funds will be required in total.

*Note – DTPW will postpone Phase 2 of this project and only implement Phase 1 in the event DTPW is not awarded the TIGER grant.



19. NW 12th Street Improvements– NEW

Department: DTPW

Phase: Design/Build Phase

Completion Date: December 2017

Funding Source(s): PTP/FDOT

Completion Percentage: 20%

Capital Budget: Project #671610 (See Page 323)

PROJECT BACKGROUND

Miami-Dade Department of Transportation and Public Works has identified a need to provide a new park-and-ride /transit terminal facility to support the SR 836 Express Bus Service as well as other planned express bus routes and provide a terminus or stop for several local bus routes serving the Dolphin Mall and nearby cities of Sweetwater and Doral. The desired site is comprised of approximately 15 acres of publicly-owned vacant land located within the Northwest quadrant of the Homestead Extension of the Florida's Turnpike and NW 12th Street intersection in Miami-Dade County.

PROJECT DESCRIPTION

The proposed facility will have approximately 850 parking spaces, parking for bicycles, motorcycles, twelve (12) bus bays, six (6) layover bays, passenger seating, a bus driver comfort station, a transit hub with passenger waiting areas, landscaping, fencing and lighting. The land is owned by the Florida Department of Transportation (FDOT) and the project is being implemented by the Miami-Dade Expressway Authority. Once the improvements are completed, the land and its improvements will be turned over to the County to operate and maintain.

PROJECT SCHEDULE/STATUS

The facility is scheduled to open December 2017.

FISCAL IMPACT

The estimated project cost is \$10.75 M with \$82,000 expended.



20. Dolphin Station Park and Ride (HEFT at NW 12th Street) – NEW

Department: DTPW

Phase: Construction

Completion Date: 2018

Funding Source(s): PTP Surtax
Completion Percentage: Not Available

Capital Budget: Project# 671610, (See Page 323)

PROJECT BACKGROUND

Property owned by the Florida Department of Transportation located adjacent to the intersection of the Homestead Extension of the Florida Turnpike (HEFT/SR 821), SR 836 and NW 12th Street has been identified as a strategic location for a transit center with a park-and-ride facility.

PROJECT DESCRIPTION

The Dolphin Station Park-and-Ride/Transit Terminal Facility will provide approximately 850 parking spaces and will support the future SR 836 Express Bus Service while serving as a potential terminus or stop for several local bus routes that currently serve the Dolphin Mall and nearby Cities of Sweetwater and Doral.

PROJECT SCHEDULE/STATUS

A groundbreaking ceremony was held in January 2017. The scheduled construction completion date is late 2017.

FISCAL IMPACT

The total cost of the project is \$13.429 million.



21. Palmetto Intermodal Terminal – NFW

Department: DTPW

Phase: Planning

Completion Date: TBD

Funding Source(s): PTP/Surtax

Completion Percentage: N/A

Capital Budget: Project # TBD in FY 2017-2018 Proposed Capital Plan

PROJECT BACKGROUND

In 2014, the Department of Transportation and Public Works in collaboration with the Transportation Planning Organization completed the Palmetto Intermodal Terminal Feasibility Study. This feasibility study developed a set of recommendations and steps needed for the continued planning of the proposed intermodal facility, as well as the associated roadway and other potential off-site improvements based on the preferred Final Site Development Configuration. These recommended phases are currently unfunded and would be subsequent to property acquisition. The location of this proposed future terminal is immediately south of the Palmetto Metrorail Station and consists of approximately 11.9 acres of semi-vacant land.

PROJECT DESCRIPTION

The first phase of this project is property acquisition. Subsequent unfunded phases include but are not limited to a minimum of 1,000 space parking garage which includes long-term parking, short-term parking, kiss-and-ride, pool-and-ride and a minimum of 12 bus bays. This intermodal terminal will provide strategic transit oriented development opportunities.

PROJECT SCHEDULE/STATUS

The scheduled completion date is to be determined.

FISCAL IMPACT

The estimated project cost for acquiring the necessary right-of-way (Phase 1) is \$11.641 million.



22. Parking Garages Overhaul – *NEW*

Department: DTPW

Phase: Planning
Completion Date: 2021/2021
Funding Source(s): PTP/Surtax

Completion Percentage: 0%

Capital Budget: Project #671560, (See Page 310)

PROJECT BACKGROUND

The existing parking garages are thirty (30) plus years old and twenty (20) plus years old at Dadeland North Parking Garage. The structural integrity of the parking garages have all deteriorated beyond repairs and require a comprehensive renovation to address health and safety concerns from patrons parking in the garages. This project is significant to the transportation program because it will reduce customer complaints, enhances the appearance of the parking garages and prolongs the life of essential equipment in the garages.

PROJECT DESCRIPTION

This is a request for contracted services for the Parking Garages Overhaul at six (6) locations, which includes Dadeland South, Dadeland North, South Miami, Earlington Heights, Martin Luther King and Okeechobee Parking Garages. The Parking Garages Overhaul will include total repair and/or replacement based on the engineering specifications of the roll-up gates, access doors, expansion joints, structural assessment, structural elements, fire sprinkler systems, replace communication systems, Closed Circuit Television (CCTV), pressure cleaning, painting, restriping, numbering, lightning protection, drainage, stairwells and vertical transportation, if applicable, etc.

PROJECT SCHEDULE/STATUS

This project is in the initiation phase and will begin in October of 2017 and is scheduled for completion in fiscal year 2021/2022.

FISCAL IMPACT

The preliminary budget shows \$16.0 million of Peoples' Transportation Plan Surtax funds to be used over five years, \$3.2 million per year commencing in fiscal 2017/2018.



23. AC Unit Substations (Replace All Major Power Components) – NEW

Department: DTPW

Phase: Planning and Design

Completion Date: June 2021 **Funding Source(s):** PTP/Surtax

Completion Percentage: 0%

Capital Budget: Project #200000185, (See Page 321)

PROJECT BACKGROUND

The AC unit substations are responsible for providing operational power to the Metrorail rail cars traction power and propulsion systems and all vehicle operational power (for AC and communications systems). The substations also provide power to the Train Control and Communications rooms and power to the Metrorail Stations. The substations have been in service for approximately 30 years.

PROJECT DESCRIPTION

Replace existing equipment in the AC unit substations that have been in service since Metrorail first commissioned.

PROJECT SCHEDULE/STATUS

The project will be implemented at the conclusion of the DC Switchgear upgrade project. Estimated project start date will be in June, 2018 and scheduled completion in 2021.

FISCAL IMPACT

The estimated cost of the project is \$15.0 million.



24. Brickell Painting – NEW

Department: DTPW

Phase: Planning

Completion Date: January 2021 **Funding Source(s):** PTP/Surtax

Completion Percentage: 0%

Capital Budget: Project# 200000185, (See Page 321)

PROJECT BACKGROUND

Brickell extension -Metromover's steel structure has been identified with needing painting and seal coating protection was not achieved within the Operating budget. Previous inspections of the Metromover's structures has required regular maintenance and repair orders to maintain a clean and serviceable asset. Metromover's since new construction erected in 2015 has not been completely maintained by design standards. The Board awarded financing to facilitate the painting and protective coating of the extensions under the (IRP) Infrastructure Renewal Program

PROJECT DESCRIPTION

Metromover's Brickell extension shall have loose materials removed from the steel girders, rusting parts will be treated, and girders painted, preventing further deterioration.

PROJECT SCHEDULE/STATUS

Inner loop – Implementation: 1/10/2021- completion: 6/30/2022

FISCAL IMPACT

The estimate cost for this project is \$4.760 million.



25. Inner loop Painting – *NEW*

Department: DTPW

Phase: Planning

Completion Date: January 2018 **Funding Source(s):** PTP/Surtax

Completion Percentage: 0%

Capital Budget: Project# 200000185, (See Page 321)

PROJECT BACKGROUND

Inner loop -Metromover's steel structure has been identified with needing painting and seal coating protection was not achieved within the department's Operating budget. Previous inspections of the Metromover's structures has required regular maintenance and repair orders to maintain a clean and serviceable asset. Metromover's since new construction erected in 2015 has not been completely maintained by design standards. The Board awarded financing to facilitate the painting and protective coating of the extensions under the Infrastructure Renewal Program.

PROJECT DESCRIPTION

Metromover's Inner loop extensions shall have loose materials removed from the steel girders, rusting parts will be treated, and girders painted, preventing further deterioration.

PROJECT SCHEDULE/STATUS

Inner loop – Implementation: 1/10/2021- completion: 6/30/2022

FISCAL IMPACT

The estimated cost for this project is \$8.22 million.



26. Omni Painting – *NEW*

Department: DTPW

Phase: Planning

Completion Date: January 2018 **Funding Source(s):** PTP/Surtax

Completion Percentage: 0%

Capital Budget: Project# 200000185, (See Page 321)

PROJECT BACKGROUND

Omni-Metromover's steel structure has been identified with needing painting and seal coating protection was not achieved within the Operating budget. Previous inspections of the Metromover's structures has required regular maintenance and repair orders to maintain a clean and serviceable asset. Metromover's since new construction erected in 2015 has not been completely maintained by design standards. The Board awarded financing to facilitate the painting and protective coating of the extensions under the Infrastructure Renewal Program

PROJECT DESCRIPTION

Metromover's Omni extensions shall have loose materials removed from the steel girders, rusting parts will be treated, and girders painted, preventing further deterioration.

PROJECT SCHEDULE/STATUS

Omni – Implementation: 1/10/2018 – completion: 6/30/2019

FISCAL IMPACT

The estimated cost for this project is \$6.44 million.



27. Metrorail Fiber Optic Repair and Capacity Augmentation – NEW

Department: DTPW

Phase: Construction
Completion Date: August 2017
Funding Source(s): FTA 5307 / PTP

Completion Percentage: 5%

Capital Budget: Project #200000434 (See Page 329)

PROJECT BACKGROUND

The existing Fiber Optic cable was originally installed in 1995 and has been in service for the past 21 years. Over that time, there have been several network outages due to degraded performance of the cable, which was as a result of rodent damage. The fiber optic cable is used as a transportation medium for critical information between each of the Train Stations and the Central Control Facility in the Stephen P. Clark Center. The information that is exchanged between the Control Center and the Train Stations include Train Control, Traction Power, station Fire Alarm status, Emergency Telephone communications, Public Address and Closed Circuit Television (CCTV) video. The Fire Alarm and CCTV information are life-safety in nature and need to be available at all times. The fiber optic cable also supports the ESIS train arrival time information, media advertisement displays, access control, and customer WiFi access at all stations.

PROJECT DESCRIPTION

Replace existing fiber optic cable on all 25 miles of the Metrorail system, and will allow for a new network design to be employed by Miami-Dade County's Information Technology Department. The new design will provide for a more robust network that will ensure improved performance, greater bandwidth and greater reliability, and improved cybersecurity. Approximately 50 to 55 miles of Fiber Optic Cable will be installed at all Metrorail Stations.

PROJECT SCHEDULE/STATUS

The total project completion is approximately 5% as of March 2017 and includes the completion of the Technical Requirements and Scope of Work. The project is expected to last for three years once the Notice-to-Proceed is given to the eventual contractor. The project duration is a function of the quantity of Fiber Optic Cable that will be installed, and the goal of minimizing any service disruptions during the work, which will be performed during off-revenue hours.

FISCAL IMPACT

The Fiscal impact will be \$7.5 million and will be revenue neutral to the County since it is supported by a Federal Transit Administration grant with a Peoples' Transportation Plan Surtax match.



28. Metromover Escalators Replacement and Elevator Refurbishment – NEW

Department: DTPW

Phase: Planning

Completion Date: Fiscal Year 2021/2022

Funding Source(s): PTP/Surtax

Completion Percentage: 0%

Capital Budget: Project #673910, (See Page 319)

PROJECT BACKGROUND

The Elevator and Escalator systems were installed between the years of 1986 to 1994, varying in age from 31 to 23 years. This equipment provides access from the ground level to the platform level of stations. The elevators are critical component for American Disability Act accessibility. The Elevator/Escalator modernization and replacement project is included in the Department of Transportation and Public Works Capital Improvement Plan approved for Peoples' Transportation Plan (PTP) funding.

PROJECT DESCRIPTION

Demolition/replacement of escalators and the overhaul/modernization of elevator used in our stations. These units are reaching the end of their useful life. New escalators equipped with the current code required safety devices/canopies and modernized elevator units meeting current code requirements will replace the existing units. The new units will provide for more efficient operation.

PROJECT SCHEDULE/STATUS

This project is in the initiation phase and will begin in October 2017.

FISCAL IMPACT

The estimated cost for this project is \$18 million.



29. Metrorail Stations Refurbishment – NEW

Department: DTPW

Phase: Planning

Completion Date: Fiscal Year 2019 **Funding Source(s):** PTP/Surtax

Completion Percentage: 76%

Capital Budget: Project# 200000104, (See Page 320)

PROJECT BACKGROUND

This project was approved in order to enhance and refurbish the existing Metrorail Stations in an effort to improve safety, comfort and convenience of the traveling public and employees. The first phase, will involve conducting site inspections of the existing Metrorail Stations and preparing a report and cost estimates of the proposed improvements to be used for prioritization by the Department of Transportation and Public Works (DTPW).

PROJECT DESCRIPTION

Phase 1 - Conduct a field assessment, visual inspections to all Metrorail stations, preparing cost estimates and implementation identifying improvements on a short or long term basis. The Project includes implementation of the enhancements and improvements based on budget availability.

PROJECT SCHEDULE/STATUS

Refurbishment study is on-going.

FISCAL IMPACT

The current project budget is \$35.0 million. At the completion of Phase 1, DTPW will prioritize the implementation of the proposed improvements. Based on current cost estimates developed as a result of the on-going field assessments, additional funding will be required. The additional funding will be better evaluated once the prioritization process to implement the proposed improvement is completed.



30. Traction Power Switchgear Equipment - NEW

Department: DTPW

Phase: Procurement

Completion Date: Pending **Funding Source(s):** PTP/Surtax

Completion Percentage: 2%

Capital Budget: Project# 200000104, (See Page 320)

PROJECT BACKGROUND

The project involves removal of obsolete Traction Power Switchgear equipment and replace with new updated Siemens switchgear. This Infrastructure Renewal Plan would replace switchgear at the Martin Luther King, Brownsville and Earlington Heights Traction Power Sub-Stations (TPSS). Contractor will remove existing switchgear, inventory, replace with new equipment, test and safety certify. This equipment will meet specifications and certifications of the new Miami Intermodal Center and Palmetto Stations along with IRP042.

PROJECT DESCRIPTION

Design, fabrication, removal of existing equipment, installation, testing and safety certification at Martin Luther King, Brownsville and Earlington Heights TPSS.

PROJECT SCHEDULE/STATUS

The project was submitted on March 12, 2015 and will be implemented when Procurement commences the advertising process: Request for Quote and awards the purchase order.

FISCAL IMPACT

The estimated cost of the project is \$2.5 million.



31. Metrorail Tri-Rail Traction Power Sub-Station – NEW

Department: DTPW

Phase: Project Development

Completion Date: Pending **Funding Source(s):** PTP/Surtax

Completion Percentage: 0%

Capital Budget: Project# 200000104, (See Page 320)

PROJECT BACKGROUND

The project is for a new Traction Power Sub-Station including all of the equipment to be located at the Tri-Rail Metrorail Station, with related site and off site work, implemented by a design-built delivery method. This will improve the quality and effectiveness of Transit services in the Tri-Rail area. It will enhance current Metrorail operation performance as well as support the new Metrorail railcars. The sub-station will support the existing Metrorail Station, facilities and support all traction power requirements.

PROJECT DESCRIPTION

Design, construction, testing and safety certification of a new traction power sub-station.

PROJECT SCHEDULE/STATUS

This project is in the Procurement phase.

FISCAL IMPACT

The estimated cost of the project will be \$12 million.



32. The Metromover Comprehensive Wayside Overhaul - *NEW*

Department: DTPW

Phase: Planning – Development of RFP

Completion Date: Calendar Year, Mid-2018

Funding Source(s): PTP/FTA **Completion Percentage:** N/A

Capital Budget: Project #673910, (See Page 319)

PROJECT BACKGROUND

The Metromover System opened in 1986, with two loops in Downtown Miami totaling 1.9 miles of dual loop elevated guideway. In 1994 the Metromover extensions opened to increase the guideway total to 4.4 miles. The Metromover System has twenty-one (21) stations servicing Downtown Miami, the Brickell business district and Omni areas. The Metromover Vehicles are rubber tired, electrically-powered and fully automated.

Due to obsolescence of nearly every Wayside Subsystem impacting the Metromover System, the County is replacing or overhauling the affected subsystems. In addition, Downtown Miami area continues to grow, resulting in increased ridership. In order to meet the ridership demands and potential system expansion the general scope of work has been developed.

PROJECT DESCRIPTION

The project consists of the replacement or refurbishment of the following subsystems and equipment –

- Central Control Replacement/Upgrade, to include the replacement of Consoles, Mimic Boards, Train Control Computer, Train Control Computer I/O Subsystem.
- DTS SCADA Replacement. Additional connections to fully utilize the Breaker Digitrip Functionality
- Train Control Replacement, to include replacement of Interlocking, Multiplexing, and Transmit & Receive Cabinets. Foresee moving away from a fixed block Train Control System to CBTC
- Replacement of Guideway Switch, Logic Control and Hydraulic Cabinets SLCC
- Replacement of Guideway Switch, Grounding Switches and associated cabling
- Replacement of Wayside ATO equipment.
- Refurbishment or Replacement of 600V Main, Station and Rail Feeder Breakers
- Replacement of Power Transfer Switches at GAP Stations
- Replacement of Motor Control Centers at School Board Maintenance and Downtown Maintenance
- Test Track Safety Walkway (scope modified reduced)

PROJECT SCHEDULE/STATUS

The development of Request for Proposal (RFP) process has begun by soliciting Engineering Consulting companies to quote their services to develop the RFP document with the Department of Transportation and Public Works (DTPW), from an expanded scope of work developed by DTPW. It is expected that the selection of an Engineering Consultant company will be completed in April 2017. Completion of the RFP document should take approximately six months, and advertisement of is expected in early 2018. The duration of the project Notice to Proceed to completion is 42 to 48 months.

FISCAL IMPACT

The project estimated budget is \$89.3 million. Currently the funding is \$36.627 million (FTA) and \$52.645 (PTP).



33. Disaster Recovery Control Center (at PYD) - NEW

Department: DTPW

Phase: Planning

Completion Date: October 2017 **Funding Source(s):** PTP/Surtax

Completion Percentage: 7%

Capital Budget: Project #674560, (See Page 319)

PROJECT BACKGROUND

The Department of Transportation and Public Works (DTPW) Transit system is the 15th largest Rail System in the United Stated and the largest in the State of Florida. Metrorail Traffic is monitored and managed by a team of Rail Traffic Controllers on a 24 hour rotation, 365 days a year, DTPW embarked on a capital project to improve, upgrade and modernize the existing Control Center in 2012. The project involved the addition of several upgraded systems including an Electronic Display Board to provide information on the location of rail car traffic and Traction power, and new logging capabilities for the entire system.

The upgrade of the Metrorail Control Center (MRCC) in the Stephen P. Clark Center (SPCC) was completed in February of 2016. The Control Center is fully operational.

A disaster recovery site was also added to the Yard Tower in the Lehman Center as part of the MRCC Upgrade project. The recovery site can at best, accommodate one Rail Traffic Controller (RTC) for a limited period of time. In the Yard Tower, the RTC would have limited visibility to the main line on workstation screens and would need to use a hand-held radio to communicate with Railcar Operators. This means of operation could have a significant impact on the ensuring that schedules are kept and headways maintained during normal revenue hours in the event that it is used during revenue hours. There would also be an impact on the Yard Masters who manage safe train movement within the confines of the Lehman maintenance facility due to the co-location of the RTCs and Yard masters. They each have non-overlapping responsibilities in ensuring safe rail car movement.

In order to provide a fully functional Rail Traffic Control Center that can be fully staffed and operational in the event it needs to be used if the main Control Center at SPCC is unavailable, an existing space at the Lehman Facility will be converted to a recovery Rail Traffic Control Center. The Disaster Recovery Center will enable occupancy by multiple Rail Traffic Controllers and will enable visibility of the entire Metrorail system on new Electronic MIMIC boards similar to the existing MIMIC board in the SPCC Control Center.

PROJECT DESCRIPTION

Add multiple workstations, operator consoles, a radio system, CCTV, telephones, communications systems, new lighting, Electrical, HVAC, and office equipment and will encompass architectural modifications to the existing space that will be used for the Recovery Center. The existing SCADA and Enterprise networks will be extended to the new workspace to provide Network connectivity. The addition of the Disaster Recovery Control Center will ensure that under emergency conditions, or during maintenance intervals during which the main Control Center at SPCC may not be fully operational, the management and monitoring of the Metrorail System could continue from the Lehman Center facility without a loss of operational readiness or compromising the safety of the Metrorail System.



PROJECT SCHEDULE/STATUS

The project is in the Planning phase and is anticipated to begin in October 2017.

FISCAL IMPACT

The fiscal impact for the project will be \$9.855 million.



34. Underfloor Rail Truing Machine - NEW

Department: DTPW

Phase: Planning
Completion Date: FY 2018
Funding Source(s): PTP/Surtax

Completion Percentage: 38%

Capital Budget: Project #674560, (See Page 319)

PROJECT BACKGROUND

The William Lehman Facility currently employs an underfloor Hegenscheidt single axle wheel truing machine that will remain in place, and continue to be used in addition to the new machine. The new machine is envisioned to be an automatic underfloor Computer Numerically Controlled lathe or milling machine, capable of measuring, and machining one truck, or two wheel sets simultaneously. This machine will be operated via a central control panel which allows continuous access to all machine functions in an optimal and protected Operator position. The installation will be advertised as a turn-key effort, where the machine will be housed inside a separate building, where all work will be performed by an outside contractor. Building will be equipped with required power requirements, safety certifications applicable to Dade County Building Code.

PROJECT DESCRIPTION

Purchase a new Tandem, Underfloor, Railcar Wheel Truing Machine, to support the new railcar procurement of up to 136 rail vehicles. These vehicles will replace the existing 136 railcar fleet. The railcars will be heavy rail married pairs, weighing approximately 83,000 lbs/vehicle, using 28 inch wheels and equipped with disc brakes.

PROJECT SCHEDULE/STATUS

This project is currently in the Planning phase. The estimated completion date is FY 2018.

FISCAL IMPACT

The estimated cost for this project is \$7 million.



35. Acoustical Barrier Replacement - NEW

Department: DTPW

Phase: Planning

Completion Date: January 2019 **Funding Source(s):** PTP/Surtax

Completion Percentage: N/A

Capital Budget: Project# 6710900, (See Page 320)

PROJECT BACKGROUND

There are approximately a combination of 165,000 feet of concrete & metal acoustical barrier panels on Metrorail's guideway system that need to be removed and replaced, (excluding the Miami Intermodal Center (MIC) extension). The current acoustical panels were installed during the construction phase approximately 36 years ago. Acoustical barrier systems provide various functions throughout the entire guideway system; they provide a minimal required (DB) noise level to adjacent communities, provide fall protection for work crews, and contain debris from falling off the guideway. The barriers have exceeded their life cycle and functionality. Approximately 50,000 sq. ft. have either been removed and/or are considered defective identified through inspection cycles. Acoustical barriers are mainly installed on elevated structures that travel through communities, crosses major highways, and waterways. The Department of Transportation and Public Works (DTPW) Track and Guideway division is responsible for maintaining the proper fit and alignment of the existing design. The infrastructure of the rail system is failing at a considerable rate in which the current barriers can no longer be maintained. Track and Guideway will have to remove the old deteriorated barriers and replace with new barriers. The scope is directed to remove the old deteriorated acoustical barrier system and replace with a new acoustical barrier system that is consistent with the MIC extension. Rail bound equipment, roadway equipment, tools, and material will need to be acquired to execute this project.

PROJECT DESCRIPTION

Remove all the acoustical barriers (concrete & metal) on DTPW's Metrorail system and replacing them with a light weight composite acoustical barrier that will be installed by Contractors and internal staff. As part of the agreement, the Contractors will train DTPW's staff on the component installation, so that staff will have knowledge on how to repair and install the new acoustical barriers.

PROJECT SCHEDULE/STATUS

Project specifications are currently being developed. The estimated completion date is beyond FY 2023.

FISCAL IMPACT

The estimated cost for this project is \$48.75 million.



36. Green Line Rail Component Renewal – NEW

Department: DTPW

Phase: Planning

Completion Date: 2023

Funding Source(s): PTP/Surtax

Completion Percentage: 0%

Capital Budget: Project# 6710900, (See Page 320)

PROJECT BACKGROUND

Miami-Dade County Metrorail system has been in operation service since 1984 and currently has 24.4 miles of track, each direction that totals 48.8 miles. The majority of track infrastructure is near or at its life cycle.

The mainline operating system needs to be renewed to maintain serviceability. Miami-Dade County Metrorail Track and Guideway maintenance division is actively developing a multiple renewal programs to maintain the track system to a "State of Good Repair".

The investment cost of this type renewal projects are to assure and maintain safe reliable rail service. The deterioration rate will increase with procurement of the new rail vehicles configuration. In order to maintain the rail system and according to the Track Safety Standards through Department of Transportation and Public Works and APTA's review recommendation. Track inspections reporting systems targets replacement area of approximately 40 miles of direct fixation, ballasted and aerial structure track. That includes various amounts and types of track services and material.

PROJECT DESCRIPTION

Replace 40 miles of track, 5,000 tons of running rail with miter joints at both ends to include: 200,000 Rail fasteners with welding in the process and third rail.

PROJECT SCHEDULE/STATUS

The removal and replacement of these materials will be primarily done by in-house personnel. Some portions of this project will require the assistance of an outside contractor. This project will require single tracking as well as power outages after revenue service hours. Man hours for this project and materials are required to successfully be completed.

FISCAL IMPACT

The total project cost is estimated at \$80 million. Operating cost for this type infrastructure renewal is not included in the estimated project cost.



37. 10-15 year Track Equipment Replacement – NEW

Department: DTPW

Phase: Planning

Completion Date: September 2023 **Funding Source(s):** PTP/Surtax

Completion Percentage: 0%

Capital Budget: Project# 6710900, (See Page 320)

PROJECT BACKGROUND

The Rail Services heavy equipment 10 and 15 replacement plan will cover all of the equipment purchased from 1988. The heavy equipment and the work trains are estimated at \$250,000 to \$2,000,000 each. Plan will be ongoing. An additional 4.7 million was needed to purchase heavy equipment.

PROJECT DESCRIPTION

Replace rail services heavy track equipment. Track Equipment Operators perform oil changes and minor maintenance; no overhauls can be performed. Rail bound equipment cannot be rented and has a 10-15 year life. Major equipment, Kershaw work train, Tamper, KGT Hi-rail, Welders, and light plants have already passed the useful life by over five years.

PROJECT SCHEDULE/STATUS

This project is currently in the Planning phase. The estimated completion is September 2023.

FISCAL IMPACT

The estimated cost of this project is \$6.27 million.



38. Metrorail Maintenance Vehicle Lifts – NEW

Department: DTPW

Phase: Planning

Completion Date: FY 2018 **Funding Source(s):** PTP/Surtax

Completion Percentage: N/A

Capital Budget: Project# 675410, (See Page 314)

PROJECT BACKGROUND

The Metrorail railcar lifts at the Lehman Center has extensive wear and tear, and is well over 30 years old. The Department of Transportation and Public Works (DTPW), Rail Vehicle Maintenance and Facilities Maintenance currently face challenges relating to safety, parts availability and excessive downtime. Not only are these lifts obsolete, but also, the original manufacturer, Joyce-Cridland is no longer in business. This equipment is used daily, 24 hours per day, during every shift operation to lift 40 ton vehicles evenly (two at a time).

PROJECT DESCRIPTION

DTPW is requesting the replacement three (3) deep pit railcar hoist for lifting and detrucking operations. Each lift consists of four (4) car hoist, rated at twenty-five (25) tons each and eight body supports, rated at 12.5 tons each and lifting height at a minimum of six (6) feet.

Replacement would also include:

- Two (2) shallow pit repair hoists, each rated at seven and half (7.5) ton capacity with lifting height to six (6) feet.
- Six (6) manually operated truck turntables with a least two (2) locking mechanisms per turntable.

PROJECT SCHEDULE/STATUS

Final review of specs completed, pending response from Miami-Dade County Internal Services Department regarding original equipment manufacturer insurance obligations.

FISCAL IMPACT

The estimated cost of this project is \$5.4 million.



39. East-West Corridor Transit Oriented Development (TOD) Project – NEW

Department: DTPW

Phase: Design Completion Date: 2020

Funding Source(s): PTP Surtax

Completion Percentage: N/A

Capital Budget: Project #672670, (See Page 326)

PROJECT BACKGROUND

On April 14, 2016, the United States Department of Transportation (USDOT), Federal Transit Administration (FTA) published a Notice of Funding Opportunity (NOFO) (81 FR 22155) announcing the availability of \$20.49 million in federal funding for the Pilot Program for Transit Oriented Development (TOD) Planning projects. The program supports comprehensive planning efforts associated with new fixed guideway and core capacity improvement projects that are seeking or have recently received funding through FTA's Fixed Guideway Capital Investment Grants. In response to the NOFO, the Miami-Dade County Department of Transportation and Public Works (DTPW) submitted a grant application in June 2016 to USDOT, FTA requesting \$960,000 in federal funding to be used to prepare a Master TOD Plan for the County's East-West Rapid Transit Corridor. In October 2016, DTPW's Master TOD Plan for the County's East-West Rapid Transit Corridor project was one of 16 projects selected by the FTA to receive federal funding.

PROJECT DESCRIPTION

The East-West Corridor is one of six premium transit corridors included in the Strategic Miami Area Rapid Transit Plan as endorsed by the Miami-Dade Transportation Planning Organization Governing Board. DTPW will conduct a comprehensive planning effort that will inform transit and land use planning in the East-West Corridor, an 11-mile corridor linking the Miami Intermodal Center at Miami International Airport with Florida International University and the western communities of Miami-Dade County. DTPW is currently finalizing a draft scope of services for this project.

PROJECT SCHEDULE/STATUS

The scheduled completion date is September 2020.

FISCAL IMPACT

The estimated project cost for this project is \$1.2 million.



SMART Plan Bus Express Rapid Transit (BERT) Network – NEW 40.

Department: DTPW

Phase: Design Completion Date: 2020

Funding Source(s): PTP Surtax

Completion Percentage: N/A

Capital Budget: Project #672670, (See Page 326)

PROJECT BACKGROUND

In February 2016, the Miami-Dade Transportation Planning Organization (TPO) Governing Board unanimously approved a policy to set as "highest priority" the advancement of rapid transit corridors and transit supportive projects for the County. On April 2016, the TPO Governing Board adopted the Strategic Miami Area Rapid Transit (SMART) Plan, which includes six (6) rapid transit corridors and a Bus Express Rapid Transit (BERT) network. Subsequently, the Department of Transportation and Public Works (DTPW) staff started the planning activities for implementation of the BERT network. DTPW preliminarily assessed the infrastructure needs for the BERT network. Necessary infrastructure projects such as, but not limited to, new transit terminals, improvement to or expansion of existing terminals, and new direct roadway/ramp connections are needed to implement the BERT network. This effort is being completed in coordination with transportation entities such as Florida Department of Transportation (FDOT), Miami-Dade Expressway Authority and Florida's Turnpike Enterprise to ensure transit access to roadways are supported.

PROJECT DESCRIPTION

The BERT network is made up of nine (9) bus routes that provide service throughout the County. The table below from the 2017 Transit Development Plan provides detail for each of these express routes.

SMART Plan Route #	Project Name	Location		Project		Cost (in 000s)			
			Project Description		Commission District	Capital Cost†	O&M (Annual)		2040 LRTF Status
a	Flagler Corridor	Tamiami Station/SW 147th Avenue to Downtown Mami	In 2016, FDOT initiated a Project Development and Environment (PD&E) study to examine implementation of Bus Rapid Transit (BRT) service and infrastructure improvements along SR 998/Flaged Street from SR 2014/FET 10 SR 5014-Fiblicayne BM. The primary study objective is to evaluate the implementation of a cost-effective, high-indership BRT system within the SR 998/Flaged Fiset Corridor that is to be part of an overall interconnected premium transit network. The FDOT project team is currently identifying and refining recommended alternatives. The study is scheduled for completion by mid-2018. DTPW is coordinating the bus purchase component of this project which includes purchase of 10 new 60-foot alternative fuel buses. Acceptance of vehicles is anticipated in late 2017.	15.4	5, 6, 10, 11, 12	\$5,521 (Cost of PD&Study Only)	TBD	10	Priority I
b	S Mami-Dade Express	SW 344 St. Transitway Station/Dadeland North Metrorail Station	Route will provide express bus service from the SW 344th Street Park-and-Ride along the Transitway to the Dadeland North Metrorail Station. Headways will be 10 minutes during peak hours.	24.7	7, 9	\$15,000	\$2,915	15	N/A
С	NW Mami-Dade Express	Mami Gardens Station / Palmetto Metrorail Station	Route will provide express bus service from the Mami Gardens Station to the Palmetto Metrorail Station. Headways will be 10 minutes during peak hours	8.9	12	\$8,000	\$1,458	8	N/A
d	SW Mami-Dade Express	Mami Executive Airport/Dadeland North Metrorail Station	Route will provide express bus service from the Mami Executive Airport to the Dadeland North Metrorail Station. Headways will be 10 minutes during peak hours.	8.5	7, 11	\$8,000	\$1,458	8	N/A
e1	Florida's Turnpike Express (South)	344 St. Transitway Station/Dolphin Station	Route will provide express bus service from the SW 344th Street Park-and-Ride along the Transitway to Dolphin Station. Headways will be 10 minutes during peak hours.	28.0	9, 11	\$16,000	\$3,158	16	N/A
e2	Florida's Turnpike Express (North)	FIU Panther Station/Mami Gardens Station	Route will provide express bus service from the FIU Panther Station to the Marni Gardens Station. This route will operate all day with 20 minute headways	14.4	12, 13	\$4,000	\$2,221	4	N/A
ff	Beach Express North	Golden Glades Intermodal Terminal/Miami Beach Convention Center	Route will provide express bus service from Golden Glades Intermodal Terminal to the Mamil Beach Convention Center. Headways will be 10 minutes during peak hours and 20 minutes during off-peak hours. Service Span will be from 5:30am to 8:00pm.	13.8	2, 5	\$9,000	\$2,742	9	N/A
f2	Beach Express Central	Civic Center Metrorail Station/Mami Beach Convention Center	Route will provide express bus service from Civic Center Metrorail Station to the Mami Beach Convention Center. Headways will be 10 minutes during peak hours and 20 minutes during off-peak hours. Service Span will be from 5:30am to 9:00pm.	8.7	3, 5	\$6,000	\$2,100	6	N/A
f3	Beach Express South	Miami Central Station/Miami Beach Convention Center	Route will provide express bus service from Mami Central Station to the Mami Beach Convention Center. Service will run all day with 10 minute headways. Service Span will be from 5:00am to 2:00am.	6.3	3, 5	\$6,000	\$3,644	6	N/A
Total Distance of BERT Network is 128.7 miles					TOTALCOST (000S)	\$72,000	\$19,696		



PROJECT SCHEDULE/STATUS

Among all of the BERT routes, some are further advanced than others based on the infrastructure needs. Routes b, e1, and f3 are anticipated to be implemented in 2018. Routes c, d, e2, f1, and f2 will be the next routes to be implemented. Route a (Flagler Corridor) is undergoing a project development & environment study carried out by FDOT and is expected to be completed by mid-2018. Based on the results of the study, a more detailed project schedule and funding requirements will be developed.

FISCAL IMPACT

The estimated capital cost of the project is \$72 million. The estimated annual operating and maintenance cost is \$19.7 million. The estimated cost for completing the planning/environmental studies for the BERT network is \$2 million. These estimates do not include Route a (Flagler Corridor).



41. NW 12th Street Roadway Improvements (Bus-Only) Project for Dolphin Station – NEW

Department: DTPW

Phase: Design

Completion Date: December 2022

Funding Source(s): PTP

Completion Percentage: Not Available

Capital Budget: Project #671610, (See Page 323)

PROJECT BACKGROUND

Miami-Dade Department of Transportation and Public Works (DTPW) has identified a need to provide a new park-and-ride /transit terminal facility to support the State Road 836 Express Bus Service as well as other planned express bus routes and provide a terminus or stop for several local bus routes serving the Dolphin Mall and nearby cities of Sweetwater and Doral. The desired site is comprised of approximately 15 acres of publicly-owned vacant land located within the Northwest quadrant of the Homestead Extension of the Florida's Turnpike (HEFT) and NW 12th Street intersection in Miami-Dade County. Roadway improvements along NW 12th Street are critical components that will facilitate access to the proposed Dolphin Park-and-Ride/Transit Terminal Facility.

PROJECT DESCRIPTION

This project includes widening and resurfacing along NW 12th Street to add bus-only lanes from NW 122nd Avenue to NW 114th Avenue. These new bus-only lanes will allow buses to bypass traffic congestion along this segment of NW 12th Street and will thereby reduce travel time for buses traveling between the Dolphin Station Park-and-Ride/Transit Terminal and Dolphin Mall. This roadway project is an integral component of the Dolphin Station Park-and-Ride/Transit Terminal Facility. The Dolphin Station Park-and-Ride/Transit Terminal Facility is part of the East-West Corridor Rapid Transit Project which connects the largest employment areas of Miami-Dade County (Florida International University, City of Doral, Miami International Airport, Miami Health District, Downtown Miami and Brickell). The East-West Corridor Rapid Transit Project will also connect to the Miami Intermodal Center—the County's major ground transportation hub.

PROJECT SCHEDULE/STATUS

The scheduled completion date is 2022.

FISCAL IMPACT

The estimated project cost is \$11,003,000 which is being funded using Bond proceeds from the Charter County Transportation Sales (Surtax).



42. Transportation Planning Organization (TPO) SMART Plan Implementation—NEW

Department: Miami-Dade Transportation Planning Organization (TPO)

Phase: Planning

Completion Date: 2020

Funding Source(s): PTP/Surtax

Completion Percentage: 0%

Capital Budget: Project #TBD

PROJECT BACKGROUND

This effort is identified in the Miami-Dade Transportation Planning Organization (TPO), formerly Metropolitan Planning Organization (MPO), Unified Planning Work Program (UPWP) for Fiscal Years 2017 and 2018 under Task 5.15 "Implementation of the Strategic Miami Area Rapid Transit (SMART) Plan".

On February 18, 2016, the TPO Governing Board approved Resolution #06-16, establishing a policy to set as highest priority the advancement of rapid transit projects in Miami-Dade County. As a result, the Miami-Dade TPO Governing Board approved on April 21, 2016, Resolution #26-16 endorsing the SMART Plan and directing the TPO Executive Director to work with the MPO's Fiscal Priorities Committee to determine the costs and potential sources of funding for project development and environmental study for said projects. The TPO Executive Director was further directed to take all necessary steps to implement the SMART Plan, which consists of:

SMART PLAN COMPONENTS						
#	CORRIDORS	BUS EXPRESS RAPID TRANSIT (BERT) NETWORK				
1	Beach	Flagler Corridor				
2	East-West	South Miami-Dade Express				
3	Kendall	NW Miami-Dade Express				
4	North	SW Miami-Dade Express				
5	Northeast	Florida Turnpike Express				
6	South Dade TransitWay	Beach Express (North/Central/South)				

PROJECT DESCRIPTION

Support the advancement of the SMART Plan through analysis, monitoring, updating and engagement of the Miami-Dade TPO in associated technical and policy activities for each of the six (6) rapid transit corridors and six (6) Bus Express Rapid Transit (BERT) network projects identified in the SMART Plan.



PROJECT SCHEDULE/STATUS

Five consultants are under contract to conduct the studies to advance each of the six (6) corridors and six (6) BERT network projects identified in the SMART Plan.

FISCAL IMPACT

The total project cost supported with PTP Surtax funds for this planning effort as identified in the FYs 2017 and 2018 UPWP under Task 5.15 is \$3.3 million.