

PUBLIC WORKS RELATED PROJECTS

The original PTP Ordinance included 44 major roadway and neighborhood improvement projects to be carried out by the Public Works Department (now known as Public Works and Waste Management Department, or PWWM) through 2013. The projects are divided into three categories (Major Highway and Road Improvements, Neighborhood Improvements, and Board Requested Public Works Projects). Details of these initiatives are provided below.

The overall percentage completion shown for each project is the portion of funds expended of the total estimated cost, excluding any closeout or pending final payments. The Right of Way Acquisition costs for PWWM PTP projects are listed separately in the Capital Budget by Commission District, and included in this Five Year Implementation Plan on page 88.

Major Highway and Road Improvements

The PTP provided for the study and development of a set of eight traffic easing initiatives.

1. Construction of major ingress/egress improvements in Downtown Miami, from SW 8 Street to SW 1 Avenue

The Miami River Tunnel Feasibility Study is completed and the report concluded that the tunnel would not provide significant improvements to ingress/egress from Downtown Miami. The construction of the tunnel was estimated to cost \$500 million. The original budget for the study was \$1 million but actually cost \$504,000. This project was funded with PTP Surtax revenues.

2. Completion of construction of NW 87 Avenue between NW 154 Street and Miami Gardens Drive (NW 186 Street)

This project is 20% complete and is under construction. To date, \$5.190 million expended with \$20.958 million required to complete. The estimated \$26.148 million total cost remains unchanged from the FY13 PTP Five Year Plan Update and increased from \$22.881 million shown in FY11 Initial Plan. Target completion date is April 2015 currently estimated, versus December 2013 shown in FY11 Plan and March 2015 shown in FY13 Plan, primarily due to extended time for Right of Way acquisitions. The FY13 Plan Updates also recognized increased construction costs in the estimates noted above for this project.

The project is located on NW 87 Avenue from NW 154 Street to NW 186 Street in Miami Dade County Commission District 13. The improvements include raised landscape median, bicycle lanes, sidewalks, curb & gutter, signalization, pavement markings & signing, decorative lighting, continuous storm drainage system with two emergency overflows to the Golden Glade Canal at NW 170 Street, the replacement of the existing drainage culvert at NW 170 Street and the installation of a new 36" water main from NW 154 Street to NW 170 Street. This project involves constructing a new four-lane road along NW 87 Avenue between NW 154 Street and NW 162 Street, and widening existing roadway from two to four lanes between NW 170 Street and NW 186 Street.





From 2013-2014 Adopted Capital Plan

WIDEN NW 87 AVENUE FROM NW 154 STREET TO NW 186 STREET

PROJECT # 605840

Widen road from two lanes to four lanes on two miles of roadway

LOCATION: NW 87 Ave from NW 186 St to NW 154 St, Unincorporated Miami-Dade County

DISTRICT LOCATED: 13

ESTIMATED ANNUAL OPERATING IMPACT: Minimal

DISTRICT(S) SERVED: 13

Revenue Schedule	Prior Years	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Future	Total
PTP Bonds	9,488	7,063	1,245	0	0	0	0	0	17,796
Charter County Transit System Surtax	36	0	0	0	0	0	0	0	36
Total Revenue:	9,524	7,063	1,245	0	0	0	0	0	17,832
Expenditure Schedule:	Prior Years	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Future	Total
Planning and Design	987	63	0	0	0	0	0	0	1,050
Construction	8,537	7,000	1,245	0	0	0	0	0	16,782
Total Expenditures:	9,524	7,063	1,245	0	0	0	0	0	17,832

3. Grade separations

A total of six intersections were identified by the MPO in its study of locations to be considered for grade separations. The Project Development and Environmental (PD&E) Studies are completed: a Phase 1 for SW 8 Street at 87 Avenue; and for NW 36 Street at 72 Avenue (JPA w/ FDOT). To date, \$500,000 has been expended. Their design and construction is estimated at \$16 million each, for total cost \$32 million (unfunded need in TIP as discussed below). The remaining four locations originally identified are SW 8 Street at SW 107 Avenue estimated at \$18 million, US-1 at SW 27 Avenue estimated at \$20 million, SW 152 Street at SW 117 Avenue estimated at \$22 million, and N Kendall Drive at SW 127 Avenue estimated at \$20 million.

This \$111.5 million overall total required to complete the project is currently an unfunded need in the Transportation Improvement Plan and not currently in County’s Approved Capital Plan; it is ranked as Priority #35 among the list of 37 FY13 Public Works Transportation Unfunded Projects. Other funding sources are being explored.

In the FY11 and FY12 Five Year Plans, the Trust recommended prioritizing in the upcoming process of competing for state discretionary funding for PD&E study of the other four selected intersections for Grade Separations (along with the other two feasible thoroughfares for Reversible Flow Lanes as discussed on page 65). All of these potential separations and reverse flow lanes are at or on state roads and thus strong candidates for state funding. Also, the four grade separations are among the six amended in the 2030 LRTP by MPO Governing Board Resolution #33-05 of October 20, 2005. Obtaining state funding for studies is assumed no surtax impact.

The Grade Separations at SW 87 Avenue and at SW 107 Avenue were the top two items in the Fall 2012 Annual MPO Priorities List for the FYs 2014-2018 FDOT District 6 Tentative 5-Year Work Program (however, order of items does not reflect a priority hierarchy). The first item listed, the SW 8th Street at SW 87 Avenue project, is shown as \$22.8 million estimated total cost with Project Development & Environmental (PD&E) Phase 1 completed, and requested to assign \$1.5 million in Urban Funds to advance to Phase 2 PD&E. FDOT’s response, included with the 5-Year Work Program endorsed by the MPO at its December 3, 2012, meeting, accepted and incorporated the item (“PD&E Study has been funded in FY18, \$1.5M; was added after printing of document”). The SW 8th Street at SW 107 Avenue project was the #2 listed item, with its total project cost estimate to be determined, and requested to assign \$2 million in Urban Funds for the PD&E study (i.e., one of the four recommended by the CITT from 5-Year Plans).

The FDOT response did not fund this item in the current Program's timeframe ("PD&E Study must wait three years from construction completion of FM#4125793"). The referenced road construction project consists of resurfacing and intersection improvements on SW 107 Ave at SW 8th Street scheduled to complete in FY18. The LRTP Development Committee led by the MPO will also address advancing the PD&E in preparation of the 2040 LRTP.



Rendering of a suggested concept for grade separated arterial intersection in Miami-Dade County

4. Create viable reverse flow lanes on major thoroughfares

This project included four thoroughfares. The PD & E Study conducted for NW 7 Avenue project (NW 119 Street to NW 5 Street) found that the project was not feasible. The NW 199 Street (along Sun Life Stadium) project was the refurbishment of the existing signalization system and completed as part of the ATMS project (see page 66). Flagler Street (SW 24 Avenue to SW 74 Avenue estimated at \$15 million) and Bird Road (HEFT to SW 147 Avenue estimated at \$6 million) are currently unfunded needs in the Transportation Improvement Plan and not currently in the County's Approved Capital Plan. Other funding sources are being explored. The total funding expended for this category was \$650,000.



In the 2012 and 2011 Five Year Plans, the Trust recommended prioritizing in the upcoming process of competing for state discretionary funding for PD&E study of the other two feasible thoroughfares for Reversible Flow Lanes (along with the other four selected intersections for Grade Separations as discussed on page 64). All of these potential separations and flow lanes are at or on state roads and thus strong candidates for state funding. The Trust also agreed with deleting Reversible Flow Lanes from the PTP for the thoroughfare already confirmed as infeasible, NW 7th Avenue. Obtaining state funding for studies is assumed no surtax impact.



5. Supplements funding to upgrade the County's traffic signalization system.

The existing Traffic Control Center was constructed in the 1970's and was the largest in the country at that time. The Advanced Traffic Management System (ATMS) project will modernize the Traffic Control Center, allow engineers to remotely control traffic signals and monitor intersections via video. The project will upgrade signal controllers in roadways and provide reliable broadband connectivity and improved software integration.



The project has three phases, and is 64% complete overall. Phase 1 was a pilot program to test the viability of the new system at 16 intersections in the Doral area. Having completed a successful pilot program (Phase 1); PWWM proceeded to commence Phase 2. The initial two phases focused on the upgrade and connection of the traffic signal controllers at all signalized intersections, implementation of the central system components of the new system at the Traffic Control Center (TCC), and the transfer of the control of approximately 2,700 intersections from the old Uniform Traffic Control System (UTCS) over to the new ATMS. On

August 30th, 2012, the last two signals on the Urban Traffic Control System (UTCS) were migrated to the ATMS. The same day, the ModComp equipment and Central Computer Unit were powered down effectively ending the UTCS era. The UTCS, the largest and most modern central computer traffic control system in the U.S. at inception, served the County well for 36 years (Aug 1976 – Aug 2012).

Phase 2 of the ATMS project was completed FY13 allowing the County's more than 2,800 signals to be controlled and synchronized in one central system. Phase 3 is underway and will include: improving the system-wide communications, advanced emergency vehicle preemption and bus prioritization systems, advanced traffic flow detection systems; video surveillance, implementation of a new state-of-the-art Traffic Management Center (TMC), and software upgrades to incorporate critically needed signal system operation functionality. A total of \$32.152 million in PTP funds has been expended to date, with an estimated additional \$16.873 million required to complete (primarily Phase 3). The targeted completion is October 2017. The ATMS project was originally estimated to be \$117 million and to be funded among the PTP \$49 million, local funding \$6 million and FDOT \$62 million. The January 2010 Amendment 1 to the ATMS contract (R-42-10) provided an additional \$2.16 million for communication and system integration services; as well as for System Operation and Communications for the Kendall BRT Concept, the re-timing of five major north-south and five major east-west corridors (originally envisioned for a later ATMS project phase), and allowed for Public Works staff to grant a contract modification/extension until July 2012. With Amendment 2 to the existing ATMS Systems Integrator contract with Kimley-Horn (additional \$3.9 million to grant a contract modification/extension until July 2014 that provides communication and system integration services for Phase 2 and accelerates elements with necessary services and transition to Phase 3 of the project) approved January 2012 (was targeted for December 2011 in FY12 Five Year Plan Update), the overall project cost increased to \$120 million. Accelerating these Phase 3 elements allows the County to continue utilizing up to \$10.5 million in funds for the construction and implementation of the communication improvements at the signalized intersections from the County Incentive Grant Program agreement with FDOT. Work under Amendment 2 consists of two parts: ATMS Communication Upgrades (\$2.2 million) and a Controller Upgrade with Video Surveillance System (\$1.9 million). The

Communication Upgrades include migrating to a County owned network in place of current leased lines, thereby reducing recurring costs and improving reliability levels. The Controller Upgrade features software and/or hardware to handle additional capability as current controllers are performing at maximum capacity. The Video System provides both vehicle detection and traffic surveillance at major intersections, with related central software enhancements to support this feature.

In FY 2013-14, the Department continued implementation of the ATMS Phase 3 (\$9.483 million of PTP-backed bond funding and \$3.8 million of State funding) with improvements to the communication subsystem and the integration of all signals projected to be completed in FY 2013-14; total programmed funding for ATMS includes \$44.291 million of PTP funding, \$933,000 of Road Impact Fees, and \$13.499 million of state funding (total project cost \$58.748 million). PWWM is submitting a 2013 MPO Program Priorities item to fund \$27M of a \$40M project for Traffic Management Center and communication system upgrades. Most of the \$13M balance is PTP funded.

Following is detailed information from 2013-2014 Adopted Capital Plan.

From 2013-2014 Adopted Capital Plan

ADVANCED TRAFFIC MANAGEMENT SYSTEM (ATMS) PHASE 3

PROJECT # 608400

Acquire software and hardware system to synchronize the remaining 1,500 traffic signals from the inventory of 2,750 traffic signals Countywide

LOCATION: Countywide

DISTRICT LOCATED: Countywide

ESTIMATED ANNUAL OPERATING IMPACT: Minimal

DISTRICT(S) SERVED: Countywide

Revenue Schedule	Prior Years	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Future	Total
FDOT-County Incentive Grant Program	1,300	3,800	4,500	899	0	0	0	0	10,499
FDOT Funds	3,000	0	0	0	0	0	0	0	3,000
Road Impact Fees	933	0	0	0	0	0	0	0	933
PTP Bonds	34,853	9,438	0	0	0	0	0	0	44,291
Charter County Transit System Surtax	25	0	0	0	0	0	0	0	25
Total Revenue:	40,111	13,238	4,500	0	0	0	0	0	58,748
Expenditure Schedule:	Prior Years	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Future	Total
Technology Hardware/ Software	40,111	13,238	4,500	899	0	0	0	0	58,748
Total Expenditures:	40,111	13,238	4,500	899	0	0	0	0	58,748

Contracts: (See Appendix for fuller listing of Trust-approved contracts)

20040415 Traffic Control Management Center Building

20060042 People's Transportation Plan (PTP) Reversible Lane Control System Improvement Project

20070587 PTP Advanced Traffic Management System's Reversible Lane Control Signal System Refurbishment Project along NW 199 Street, from NW 2 Avenue to NW 27 Avenue

6. Accelerate approved safety enhancements and lane improvements for Krome Avenue

The approved safety and lane improvements were already fully funded by FDOT by the time the PTP was approved. The project was completed by FDOT

7. Funds the preliminary Engineering and Design study of I-395

The preliminary engineering and design studies for I-395 were completed prior to approval of the PTP and did not require funding through the PTP. FDOT completed this project.

8. Supplement funding to widen NW 62 Avenue, from NW 105 Street to NW 138 Street. (Included in Board Requested Projects).



The project is completed. Total cost funding expended was \$5.513 million including \$2.4 million in Road Impact Fee funds. Project is listed twice in the PTP Ordinance.

Neighborhood Improvements

The PTP provided \$167 million for Neighborhood Improvements. These include modifications of intersections; resurfacing of local and arterial roads; installation/repairs of guardrails; installation of school flashing signals and enhancement of greenways and bikeways; replacement/repair of sidewalks; repair/installation of drainage, landscape beautification roadway signage, roadway lighting, pavement markings, and traffic calming; and ADA accessibility to bus stops throughout the County.

In 2004, the BCC and CITT adopted PWD's (now PWWM) Two Year Plan (BCC Resolution 87-04, and its modifications under 507-04). The Two-Year Plan was developed to address the various non-site specific categories provided for in the PTP ordinance and established a method for allocating the \$167M listed in the ordinance. The allocation was approximately \$21.7 million for Board Requested Neighborhood Improvement projects listed in Exhibit 1 and \$145.4 million for other countywide improvements for the duration of the program including the funding allocations to each Commission District (see following item, #9 below). To date, over 700 projects have been initiated including ADA sidewalk improvements, traffic signals, street lighting, intersection and traffic calming improvements, guardrail installation, roadway resurfacing and school flashing signals. The plan was also modified under Resolution R-1391-04, removing the school flashing signals from the Commission District allocations and listing them as a specific line item with a dedicated funding amount.

The PWWM PTP Work Program for FY 2013 totaled over \$55 Million. The plan includes the two categories from the PTP Ordinance that relate to PWWM; major highway road improvements and neighborhood improvement projects.

The Neighborhood Improvement Projects include Site Specific Neighborhood Improvement Sites, Non-Site Specific Neighborhood Improvement Sites, Countywide Neighborhood Improvements and School Flashing Signals Program.

9. Neighborhood Improvements (Commission Districts)

Provides each Commission District with funds for Neighborhood Improvements in the categories as listed above and according to the Two Year Plan's allocation formula based on population, reported needs and County maintained road lane miles. Currently under construction and 67% complete (i.e., \$61.1 million expended of total), expected completion is end of 2015 (a year later than 2014 that was indicated in FY13 Plan, while in FY11 Plan was end of 2013). PWWM continues to coordinate the Neighborhood Improvement Projects with County Commissioners' Offices. 114 PTP open construction contracts for the Neighborhood Improvements (totaling \$94.7 million) have been approved by the CITT and BCC. To accelerate many neighborhood projects, PWWM continues to take advantage of various contracting mechanisms, such as the Miscellaneous Contracting processes available under CICC contracts 7360 and 7040. Total cost is \$91.425 million, per R-87-04 described above and unchanged from FY11 and subsequent Plans. Following are relevant items from FY 2013-14 Approved Capital Plan.