

Utilities Department Projects

This report reflects the status of Utility Capital Improvement Projects, Rehabilitation and Maintenance Programs of the City's water, wastewater, and reclaimed infrastructure and treatment plants as of December 2016

REVERSE OSMOSIS WATER TREATMENT PLANT (RO WTP)

PROJECT NAME	BACKGROUND	STATUS
<p>Environmental Campus Enhancements</p>  <p style="display: flex; justify-content: space-around;">Before Proposed</p>	<p>The City's Utilities complex on N. Warfield Avenue is a series of buildings and structures. Building modifications include the Northern Renaissance design as described in the City of Venice Architectural Guidelines, 2014 Edition. Pitched roofs will replace dated flat rooftops and cosmetic finishes will improve the appearance of this City Gateway.</p>	<p>Fawley Bryant Architects, Inc. was awarded a work assignment for design, bid, and limited construction services. The scope is limited to exterior improvements of three buildings, administrative and operations, and a high service pump structure. The bid opening was held on November 16, 2016; one bid was received. Options to move forward are being discussed with the Architect.</p>
<p>WTP Odor Control System Replacement</p> 	<p>Many odor complaints are received due to the release of hydrogen sulfide at the WTP. The existing odor control system has reached its useful service life and performance is poor. This project includes engineering services for design and assistance of the bidding and construction phases of a new properly sized and fully integrated odor control system.</p>	<p>The replacement of the existing odor control system was awarded to Cardinal Contractors, Inc. on June 23, 2015 and construction commenced on August 24, 2015. All new equipment has been installed and the new system is accepting one hundred percent flow. Project completion is expected at the end of December 2016.</p>
<p>WTP High Service Pump / Motor Replacement</p> 	<p>The City's potable water is pumped to the distribution system using three vertical turbine high service pumps (HSP) fitted with variable frequency drives. The pumps were installed in 1989 and rebuilt approximately 12 years ago. They typically run two at a time to meet demands, with a third pump on standby for redundancy. New, more energy efficient models are to be installed.</p>	<p>City council approved the contract with TLC Diversified, Inc. on May 10, 2016 for the replacement of the high service pumps and motor. A pre-construction meeting was held on May 16, 2016. Review of equipment and materials is near completion; delivery date for the new pumps was moved up to the week of December 5, 2016.</p>

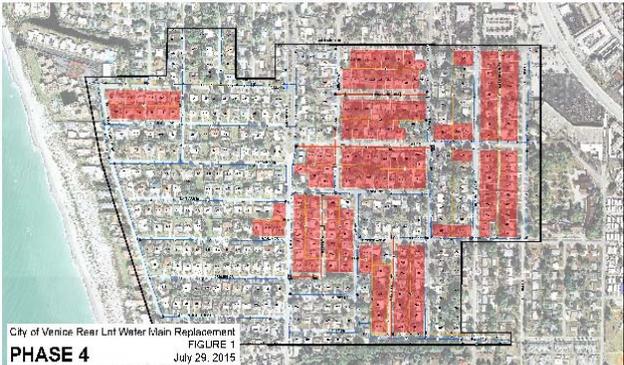
PROJECT NAME	BACKGROUND	STATUS
<p data-bbox="107 120 816 152">WTP Carbon Dioxide (CO₂) Feed System Replacement</p> 	<p data-bbox="842 193 1392 472">The existing CO₂ feed system is a liquid carbon dioxide feed system that is in need of replacement due to its age. Additionally, there are a number of operational issues including: a lack of automatic pH control due to rapid pH probe scaling, frequent needle valve flow control failures, and inadequate access for the bulk storage fill location.</p>	<p data-bbox="1455 177 1955 488">Arcadis, U.S., Inc. is the engineering consultant. Based on a previous study of the feed system they provided a design of the recommended system improvements. A contract change order to the WTP Odor Control project was issued to Cardinal Contractors, Inc. to construct this project. Project completion is expected at the end of December 2016.</p>
<p data-bbox="268 570 653 602">Raw Water Supply Well 7AW</p> 	<p data-bbox="852 623 1381 971">The City's public supply well 7W was taken out service after being damaged beyond repair during rehabilitation of the well and system. Returning this well to operation will ease the pumping demands on the existing older production wells, improving the overall water supply system. Financing for this project is through the Clean Water State Revolving Fund program (CWSRF) resulting in low-interest rates.</p>	<p data-bbox="1440 589 1974 1005">Atkins North America, Inc. is the engineering consultant. The scope of services include the design, permitting, bidding assistance, and construction services to replace well 7W. The construction scope includes a well, wellhead, above ground appurtenances, and pipeline. Demolition of existing well 7W is complete; the well is plugged, capped and abandoned. New well 7AW has been drilled, purged for clarity. Above ground materials are scheduled to be on site by end of December 2016.</p>
<p data-bbox="289 1052 632 1084">Lime Sludge Pond Closure</p> 	<p data-bbox="842 1110 1392 1458">The City has two lime sludge ponds located in a wooded area of Pinebrook Park, which were used for storage of lime softening by-products from 1954 until the early 1990s. Studies show lime sludge is not a regulated waste nor a contaminated substance. The City is exploring three alternatives for the closure and restoration of the pond areas. A Gopher Tortoise survey is required prior to construction to relocate the reptiles.</p>	<p data-bbox="1419 1076 1990 1492">Wade Trim, Inc. is the engineering consultant. The scope of services include a report to compare closure alternatives, drawings and specifications, gopher tortoise survey, limited bid and construction services. On April 12, 2016, the chosen alternative was approved by City Council. Utility staff met with project consultants, the Florida Fish and Wildlife Conservation Commission and The Friends of Pinebrook Park to coordinate proceeding with the project. The bid opening is scheduled for December 7, 2016.</p>

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<p data-bbox="176 110 751 142">Pinebrook Booster Station (PBS) Evaluation</p> 	<p data-bbox="848 133 1396 483">Constructed in 1989, the outdated control logic design causes a conflict with pressure sensors between the WTP and PBS. Currently the distribution system functions as one pressure zone and when a main break occurs, there is no means to direct flow to the east side of the City. This project is to identify options to improve control, minimize variations in distribution system pressures, and allow automatic operation of the PBS.</p>	<p data-bbox="1430 152 1982 467">ARCADIS U.S., Inc. will evaluate alternatives that can be implemented to allow automatic operation of both pump stations while improving distribution system pressure control. Operations and control may be enhanced by utilizing the newly installed SCADA and fiber optic communication system. The final report has been reviewed and alternatives are being researched.</p>

EASTSIDE WATER RECLAMATION FACILITY (EWRF)

<p data-bbox="176 612 751 644">Aeration System and Headworks Expansion</p> 	<p data-bbox="848 634 1396 985">The project increases the capacity of the wastewater facility to 8.0 million gallons per day. Work includes installation of a new blower building and grit removal system. Modification of the headworks structure, aeration basins and system, IMLR pumps, and second anoxic basins. Upgrades to electrical and computer systems. Improvements significantly improve the treatment system and afford substantial energy savings.</p>	<p data-bbox="1430 634 1982 985">The first phase of the project was complete In March 2016. During that phase a return activated sludge pipeline and lift station force main were relocated. Improvements to the east side anoxic, aeration and re-aeration basins, electrical, and piping. Pictures from left to right are the west aeration basin just prior to testing and the east aeration basin during testing. Final punch list items are being addressed.</p>
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WATER DISTRIBUTION / WASTEWATER COLLECTION

<p data-bbox="247 1114 697 1146">Water Main Replacement Phase 4</p> 	<p data-bbox="848 1146 1396 1497">This project includes the installation of approximately 3,100 lineal feet of new water main in areas where there is not an existing main in front lot / roadway right-of-ways. Upon completion of installing the mains, approximately 178 water services will be relocated and meters installed in front lots, occasionally a side lot, when applicable. Approximately 9,400 lf of the old water mains will be grouted and abandoned.</p>	<p data-bbox="1430 1146 1982 1497">Wade Trim, Inc. is the consultant for this phase. Services include design, bid assistance, permitting, limited construction services, and obtaining water service agreements. The project limits for this phase are roughly bounded by the north side of San Marco Drive to the south of The Corso West from Golden Beach Boulevard east to The Rialto. FDEP State Revolving Funds have been secured. Bid process approval from FDEP is expected by end of December 2016.</p>
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<p style="text-align: center;">Water Main Replacement Phase 5</p> 	<p>This project includes the installation of approximately 5,500 lineal feet of new water main in areas where there is not an existing main in front lot / roadway right-of-ways. Upon completion of installing the mains, approximately 112 water services will be relocated and meters installed in front lots, occasionally a side lot, when applicable. Approximately 7,800 lf of the old water mains will be grouted and abandoned.</p>	<p>King Engineering Associates, Inc. is the engineering consultant. Services include the design, bid assistance, permitting, limited construction services, and obtaining water service agreements. Project limits are roughly bounded by Turin Street W to the north, Harbor Drive South to the west, San Marco Drive to the south and Gulf Drive to the east. FDEP State Revolving Funds have been secured. Plans are being modified; the re-bid is scheduled for February, 2017.</p>
<p style="text-align: center;">U.S. 41 Bypass Utility Relocations</p> 	<p>The City Utilities Department will work in coordination with the Florida Department of Transportation's U.S. 41 Road Widening project. Existing water, wastewater, reclaimed lines and appurtenances require relocation within the U.S. 41 Bypass corridor from Bird Bay Drive W. to Gulf Coast Boulevard. Additionally, some system improvements will be included where feasible.</p>	<p>Work related to water, wastewater, and reclaimed will be coordinated by the general contractor awarded through the FDOT Road Widening construction contract. All permits are in place for work related to water, wastewater and reclaimed. Locates continue; some additional survey data was required. Utility line relocations are in process and alternate locations for some utility tie-ins are being reviewed.</p>
<p style="text-align: center;">Cleaning and CCTV Inspection of Sanitary Sewer Lines</p>  <p style="text-align: center;">CCTV entering manhole Video and data of sewer line</p>	<p>This project provides closed-circuit television (CCTV) inspection and cleaning services for the sanitary sewer lines within the City of Venice. Included are 6-inch, 8-inch, 10-inch, 12-inch, 15-inch, and 16-inch sewer mains. The remotely operated camera also records video and data to aid in identifying service lateral locations, structural condition of the pipes, and obstructions such as grease, roots, and other debris.</p>	<p>Stantec Consulting Services, Inc. is the engineering consultant for this project. The project was awarded to UIT and approved by City Council on March 22, 2016. A pre-construction meeting was held December 16, 2015. The project will commence August 2016. Work is planned to begin within the City's sewer lift station number 1 basin. The basin area is west of US 41 and east of Harbor Dr. S between Maggiore Rd. and Airport Ave W and E.</p>

PROJECT NAME	BACKGROUND	STATUS
<p data-bbox="109 159 823 191">Venetian Parkway Water & Sanitary Sewer Relocation</p> 	<p data-bbox="856 207 1402 555">The majority of residents in the East Gate Terrace subdivision have water and sanitary sewer mains that are located in the rear of the lot away from the road right-of-way. Many of which are old and have deteriorated, resulting in decreased water pressure, and constricted sewer flow. This project includes installation of new water and gravity mains, manholes, and approximately 109 water and sanitary sewer service relocations.</p>	<p data-bbox="1444 191 1969 571">Atkins North America, Inc. is the consultant. The scope of services include design, bid assistance, permitting, limited construction services, and obtaining water and sewer service agreements. The project limits are located along Venetian Parkway, Barbara Drive, Roberta Street, Hope Street, Lillian Street, Elaine Street, and Karen Drive. Due to lack of bids received, minor design revisions are being considered; it is likely to re-bid in the Spring of 2017.</p>
<p data-bbox="109 630 823 662">Reclaimed Water Distribution System Improvements</p> 	<p data-bbox="856 652 1402 993">Based on a report in the 2012, Reclaimed Water Master Plan, several areas of improvements were identified within the reclaimed distribution system to improve service by looping certain areas. Also included are the replacement of five air release valves, several inoperable gate valves, and the evaluation of an abandoned force main to determine if it can be used as reclaimed water transmission line in the future.</p>	<p data-bbox="1444 669 1969 977">A work assignment with King Engineering Associates, Inc. was approved by City council on October 27, 2015. Services include design, permitting, bidding and construction services. Design and bid documents are complete. Permitting and bid document approval for funding is underway. Bid process approval from FDEP is expected by end of December 2016.</p>