

The United States Conference of Mayors

ON TASK, ON TIME, ON BUDGET

How Mayors Build, Maintain,
and Renew America's Infrastructure

A Report on City Projects

May 2017



THE UNITED STATES CONFERENCE OF MAYORS



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CONFERENCE OF MAYORS**

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The U.S. Conference of Mayors is the official nonpartisan organization of cities with populations of 30,000 or more. There are 1,393 such cities in the country today, each represented in the Conference by its chief elected official, the Mayor.



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Message

At Trump Tower in New York City on December 15, 2016, the top four elected officers and I met with President-elect Donald Trump. At the meeting, The U.S. Conference of Mayors delegation commended then President-elect Trump for his decision to push forward a massive national infrastructure program to meet the needs of the American people. Mayors pledged their total support to work with the President-elect to create, enact and implement federal legislation providing resources to maintain, modernize, rebuild and build anew the nation's infrastructure.

At the 85th Winter Meeting of the Conference of Mayors in January, Vice President-elect Mike Pence addressed the nation's Mayors bringing the personal message from then President-elect Trump that he will have an infrastructure program and "it will be big!" That simple direct message of the President-elect delivered in person by the Vice President resonated with the nation's mayors and provided support for a common top priority of the new Administration and The United States Conference of Mayors.

The Executive Committee of the Conference of Mayors met during that same Winter Meeting. Conference President Mick Cornett reported to the top governing board of the Conference of the meeting with President-elect Trump and all mayors commended Vice President Pence's address and were encouraged to hear his strong support for a massive infrastructure initiative. At the meeting, mayors discussed the need to make sure that new infrastructure legislation must be written to make certain that sufficient infrastructure monies go directly to our cities to ensure the monies are spent to meet the needs of 84 percent of America's people now living in metro areas of our nation.

Mayors lamented over the fact that the last large spending bill of the federal government, the stimulus legislation - ARRA - totaling over \$800 billion, did not provide more direct funding to our cities. Staff informed the mayors that only 0.86 percent of the funding came directly to our cities. Another issue of concern was the question that will raised as to whether or not infrastructure projects will be on time, on budget, and with jobs. Rather than produce a massive list of infrastructure projects from the nation's cities, staff was charged to produce a report illustrating and proving that if funds are sent directly to cities, the projects will be completed on time and on budget, producing jobs in the process and producing needed and modern infrastructure facilities throughout the nation.

This report - On Task, On Time, On Budget - is a condensed survey to prove that infrastructure development in our nation's cities has been most successful as we have moved forward through the meltdown of 2008 and the greatest recession since the Great Depression.

Today, it is our metro cities with metro economic engines that are driving the national economies. With the Trump Administration and the Congress, the nation's mayors pledge our support for a new national infrastructure program to strengthen our economic power and serve our people. This report shows that cities across this nation are leading the way toward a newer America. A federal infrastructure partnership with resources directed to our cities and metro areas, will continue the successful progress in our cities, as illustrated in this report.

Together with that new Partnership we can drive our nation forward so that our nation is competitive with other nations and we will provide the greatest, the best-available facilities, on earth for our people.



Tom Cochran
CEO and Executive Director

A Call to Action

President Trump promised during the campaign, and after taking office, that America will see an infrastructure plan to make us “second to none in the world.”

Cities must be a key part of this plan given that the nation’s 381 metro economies produce more than 91 percent of our GDP and 94 percent of our economic growth. Over the next 30 years our city/metro areas will attract 68 million more residents, significantly straining our existing infrastructure and making our current congestion worse.

Given the poor state of our infrastructure, the nation must make additional investments now. The President’s call to modernize infrastructure recognizes this need and is key to meeting his campaign goals of creating jobs, growing our economy, making us competitive, and fixing our inner cities.

To achieve these goals, The U.S. Conference of Mayors calls on the President’s infrastructure plan to use funding mechanisms that move federal dollars directly to the local level, avoiding inefficient and slow state bureaucracies.

All infrastructure projects are local, either in a single city or a string or cluster of cities, and local government has the best track record in bringing projects to completion. The following report demonstrates how locally developed projects can be implemented on task, on-time, and on-budget. These projects illustrate the capacity of local government to leverage private investment, spur economic growth, and develop communities -- all objectives of the President.

A national infrastructure plan must rely on both traditional and alternative project delivery models and project financing. Local government continues to rely on tax-exempt bonds (the primary mechanism cities use to finance local infrastructure for the last several decades), but can also leverage the innovations and resources of the private sector.

But the infrastructure plan must recognize that many, if not most projects require direct federal investments. Some projects, especially those in inner cities, slow-growth metro regions, and poor rural areas, will need direct funding.

The need for a national infrastructure plan is right before our eyes. Failing roads, bridges, transit systems, water and wastewater systems, stifle business growth, threaten our health, and restrain our mobility.

The time to act is now.

Transportation

City of Atlanta, Georgia
Mayor Kasim Reed

Hartsfield-Jackson Atlanta International Airport Runway Project

As Atlanta Mayor, Kasim Reed directly oversees the world's busiest airport, with its day-to-day operations managed by the city's Department of Aviation. Among its ongoing multi-billion capital program to keep this global aviation destination operating at peak performance was development of a fifth runway, an investment that was particularly important to the sustained growth of the Atlanta metropolitan area and the broader regional, state and national economies.

As commercial air traffic continues to grow throughout the U.S., new runway capacity, especially in the Eastern United States, is generally constrained at most airports because land is so scarce. As such, the opening of the fifth runway at Atlanta's Hartsfield-Jackson Airport in 2006 was a boon for the region's future economic growth and for the broader aviation system. The airport's current capital program totals more than \$6 billion in planned investment.

In addition to raising the arrival rate by about 30 arrivals per hour, resulting in reduced delays and greater airline schedule reliability, the additional 9000-foot runway made it possible to utilize three runways simultaneously for departures, giving more flexibility to controllers to manage operations and reduce delays at the world's most travelled airport.

Project Timeline: Runway was initiated in 2001 and completed in 2006.

Cost: The completed runway cost approximately \$1.2 billion, about \$100 million below what was budgeted.

Financing: The airport used a combination of funding sources to support this project, from FAA Airport Improvement Program (AIP) grants, Passenger Facility Charges (PFCs) to airport revenue bonds. The largest source of funding was Passenger Facility Charges, funding more than \$621 million of the runway project.

Benefits: The many benefits of this runway project for the regional and national aviation system are well documented, helping the airport expand its operations and capacities; in 2016, the airport served more than 104.2 million passengers and handled 898,356 flights. When the fifth runway was first initiated in 2001, the airport served about 80 million passengers. Construction jobs during the runway project totaled more than 2,000 jobs. Today, the airport is largest employment center in the State of Georgia, generating more than 55,000 public and private sector jobs and more than \$20 billion in direct economic activity.

City of New Orleans, Louisiana Mayor Mitch Landrieu

Loyola - Rampart Streetcar Line

Returning streetcar service after 70 years to Loyola Avenue and North Rampart Street in a two-phase project that produced 1.6 miles (3.2 track miles) of streetcar system running from the Union Passenger Terminal to Elysian Fields with six streetcar stops with double sided shelters and refurbished historic streetlights.

Project Timeline: Phase 1 (Loyola Avenue from Union Passenger Terminal to Canal); Phase 2 (Rampart Street from Canal Street to Elysian Fields): 21 months from January 2015 to October 2016

Cost: Phase 1 (Loyola Avenue from Union Passenger Terminal to Canal): \$53 million; Phase 2 (Rampart Street from Canal Street to Elysian Fields): \$41 million.

Financing: Phase 1 of the project was financed in large part through a TIGER II (Transportation Investment Generating Economic Recovery) discretionary grant from the U.S. Department of Transportation along with local contingency funding and bonds. Phase 2 of the project was financed solely by Series 2010 Sales Tax Revenue Bond issued by the New Orleans Regional Transit Authority.

Benefits: In addition to providing reliable and cost-effective public transportation daily to New Orleans residents and visitors, the Loyola / Rampart Streetcar line has spurred over \$2 billion in private development and economic revitalization in and around the corridor. Significant investments include the renovation of the Mercedes-Benz Superdome, development of Champions' Square outdoor entertainment space, the Saratoga Lofts apartment complex, a Rouse's supermarket, the renovation and reopening of the Hyatt Regency Hotel, the redevelopment of the Joy Theatre, the remodeling of the Holiday Inn Superdome, and the opening of dozens of restaurants, shops and small businesses.

The new streetcar line serves as a vital connection between the 70,000 residents that live in medium-density residential neighborhoods and affordable housing adjacent to the corridor and jobs found in the French Quarter and the medical corridor anchored by the new University Medical Center and the VA Hospital. The streetcar line and public transportation system provides another connection between residents in New Orleans and economic opportunity and growth.



City of Tucson, Arizona

Mayor Jonathan Rothschild

Sun Link Streetcar

Sun Link, the City of Tucson's streetcar service, began operations in July of 2014. This investment in the city's infrastructure has improved transit services for its residents, has driven a resurgence in downtown redevelopment, and has proven to be more popular with the public than originally projected, among other benefits. This 3.9 mile line's 18 station stops connect the region's two largest activity centers – downtown and the University of Arizona – to commercial districts and a redevelopment area along the corridor.

Given the project's size and complexity, the City of Tucson managed the construction of the streetcar system and contracted out the management, operations, and maintenance of the streetcar with a private provider, RATP Dev America/McDonald Transit (RDMT). In May, the streetcar is expected to carry its 3 millionth rider, a key milestone that was achieved sooner than expected, and another indicator of the popularity of the service. Weekday ridership often exceeds projected levels, averaging about 4,000 daily trips when the university is in session.

The \$196.7 million project has already prompted significant economic activity in and around the streetcar line, spurring more than \$1 billion in public and private investment, including construction of the first new downtown hotel in more than 50 years. There are now 22 residential projects – either under construction or being planned – to bring 1,500 multi-family and single-family residential units to the downtown area served by the streetcar. The new service also played a role in Caterpillar's decision to locate its surface mining and technology division in Tucson, bringing 600 new jobs over the next five years. Sun Link has proven so successful that the city and transit agency are now undertaking a study to examine the potential for streetcar extensions.

Project Timeline: With construction beginning in April 2012, the streetcar was largely completed by October 2013, a relatively fast and ambitious time frame for such a project. The Sun Link Streetcar began revenue operations in July 2014.

Cost: This city-managed project was funded with a combination of funding from federal, regional, local and private sources, including \$75 million in Regional Transportation Authority funds, \$63 million in U.S. DOT TIGER funding, and more than \$20 million in city funds.

Benefits: In addition to providing new transit services and new construction jobs attributable to the streetcar and development in the corridor, the streetcar is driving a residential building boom, attracting new businesses to the corridor, creating more jobs, and stimulating additional investment in the city.

City of Columbia, South Carolina

Mayor Stephen K. Benjamin

Congaree Vista Greenway

The Congaree Vista Greenway converted an abandoned railroad right-of-way into a multi-use path that provides a direct, non-automobile link between several neighborhoods and the heart of the Congaree Vista in Central City Columbia.

A 1980s investment in a massive railroad consolidation project laid the groundwork for the transformation of the Congaree Vista from a forgotten area of warehouses and empty lots crisscrossed by a web railroad grade crossings into a vibrant, mixed-use neighborhood that is home to thousands of residents and an eclectic mix of businesses, restaurants, and stores, including several new hotels and a full service Publix supermarket housed in a historic building that was once home to a Civil War-era printing plant.

Project Timeline: 2011-Present: Phase I of the project from Lady Street to Taylor Street opened in 2013; phase II of the project from Taylor Street to Elmwood Avenue through Finlay Park opened in 2016; and phase III will extend the Greenway from Elmwood Avenue to North Main Street.

Cost:

Phase I: \$700,000, funded with a combination of local funds and a \$20,000 a grant from the South Carolina Department of Parks, Recreation, and Tourism (federal Recreational Trails Program).

Phase II: \$1.2 million, funded with a combination of \$893,000 from voter-approved Penny Sales Tax; a \$98,500 grant from the South Carolina Department of Parks, Recreation, and Tourism (federal Transportation Alternatives Program), and \$208,500 from the Central Midlands Council of Governments.

Benefits: The Congaree Vista Greenway provides a safe, direct, and convenient off-street link from the historic Elmwood Park and Arsenal Hill neighborhoods to the Congaree Vista and Downtown Columbia. Prior to the completion of the Greenway, pedestrians and bicyclists traveling between the Congaree Vista and the neighborhoods immediately west and north of Central City Columbia had to navigate several busy streets and two significant hills. The Greenway crosses over or under most major streets and provides bicyclists and pedestrians with a level path that avoids steep grades.

In addition to its mobility and safety benefits, the Congaree Vista Greenway (along with other public infrastructure investments) has leveraged that investment and cemented the revitalization of the Vista and adjacent Downtown Columbia.

Phase III will extend the Greenway to the historic Earlewood, Cotton Town and Belleview neighborhoods and provide a direct connection to between the Congaree Vista and North Main Street, which serves as the commercial heart of those neighborhoods. The City has made a major streetscape investment in North Main Street, funded in part with a federal TIGER grant. That investment is drawing new businesses to North Main Street and the Greenway will provide a safe and convenient link between north Columbia and the Congaree Vista.

City of Los Angeles, California

Mayor Eric Garcetti

Purple Line Extension Transit Project

The Purple Line Extension Transit Project is a critically important heavy rail (subway) project that will provide a high-capacity, high-speed, dependable alternative for commuters to travel between downtown Los Angeles and Westwood in just 25 minutes.

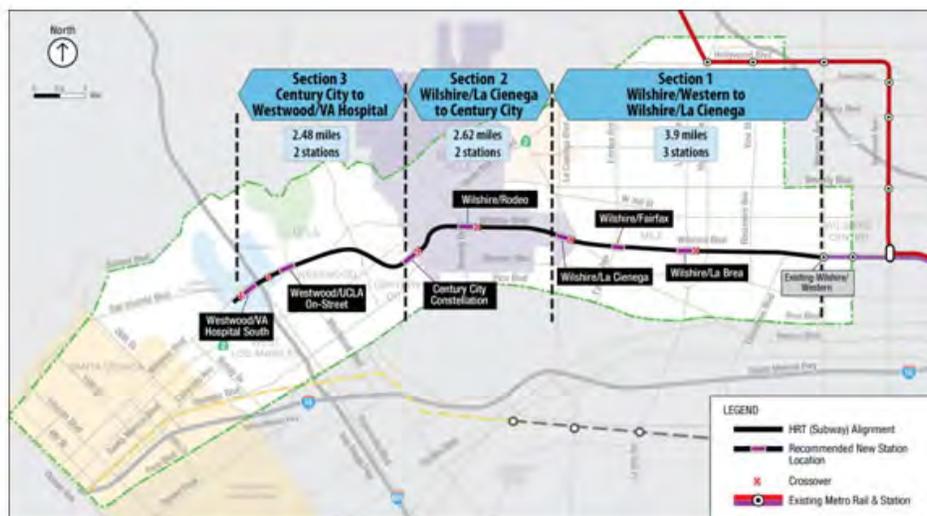
The extension will be built in three sections and will continue from the current station at Wilshire/Western, extending westward for about nine miles along Wilshire Boulevard. The project includes seven new stations at Wilshire/La Brea, Wilshire/Fairfax, Wilshire/La Cienega, Wilshire/Rodeo, Century City/Constellation, Westwood/UCLA, and Westwood/VA Hospital.

The project is being planned and managed by the Los Angeles County Metropolitan Transportation Authority (Metro). This subway line has been given high priority by Metro in its long-range plan, and funding for the project is included in Measure R and Measure M. The Purple Line Extension is projected to generate 52,500 jobs within the region and cost \$7.8 billion.

Project Timeline: Construction for Section 1 began in November 2014, and the design-build contract for Section 2 has just been awarded in early 2017. Metro is looking to accelerate the Purple Line Extension projects to finish all three sections by Olympics 2024.

Cost: This rail project is funded with a combination of funding from federal, state, and local sources. Metro has secured more than \$2 billion in federal grants, including funding from FTA's Capital Investment Grant Program, for Section 1 and Section 2, and will look to do the same for Section 3. The total project cost of all three sections is estimated at \$7.8 billion.

Benefits: This new rail extension will offer an alternative transportation option to congested roadways, provide significant environmental benefits and spur economic development throughout the county. Through improved connectivity, riders will be better able to use the entire Metro Rail system, municipal bus lines and other regional transportation services.



City of Houston, Texas

Mayor Sylvester Turner

Houston Pothole Initiative

While on the campaign trail, Mayor Sylvester Turner, who now represents Houston's 2,285,887 residents, continually heard voters express their frustration about the condition of city streets. On his inauguration day, Mayor Turner proclaimed that potholes reported to the city's 311 Help and Information line would be assessed and addressed by the next business day, and the city immediately went into action to fulfill this commitment.

Houston, like most U.S. cities, owns a substantial share of its local street network. With about 16,000 lane miles of city streets spread over 676 square miles, potholes routinely appear everywhere in the city and in countless locations. While most cities confront most of their potholes during the winter and spring thaw, Houston's climate make them a year round challenge. Many city streets, particularly in the older neighborhoods, have an aging underlying structure (or sub base), which reacts poorly to the city climatic conditions, increasing the number of potholes that develop and require attention.

In the week following the Mayor's inaugural pledge, pothole reports to city's 311 line skyrocketed, increasing from a daily average of 22 to more than 100 a day. To date, the city has assessed and repaired 97 percent of citizen-reported potholes by the next business day, with 4,752 citizen-reported potholes being filled as well as 68,426 proactively filled by the city. The remaining 3 percent reported by citizens are either not within the city's jurisdiction or are something other than a pothole requiring additional diagnosis and repair.

Project Timeline: January 4, 2016 - Present

Cost: This city initiative was funded with existing city resources, and did not require any additional dollars. It is estimated to cost the city \$15 million annually to repair potholes on the city-owned highway/street network.

Benefits: The benefits of this program go well beyond simply repairing potholes but rather help shore up the integrity of the city's surface transportation infrastructure. Potholes do not usually form on roadways that are properly designed for traffic loads with pavements that are in relatively good condition, which protects the underlying base from water seepage. It also helps deliver a long-term solution to the city's massive street infrastructure, by making modest investments in proactive treatments, such as street sealing, crack filling, joint sealing, and pavement overlay, to extend pavement life will planning for the replacement/reconstruction of aging pavements.

City of Santa Ana, California Mayor Miguel Pulido

First Street Bridge Crossing over Santa Ana River Bridge Replacement

First Street is an east-west major arterial street in the City of Santa Ana. The old bridge over the Santa Ana River was four lanes wide and did not meet MPAH requirements. The project included demolition of the existing bridge and construction of a new, widened six-lane bridge to accommodate future traffic volumes, new sidewalk, and crash cushion barrier rails.

Project Timeline: January 2009 - October 2014 (6 years)

Cost: \$7.8 million

Financing: Measure M Competitive, Measure M Turn Back, and Federal-Highway Bridge Rehabilitation and Replacement (HBRR).

Benefits: Safety, mobility, accessibility to bike trail, and community partnerships.

Before



After



City of Santa Ana, California Mayor Miguel Pulido

Third Street Bicycle Boulevard, Downtown Walking Path, and Active Transportation Amenities in Downtown Santa Ana

Third Street Bicycle Boulevard, Downtown Walking Path, and Active Transportation amenities in Downtown Santa Ana were identified as part of the Downtown Complete Streets Plan and the community-based initiative Downtown Wellness Corridor. The City of Santa Ana partnered with the Community Action Partnership of Orange County to submit for the federal grant program through the Center for Disease Control. As a sub-grantee, the City of Santa Ana received \$145,000 per year to implement complete streets improvements in Downtown Santa Ana. The funds were programed to install benches, bike racks, tree well grates, traffic calming, crosswalk improvements, bicycle infrastructure, and wayfinding for a downtown-walking path.

Project Timeline: October 2014 – September 2016

Cost: \$290,000

Financing: It was funded 100 percent with federal funds from the Center for Disease Control Partnership to Improve Community Health.

Benefits: Health, Mobility, and Community Partnerships



City of Santa Ana, California Mayor Miguel Pulido

Maple Trail Safety Enhancement Project

The Maple Bike Trail Safety Enhancement project at Occidental Street, St. Andres Place and St. Gertrude Place constructed bulb outs within the existing public right-of-way at the three bike trail street crossings. The existing bike trail serves hundreds of bicyclists and pedestrians every day. In addition, students walking or biking to Edison Elementary utilize the three crossings heavily. The project included landscaping enhancements, minor demolition work of existing curb and gutters, reconstructing curb and gutter, adding sidewalk, and signing/striping.

Project Timeline: October 2013 to April 2015 (19 months)

Cost: \$285,000

Financing: It was funded with 88 percent Federal highway funds (CMAQ) and 12 percent local funds.

Benefits: Health, mobility, increased pedestrian and bicyclist safety, and reduced vehicular speeds allowed second phase of project to obtain funding.

Before



After



City of Santa Ana, California

Mayor Miguel Pulido

Grand Avenue Improvements, 1st Street to 4th Street

Grand Avenue is a regionally significant arterial roadway, providing north-south travel through the city. To enhance safety, mobility and overall quality of life in the neighborhood, the city improved and widened the segment of Grand Avenue from First Street to Fourth Street from four to six lanes. The improvements also included pedestrian and bicycle mobility and safety while creating a consistent major arterial facility as designated in the city's General Plan Circulation Element and in the County of Orange's Master Plan of Arterial Highways (MPAH).

Project Timeline: August 2008 - January 2016

Cost: \$16.6 million

Financing: Regional Surface Transportation Program (Federal), Measure M Competitive Arterial Capacity Enhancements, Measure M Fairshare, Gas Tax, Transportation System Improvement Area Fund (Local Area Fees).

Benefits: The improvements were designed utilizing Complete Streets principals to provide safe, comfortable, and convenient travel for all users – pedestrians, bicyclists, transit riders, and motorists.

- **Safety:** The narrow travel lanes and raised median deter speeding through the project segment; Landscape parkways provide a safe buffer between pedestrians and motorists; Bicyclists can travel in a designated bike lane instead of mixing flow with vehicles and pedestrians; Collisions are potentially reduced with controlled left movements and improved traffic flow.
- **Accessibility:** Installation of wider sidewalks, ADA compliant curb ramps, and bike lanes greatly improve accessibility for pedestrians and bicyclists.
- **Traffic Flow:** Before the improvements, this segment of Grand Avenue was operating at a level of service (LOS) rating of “F” (a road in a constant traffic jam). However, with the proposed improvements, the segment has been operating at a LOS “A” (stable flow traffic).

Before



After



Water, Wastewater and Flood Control

City of Hallandale Beach, Florida
Mayor Joy Cooper

Stormwater Drainage Improvements Project

A major local storm drainage system investment was designed to remove large volumes of stormwater from frequent major wet-weather storm events that caused property damage and traffic disruption. It involves the installation and operation of high volume pump stations to control flooding during storms. Four powerful pumps- each capable of moving 24,000 gallons per minute (GPM) - provide a rapid response after a major rain storm.

The stormwater system collects stormwater from the drainage area and conveys the collected water to two pump stations. From these stations, the stormwater is pumped through a common 48" diameter force main to 15 injection wells. Together, the four storm water pumps will discharge up to 96,000 GPM of stormwater into 15 injection wells at 24" diameter each (150-200 feet deep).

Project Timeline: Feb 2013 to Dec 2014

Cost: \$10,651,600

Financing: The project investment financing as a matching grant with the local share 25% and a FEMA-Hazard Mitigation Grant Program (HMGP). The HMGP provided \$7,988,700.00, and Hallandale Beach share was \$2,662,900.00.



City of East Providence, Rhode Island

Mayor James A. Briden

Design-Build Operate of Wastewater Treatment Plant and Collection System Improvements

In 2010 the City of East Providence entered into a ten year Public-Private Partnership (DBO) with SUEZ to design and construct major improvements to the City's wastewater treatment and collection systems and to provide full-service Operations and Maintenance for the system for an initial ten year operating period. The Agreement provides for the extension of the operating period to twenty years as mutually agreed by the Parties.

Major components of the DBO project included:

Wastewater Treatment Plant Improvements

- Design and construction of new Biological Nutrient Removal (BNR) processes at the WWTP to meet stringent effluent standards imposed to protect the waters of Narragansett Bay.
- Design and construction of state-of-the-art electrical and instrumentation control systems (SCADA)
- Design and construction of odor control facilities including a new headworks building with chemical and carbon odor scrubbers.
- Design and construction of new bio-solids handling systems to improve efficiency, reduce O&M costs and reduce odors

Collection System Improvements

- Design and construction of a new 30 MGD Watchamocket Cove Pumping Station to increase system capacity and eliminate sewer system overflows.
- Design and construction of four other smaller pumping stations, and
- Construction of numerous collection system segment improvements to replace aged or damaged pipe sections.

Under the P3 Agreement East Providence retains the authority to set user rates and is responsible for system capital and future expansion needs. SUEZ operates and maintains the wastewater system and is responsible for maintaining compliance with all applicable regulations and permits and routine O&M costs; including repair and replacement of the above-ground wastewater infrastructure. Additionally, SUEZ is responsible for the systematic cleaning and televising of the City's collection system and administration of the City's Industrial Pre-Treatment Program. Implementation of the DBO contract saved the City of East Providence over \$13.5 MM of initial capital investment and over \$17 MM in NPV costs over the initial project term as compared to traditional project delivery approaches.

Project Timeline: Ten-Year Partnership Began in 2010

Cost: \$52.55 Million

Financing: State of Rhode Island Clean Water Agency (SRF Funding)

Benefits:

- Timely compliance with Consent Order requirements to achieve water quality standards for total Nitrogen, eliminate sewer system overflows and reduce long standing neighborhood odor problems.
- Savings of over \$13.5 Million in construction costs, including \$3 Million savings achieved through innovative approach to force main routing which reduced implementation schedule by over one year and avoided traffic disruption by moving force main from main thoroughfare.
- Plant and collection system improvements resulted in reliable and sustainable O&M at reduced cost to ratepayers.
- Improvements to plant performance reflected in achievement of total nitrogen (and all other) effluent standards, elimination of sewer system overflows, reduced power utilization and significant odor improvements.

City of Seattle, Washington

Mayor Ed Murray

P3 - Tolt Drinking Water Treatment Plant - Design-Build-Operate

The City of Seattle established a partnership with American Water, Inc. to pioneer one of the first successful Design-Build-Operate (DBO) projects in the United States- the Tolt Water Treatment Plant. The project started in 1997 and it continues to operate successfully. The Tolt Water Treatment Plant project was created to serve Seattle's need to increase water supply to support growing consumer demand and improve regulatory compliance. The city wanted to ensure the plant would perform to a standard at or above conventional public ownership and operation, but at a minimum cost within a preferred risk allocation framework. The plant provides 30 percent of Seattle's annual water supply, generating 120 million gallons of water per day at full capacity. Innovation was a cornerstone of the plant design, with solutions such as incorporating gravity flow into the treatment process to reduce pumping costs. Occupying a smaller footprint than typical plants with similar capacity, the plant features an advanced design made possible by the collaborative nature of the DBO model.

Project Timeline: Project Started in 1998 and Completed in 2001.

Cost: \$76 million

Financing: 30-year tax exempt revenue bond

Benefits:

The DBO approach had helped save Seattle \$70 million over the cost of a traditional design approach.

- The project provides 30% of annual city consumption
- The plant has the highest certified filtration rate in the state, allowing it to produce water with turbidity levels well below state regulatory limits.
- The Tolt water plant has produced millions of gallons of water in the life of operation without a single notice of violation (NOV).
- The operation and management was recently renewed again for another five years with American Water.
- Energy savings achieved through novel gravity design.

City of Elizabeth, New Jersey Mayor J. Christian Bollwage

Verona Avenue/Gebhardt Avenue Storm Sewer Improvement Project

The improvements to the existing stormwater system on Verona and Gebhardt Avenues significantly reduced flooding during major rain events and enabled easier travel in all weather. The installation of catch basins along Verona Avenue as well as adjacent streets in the work zone also supported these efforts. In addition, a pumping station and control building were built within Kean University, which is located adjacent to the project.

In order to avoid multiple disruptions to the street, paving was scheduled to allow for the replacement of the water main in Verona Avenue, which was originally constructed in the 1930's. Once the replacement was complete, the construction company finished the curb and sidewalk repairs. In the interim, the City of Elizabeth utilized its water truck to help minimize the amount of dust created.

The Storm Drainage System relieved flooding on Verona Avenue and Gebhardt Avenue. With the previous road structure and flood-relief system, it was difficult to control and ultimately eliminate flooding when heavy downpours, leaf piles as well as storm-related debris occurred within the City of Elizabeth. Flooding along Verona Avenue and Gebhardt Avenue and the surrounding area created difficulty in commuting throughout the City of Elizabeth, adversely impacting traffic flow, negatively affecting pedestrian travel and creating an overall negative impact on the sewer system and quality of life within Elizabeth.

With the incorporation of the Storm Drainage System, flooding that occurred from inclement weather and storm systems can now be efficiently and effectively eliminated. The System enhances the current flood-control factors within the drainage systems to alleviate flooding, providing an increased flow of both vehicular and pedestrian traffic, thus yielding an improved quality of life for residents and visitors to the City of Elizabeth.

Project Timeline: Contract was awarded in October 2009, Construction began December 2009 and Construction was completed in July 2011.

Cost: \$6,474,129.30

Financing: The New Jersey Environmental Infrastructure Trust (State Project Number S340942-09) provided the City of Elizabeth a loan for this project in the amount of up to \$8,053,300.00. Fifty percent principal forgiveness on this loan was reimbursed under the American Recovery and Reinvestment Act.

Benefits: As this initiative was a construction job, employment opportunities were created. Furthermore, this infrastructure improvement greatly increased mobility, reduced flooding, decreased the potential for property damage and environmental damage due to oversaturation as well as enhanced the quality of life for residents and visitors.

At the completion of this initiative, residents had a new, paved street; new gas service; upgraded electrical service; a new water main as well as a new storm water drainage system, which significantly improved the flooding conditions in the area.



City of Elizabeth, New Jersey Mayor J. Christian Bollwage

Third Avenue Flood Control Project

The Third Avenue Flood Control Project included the replacement and reconstruction of the Combined Sewer System (CSS) along Third Avenue, in order to alleviate flooding in that area. Third Avenue is a low area and during storms, rainwater from surrounding locations ran downhill to the lowest point and caused flooding. Because the area is so low, the water could not get out quickly enough and it sat in the street until the storm passed. When the tide in the Elizabeth River was elevated, the problem became worse. As a result of development in the drainage area and loss of capacity in the drainage system because of age and rehabilitation, flooding at this site became more serious. During rainfall events, stormwater from Elizabeth Avenue traveled over land to Third Avenue, where tidal conditions in the Elizabeth River caused the sewer to back up and overflow, therefore producing flooding.

The first phase of the project was to replace the sewer and inlets on Third Avenue and make some modifications to the outfall. At that time, facilities were marked out and the Contractor began digging small holes called test pits to locate utilities so they could be relocated. Once the necessary permits were obtained, the second phase of the project began, including the replacement of approximately 1,930 linear feet of existing brick and clay combined sewer pipe in Third Avenue with approximately 1,930 linear feet of 48-inch reinforced concrete pipe. Two catch basins were removed, approximately 41 catch basins were replaced or newly installed and 11 new manholes were constructed. In addition, one of the tide gates at Regulator Number 035 and Modules 12 and 14 were removed.

Project Timeframe: Project began June 25, 2012 and ended November 15, 2013.

Cost: \$1,905,730.29

Financing: The New Jersey Environmental Infrastructure Trust (State Project Number S340942-14) provided the City of Elizabeth with a low-interest loan for this project.

Benefits: Flooding impedes travel, has the potential to cause environmental and property damage as well as impacted daily activities for residents and visitors. Enhancing the stormwater system increased mobility, assisted in the control of flooding, reinforced the current infrastructure as well as greatly improved the overall quality of life.



City of Rochester Hills, Michigan

Mayor Bryan Barnett

Christian Hills West Water Main Replacement Project

The extensive water main project included the replacement of approximately 27,300 linear feet of 6-inch and 8-inch cast iron water main with 10-inch High Density Polyethylene pipe via the pre-chlorinated and pressure tested pipe bursting method. The work included the removal and installation of hydrants, gate valves and wells, and the installation of a pressure reducing valve and well. It is the largest water main replacement project ever completed in the City of Rochester Hills.

The water main replacement project used the pre-chlorinated and pressure tested pipe bursting method that replaced the water main in the same location and limited open excavations

Project Timeframe: Began June 1 and completed November 8, 2015

Cost: \$3,754,546.16

Financing: Due to forwarding thinking rate methodology, depreciation was built into the rate structure allowing the City to fund the project from capital reserves versus having to bond (borrow) for every substantial water project.

Benefits: Minimizing customer inconveniences while maximizing funding effectiveness is key to the continued success in delivering public infrastructure projects. The Christian Hills water main replacement project, delivered through the innovative and progressive pre-chlorination and pressure testing pipe bursting process, succeeded in achieving both the required criteria and desired outcome.

The largest initial concern was pre-chlorinating and pressure testing the water main above ground prior to installation of valve and hydrant connections being installed after testing. This method proved to be acceptable to the City for this project.

The pre-chlorinated and pressure tested method benefits include:

- Prevented cost of providing a temporary water service
- Minimized the time of fire flow protection being out of service
- Disruption/removal/replacement of driveway approaches and culverts
- Significantly reduced restoration versus open cut method
- Property owner ingress/egress to their property is maintained
- Water service connections made the same day of bursting operations

The City of Rochester Hills is confident this project was designed and constructed in the most efficient and effective manner possible. By implementing our innovative and progressive construction model, and establishing a great working relationship with residents, local agencies and contractors, we were able to successfully complete this groundbreaking project with outstanding long-term results.

City of Kansas City, Missouri Mayor Sly James

Combined Sewer Overflow Control Program

Kansas City's Overflow Control represents the largest infrastructure investment in the history of Kansas City, and the nation's first federally-approved consent decree to include green infrastructure solutions.

The 25-year, \$4.5 billion program has demonstrated the community and environmental benefits of incorporating green infrastructure solutions for the on-site control of rainwater. In 2013, Kansas City submitted a report to the EPA confirming that the green solutions in the City's 100-acre green infrastructure pilot project area are successfully performing on-par with more traditional gray infrastructure solutions—but with the added benefit of revitalizing a community.

Kansas City's Overflow Control Program includes the city's trademark OCP University, which seeks to expand the local workforce by helping smaller firms, traditionally in subcontractor roles, to compete locally and nationally as prime contractors. Over the life of the 25-year, \$4.5 billion program it is estimated that more than 54,000 direct and indirect jobs will be created.

Project Timeline: 2010-December 2017

Cost: \$4.5-\$5 billion (program costs dependent upon economic inflation factor)

Financing: 50% Cash; 50% Bonds

Benefits:

- Reduce annual Combined Sewer Overflows from 6.7 billion gallons to 1.45 billion gallons, meeting the requirements of Kansas City's federal consent decree.
- Collaboration between Water Services, Parks & Recreation, Neighborhoods & Housing Services, Public Works, and Planning & Development Departments. This collaboration has resulted in streetscape improvements, enhanced trash services, reallocation of vacant properties, demolition of abandoned homes, micro-loans for home improvements, educational programming and parks amenities and walking trails.
- Workforce development efforts to assist smaller subcontractors in the development of the skills and resources necessary to serve as prime contractors.
- Expanded business development opportunities for local Minority, Women and Small Business Enterprises.
- Development of Kansas City's first 'green team'—a team of city employees hired and trained to maintain green infrastructure plants and features.
- Partnerships with community leaders to request public funding for neighborhood enhancements to curbs and sidewalks, pedestrian and bike trails, and park shelters and equipment.
- Partnership with community leaders to coordinate neighborhood-wide cleanup efforts in conjunction with codes sweeps and bulky item pick-up efforts.
- Partnerships with local non-profit organizations to improve water conservation through delivery of home plumbing kits, and rain barrel and rain garden education efforts.
- Partnership with local utilities to upgrade aging gas lines and improve awareness of needs-based assistance programs.
- Collaboration and conversation with other cities seeking to implement green infrastructure improvements as part of a federal consent decree.



City of San Diego, California

Mayor Kevin Faulconer

Storm Drainage Update

This project consisted of constructing two storm drain inlets on the Southside of Manhasset Dr. just east of Penny Place that would connect to the existing downstream storm drain structure. The two new storm drain inlets were installed between penny Pl. and Saxon St., and the two inlets were connected by a new 18-inch reinforced concrete pipe (RCP) of about 150 feet in length & two new cleanouts were installed.

The existing storm drain facilities were not handling the surface drainage within the area on Manhasset Drive. The storm water flows were causing flooding in the area where the storm water from the street ran over the curb and onto the sidewalk during rain events. The added drainage facilities, eliminated the possibility of flooding on public and private properties and the damage to the existing improvements from the overflow of the storm water. This project also eliminated the constant need for maintenance and monitoring during rain events.

Project Timeline: 2013 - March 2015

Cost: \$377,996

Financing: Federal grant

Benefits: This new concrete storm drain pipe has eliminated the flooding within the area and associated damage to the public and private properties within the area.



City of San Diego, California Mayor Kevin Faulconer

Catalina Standpipe Renovation

The previous standpipe had been in service since 1954 supplying the Peninsula Community with potable water for daily use as well as emergency storage. The previous standpipe was reaching the end of its life cycle, had corrosion concerns, did not meet today's seismic standards, and did not meet current City of San Diego Tank Storage Capacity Guidelines. The standpipe replacement project consisted of the demolition of the existing 1.5 million gallon standpipe and replacement with a new 2.0 million gallon steel standpipe, in order to increase water quality, and to meet daily local water supply and emergency storage demands.

The Catalina Standpipe is a vital component of the City's aging water infrastructure in Point Loma. The Standpipe maintains the pressure of Catalina 462 Zone and the zones it feeds. The standpipe is the zone's only source of emergency storage if the Catalina Pump Station fails.

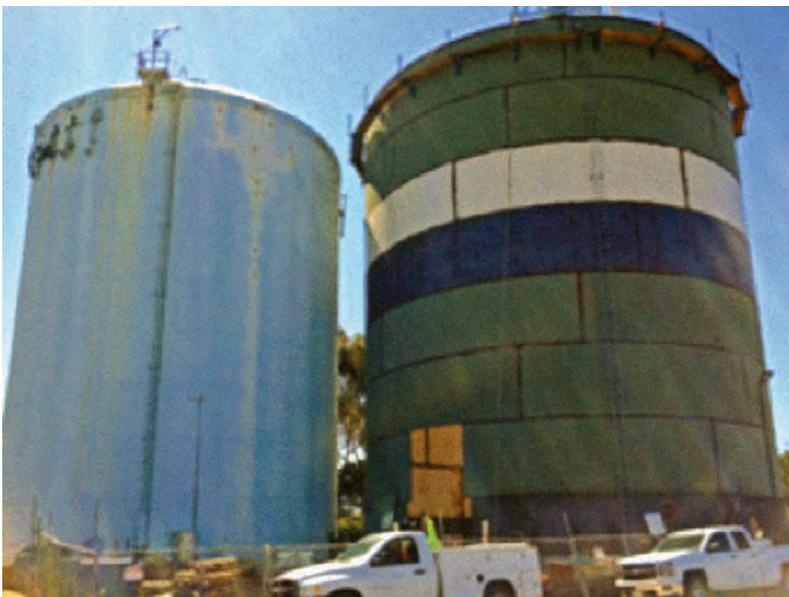
The City constructed the Catalina Standpipe before the end of the existing standpipe's life expectancy because it recognized the importance of protecting the water source for the users. Keeping the existing standpipe in service also provided support and reliability to the City's water distribution system during the current drought conditions.

Project Timeframe: 2010 - January 2015

Cost: \$5,043,656

Financing: Enterprise funds (local)

Benefits: The Catalina Standpipe provides safe drinking water to Navy facilities in the area, and it was essential for Navy and City staff to coordinate construction work in order to avoid interruption to the Navy and City water supplies.



Energy and Water Improvements

City of Gresham, Oregon
Mayor Shane Bemis

Net Zero Energy Achievement for Wastewater Treatment

As is the case in many cities across the US, the City of Gresham's wastewater treatment plant (WWTP) was its highest municipal consumer of electricity in 2005. While contracting the daily operation of the plant to a private company (Veolia NW), City staff identified a series of energy efficiency and generation technology additions, which were then designed, installed and operated: 2005- a co-digester machine that creates electricity from biogas (sludge based methane) saving \$200k/year; 2009- a solar panel array; 2011- energy conservation measures applied; 2012 and 2014- a FOG receiving station was added and expanded; 2015- a second co-digester added. Total energy improvements responsible for \$500k in avoided power purchases per year.

An innovative public-private partnership: A high-Btu waste stream from the commercial restaurant sector that consists of fats, oils and greases (FOG) is collected by private companies in tankers and transported to the WWTP's FOG receiving station, where it is mixed with the sludge residuals for inclusion in the co-digester process. The addition of the material improves the energy production and generates an additional \$340k/year in revenues for disposal services. The innovative partnership enables local restaurants to pay less for FOG disposal, provides business to private FOG haulers, and reduces costs for the City's wastewater customers.

Project Timeline: Project Began in 2005 and Ended in 2015.

Cost: \$9.6 million

Financing: The overall project was financed through wastewater utility rates; and a combination of Energy Trust of Oregon grants (\$1,364,147); and use of the Oregon Business Energy Tax Credits (\$2,254,938).

Benefits:

- The net result of the improvements described helps contribute to the lowest service fees in the region.
- WWTP went from the City's highest energy consumer to a NET ZERO status in 10 years.
- Emissions are now significantly reduced for the facility.
- Savings of \$500k annually in avoided energy costs.
- Public-private partnerships and innovation in FOG collection and processing created a \$340k revenue stream to the city.
- FOG that might otherwise be sent to the sewer system does not have the opportunity to cause clogs.



City of Tallahassee, Florida

Mayor Andrew Gillum

Capital Cascades Crossing – Solar Energy

The Capital Cascades Crossing is a context-sensitive structure that uses the latest in technology, design and materials while paying tribute as a contemporary interpretation of Tallahassee's famed canopy roads. The community selected the signature bridge design through a design charrette conducted by the project engineers. The bridge's solar canopies are the largest photovoltaic tensile fabric installation in the world with an estimated annual production of 6,500 kilowatt-hours (kWh). The solar energy they capture is enough to power the Light-emitting diode (LED) lighting for the bridge. The white surface of the bridge has a nano-technology that activates with UV light to self-clean the air.

In addition to its high-tech materials, this girder bridge is remarkable for being Tallahassee's first Accelerated Bridge Construction (ABC) project. Using ABC was a winning solution for the challenges of working alongside a heavy rail line, power lines, and over one of the city's busiest streets – all without impacting mobility or utility service.

The bridge's superstructure was precast and erected in just two evenings. This 163' bridge provides a safe connection between the adjacent Capital Cascades Trail Segment 3 project to the west, which includes a multi-use trail, playground, marketplace, and a bicycle/pedestrian pathway and the 24-acre Cascades Park to the east, which is Capital Cascades Trail Segment 2.

The Capital Cascades Trail provides connectivity for the surrounding communities. People can now walk or bike to work, entertainment and shopping using this facility as Downtown, Florida State University, College Town, Gaines Street, Florida A&M University, Railroad Square, and Lafayette Street are all readily accessible from the trail.

Project Timeline: June 2015 - September 2016

Cost: \$7,705,600

Financing: The Leon County one-penny local option sales surtax provided \$6,303,600 in funding for the Capital Cascades Crossing bridge and trail project. The Florida Department of Transportation contributed \$1,402,000.

Benefits: The Capital Cascades Crossing includes a multi-use trail that extends three city blocks and connects the Cascades Park segment of the trail with the Florida A&M University Way segment of the trail. This trail provides connectivity for the surrounding communities making them easily accessible by bike or on foot. People can now walk or bike to work, entertainment and shopping using this facility as Downtown, Florida State University, College Town, Gaines Street, Florida A&M University, Railroad Square Art Park and Lafayette Street are all readily accessible from the trail.

The Cascades Crossing is a new landmark in the Downtown and Southside communities. It is the northern point of the South Monroe-South Adams Sense of Place District and is already catalyzing improvements in the District. The latest addition to the Capital Cascades Trail system, this segment serves to physically connect the downtown and points north with the south side by providing a safe, off grade crossing at South Monroe Street.

Main Street Revitalization

City of Little Rock, Arkansas
Mayor Mark Stodola

Creative Corridor Project – Main Street Revitalization

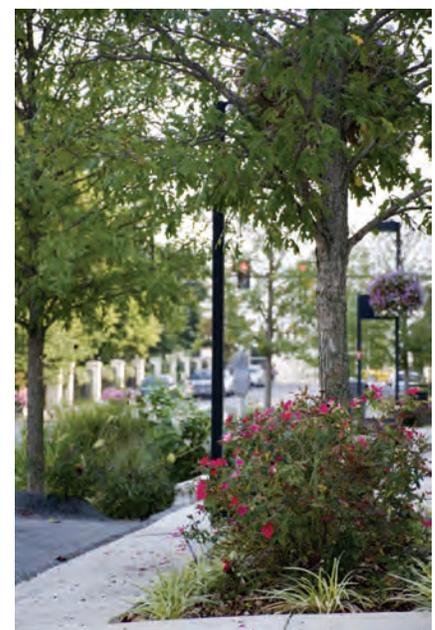
The City of Little Rock is revitalizing its Main Street to create a 24/7 live, work, play environment. The Creative Corridor, project which is not only at the heart of the city but is exactly the center of the state, took a totally dead Main Street with dilapidated, empty buildings and used arts organizations to catalyze economic development. Using the Reparatory Theater, which had just undergone a \$6 million dollar renovation during the Great Recession, as an anchor, other local arts organizations and creative business relocated to the six block strip. One of the special features is the inclusion of Low Impact Development streetscapes which includes rain gardens, porous pavers, bio-swales and other way of improving water quality. It is a model best practice for sustainability and has been heralded across the country as an example of the way community (feds, state, local and private businesses) work together to get things done. The Corridor has won more than 10 national and international design awards.

Project Timeline: Construction started in 2013 – Phase I completed in 2015. Phase II to be completed in 2018.

Cost: \$3.7 million

Financing: Federal Grants from U.S. EPA (Greening America's Capitals – \$117,000; Non-source Point Water – \$900,000; Brownfields – \$1.5 million); NEA (Our Town Grant – 75,000); Private Foundations – 500,000; and City of Little Rock – 1.5 million in historic tax credits.

Benefits: Since the original announcement of the project in 2011, the 3.7M spent has leveraged approximately \$125M in public and private economic development in the six blocks on Main Street.



City of Little Rock, Arkansas

Mayor Mark Stodola

Robinson Center Performing Arts Theater and Public Conference Center

The Joseph T. Robinson Memorial Auditorium (Robinson Center) officially opened in December, 1939. The structure was a WPA (Works Progress Administration) project, and is an excellent example of the Art Deco style architecture of the time. The building was added to the National Register of Historic Places in 2007. The facility is owned by the City of Little Rock and managed by the Little Rock Convention & Visitors Bureau.

Robinson Center has long been a landmark in Central Arkansas, however the structure had developed numerous deficiencies over the years, including loading/unloading, stage size, acoustical insufficiency, dressing room access, stage storage, as well as structural, mechanical and electrical issues, public circulation and outdated conference center space. Knowing the center was in need of major upgrades if the facility was to continue to serve Central Arkansas into the future, the Little Rock Advertising and Promotion Commission (LRA&P) empaneled a Robinson Center Concept Team in October of 2011. The group was tasked with evaluating all aspects of the existing facility, research user needs, propose conceptual solutions and estimate the cost and construction schedule of the proposed additions and renovations.

The official Robinson Center Concept Study was completed in June 2012. An RFQ for architectural design was published in October and Little Rock-based, Polk Stanley Wilcox, along with Ennead of New York City, were selected to lead the design efforts for the renovation and expansion of Robinson Center.

With the success of a special Little Rock election on Tuesday, December 10, 2013, to dedicate the existing 2% advertising and promotion tax for the repayment of bonds to fund the Robinson Center project, the building officially closed for construction on July 1, 2014. The renovation has been called Robinson Center's "intermission", noting that the grand re-opening is Robinson's "Second Act".

2016 welcomed the grand re-opening of Robinson Center; closing out a 28-month, \$70 million renovation and expansion, the facility raised its curtain once again on November 10, 2016, reopening on time and within budget!

The project's design takes advantage of the building's unique site overlooking the Arkansas River. The exterior envelope of the original building was restored and is now visible in multiple areas inside the new conference center addition.

The 1939 structure received major interior upgrades within the performance hall including; dropping the original stage more than 31 feet to create additional vertical volume for improved acoustics and the addition of two balconies; theatrical upgrades; improved sight lines for all patrons; increased lobby spaces and restroom facilities; much improved ADA accessibility; and new box seating along the side walls, creating a much more intimate feel to the hall. A complete reorganization of the back of house support areas include: increased loading capacity; all new electrical and mechanical systems; improved and enhanced staging and lighting systems; and increased dressing and chorus room capacity, on stage level. In addition, an enhanced and modern ballroom and conference center was added to the north side of the building. New technology, LEED certification, mechanical systems, and parking garage entrances into the facility were also included in the project.

Resident companies, the Arkansas Symphony Orchestra and Celebrity Attractions Broadway Theater Series, were excited to return home for their 2016-2017 seasons.

Project Timeline:

October 3, 2011

Initial Robinson Center Concept Study empaneled by Little Rock A&P Commission

June 15, 2012

Concept Study presented to LR A&P Commission

January 8, 2013

Polk Stanley Wilcox Architects and Ennead Architects selected to lead design efforts

March 28, 2013

CDI/Hunt Joint Venture selected as General Contractor & Construction Manager

December 10, 2013

Successful Public Bond Election

January – June, 2014

Final Design Preparation and Construction Documents

July 1, 2014

Robinson Auditorium Closes for Construction

July 1, 2015

Robinson Topping Out Event

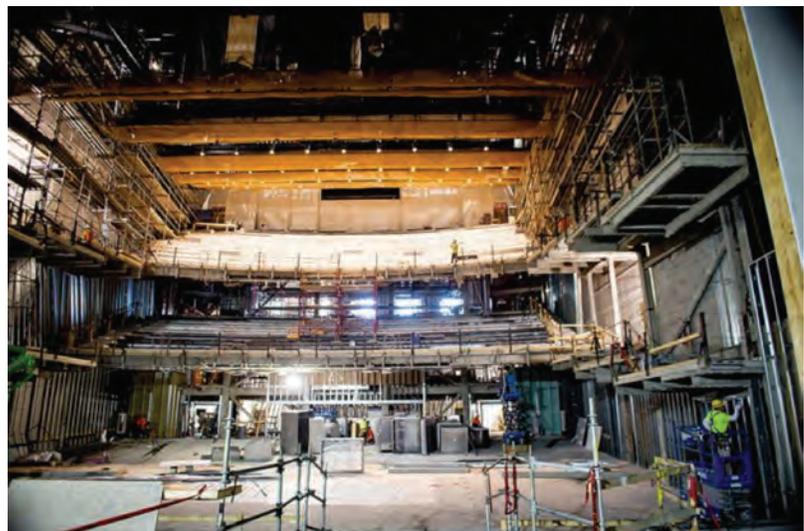
November 10, 2016

Grand Re-Opening

Cost: \$70 million

Financing: \$70 million municipal bond, fully backed by the Little Rock Advertising & Promotion Tax (2% tax assessed to lodging and prepared food establishments).

Benefits: The project created a huge boost to the local construction trades, with 35 of 46 subcontracts located within the state. The performing arts provides a huge impact to the quality of life for residents, as well as amenities for visitors. In the first 7 weeks, Robinson Center hosted 35 events, and welcomed over 36,000 patrons.



Port Modernization

City of Long Beach, California
Mayor Robert Garcia

Long Beach Middle Harbor

Container Yard/Intermodal Rail Yard, Phase 2: This project is being constructed in support of the Port's larger Middle Harbor Terminal Redevelopment program and includes construction of nine container stacking rows including concrete grade beams to support automated rail-mounted gantry cranes, reefer racks, approximately 8,200 lineal feet of intermodal rail racks, grading, paving, lighting, striping, and support utilities. Utility improvements include construction of a portion of the new terminal water main, storm drain, and power and telecommunication duct-banks.

A note about the Middle Harbor Terminal Redevelopment program: The Port of Long Beach, through our Middle Harbor Terminal Redevelopment Program, is building the most advanced container terminal in North America – the first in North America to be fully automated and all-electric that will more than double the capacity of the two existing terminals it replaces. At full buildout in 2020, the terminal will be able to move more than 3 million TEUs (container units) of cargo each year. Operating on its own, this terminal would be considered the fourth largest Port in the country. The Program is a major part of the Port of Long Beach's efforts to modernize in order to remain competitive, and to do so in an environmentally responsible manner. The Port is spending more than \$1.31 billion on this Program, with our tenant spending another \$650 million, to create a terminal that will move more cargo efficiently with greater speed and less pollution. Middle Harbor ushers in a new era of green port operations with a container yard equipped with all-electric cargo handling equipment and enhanced on-dock rail facilities.

Upon completion, the new Middle Harbor Terminal will support 14,000 new jobs in Southern California – all while cutting air pollution in half. The nine-year redevelopment Program will upgrade docks, water access, and container yards, and add a greatly expanded on-dock rail yard which will allow for more container and bulk goods shipments by rail, and reduce locomotive idling. Furthermore, movement of containers by rail instead of truck will reduce truck vehicle miles traveled (VMT) on local roadways and regional freeways, including the I-710 freeway, which has the highest truck-related accident rate in the state of California.

The Middle Harbor Terminal Redevelopment Program will increase and optimize the cargo handling capacity of the Port, by constructing sufficient berthing and infrastructure to serve the forecasted increase in containerized cargo. The Program, which is comprised of several interrelated projects, will increase container terminal efficiency and accommodate the modern cargo vessels that transport those goods to and from the Port. These larger container vessels need slip widths, water depths, and berth lengths that are greater than previous generations of cargo vessels. Additional program objectives are to improve marine terminal operational efficiency to expand the use of existing waterways for international maritime commerce, and upgrade utility infrastructure to support the implementation of environmental controls necessary to reduce pollution and conserve energy.

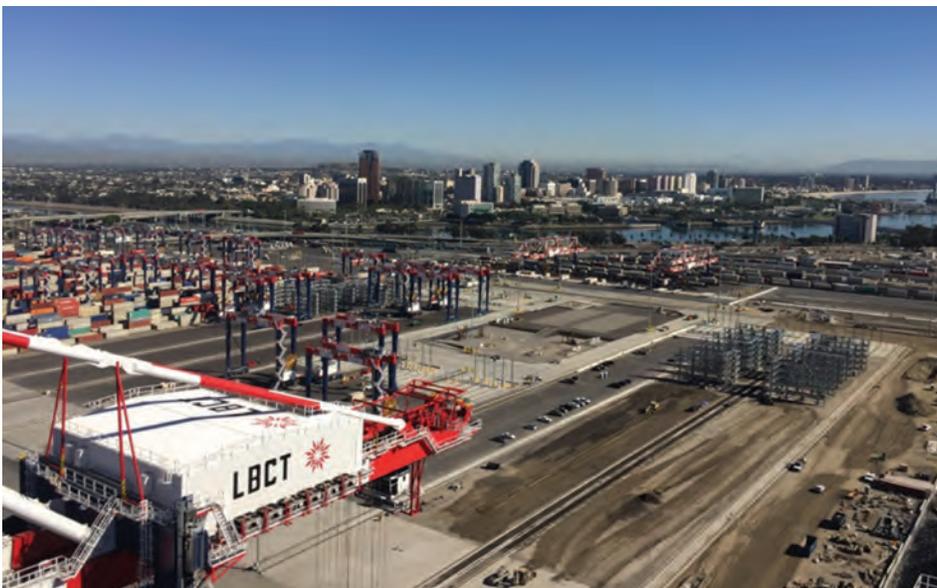
Project Timeline: Construction Notice To Proceed issued May 18, 2015, and completion expected March 4, 2017. Total duration is 656 days.

Cost: Construction Contract: \$74,759,517

Financing: The Port utilized bonds to finance this project.

Benefits: This project, Container Yard/Intermodal Yard, Phase 2, is estimated to create approximately 500 construction related jobs, and once complete the project will support the larger Middle Harbor Terminal Redevelopment Program. The Middle Harbor Terminal Redevelopment Program is expected to:

- Create 14,000 permanent jobs in Southern California.
- Generate temporary construction-related jobs.
- Cut air pollution in half in comparison to baseline conditions.
- Enable the Port to move 35 percent of containerized goods via on-dock rail by 2035; the full program will increase on-dock efficiency 73 percent from approximately 360,000 to 1,320,000 TEUs/year by 2030
- Facilitate faster intermodal connections to regional and national markets.
- Enhance efficiency and sustainability of international trade and domestic goods movement.
- Implement aggressive environmental measures of the Green Port Policy and San Pedro Bay Ports Clean Air Action Plan.
- Recent project performance monitoring indicates on-dock rail utilization is now above the 2011 baseline.
- Since project completion, average on-dock rail use in the project area has increased from 18.3 percent in 2011 to 26 percent one-year after construction completion. This increase speaks to the effectiveness of the project and is particularly favorable given that the Port of Long Beach is currently moving more containers than in 2011.
- Enhance safety in operations by reducing accidents on the container terminal through the use of automated equipment.
- Promote sustainable operations by pursuing Leadership in Energy and Environmental Design (LEED) Gold certification with many of the new buildings that will house terminal operating staff and provide support areas for the operation of Middle Harbor.
- Reduce dependence on oil, improve air quality, and promote public health through the increased use of rail instead of truck.



Brownfield Redevelopment

City of Oklahoma City, Oklahoma
Mayor Mick Cornett

Skirvin Hotel Brownfields Redevelopment Project

The Skirvin Hotel opened in 1911 but closed in the late 1980s. This beautiful hotel was the pride of Oklahoma City for 70 years but after the death of the original owner, it was bought and sold numerous times but couldn't be sustained after the decline in the oil industry and downtown area. After it was closed, severe deterioration and environmental contamination resulted including asbestos and lead paint exposure, broken mercury thermostats, as well as colonies of pigeons nesting in the hotel that posed health risks.

In 1999, the Mayor and City Council authorized the creation of the Skirvin Solutions Committee. They decided it was time to revive this once remarkable hotel. With a combination of public and private resources and incentives, they were able to restore the hotel to its former grandeur and is now a centerpiece for the City's downtown resurgence.

Project Timeline: September 28, 1999 - February 26, 2007

Cost: Total Project Cost was an estimated \$56,413,586 with the private sector contributing nearly 60% (\$36.4 million) and public funding resources providing the remaining \$20 million. Some of these costs included: Purchase Price of the hotel: \$2,726,000; Asbestos Abatement: \$1,600,000; Additional Environmental Cleanup Costs: \$719,000.

Financing: Public-Private Partnerships, Tax-Increment Financing, EPA Brownfields Cleanup Revolving Loan fund, Economic Development Initiative Grant, and private equity, the property also qualified for historic tax credits and state historic tax credits.

Benefits: The renovation of the hotel generated over 400 construction jobs and after completion, 255 new positions were created to run the hotel. The renovation of the historic hotel brought a renewed energy to the city and served as a catalyst for other redevelopment efforts. As a result of this other area-wide efforts, businesses at the Convention Center located two blocks away, and tourism in the business district have increased. New hotels have begun to spring up in the surrounding downtown area, and area property values have dramatically increased.

Energy

City of Burnsville, Minnesota
Mayor Elizabeth Kautz

Geothermal Refrigeration System for Ice Center

Project Description: When the aging mechanical and ice systems at the 38-year old Ice Center needed replacement, improving efficiency through sustainable design practices was a top priority – 11 of the 14 Best Practices Areas identified in the City's Sustainability Plan were incorporated in the project.

The project included replacement of Geothermal-based mechanical systems, Energy efficient dehumidification, environmentally friendly ammonia based ice system, Energy efficient lighting, Energy Management System, Snow melt pit for ice shavings, Seamless glass and dasher board systems, and a Mechanical room addition.

Project Timeline: Project Planning Began in May 2009; Construction began in May and ended in October 2010. **Project Cost:** Total construction cost was \$4.993 million.

Financing: The project was funded primarily through City-issued lease revenue bonds and was also supported by an Energy Efficiency and Conservation Block Grant through U.S. Department of Energy in the amount of \$347,000 and Dakota Electric rebates totaling \$100,000.

Benefits:

- Annual reduction of 1.28 million pounds of carbon dioxide (equal to the amount generated by approximately 111 cars).
- Reduction in the amount of refrigerant required to operate from 10,000 to 600 pounds.
- Recovery and use of 100% of heat from the refrigeration system, which helps save 78,000 therms annually (equal to the use of approximately 82 average households).
- Reduction in annual energy costs of operating the facility of over 40 percent.



City of Denton, Texas Mayor Chris Watts

Denton Energy Center

Denton Municipal Electric (DME) is the community owned and operated electric utility in Denton, Texas. The Denton Energy Center is a nominal 220 MW greenfield electric power generation plant and electrical transmission and distribution substation. DME utilized a procurement strategy to provide the most value to the residents of Denton.

A key component of the Renewable Denton Plan is securing dispatchable, on-demand power that can ramp up and down quickly in response to renewable variability. After years of research, DME determined that building a reciprocating engine natural gas plant is the best option for meeting this need. The back-up energy provided by the Denton Energy Center will allow Denton to increase its renewable energy footprint while providing safe, reliable power while maintaining competitive rates. It's a plan that's good for the environment and for the electric bills of Denton's customers.

Their approach included the direct purchase of twelve (12) Wärtsilä reciprocating internal combustion engine generators and associated auxiliary equipment including radiators and exhaust silencers. Also, DME is directly managing the design and construction of their substation. Finally, DME has contracted with Burns and McDonnell Engineering Company, Inc. to provide the Engineering, Procurement and Construction (EPC) delivery of generation plant.

Project Timeline: Fall 2016 - summer 2018

Cost: Confidential due to the competitive nature of the power market

Financing: Municipal bonds

Benefits:

- The Denton Energy Center will allow DME to increase renewable power from 40% to 70% by 2019
- The fuel for the plant is natural gas, which is cleaner burning and has less emissions than alternate generation technologies
- The dispatchable, on-demand power allows for power generation on an as-needed basis
- The facility has quick-start capabilities, allowing the facility to dispatch power faster than other generation technologies
- Ability to operate with a minimal load and minimal water usage

City of San Diego, California

Mayor Kevin Faulconer

EnLighten San Diego

This is a post top pedestrian lighting project. Extensive testing through the Test Bed (community surveys) determined best light distribution to enhance public safety at night while minimizing light pollution. Community Survey and outreach input incorporated finer fixture elements and customized fixture enhancements such as, frosted lens over LED diodes, decorative finale cover for adaptive control node.

This project design also innovatively used asymmetrical LED arrays to place light on the sidewalks and not the buildings. Innovative use of light distribution patterns limited light pollution cast from the Ocean Beach Pier into the Ocean. Construction waste was eliminated through the certified 100% recycling of fixtures, including packaging.

Project Timeline: 2014-2015

Cost: \$1,103,032

Financing: Local Energy Conservation Program Fund

Benefits: San Diego is building its Smart City strategy around “Smart Streetlights.” Smart Streetlights provide dimming capability to fine tune streetlights enhancing living, playing and shopping downtown. New Dimming tariffs thorough SDG&E capture dimming savings in monthly energy bills. San Diego is among the first cities in the U.S. to achieve this goal. Smart Meters residing in streetlights communicate with the local utility, automating meter reading and back-office bill generation. Now new services can be added to streetlights, like parking systems, cellular service, and public Wi-Fi across downtown. This project is a model for other cities across the U.S. to emulate.



Public Buildings and Parks

City of New Orleans, Louisiana
Mayor Mitch Landrieu

New Orleans Recreation Department Capital Projects

In the years that have followed Hurricane Katrina, the New Orleans Recreation Department (NORD) has completed construction of more than 80 projects from 2010 to 2017, with an additional 34 in pre-design, bid and awards or construction. Completed projects include the repair, renovation and construction of recreation centers, gyms, sports facilities, swimming pools, playing fields and playgrounds throughout the City of New Orleans.

Project Timeline: Individual timelines vary by project from two to three months for minor repairs to 12-18 months for new construction projects.



Cost: \$133 million in total budget for the NORD Capital Program, from 2010 to 2017.

Financing: Projects have been financed through a mix of funding from FEMA public assistance, the U.S. Department of Housing and Urban Development and local funds.

Benefits: Every day, NORD provides recreation programming to youth, adults, and seniors living across New Orleans through sports leagues, arts classes, and other programs. In 2016 alone, over 70,000 young people participated in NORD youth programming and more than 28,000 seniors participated in fitness classes, sports, and arts and crafts programs.



Throughout the summer of 2016, nearly 1000 residents registered for swimming lessons and more than 150 lifeguards and 17 water safety instructors were trained and certified in NORD facilities.

Since 2010 more than 9,000 jobs have been provided to youth through the Summer Youth Employment Program. NORD facilities throughout the city serve as public convening spaces for family activities and community gatherings and serve as important and stabilizing anchors within communities.

City of Tallahassee, Florida

Mayor Andrew Gillum

Cascades Park

24-Acre Urban Park and Community Space Renewal

A centerpiece of downtown Tallahassee – a jewel of recreation for residents and visitors, a site commemorating historic events, a resolution to local land-use controversies, a gorgeous storm waters facility, and a wonderful attraction to the region. These descriptors are used to identify the multi-faceted nature of Cascades Park, which was 40 years in the making.

The Blueprint Intergovernmental Agency – an organization formed by citizens to address an array of issues around Leon County – shepherded the effort and gathered the influences of the local government, neighborhood associations, local businesses and developers to create and implement a unified vision for this project. Cascades Park’s design combines historic preservation, interesting architecture, culture and entertainment with extensive environmental protection.

The remediation of a Superfund site, and four years of construction, the 24-acre park opened to the public attracting thousands of visitors during its first weekend alone. The park features 2.5 miles of walking trails, open green space for recreation, the Prime Meridian Marker Plaza, a 3,500 capacity outdoor amphitheater, an interactive splash fountain, the Discovery Playground, and numerous historic commemorations and monuments. Cascades Park has captured the growing spirit of Tallahassee and created an innovative, functional space through its clever design in an urban setting.

Since Cascades Park opened on March 14, 2014, the project has already been a great success, capturing several awards including the Florida American Planning Association’s Award of Excellence in the Planning Project Category. The stormwater system within the park treats 73% of the runoff from the surrounding 860-acre basin while reducing flooding. The historical and family-oriented design enhances the heart of downtown and has become a destination for school groups touring Tallahassee’s Capitol Hill area. Additionally the “Edison,” a 1920’s municipal electric building and oldest standing structure within the park, was transformed from a vacant eyesore to a classy gastropub with indoor banquet space and outdoor seating. Re-use and conservation of old materials saves time, energy, and new building materials, reducing the environmental impact of construction.

Project Timeline: 2010 - March 2014

Cost: \$31,570,500

Financing: Federal/Local Role, Bonds, P3s, Leverage of Private Investment. Total public-private donations for Cascades Park amounted to \$6.3 million. Notable contributors include the Community Redevelopment Agency, Tourist Development Council, Department of Environmental Protection, and Water Management District. Private contributors ranged from individuals to healthcare organizations to banking institutions. The Leon County one-penny local option sales surtax provided the remaining funding amount.

Benefits: Cascades Park will continue to provide benefits to the local community for many years to come. Recently, the Community Redevelopment Agency selected a developer to move forward with a development of two city blocks adjacent to Cascades Park, which will result in over \$150 million dollars being invested in this area of our community.

Additionally, the City of Tallahassee was able to renovate and lease the old electric building, which was previously a maintenance and security expenditure on the local budget. The new business in this location is creating new jobs and reinvesting in the Tallahassee economy.

Lastly, the Cascades Park provides ample opportunities to engage people with the outdoors and encourage them to get moving! Cascades Park’s location in downtown Tallahassee means that every day the park is easily accessible for thousands of workers, encouraging them to use their lunch breaks and personal time to walk through the park. Cascades Park also provides a vital link within the Capital Cascades Trail system, which provides an urban trail network through central Tallahassee. With the completion of the next phase of the Capital Cascades Trail in 2018, people will be able to travel from Downtown Tallahassee to the Gulf of Mexico and never have to share the road with a car. By connecting the Capital Cascades Trail system with the regional St. Marks Historic Rail Trail, Tallahassee is truly investing in regional connections.

City of San Diego, California

Mayor Kevin Faulconer

Fire Station 45

This fire station was located and designed to drastically decrease both the response time and the level of service for the residents of this area. During the design phase, the project was developed with extensive input from the community. During construction, updates were issued to neighbors every two weeks.

This project was started in 2001, and was put on hold and modified many times due to either budget issues or a changing political climate. Through all of those issues, the city's project team never gave up on the project or lost focus of the public need and benefit.

Project Timeline: 2001-November 2015

Cost: \$10,983,692

Financing: Bonds and Federal Grant

Benefits: This new Fire Station has drastically decreased both the response time and the level of service for the residence of this area.





THE UNITED STATES CONFERENCE OF MAYORS

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