

## Capital Projects/Beautification

### **Narrative**

Fort Myers River Basin

Fort Myers CRA

Constructing and managing stormwater run-off facilities to insure water quality standards are met is a costly and challenging endeavor in a green field site—it becomes even more challenging in a developed urban area like downtown Fort Myers. On-site, project specific, detention basins reduce the amount of valuable land that can be developed and they usually result in a less than friendly pedestrian environment. This was one of the challenges facing the Fort Myers CRA when it was creating a development plan for the underutilized downtown riverfront. The solution was to construct a 1.4 acre shared water detention basin, on what was formerly an impervious parking lot that would improve the quality of the storm water run-off, create additional water frontage, spur in-fill development and create an attractive public gathering place.

### **Innovation**

- **Design** - The Fort Myers River Basin, located in the heart of the historic downtown River District, is designed to look like it is a part of the Caloosahatchee River jutting two blocks into its historic riverfront shoreline of Bay Street. The Basin is bisected by a vehicular “bridge” which is actually the original roadway redesigned to look like a bridge structure, and the Basin is connected by a large culvert under the roadway. A pedestrian bridge was constructed over the weir that separates the Basin from the river, giving the illusion that the river flows uninterrupted into the heart of the city when it is actually controlling the rate of stormwater runoff discharged into the river. The Basin’s striking crescent-shaped design creates an alluring focal point for the public, who flock to the attractive landmark for community gatherings and daily strolls around the water feature. Other design features include: railing supports shaped like the roots of the mangroves growing along the riverfront; seven colorful informational signs describing the workings and benefits of a detention basin; 48 support pedestals with built-in up-lit panels for future art work; historically accurate walkway lighting; 4 spray fountains for aeration; concealed hose bibs for access to potable water; 48 electrical outlets for special event production; an educational shade pavilion; and a built-in sound system with over 48 speakers.
- **Problem Solving** - The 1.4 acre Basin creates 1,200 linear feet of additional waterfront property for hotel, retail and restaurant development, solving the problem of how to attract a top-rated hotel brand and unique retail and restaurants—all of which want to be located on the water—while maintaining a publically-accessible Riverwalk, park, and public gathering place.
- **Sustainability of Another Area** - The fully sea-walled detention Basin, designed in cooperation with the South Florida Water Management District, provides stormwater mitigation for up to 15 acres of riverfront property. It improves the quality of the stormwater run-off being released into the Caloosahatchee River (a water body included on the Florida Department of Environmental Protection (FDEP) Verified List of Impaired Waters), and reduces the Total Maximum Daily Load (TMDL) of Total Nitrogen that causes the impairment by incorporating a filtering system, aerating fountains, and oil/water separation.
- **Financing & Construction** - In a time of global financial crisis, the City of Fort Myers did not incur any new debt when building this \$5,778,000 project. Creative funding solutions concentrated on using resources already on hand—\$4,889,000 was reallocated from completed capital projects which had come in under budget, including the Downtown Utility Replacement and Streetscape Project, and from utilizing City staff from Parks & Beautification, Public Works and Utilities—combined with creative construction techniques that significantly reduced expenses. One of the most important choices the CRA made prior to construction was to select a construction manager during the final phases of design who could help Value Engineer the project, refine the bid process, ensure strict adherence to the construction schedule over oversee quality control. The remaining portion of the budget was funded by a \$500,000 Department of Environmental Protection (DEP) grant and a \$423,000 Total Maximum Daily Load Grant.

### **Impact on the Community**

- **Economic** - The Basin construction demonstrated the City’s commitment to implementing the Riverfront Plan and has already attracted the interest of hotel and restaurant developers. The River Basin created 1,200 linear feet of valuable, additional waterfront property making the City-owned property more marketable to retail, restaurant and hotel developers. The higher property values will result in higher lease rates or sale prices and increased revenue for the CRA district. The new private investment and development opportunities along the Basin’s edge are expected to result in a regional economic impact of up to \$67 million and up to 870 permanent jobs to help sustain the local economy.

- **Social** - The 15-foot wide walkways, pedestrian plazas and other public open spaces surrounding the Basin provide public access to the waterfront, generating a visual and physical connectivity with the water along with passive recreation and healthy living benefits. Additionally, the Basin serves as a focal point for public gatherings, special events, and festivals to be held in the public spaces incorporated into its design. One local restaurant promotes its view of the Basin and riverfront in its advertising.
- **Design** - As a retrofit project that converted 1.4 acres of asphalt parking lots into a body of water in the urban core of the City of Fort Myers, the River Basin reduces the urban heat island effect and helps relieve higher temperatures in downtown, which reduces energy consumption and helps reduce greenhouse gas emissions. Lowering the urban heat island effect also improves human health, by reducing heat stroke, respiratory difficulties, heat cramps and exhaustion, non-fatal heat stroke, and heat-related mortality.
- **Design** – The Basin is designed to benefit the community by reducing pollutants from stormwater runoff into its main waterway, the Caloosahatchee River (a verified impaired water body), by intercepting runoff and processing it through a filtering system, aerating fountains, and oil/water separation before it flows through a weir into the river. Seven colorful educational signs were installed around the Basin to further boost the community's appreciation for its natural resources, allowing local residents and visitors to learn about the human impacts on water quality, strategies to improve existing conditions, and how to sustain the environmental benefits over time.
- **Cultural** – As Phase I of the overall riverfront area development, the River Basin meets one of area's primary requirements, which is to successfully integrate the historic downtown core area and the riverfront by focusing the proposed new development in the blocks immediately adjacent to the historic district while keeping the riverfront as largely public open space. The Basin also reinforces its connection to the historical district by symbolically bringing the waterfront back to its original historic shoreline, which is two blocks south of the river's current bank.

## Funding

- **Funding** – Funding came from a variety of sources, but did not require any new debt. The recently completed Downtown Streetscape project came in \$2.5 million under budget and those TIF funds were reallocated to the Basin project. An additional \$2,389,000 was assembled from other completed City Capital Improvement projects that came in under budget; the City is loaning these funds to the CRA, which will repay the loan with future Downtown TIF funds. The remaining budget for the \$5,778,000 Basin project was secured from a \$500,000 DEP grant and a \$423,000 Total Maximum Daily Load Grant.
- Creative use of municipal labor and funds stretched the City's funding to its maximum; please see the **Problem Solving** section for construction details.
- A Waterfronts Florida Partnership Program/Florida Department of Economic Opportunity Grant of \$10,000 paid for design of seven educational signs to explain how the Basin addresses storm water treatment and how this improves water quality in the Caloosahatchee River. Additional funds from West Coast Inland Navigation District were used to fabricate the signs.

## Problem Solving

- **Communications** - The two blocks now occupied by the Basin were formerly surface parking lots for an adjacent event center, and downtown employees and businesses. During the basin construction a majority of these parking spaces were closed off resulting in the public's perception that there was no longer enough public parking available in this area of downtown Fort Myers. To counteract this negative perception, a campaign was launched to educate the public on other available parking locations. This effort included signs and maps showing available parking locations, flyers to all businesses, parking discounts during construction, introduction of a valet parking service and trolley shuttle services during special events to existing parking areas during construction. Once the public learned the new locations and adjusted their daily routine, perception changed so that parking was no longer considered an issue.
- **Planning** - Value Engineering was used to reduce costs without compromising the project. The construction manager was selected during the final phases of design to ensure the project stayed on budget and to give valuable feedback to the design team concerning constructability and Value Engineering. The construction manager worked with local sub-contractors, vendors, and other resources to develop cost-saving ideas without sacrificing quality or aesthetics; refined the sub-contractor bid process with several detailed bid packages and multiple contractors/crews to eliminate gaps and/or overlaps in work; maintained a strict construction schedule during slower summer months to reduce inconvenience to local businesses and events as well as eliminate construction slowdown due to frequent special events; and enforced a Zero Punch List philosophy.

- **Design** – An early conceptualization envisioned the Basin as an extension of the river itself, however, during the design and engineering phase it quickly became apparent that environmental permitting issues would make dredging an inlet extremely difficult, if not impossible. In its adjusted, final state, the Basin has two primary functions, as a detention basin made to process stormwater runoff and pollutants, and to appear to be a highly-attractive inland extension of the Caloosahatchee River suitable to draw a high-quality hotel, restaurants, and retail onto its water frontage. A system of gravity-based weirs was constructed to control the rate of stormwater discharge from the Basin into the Caloosahatchee River. The gravity system was selected in lieu of a more commonly-used pump system because it eliminates fuel, pumps, and future maintenance costs. The weir structure at the river's edge was designed so that it is hidden below the pedestrian bridge that appears suspended over the river, when in reality, the weir structure divides the Basin from the river, allowing water in the Basin to be treated before discharging into the Caloosahatchee River. The projected water quality improvements attributed to the Basin include: 82% reduction in Total Suspended Solids; 80% reduction in Total Phosphorus; 54% reduction in Total Nitrogen; and an 87% reduction in Biological Oxygen.
- **Construction** - By making City staff in the Parks & Beautification and Operations departments part of the project team—installing landscaping, cleaning the Basin area, maintaining dumpsters, and performing underground utility work—approximately \$250,000 in labor costs were saved.

### **Applicability to Other Communities**

- The River Basin is an example of how to add more waterfront land for a hotel, restaurants, and retail while maintaining public access along a river or other natural body of water.
- Creative funding techniques to avoid new debt by combining funds leftover from other completed Capital Improvement projects in addition to grants, and by using techniques like Value Engineering and as many in-house resources as possible, provide an example to other communities facing similar large-scale projects during tough economic times.
- The mitigation credits available from constructing a central detention basin can be used as an incentive to stimulate new development or sold to recoup the expense of installing the basin. This urban-style detention basin can be replicated in other cities that are dealing with water quality issues and the incongruity of pedestrian-friendly urban design and on-site water management swales and structures.

### **Other Exemplary Aspects of the Design**

- The design team and the City of Fort Myers were the first to obtain a rarely-granted variance from the South Florida Water Management District to allow finished floor elevations of new commercial development around the Basin to be 7.5 feet elevation instead of 10 feet. The additional 2.5 feet of protection will be provided by flood-proofing. The riverfront property has a base elevation of between 5-7 feet and without the variance the grade difference between the first finished floor of the new retail and restaurant development and the sidewalk would have been 3-5 feet. The extensive ramp system needed to provide ADA access to this elevation would have reduced the buildable area of the surrounding land and created a less than friendly pedestrian environment at the street level. The most significant contribution to this solution was the commitment by the City to assume responsibility for flood-proofing the affected buildings through development agreements with property owners and tenants. With this variance, Fort Myers can maintain the historic context, commercial viability, and urban pedestrian character of the downtown area.
- During construction, impact to the public was minimized for large special events, including the 4<sup>th</sup> of July fireworks display on the river, the annual Boat Show, and two United States presidential visits at the event center immediately adjacent to the project.