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RSQ #22-902
Professional Engineering Design Services for Wekiva Trail, Segment 1
October 7, 2021

What is Active Transportation?

Active transportation is any self-propelled, human-powered mode of transportation, such as walking or bicycling. Use of the term "active transportation" highlights the growing recognition of the connection between public health outcomes and transportation planning.

As a form of human-powered transportation, active transportation engages people in healthy physical activity while they travel from place to place. People walking, bicycling, using wheelchairs, skateboarding, scootering, and rollerblading are engaged in active transportation. Active transportation supports transit use since many people reach transit stops using active travel modes.

JMT completed the recent update of PennDOT's Pennsylvania Active Transportation Plan which outlines a vision and framework for improving conditions for walking and biking across the Commonwealth.

Photo and Narrative Source: Pennsylvania Active Transportation Plan

Active Transportation Planning and Design

Firmwide, JMT has been involved in active transportation planning and design for over 150 trails throughout the Eastern United States. No two projects are the same, but many have similar components. Understanding planning, policy, urban design, and community/economic development in the context of diversity, equity, and inclusion are essential in updating a comprehensive plan for those who have a stake in the outcome.

JMT has experienced professionals highly skilled in the design and development of construction documents for a variety of trail projects throughout the region. Our Team works collaboratively with our clients to ensure a project that best meets the needs of the agency and public while complying with various funding requirements and cost/budget constraints. JMT project engineers, supported by surveyors and environmental specialists, have experience preparing construction plans that comply with state and local requirements. JMT staff has experience working with local municipalities, FDOT, FDEP, and other review agencies that may require an application for approvals to move a project from design to construction successfully. JMT's active transportation planning and design staff work collaboratively with construction management staff to ensure design constructability and clarity of design specifications.

Similar Past Projects – We are Experienced and Reliable

We pride ourselves on our ability to recognize opportunities and concepts from neighborhoods and communities and develop best practices applicable across many planning policies, strategies, and recommendations. One measure of our success is the willingness of clients to re-hire us and provide strong recommendations on our behalf. We are proud that 80% of our business is performed for repeat clients. JMT's commitment to our corporate culture is evident in our roster of awards received on a national, regional, and local level.

We believe that the best way to measure our Team's past performance and abilities is to showcase some of our experiences.

Various JMT Recreation Planning, Design, and Construction Management Projects

Orange Boulevard (CR 431) Safety Improvements Project

Owner
Seminole County BCC

Location
Seminole County, FL

Dates
November 2017 – Present

Highlights
- The addition of left-turn lanes
- Curb and gutter with drainage
- Bicycle lanes
- 5-foot-wide sidewalk
- 10-foot-wide shared-use path
- Additional right-of-way required

JMT recently completed Phase 1 services consisting of a preliminary engineering study for Seminole County for Orange Boulevard from State Road (SR) 46 to Monroe Road/County Road (CR) 15. The objective of the study is to promote safety, address drainage deficiencies, enhance pedestrian and bicycle continuity, and improve access throughout the project corridor.

During the course of the study effort, two alternative typical sections were evaluated - a two-lane divided urban facility with a center median turn lane, and a two-lane undivided urban roadway with only left-turn lanes at selected locations. Both alternatives were determined to accommodate anticipated future travel demands and improve overall safety.

JMT evaluated and developed preliminary horizontal and vertical geometrics for the above two project alternatives within the project limits and prepared Phase I plans to a 30% level of completion. The intent was to identify the approximate right of way requirements and estimated costs for each alternative.

Originally, there were only intermittent sidewalks without shoulders and no dedicated bicycle lanes along Orange Boulevard, which is a preferred route for many bicyclists in Seminole County. To improve safety for pedestrians and bicyclists, the study recommended the addition of a 10-foot multi-use path on the south side of the road, a five-foot sidewalk on the north side and the addition of five-foot bicycle lanes in each direction.

The study was finished in May 2019, and the project is now under final design, including the preparation of roadway, drainage, signing and pavement markings, structures, and bridge widening plans, along with design surveys, right of way maps, utility plans, and right of way acquisition support.

A new storm sewer system is being designed to address not only the proposed improvements but also local flooding concerns. An urban section with curb and gutter will be provided to eliminate existing deep ditches along each side of the travel lanes. The project will require additional right of way, and JMT is providing assistance to Seminole County with the property owner coordination and the acquisition effort. *The study was delivered on budget and on schedule.*

Wekiva 7B – SR 46 (Wekiva Parkway) from West of Center Rd to I-4

Owner
FDOT District Five

Location
Seminole County, FL

Dates
April 2017 – Present

Highlights

- 10-foot trail
- 2-lane rural to urban section with sidewalks

This project involves 1.37 miles of improvements to State Road 46 from Orange Blvd to Wayside Drive – Oregon Street. The work under this contract consist of reconstruction, widening, milling and resurfacing, drainage improvements, curb and gutter, sidewalk, traffic signals, signing and pavement markings, lighting, intelligent transportation systems (ITS), and utility construction on SR 46.

This project also includes the reconstruction of three miles of an existing two-lane rural section to a two-lane urban section with sidewalks and a 10-foot trail. This contract consisted of a Preliminary Engineering Study to evaluate alternatives followed by a final design component to prepare final construction plans.

Apopka Downtown Trail Network – Design of Trail along West Michael Gladden Boulevard from South of Hawthorn Avenue to South Park Avenue

Owner
City of Apopka

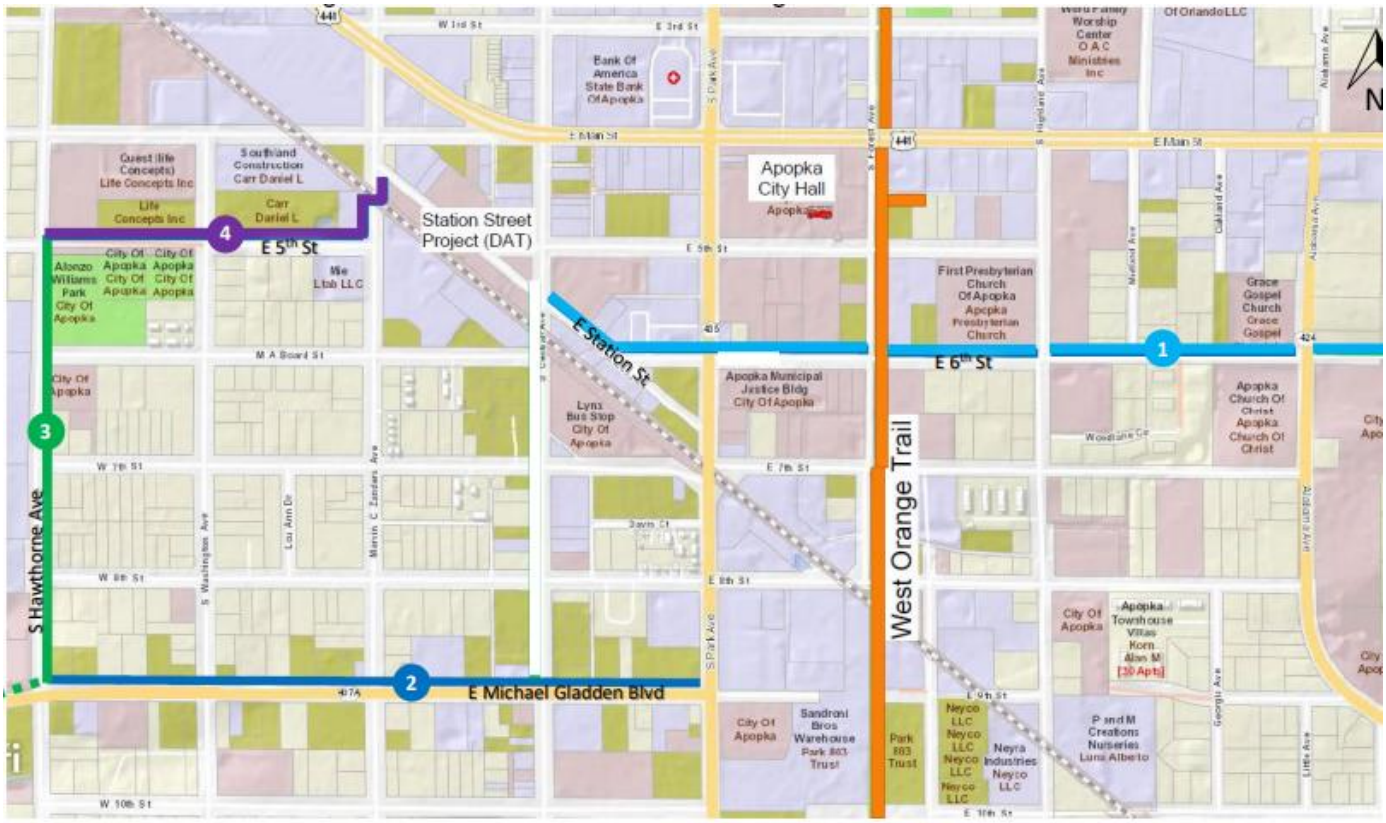
Location
Apopka, FL

Dates
January 2021 - Present

Highlights
- 10-Foot Shared-Use Path
- Permitting
- Roadway Design
- Drainage Design

South Park Avenue

This project consists of design and permitting of a 10-ft wide shared-use path along Michael Gladden Blvd. for the City of Apopka. This trail is part of the new Apopka Downtown Trail Network, which will provide safe alternative modes of transportation within the city. This project consists of roadway, drainage, and signing and marking improvements as well as permitting support.



1. E. Station Street / E. 6th Street from S Central Avenue to Mcgee Avenue
2. Michael Gladden Boulevard from Hawthorne Avenue to S. Park Avenue
3. S. Hawthorne Avenue from W. Michael Gladden Avenue to 5th Street
4. 5th Street from S. Hawthorne Avenue to Marvin Zanders Avenue

SE 4th Street Reconstruction

Owner
City of Gainesville, FL

Location
Gainesville, FL

Dates (Post Design)
October 2019 - Present

Highlights

- Reconstruction from a 2-lane roadway, to a 2-lane urban roadway
- Complete street features
- 5.5′ bike lane
- Raised 5′ sidewalk next to that bike lane
- New drainage features
- 2 new ponds
- Reconstruction of the box culvert at Sweetwater Branch canal
- Design of boardwalk alternatives

This project consists of roadway, drainage, and lighting improvements as part of the complete reconstruction of SE 4th Street from Williston Rd, SR 331 to SE Depot Avenue. Additionally, the improvements included the culvert replacement at Sweetwater Branch crossing to prevent flooding of the new roadway, 2 stormwater treatment ponds, raised bicycle lanes, 5 sidewalks, and new bus pad.

Sun City Center Boulevard (SR 674) Multi-Use Path Design

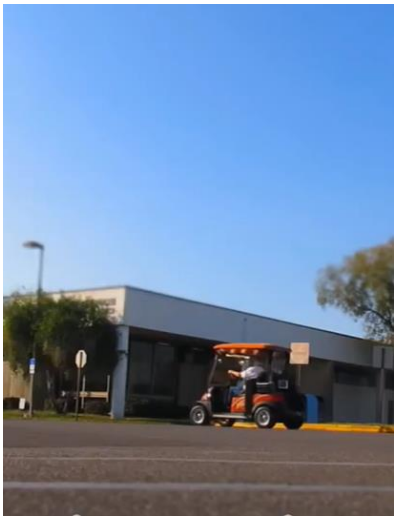
Owner
FDOT District Seven

Location
Hillsborough County, FL

Dates
May 2021 - Present

Highlights
- Design of Golf Cart Path Sidewalk
- Lighting
- Sidewalk Improvements
- Miscellaneous Structures
- Drainage Design
- Environmental Permitting, Compliances, and Clearances
- Structures
- Signing and Pavement Markings
- Survey

This project originated from a local action plan in conjunction with FDOT and the Hillsborough County planning department. It was determined that there is a need for a golf cart path and sidewalk along SR 674 due to high demand. In addition, there is a need for lighting along the corridor to supplement the proposed pathway and sidewalk. The County requested that JMT provide a design for the improvements to SR 674/Sun City Center Boulevard, which includes a golf cart path, sidewalk improvements, and miscellaneous structures.



General Consultant for Traffic Calming, Trails, and DRI Review

Owner
City of St. Petersburg

Location
St. Petersburg, FL

Dates
Completed 2013

Highlights
- FDOT LAP Funded
- Sidewalk Improvements
- Drainage Design
- Environmental Permitting, Compliances, and Clearances
- Structures
- Signing and Pavement Markings
- Survey

54th Avenue Side Path: This project was assigned to JMT to accommodate the high demand for stimulus projects. Therefore, the schedule was inflexible and very aggressive – assigned in March 2009 and due September 2009. The project involved developing the alignments and construction documents for a planned trail extension identified for implementation from their overall City trail plan. The project required a **SWFWMD ERP permit** as well as signoffs from FDOT for drainage and **access management**. The funding came from an original **FDOT District 7 LAP** agreement and therefore required all improvements to be within the City/FDOT rights-of-way. The typical section consisted of a 12-foot asphalt path as well as a canal crossing pedestrian bridge feature. Coordination with utilities and adjacent landowners as well as assembling and processing environmental and regulatory permits made for a challenging schedule. The project was completed on time and within budget.

37th Street South Trail: This project was assigned to JMT as part of the trail connectivity and development master plan and a **FDOT District 7 LAP** project candidate for stimulus funds. The typical section consisted of a varying width concrete trail (10 ft. -12 ft.) to accommodate the many **existing trees** along the alignment. The trail was to replace an existing 5-foot sidewalk along an urban street with multiple intersection crossings. The funding came from an original LAP agreement with FDOT and therefore required all improvements to be within the City/FDOT rights-of-way. Utility coordination was extensive to avoid conflicts with above ground and buried utilities. The profile grade line of the alignment varied to adjust for the right-of-way elevations as well as the ties to the existing curb line.

Maitland Pedestrian Bridge over I-4

Owner
FDOT District Five

Client
Skanska-Granite-Lane, JV

Location
Maitland, FL

Dates
2019

Highlights
- Pedestrian Bridge
- Provided RFC Plans and Specifications

JMT was responsible for the redesign of the Maitland Pedestrian Bridge over I-4 in Maitland, Florida, which was initially designed by the design/build team under contract with SGL Constructors. The bridge was initially designed as an architectural gateway into the City of Maitland and consisted of a curved superstructure supported by cables hanging from a towering, splayed arch over I-4. After the pedestrian bridge collapse over traffic near Florida International University, FDOT requested a more basic bridge design than what was initially designed. SGL Constructors contacted JMT for scope and fee for the redesigned bridge. JMT provided RFC plans and specifications to SGL for the substructure of the redesigned bridge. Big R (under a separate contract with SGL) provided the design, fabrication, and delivery of the superstructure bridge truss.

DTMs along Railroad in Durham County

Location
Durham, NC

Client
North Carolina DOT

Dates
December 2019

ESP performed mobile lidar collection for high accuracy pavement DTMs and extracting RR track features on 2.4 miles of combined North Carolina and Norfolk Southern Railroads and combined 2.2 miles Y-lines located northwest of Raleigh. ESP used our Hi-Rail system to access the tracks, collect mobile lidar, and extract the top of rails, track centerline, and miscellaneous railroad features. Pavement DTMs were collected/mapped to NSSDA 0.05' vertical accuracy standards. ESP performed RTN GNSS surveys and ran digital levels through approximately 50 panels and 45 validation points used to register the mobile lidar data. Pavement DTM and railway features were extracted from the registered point clouds.

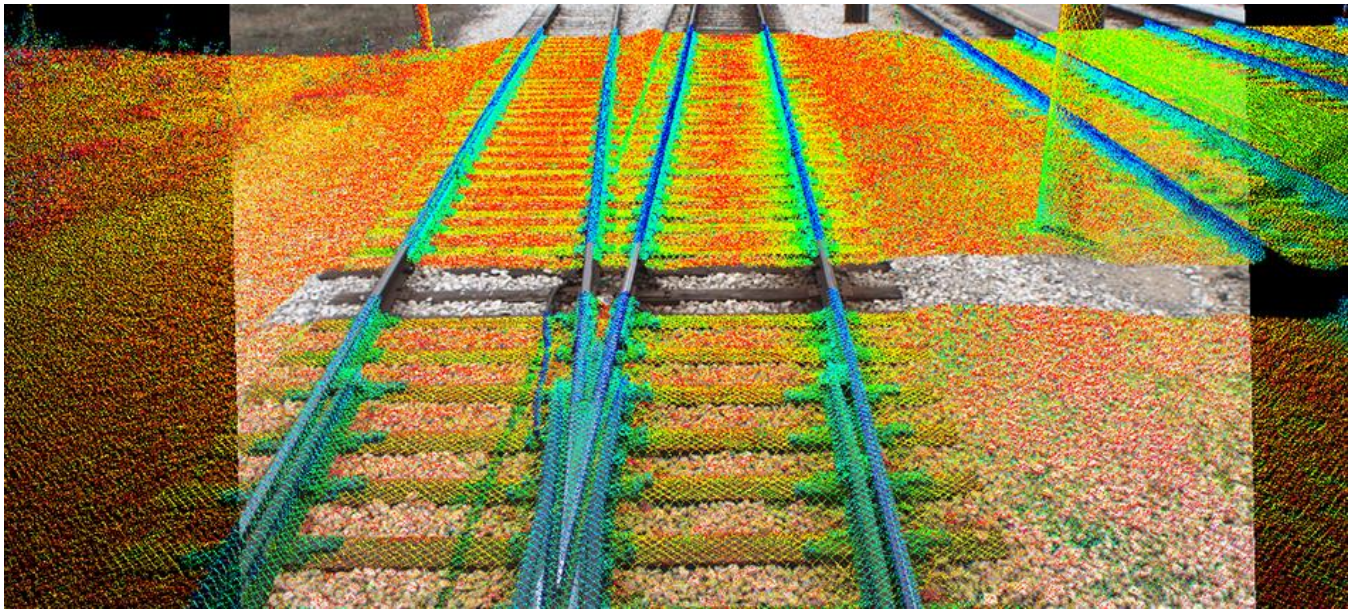
Northern Indiana Commuter Transportation District, Positive Train Control (PTC) Mobile Scanning

Location
Various, IN

Client
Northern Indiana Commuter Transportation District

Dates
March 2016-May 2016

ESP performed mobile lidar data collection services for approximately 76 miles of rail line for the northern U.S. commuter transportation district Positive Train Control (PTC) project in Lake Porter, LaPorte, and St. Joseph counties in Indiana. Our hy-rail equipped mobile LiDAR system drove the rail ROW at a collection speed between 15 to 20 mph, while acquiring the spatial data into a point cloud database. Using a 360-degree mobile spatial imaging system, we captured fully synchronized, high-quality georeferenced point clouds and high-resolution imagery. The vehicle-mounted system is designed for conducting as-built modeling, inventory, inspection, and asset management for roadways, bridges, railways, utilities, and other infrastructure to quantify any degradation to the roads during construction.



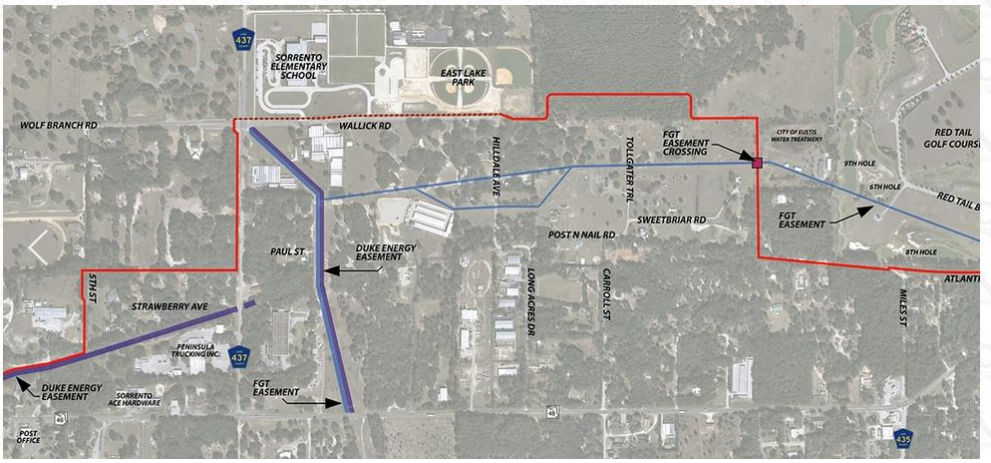
Lake Wekiva Trail from SR 46 to Hojin Street, Segment 2

Owner
Lake County

Client
Horizon Engineering Group, Inc.

Location
Lake County, FL

Dates
2017-2018



CSER and Level 2 Contamination Evaluation for the new multi-use trail along the Seaboard Coast Line Railroad and included a shared-use pathway, utility adjustments and drainage improvements. The study area contained a railroad corridor, oil depot, concrete plant, auto repair facilities, and agricultural land among 19 sites of concern. Level 2 assessment revealed arsenic and polycyclic aromatic hydrocarbon soil impacts along the railroad corridor. Plan notes were provided to reduce worker and public exposure to potential contaminant exposure during construction activities.

Kissimmee Pedestrian Bridge over John Young Parkway (LAP), Osceola

Owner
City of Kissimmee

Client
VHB, Inc.

Location
Kissimmee, FL

Dates
2013-2016

Geotechnical engineering investigation for the design of a 1,124-foot long pedestrian bridge crossing John Young Parkway. The bridge includes a 220-foot long single span and a total of approximately 900 feet of elevated walkway on both ends of the bridge. The main span of the bridge will be supported by pre-stressed precast concrete piles and the elevated walkway will be founded on shallow spread footings.

Follow Me Multi-Use Trail & Pedestrian Overpass at Victory Lane

Owner
Columbus Consolidated Government Planning Department

Location
Columbus, GA

Dates
2013-2019

Highlights
- Concept design
- Database preparation
- Preliminary and final plans
- Lighting design
- Environmental permitting
- Construction documents

The Follow Me Multi-Use Trail is a pedestrian facility along an old, abandoned railroad line (formerly known as the Fort Benning Railroad) that runs from Fort Benning Army Base, north of the National Infantry Museum, to Cusseta Road near the Joy Road intersection. The railroad corridor was wide, varying from 140 to 200 feet wide and allowing for many enhancement opportunities near neighborhoods and activity centers. The corridor creates a linear greenway park that invites bicyclists, runners, walkers, and outdoor enthusiasts. The trail currently links seven schools, a park, restaurants, residential areas, and various community organizations. This trail will one day link with the Riverwalk and Columbus' overall trail network.

The project included a bridge to carry the trail over Victory Drive. The overpass involves a prefabricated steel truss bridge, retaining walls, and approach trail on both sides.

Heath & Lineback Engineers, Inc. (H&L) provided complete design services for this multi-use facility and roadway overpass. We designed the trail path, parking areas, pocket parks, road crossings, overpass, trail structures, and landscaping. The facilityincludes activity areas, rest areas, and trail amenities. H&L's services included concept design, database preparation, preliminary and final plans, lighting, environmental permitting, and construction documents. All design was in accordance with the Fort Benning Road Master Plan.

The railroad corridor is divided by three roadway corridors that create natural breaks in the greenway - Victory Drive, Ft. Benning Road, and Cusseta Road. The land use varies and includes residential centers, retail centers, recreational parks, and industrial areas. The trail creates a positive impact on the local area, enhances the efficiency and mobility of the transportation system, enhances community connectivity and creates community identity, allows for sub-section creativity, and protects and restores habitat. The trail was designed for constructability and minimum maintenance as well as future connectivity.

Owner
City of Auburndale, FL

Location
Auburndale, FL

Dates
2014-2017

Highlights
- Conceptual streetscape design
- Landscape architectural construction documents
- Multipurpose trail
- Pedestrian safety measures
- Green infrastructure strategies

Pilaklakaha (PK) Avenue Streetscape

S&ME provided master planning, conceptual streetscape design and landscape architectural construction documents for Auburndale's five-block Pilaklakaha Avenue streetscape. The project fundamentally changed the corridor from a flood prone high-speed arterial into a safe, sustainable, multi-modal street. The project design included a lane reduction from four lanes to two lanes, a multipurpose trail, on-street parking, enhanced pedestrian safety measures and rain gardens along this 3,300-foot section of roadway that links residential neighborhoods to the City's historic downtown core. The project solved neighborhood flooding issues using multiple green infrastructure strategies including the use of permeable pavers in the parallel parking spaces, planted rain gardens, which pretreat and detain the water for infiltration, and the development of a new stormwater basin. The project was awarded $1.3 million in cooperative funding by the Southwest Florida Water Management District. In addition to the enhanced environmental benefits of the project, the City has also seen increased investment from the private sector along the corridor and has experienced a noticeable reduction in vehicle speeds since the opening of the project. ***Project received a Grand Award from the American Council of Engineering Companies of Florida, 2019 and a Design Award from the American Society of Landscape Architects, 2019.***