Reliable Design-Build Expertise

- To win
- To work efficiently together
- To outperform our competition
- To develop best-value solutions
- To be creative and innovative
- To reduce costs
- To save time
- To reach incentives
- To maximize profits
WE WILL exceed your expectations by providing a collaborative design-build experience that maximizes safety, economy, constructability, efficiency, and returns from pursuit to project completion.

WGI is a full-service consulting firm specializing in design-build project delivery. We have what it takes to win design-build jobs and help you deliver them safely, smoothly, and efficiently. We have delivered over $4.8B in design-build transportation projects (62 projects).

The fact that we provide comprehensive professional services makes project development and management easier for you. We are a one-stop shop for Civil, Structural, Hydrologic, and Environmental Engineering; Geospatial; Subsurface Utility Engineering; Landscape Architecture; Land Planning; Right-of-Way Acquisition; Environmental Sciences and Permitting; Architecture; 3D Engineered Modeling for Construction; Parking Solutions; and Construction Engineering and Inspection. We design to your strengths and innovate to maximize value and save time. For example, WGI was the first to use right-of-way acquisition on a design-build project as an alternative technical concept for FDOT. We’ve now done it on three projects, saving our build partners millions. We’ve eliminated or shortened bridges on numerous design-build projects, and avoided, minimized, or phased permitting to facilitate construction. Overall, projects WGI delivered using design-build have won 26 awards and earned millions in incentives.

Our Alternative Delivery Team, technical experts, and creative and marketing professionals are ready to help you WIN.
WGI has the people, expertise, and capacity to deliver big jobs.

**Wekiva Parkway (SR 429), Segment 6, Lake and Seminole Counties, FDOT D5 $235M**

WGI is currently delivering this environmentally challenging design-build project which is creating six miles of a limited-access toll road from State Road 46 to just west of Longwood-Markham Road. It includes construction of a non-tolled service road for local travel, a tolled four-lane elevated expressway, three new segmental bridges over the Wekiva River (a designated wild and scenic river), two ramps connecting SR 46 to the new parkway, a round-about, a total 23,000 feet of wildlife bridges, three pairs of 3,900-foot long bridges, another three pairs of 1,800-foot long bridges, and a 12-foot multi-use trail. The project is underway and on schedule.
I-75 Segment AB is the third of three consecutive design-build projects that WGI won with different lead contractors. Our ability to deliver all three segments (with a total construction value of $466M) illustrates our capacity to deliver large projects.

WGI has the people, expertise, and capacity to deliver big jobs.

- We have over 573 personnel and we continue to grow
- We have over 165 licensed structural engineers, civil engineers, roadway engineers, surveyors, and landscape architects ready to develop the best technical solutions
- Our outstanding creative and marketing talent are poised to win the job
- ENR Southeast Design Firm of the Year, 2021
- #175 on ENR’s list of Top 500 Design Firms
- Our design-build projects have received 26 awards

We are proud of our record of providing the best customer and public service through our projects. In design-build projects the owner is a crucial part of the project team. We join you with a spirit of partnership to deliver the best value project with outstanding service to you and your customers. We work with our build partners and subconsultants to develop project solutions that achieve your wishlist project within your budget, satisfying project stakeholders.

WGI SERVICES
- Conceptual and Final Engineering
- Roadway Design
- Transportation Design (all stages)
- Streetscape Design
- Complete Streets
- SMART and Connected Technologies
- Grant Funding Coordination and Assistance
- Plan/Peer Reviews
- Permitting
- Budgeting and Cost Estimating
- Feasibility Studies
- Construction Management Services
- Bidding Assistance
- Certification Coordination
- Local Agency Program (LAP) Coordination
- Utility Location, Design, Coordination, and SUE
- Geospatial Services
- Parking Garage Design
- Transportation Architectural Design
- Stormwater Management Design
- Water Distribution System Design
- Wastewater Collection System Design
- Reclaimed Water Distribution Design
- Site Paving, Grading, and Drainage Design
- Facilities Design
- Park and Recreational Design
WGI’s technical expertise earns scores that win contracts.
TECHNICAL SCORES THAT WIN JOBS

WGI's engineering solution and technical proposal won this project.

WGI developed the only viable solution for drainage construction on JTA's Kernan Boulevard Project, earning a technical score that won the job. Our technical score was able to offset our builders 5% higher bid than the second place team's bid. The project's challenging constraints included constructing sheet pile walls under high-tension lines and around a force main at the proposed pond location. This stymied all competing teams, but WGI came up with a solution. We eliminated the sheet pile walls, avoiding utility impacts, and designed an innovative linear pond system adjacent to the roadway.

Coupling the latest technology with superior innovation, our professionals are known for providing economical and long-lasting solutions to the most difficult transportation infrastructure challenges. WGI knows how to leverage the design-build process to develop winning solutions with contractors.

HIGH SCORES, REPEATED TEAMS

Our letter of interest and technical package scores are consistently among the highest. Because of our winning collaboration, our build partners are repeat clients. The table below shows our history of teaming on design-build projects. We also partnered with these firms many more times on traditional projects. National and international build partners are currently teamed with us on major pursuits and projects.

<table>
<thead>
<tr>
<th>Build Partner</th>
<th># of DB Projects Completed Together</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ajax Paving</td>
<td>5</td>
</tr>
<tr>
<td>Barnhill Contracting</td>
<td>3</td>
</tr>
<tr>
<td>Cone &amp; Graham</td>
<td>11</td>
</tr>
<tr>
<td>Community Asphalt Corp/OHL</td>
<td>4</td>
</tr>
<tr>
<td>The Middlesex Corporation</td>
<td>2</td>
</tr>
<tr>
<td>Ranger Construction Industries</td>
<td>7</td>
</tr>
<tr>
<td>Superior Construction Company</td>
<td>4</td>
</tr>
</tbody>
</table>
Our designs and collaboration help you earn incentives.

WGI's design for the historic Main Street Bridge over Hogan's Creek in Jacksonville enabled the contractor to complete the project 49 days ahead of schedule and win $250K in incentives.
WGI’s innovations and design alternatives consistently enable build partners to exceed owner goals and earn incentives.

In sum, WGI’s design innovations have helped build partners earn over $4M in incentives. FDOT D2 needed to rapidly replace a culvert on Plantation Oaks Boulevard, under an emergency replacement design-build contract. WGI’s simple concept allowed the project to be completed ahead of schedule (in just 45 days from NTP), resulting in a $200K bonus for its build partner. The project also received an award of merit from DBIA Florida.

WGI’s design-build expertise also enabled a big incentive earnings by its design partner on I-75 Segment AB. Segment AB is the largest, most complex segment of the I-75 corridor and is 3.1 miles long. The project includes bridges, flyovers, ramps, and interchanges but, most importantly, it included express lanes that needed to be complete as soon as possible. The express lanes were open weeks in advance of the milestone deadline, so the build partner received $1.12M in incentives.
Our environmental expertise accelerates project delivery.

I-75 from the Hernando County Line to CR 470, Sumter County, FL, FDOT D5, $77M

WGI redesigned the widening of 13 miles of I-75, drastically minimizing drainage construction. Our permitting experts negotiated phased permitting of the project with the Army Corps of Engineers and Water Management District, greatly accelerating project delivery.
WGI’s environmental scientists combine up-to-the-minute knowledge of all regulatory changes with crucial regional knowledge developed through years of on-the-ground experience.

We know how to avoid and minimize the schedule and cost risks posed by wetlands, protected habitat, threatened and endangered species, water quality, historical and archaeological resources, and contamination. We identify these impacts and develop creative design options that avoid/minimize impacts, permitting, and delays.

WGI’s professionals have all relevant certifications needed to solve any environmental issue:
- Certified Environmental Professionals
- Professional Wetland Scientists
- Certified Arborists
- Certified Pesticide Applicators
- Professional Geologists
- Professional Engineers
- Certified Divers
- FDEP Stormwater, Erosion, and Sedimentation Control Inspectors
- FWC Authorized Gopher Tortoise Agents
- Professional Surveyors and Mappers
- FEMA Floodplain Managers
- LEED Accredited Professionals
- Construction Inspection and Monitoring
- Contamination Assessments
- Dune Restoration
- Environmental Impact Statements
- Erosion Control
- Geographic Information Systems (GIS)
- Global Positioning Systems (GPS) Surveys
- Mangrove Permitting
- NEPA Compliance
- NPDES Compliance
- Phase 1 and 2 Environmental Site Assessments
- Seagrass and Coral Surveys
- Threatened and Endangered Species Relocation
- Tree Surveys
- Vegetation Removal Permitting
- Water Resources Planning
- Water Use Permitting
- Wetland Delineation and Permitting
- Wildlife Surveys
Design-build teams delivering projects on accelerated time lines need to have firm control of the risk posed by utilities.

A project’s success requires a comprehensive understanding of how existing utilities may affect its schedule and budget.

WGI’s close relationships with utility agency owners and its cutting-edge technology enables us to produce accurate record data that ultimately keeps projects moving forward. Because record drawings are sometimes unreliable, a project designed without precise utility locations could be substantially delayed during construction. With WGI’s full range of Subsurface Utility Engineering (SUE) services, delays and unexpected additional costs are avoided.

Effective utility locating and coordination requires innovation, experience, and a team approach. WGI owns and operates state-of-the-art air/vacuum excavation and ground-penetrating radar systems. We perform “soft digs” around existing utilities to confirm both horizontal and vertical location. Additionally, SUE services encompass a wide range of activities that facilitate a project’s progress. Armed with this information, we design projects that minimize utility impacts, ensure safe work sites, and prevent damage to utilities while controlling costs and schedule.

This 2.1-mile roadway widening project includes installing a new stormwater system, sanitary sewer, and two 12-inch water mains. Construction crews know the precise location of utilities thanks to WGI.
Cutting-edge geospatial technology gives you the advantage.
Having a thorough understanding of existing conditions when pursuing a design-build project is truly vital to the success or failure of the overall project.

We have the expertise, specialized technology, and analytical tools to capture detailed spatial data on virtually any transportation infrastructure. By using aerial, mobile, and terrestrial LiDAR along with comprehensive data-processing tools, we efficiently, quickly, and safely gather a comprehensive point cloud that is absolutely instrumental in determining the scope of work, quantity of materials required, and unique completion challenges not readily apparent, such as existing underground utilities. The WGI Geospatial Team has a proven track record of quickly providing contractors crucial information that ultimately leads to successful bids. For example, on a recent pursuit of an interstate project, our mobile LiDAR scan allowed for the WGI Design Team to recognize that significantly less asphalt was required for this resurfacing project (as compared to initial estimates based upon traditional cross-section observations).
Wekiva Parkway, Segment 6, Lake and Seminole Counties, FDOT D5, $235M

WGI developed 3D-engineered models, including the one shown here, to facilitate roadway construction on this $235M project. The contractor’s equipment uses data from the models to enhance equipment operation; in this case, for creation of a pond.
WGI uses cutting-edge technologies to facilitate project pursuits, design, collaboration, and construction. Our team stays up-to-date on the latest innovations implemented by project owners.

Design-build teams need to be able to work as if they are in the same room, even when they are not. From pursuit through ribbon-cutting, we use on-line collaboration tools to rapidly provide you with the information you need and to get your expertise. We have user-friendly options to share files and collaborate remotely.

Our designers work with you to develop solutions that leverage your strengths. On Wekiva Segment 6, the contractor’s roadway equipment was able to use data from 3D-engineered models for control. We designed the project with 3D-engineered models for easy transferability of data to the contractor. This enhanced precision, materials usage, and overall control.

WGI also recently completed Brevard County’s first diverging diamond interchange at St. John’s Heritage Parkway and I-95 in Palm Bay, FL. The project’s RFP concept included a partial cloverleaf for the interchange. WGI developed a diverging diamond interchange design and submitted it as an alternative technical concept. It was approved, resulting in the high technical score and the low bid, due to the savings on the bridge and ramp construction.
**Cocoa-Brevard Operations Center, Brevard County, FDOT D5, $16M**

WGI completed RFP development for Design-Build services, including a Design Criteria Package.
When a design-build project calls for a building, sound barrier, parking structure, or architectural elements, WGI is the firm to select. Our Architectural Services specialize in transportation-related architecture.

Our design focus is on doing more with less, without unnecessary decorative embellishments that mask the absence of true design, yet expand project budgets. Our inventive design solutions are expressed through practical construction detailing, and incorporate long-life, high-performing, and low-maintenance materials and systems. Added value is designed into every project using Building Information Modeling (BIM) technologies, and the innovative application of commonsense sustainable design principles.
Children’s Medical Center of Dallas, Parking Structures and Pedestrian Bridges, Dallas, TX

WGI designed this 2,245-space context-sensitive precast concrete parking structure, expanded an existing parking structure, and added pedestrian bridges between the parking structures and facilities. WGI’s design helped the contractor win ABC’s Excellence in Construction Award of Merit for the design-build project.
This 4000-space parking structure was delivered via fast-track design-build. It includes public parking, rental car facilities, and revenue-control systems.

On design-build projects, parking structures are often revenue-generating and need to be operating as quickly as possible.

Many parking structures are delivered alone or as part of larger developments and delivered with design-build procurement. WGI’s Parking Solutions team specializes in the creative planning and design of sustainable parking structures, supported by the rapidly changing automation technology transforming its marketplace. The firm’s diverse portfolio of innovative work includes parking solutions at international airports, universities, municipalities, hospitals, sporting arenas, shopping and urban plazas, mixed-use developments, and cultural centers.

WGI is proficient in the design and detailing of all types of structural systems, including reinforced concrete, post-tensioned concrete, precast prestressed concrete, structural steel, and masonry. Services include sustainable design, functional design, parking structure site feasibility, lighting, and graphics/signage.

PARKING SOLUTIONS SERVICES

Parking Engineering
- Structural Engineering
- Functional Design
- Architecture
- Access & Revenue Control Systems
- Site Feasibility Studies
- Sustainable Design
- Prime Design
- Design-Build Criteria
- Lighting
- Building Information Modeling (BIM)
- Expansions
- Structural Investigations
- Durability Design
- Automated & Mechanical Parking
- Flexpark Autonomous Vehicle Planning
- Construction Cost Estimating

Parking Planning
- Strategic Planning
- Financial Analysis
- Site Feasibility
- Supply/Demand
- Parking Master Planning
- Technology Assessments & Studies
- Parking Management & Operations
- Parking RFP & Contract Info
- Public-Private Partnerships
OWNER
Baylor University
FEATURES
4 Levels
1,195 Spaces
Precast Structural System
PROJECT ROLE
Prime Consultant | Parking Consultant | Structural Engineer | Architect
SPECIAL FEATURES
The ground level contains approximately 30,000 square feet of air-conditioned space for offices and restaurants, including the university's Information Technology Services offices, a Starbucks and Chili's.

Baylor University Dutton Ave.
Waco, Texas  |  New Parking Structure
1,195 Space Garage  | Completed in July 2012
This brick and cast-stone clad 1,195-space parking structure is located at the gateway to the Baylor University campus. Its two most prominent stair/elevator towers mimic an existing turn-of-the-20th-century university scholastic building. Tall tower elements further adorn and identify its distinguished architecture and important location.
BRIDGES
WGI has delivered numerous bridges through 17 design-build contracts (worth over $2.6B) for North Carolina DOT. WGI has teamed with six consultants to deliver these bridges as a subconsultant. These projects include several mega projects and other important design-build projects.

### NORTH CAROLINA DESIGN BUILD BRIDGES

- US 64 Asheboro Bypass, NC
- Greenville Bypass Over Fortlines, NC
- Triangle Expressway Over Davis Drive, NC

### NORTH CAROLINA BRIDGES

<table>
<thead>
<tr>
<th>Projects</th>
<th>Contractor / Teaming Partner</th>
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<tbody>
<tr>
<td>2019 Design Build I-5986A/I-5877</td>
<td>ST Wooten Corp./RK&amp;K</td>
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<tr>
<td>2018 R-2721A NC 540 Design Build - GF</td>
<td>Flatiron-Branch Civil/Gannet Fleming</td>
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<td>2018 R-2721B NC 540 Design Build - HDR</td>
<td>Flatiron-Branch Civil/HDR</td>
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<td>Express Design Build Div. 6</td>
<td>E.S. Wagner/Summit Design</td>
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<td>Greenville Bypass Design Build</td>
<td>Barnhill Contracting, Sanford Contractors/HDR</td>
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<td>Asheboro Bypass Design Build</td>
<td>Thompson-Arthur, Wright Brothers/RK&amp;K</td>
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<tr>
<td>Vance 85 Design Build</td>
<td>Weatherill</td>
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<td>Design Build Durham Bridge #310008</td>
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<td>Wake 363 Design Build</td>
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<td>Rockingham County Design Build</td>
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<td>Goldsboro Bypass Design Build</td>
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<td>Triangle Parkway Design Build</td>
<td>RK&amp;K</td>
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<tr>
<td>Washington Bypass Design Build</td>
<td>Flatiron/Earth Tech</td>
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<tr>
<td>Windsor Bypass Design Build</td>
<td>HDR</td>
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STATE ROAD 710/ BIG JOHN MONAHAN BRIDGE REPLACEMENT DESIGN-BUILD

Martin County, Florida

WGI was the lead designer on this award-winning project which replaced the Big John Monahan Bridge over the St. Lucie Canal in Martin County. The project increased capacity and improved safety with the new, wider bridge and upgrades to two miles of SR 710. WGI’s innovative design shortened the bridge by nearly 1,000 feet and eliminated most MSE walls west of the Okeechobee Waterway, saving FDOT nearly $10M. The 1,000-foot reduction in bridge length was achieved through strategically acquiring right-of-way from a willing seller. WGI was responsible for overall project management, design, quality assurance/quality control, roadway engineering, traffic control plans, drainage, signing and pavement marking, environmental permitting, utility coordination, survey, and public involvement.

The bridge was constructed using 84-inch Florida I Beams spanning 185 feet – the longest ever set in Florida. WGI obtained permits from the US Army Corps of Engineers, US Coast Guard, South Florida Water Management District, and the Florida Department of Environmental Protection. Utility work required heavy coordination with FPL, FGT and AT&T. Overhead power lines were located using terrestrial LiDAR to meet and exceed the minimum OSHA clearance standards. Existing facilities for other utilities were relocated successfully without interruption. Drainage improvements included a new offsite dry retention pond and a new wet detention pond. Wetland impacts were less than 0.5-acre – well below the 2.5 acres identified in the PD&E.

The project was completed 104 days ahead of schedule and provided a $25,784,115 cost savings (from the proposed cost presented in the RFP). The Design-Build Team was awarded a perfect Contractor’s Past Performance Rating (CPPR) score of 110.

This project received a FICE Grand Award, the DBIA Florida Project of the Year Award (Transportation), DBIA Florida Best Overall Project of the Year, and the Engineers’ Council Distinguished Engineering Project Achievement Award.
WEKIVA PARKWAY SEGMENT 6
DESIGN-BUILD
Lake and Seminole Counties, Florida

WGI was the engineer of record for Segment 6 of the Wekiva Parkway - a four-lane divided (expandable to six-lane divided by widening in the median), limited-access toll facility, from west of Old McDonald Road to east of Osprey Hammock Trail. The project includes construction of a two-lane service road paralleling Wekiva Parkway for the entire length. This two-lane service roadway includes intersections at Tree Frog Court and Wekiva River Road. Construction of two ramps connecting SR 46 with the new four-lane limited-access facility is also included.

Portions of CR 46A and SR 46 were reconfigured to serve as local access roads through the construction of cul-de-sacs and access drives and a connector roadway was constructed between SR 46 and CR 46A located north of Wekiva Parkway. There are a total of nine cul-de-sacs constructed, including two along CR 46A intended to create a wildlife corridor north of Wekiva Parkway. A twelve-foot wide asphalt multi-use trail will be located adjacent to the service roadway for the entire length of the project.

This project includes the Wekiva River Crossing, which is designated as a Federal Wild and Scenic River. Throughout the preliminary design process, extensive coordination was performed with local agencies/stakeholders and the National Park Service to achieve approval in accordance with the National Wild and Scenic Rivers Act, Section 7(a). All requirements of the approved 7(a) document shall be followed and met by the Design-Build Team.
DIXIE HIGHWAY FLYOVER DESIGN-BUILD
Palm Beach and Broward Counties, Florida

WGI was the Lead Designer/Engineer of Record for this Design-Build project which realigned approximately 0.75 miles of Dixie Highway from south of Hillsboro Boulevard in Broward County to north of the Hillsboro Canal in Palm Beach County. WGI designed the 1,400-foot flyover bridge which carries a four-lane divided urban arterial over the Hillsboro Canal, NE 2nd Avenue, Florida East Coast Railway (FEC), North River Avenue, NE 1st Avenue, and NE 2nd Street. WGI’s design eliminated many conflicts, including an at-grade crossing of FEC tracks. The project also included a pedestrian pathway structure and an off-ramp structure from Dixie Highway to NE 2nd Avenue.

Maintenance of traffic was crucial since the area includes an FEC track, the Hillsboro Canal (a navigable waterway), businesses, homes, and vehicle, bicycle, and pedestrian traffic. WGI’s traffic control plan safely moved traffic through active work zones, adequately informed motorists of changing traffic patterns, and minimized the number of construction phases.

Other improvements included new stormwater management facilities, utility relocation, decorative lighting, new signalization equipment at Hillsboro Boulevard, upgrades to two at-grade crossings of the FEC Railroad track, and landscape enhancements. Since Dixie Highway is a hurricane evacuation route, WGI created a detailed hurricane evacuation plan.

The project received the 2012 Class II Project of the Year Award from the Steel Erectors Association of America, the 2013 Grand Award from the Florida Institute of Consulting Engineers (FICE), the 2013 FICE/FDOT Project of the Year Award, the 2013 FTBA Best in Construction Award, and the 2013 FICE Grand Conceptor Award.
MAIN STREET OVER HOGAN’S CREEK
EMERGENCY DESIGN-BUILD

Duval County, Florida

Listed on the National Register of Historic Places, downtown Jacksonville’s Main Street Bridge required emergency replacement of the concrete structure carrying Main Street over Hogan’s Creek. The bridge was replaced using innovative, accelerated bridge construction techniques. The Main Street Bridge Culvert is a historic structure designed by Henry J. Klutho, a notable Jacksonville architect.

The project included a new bridge structure, utility relocation, and vibration monitoring of nearby historic structures. The early 20th-century site has character-defining features designed by Klutho, such as obelisks, cartouches, medallions, and urns on the walls of the bridge culvert. Features were removed from the existing structure, then rehabilitated and reinstalled on the new structure.

During excavation of the site, a large void (30’x30’x4’), created by a leaking drainage system was discovered beneath the south approach to the bridge. Historic trolley tracks and brick pavers also were discovered beneath the existing pavement during excavation. The trolley tracks and pavers were surveyed and documented by Southeastern Archaeological Research, Inc., a major project partner. The drainage system was repaired using a lining system and the subgrade restored to its original line and grade. Despite the challenges, the project was completed ahead of schedule. It received a National Award of Excellence and National Award of Merit from DBIA; a Design-Build Honor Award from DBIA Florida; and an Engineering Excellence Honor Award from ACEC Florida.
FLAGLER MEMORIAL BRIDGE REPLACEMENT AND WIDENING DESIGN-BUILD

Palm Beach, Florida

This project replaced the existing Flagler Memorial Bridge with a new 4-lane divided urban section bridge, which connects the Town of Palm Beach and the City of West Palm Beach.

Traffic barrier-separated sidewalks were included along both sides of the new bridge with a pedestrian/bicycle railing on the outside of the sidewalks. Additionally, the existing bridge overpass at Flagler Drive and SR A1A was eliminated and replaced with an at-grade signalized intersection. This required reconstruction of portions of Flagler Drive from 4th Street to north of 7th Street. The project also included drainage improvements, signing and pavement markings, bridge/roadway lighting, signalization/communication systems, structural/architectural components for a new bridgetender house, landscaping/irrigation, and utility services. WGI services included signalization/communication systems, utility coordination, and utility design services for the City of West Palm Beach.
WGI was the engineer of record on this project which expanded I-10 from four to six lanes between the Escambia Bay Bridge and SR 281 (Avalon Boulevard) Interchange (3.7 miles). The project also included the full reconstruction of Avalon Blvd from a four-lane rural roadway to a four-lane urban typical section. Due to flooding from surface drainage, the profile was raised to ensure adequate base clearance. This 45 mph roadway was designed to accommodate a future six-lane typical section with bike lanes and sidewalks.
PLANTATION OAKS BOULEVARD
EMERGENCY CULVERT REPAIR

Clay County, Florida

WGI, teamed with Superior Construction Company, submitted the successful bid for this $1.14M Design-Build project for FDOT D2. This was an emergency project to replace a triple 10’ x 6’ box culvert under Plantation Oaks Boulevard over the North Fork of Double Branch. The box culvert had severe reinforcing failure and required the roadway and sidewalk to be closed for safety reasons, causing a significant detour to the community. The design, permitting (St. Johns River Water Management District, Army Corps of Engineers, and Jacksonville Electric Authority), and construction were completed 15 days ahead of the FDOT-required 60-day timeframe, earning a $200,000 bonus. WGI’s services included survey, roadway, drainage, structural, signing and marking, temporary traffic control, lighting, utility coordination, water main, permitting, and post design services.

This project was the recipient of the Merit Award in the Transportation-Structure category for the Design-Build Awards from the DBIA Florida Region.

BUILD PARTNER:
Superior Construction Company

REFERENCE:
Superior Construction Company
Pete Kelley,
President Superior Southeast
7072 Business Park Boulevard
Jacksonville, Florida 32256
p: 904.292.4240
e: pkelley@superiorfla.com

DATE STARTED:
February 2015

DATE COMPLETED:
March 2015

TOTAL COST:
Design-Build $1.14M

PROJECT MANAGER:
Walter Kloss, PE

KEY STAFF:
Will Stewart, PE, CFM
PGA BOULEVARD RECONSTRUCTION
DESIGN-BUILD SR 710 TO C-18 CANAL
Palm Beach County, Florida

WGI was the engineer of record for this project which constructed SR 786 (PGA Boulevard) from SR 710 (Beeline Highway) to the C-18 Canal, an approximate project length of 2 miles. The improvements included raising the existing roadway to create a two-lane undivided facility, while also incorporating a new single span bridge, critter crossings, and multiple culverts. This project is located in a highly environmentally sensitive area within Palm Beach County. The plans included significant erosion control to protect the pristine waters of the Loxahatchee Slough, part of an Outstanding Florida Waters. Permitting was accomplished with significant coordination with South Florida Water Management District and U.S. Army Corps of Engineers.
NE 27TH TERRACE BRIDGE REPLACEMENT
Pompano Beach, Florida

WGI was the Engineer of Record for this project which replaced a two-lane single-span bridge over the Wisteria Canal; the only roadway access to the Harbor Village Island residential community. Other improvements included utility design and relocation, provision for reuse of water, the addition of sidewalks, landscaping, decorative and functional gazebos providing entry features for the community, and an innovative design using spread footers for the substructure and deadmen to stabilize the sheet pile walls. Challenges during the project included the discovery of complete failure of all pile support due to an existing fracture zone just below the mud line and subsidence of the existing structure due to soil consolidation. Mitigation efforts developed involved lateral support for existing seawalls, implementation of reduced speed and weight limits for the existing bridge, and revising the construction schedule to expedite transferring traffic to the new bridge. Close coordination with Utility Agencies and the community was required.
CAPACITY WIDENINGS
SR 710 RECONSTRUCTION DESIGN-BUILD
Palm Beach County Line to Pratt Whitney Entrance
Palm Beach County, Florida

WGI was the engineer of record for this project which reconstructed the existing two-lane undivided section of SR 710 to a four-lane divided roadway with a 40-foot median. This six-mile roadway reconstruction project also reconfigured the SR 710/CR 706 (Indiantown Road) intersection, which includes a combination of free-flow movements and signalized movements. Other improvements include dry detention stormwater management facilities parallel and adjacent to SR 710; outfall control structures; signing and pavement markings, a new traffic signal at the SR 710/CR 706 (Indiantown Road) intersection; and street lighting. In addition to roadway and drainage design, WGI was responsible for survey, utility coordination, environmental permitting, and public involvement services.

BUILD PARTNER:
Ranger Construction Industries

REFERENCE:
Florida Department of Transportation – District 4
Jim Hughes, PE, Project Manager
3400 West Commercial Boulevard
Ft. Lauderdale, Florida 33309
p: 954.777.4419
e: james.hughes@dot.state.fl.us

TOTAL COST:
$21M

DATE COMPLETED:
January 2017

PROJECT MANAGER:
Keegan Larson, PE

KEY STAFF:
Jerry Saval, PE
David Gerber, PE
Corey Hill, PE
Matt Phillips
WGI was the engineer of record for this project, which widened an eight-lane section of the HEFT mainline to ten lanes. The project included dedicated express lanes; drainage improvements; ramp improvements at the SW 8th Street (Tamiami Trail) Interchange; replacement of the SW 24th Street (Coral Way) Bridge; constructing new fly-over ramp connector bridges providing direct median access to and from the HEFT express lanes and SR 836; widening the HEFT mainline bridges over SW 8th Street and West Flagler Street; traffic rail upgrades to the existing C-2 (Snapper Creek) Canal Bridge at the northbound off-ramp to SW 8th Street; new overhead span truss and cantilever signs and DMS signs along the corridor; column strengthening at the side street bridge crossings of SW 8th and West Flagler Streets; and signalization upgrades at SW 8th Street and Coral Way. The project included additional ramp improvements, milling and resurfacing, and overhead gantry AET structures. Other improvements included relocating existing ground-mounted signs, constructing new sign structures, constructing sound walls throughout much of the corridor, and designing and constructing stormwater management facilities.
I-10 WIDENING FROM I-295 TO I-95 DESIGN-BUILD
Jacksonville, Florida

WGI was the engineer of record for this major project, which widened I-10 from west of I-295 to I-95 from a six-lane divided urban interstate to a 10-lane divided urban interstate. In addition to widening the high-volume roadway, the project reconstructed several intersections and included sidewalk additions, roadway widening, and milling and resurfacing to accommodate the interstate widening.

The widening of I-10 includes both asphalt and concrete sections. The widening also includes widening of twelve bridges, a bridge culvert, and an off ramp. Additional structural components included the construction of MSE walls, replacement of the pedestrian culvert under I-10 at Day Avenue, and miscellaneous structural design. Drainage, ITS, lighting, landscape opportunity plans, signing and pavement marking, temporary traffic control, water and sewer design, survey, and geotechnical engineering are also required as part of this project.

BUILD PARTNER:
Superior Construction Company

REFERENCE:
Florida Department of Transportation - District 2
Craig Teal
1109 S. Marion Ave, MS 2002
Lake City, FL 32025
p: 800.749.2967
e: craig.teal@dot.state.fl.us

DATE STARTED:
Design October 2019
Construction November 2019

DATE COMPLETED:
Design March 2024

TOTAL COST:
$176.6M

PROJECT MANAGER:
Josh Mattox, PE
I-75 FROM THE HERNANDO COUNTY LINE TO CR 470
DESIGN-BUILD

Sumter County, Florida

WGI was the engineer of record for this project, which consisted of widening 13.8 miles of I-75 from four to six lanes. As part of a cost-savings measure, WGI proposed outside widening in the northbound direction, along with a linear stormwater system. This eliminated costly drainage trunk line construction and with southbound widening to the median, allowed the team to save critical in-place drainage, guardrail, and walls, and provide cost savings to FDOT. The project also completely reconstructed the I-75/SR 48 interchange and 0.75 miles of SR 48 from two-lane rural to a five-lane urban roadway. Major work elements included roadway widening and reconstruction, structural design (including the SR 48 bridge replacement and soldier pile wall at the CR 476B interchange) stormwater facilities, utility relocation, water and sewer utility design, retaining walls, signals, intelligent transportation system, lighting, signage, striping, permitting, and gopher tortoise relocation. During construction, this project included numerous supplemental agreements to add the following work: additional roadway lighting, revisions to the SR 48 interchange for pedestrian movements, implementation of roadway design bulletins to add additional signage to deter wrong-way movements, and remediation for roadway depressions.
I-75 WIDENING DESIGN-BUILD
FROM SR 50 TO SUMTER COUNTY LINE
Hernando County, Florida

WGI was the engineer of record for this $94M Design-Build project to widen and reconstruct six miles of I-75 in Hernando County. The project reconstructed the interchange at US 98/SR 50/Cortez Boulevard, resulting in a Single Point Urban Interchange configuration. The I-75 bridges over US 98 were replaced with single span steel bridges designed to accommodate future widening of I-75 and US 98. Approximately one mile of US 98 widened and reconstructed within the interchange limits using concrete pavement. New high mast lighting was designed for the interchange. Signals were replaced at the ramp intersections. New ITS infrastructure was installed along I-75 and US 98. Utility Work by Highway Contractor (UWHC) plans will be developed for relocation of Hernando County water and wastewater mains. The project included replacement of the guardhouse at the entrance to the Withlacoochee State Forest Croom Motorcycle Area. I-75 bridges over Croom Rital Road and Withlacoochee River were widened to accommodate new lanes. Other services included signing and pavement marking design, geotechnical investigation, Gopher tortoise investigation and relocation, utility coordination, and public involvement. This project received ACEC Florida's Outstanding Major Project Award.
I-95 WIDENING IMPROVEMENTS
DESIGN-BUILD OKEECHOBEE ROAD (SR 70)
TO INDRIO ROAD (SR 614)
St. Lucie County, Florida

WGI, in partnership with Ranger, submitted the successful bid for this $80 million Design-Build project for FDOT District 4. Improvements included widening the I-95 Mainline from four to eight lanes from SR 70 to south of SR 614, a distance of 9 miles. The project included reconstruction of the interchanges at SR 70 and SR 68, two bridge replacements and six bridge widenings. This project was one in a series of interstate widening projects that expand the interstate system's ability to ensure the mobility of people and goods, enhance economic prosperity and preserve the quality of our environment and communities.

WGI, as lead designer, provided roadway design, survey, environmental assessment and permitting, drainage, signing and pavement marking, utility coordination, utility relocation design and traffic control plans.
KERNAN BOULEVARD FROM ATLANTIC TO MCCORMICK DESIGN-BUILD
Duval County, Florida

This $22M design-build project widened 2.7 miles of Jacksonville’s Kernan Boulevard from Atlantic Avenue to McCormick Road. It was a two-lane rural section roadway and now has six lanes in its southern portion and four lanes in its northern portion. WGI’s design received the highest technical score during selection. WGI is the project’s engineer of record and is responsible for all roadway and structural design on the project, as well as survey, SUE, geotechnical investigation, signing and pavement marking, lighting, traffic signals, drainage design, utility coordination and design, and environmental permitting.

The project’s challenging constraints included high tension lines and a force main, under and around, which sheet pile walls needed to be constructed. WGI’s design eliminated sheet pile walls, avoiding utility impacts. WGI also designed an innovative linear pond system adjacent to the roadway, which saved heritage oaks and avoided costly utility relocations. This project won a Design-Build Honor Award from DBIA Florida.
STATE ROAD 7 WIDENING DESIGN-BUILD
FILLMORE STREET TO STERLING ROAD
Hollywood, Florida

WGI was the engineer of record for this $32 million Design-Build project for the Florida Department of Transportation District Four. This project increased capacity and improved safety by widening a 2.1-mile section of SR 7, converting it from a five-lane section with center turn lane to a six-lane divided urban arterial section. Other improvements include installation of a new stormwater management and collection system; sanitary sewer (gravity and force mains); two 12” water mains; lateral connections; and all other associated features, such as valves, meters, etc. Right-of-way acquisition for over 40 parcels was required. A Utility Work by Highway Contractor Agreement (UWHCA) between the City of Hollywood and the FDOT paid for the water and sewer improvements.

This was the first Design-Build project in District 4 where the FDOT handed the responsibility for assessment and remediation to the Design-Build contractor/engineer. WGI's Contaminated Area Management Plan addressed soil and groundwater that was contaminated by arsenic and petroleum hydrocarbons. Sections of the project corridor had been previously labeled as contaminated, but WGI found uncertainties with some of the previous data and retested areas within the limits of construction. Based on their results, WGI found numerous areas of the project did not require remediation which shortened the overall project schedule and reduced costs significantly.

Permits were secured from Broward County Health Department, Broward County, City of Hollywood, Broward County Environmental Program and Growth Management, South Florida Water Management District (SFWMD), and the Florida Department of Environmental Protection (FDEP).
US 41 DESIGN-BUILD FROM SR 951 TO GREENWAY ROAD
Collier County, Florida

WGI was the engineer of record for this project which reconstructed 3.5 miles of US 41 from a two-lane rural roadway to a six-lane divided suburban typical section. WGI incorporated a number of innovations into the design of this project resulting in both a $7.7M savings to the state and a superior design. First, the presence of near-surface limestone and an unusually high ground water table created a challenge to both drainage and permitting. The original concept envisioned a deep drainage system (exfiltration) that would be difficult to excavate and would risk penetration of the Upper Floridan Aquifer. Our team eliminated the deep exfiltration system and proposed dry treatment swales, reducing this burden, as well as saving an estimated $3M for the Florida Department of Transportation. Second, since no off-site ponds were available, the Team designed the stormwater conveyance system to fit within the existing right-of-way, thereby saving the time and money associated with the acquisition process.

In addition, the project required relocation of 14 utilities to a joint use trench which presented complex coordination issues with depth, placement and timing of the relocations. Construction scheduling was intricately coordinated with FPL to eliminate de-energization occurrences and power interruptions to the local residents. The Team also offered a Cost Savings Initiative Proposal to eliminate the gravity wall at the right-of-way, offering a redesigned noise wall foundation from 36” to 30” to take advantage of the hard limestone soil support. This reduced the cost and construction time needed for installation and saved the FDOT an additional $300,000. The specially designed bottom panels were used to retain fill on the roadway side and, in turn, improved aesthetics on the residential side of the wall.

The project crossed critical Florida Panther habitat; therefore, bridge replacement at Henderson Creek incorporated a panther crossing shelf below the superstructure. To save additional dollars, the Team used recycled 24” pile cut offs for the wildlife shelf reducing the number of piles needed and the foundation footprint. And, finally, the project was completed 150 days earlier than bid, which provided for an additional cost savings.

BUILD PARTNERS:
Ajax Paving Industries of Florida, Cone & Graham

REFERENCE:
Florida Department of Transportation – District 1
Eliode Joseph, PE
Fort Myers Operation Center
2891 NE Pine Island Road
Cape Coral, Florida 33909
p: 239.656.7800
e: Eliode.Joseph@dot.state.fl.us

DATE STARTED:
Design October 2013
Construction April 2014

DATE COMPLETED:
Design January 2015
Construction December 2015

TOTAL COST:
Design $1.8M
Construction $38M

PROJECT MANAGER:
Henri Belrose, PE

KEY STAFF:
Doug Burg, PE
Dam Nguyen
US 301 DESIGN-BUILD
FROM MYRTLE STREET TO DESOTO ROAD
Sarasota County, Florida

WGI was the engineer of record for this project which widened US 301 between Myrtle Street and Desoto Road along US 301 in Sarasota from four lanes to six. Drainage analysis required modification of existing permits to meet water quality and attenuation requirements. WGI designed treatment swales to correct chronic flooding along US 301 by collecting both on-site and off-site runoff. Span wire signals were upgraded to mast arms with video detection and railroad preemption. Because this was an American Recovery and Reinvestment Act (ARRA) funded project, an aggressive schedule was necessary to meet shovel ready requirements. Extensive utility coordination and relocation design was completed early in the process to facilitate an accelerated construction start date.
I-4 AT POLK COUNTY LINE ROAD DESIGN-BUILD
Polk County, Florida

WGI was the engineer of record for this project which widened the I-4 eastbound off-ramp to provide for 700-foot dual right turn lanes with tapers and a single left turn lane. The single-lane eastbound on-ramp was maintained. County Line Road was widened to provide 260-foot southbound dual left turn lanes onto South Frontage Road. South Frontage Road was widened to receive the dual lefts and tapered back to a two way roadway. Separate westbound right turn lane and a thru-left turn lane were provided on South Frontage Road. Sidewalk, curb and gutter were replaced as necessary. New traffic signals and pedestrian features were installed on County Line Road at the off-ramp and at South Frontage Road. Signage for the I-4 Interchange was updated per the 2009 MUTCD. The corridor was milled and resurfaced and thermoplastic pavement markings were installed. All work was conducted within FDOT right-of-way.

BUILD PARTNER:
Cone & Graham

REFERENCE:
Florida Department of Transportation - District 1
Amy Blair, PE
801 North Broadway Avenue
Bartow, Florida 33830
p. 863.519.2300
e. Amy.Blair@dot.state.fl.us

DATE COMPLETED:
Design September 2014
Construction July 2014

TOTAL COST:
$1.6M

PROJECT MANAGER:
Henri Belrose, PE

KEY STAFF:
Harkiran Kaur, PE
I-75 SOUTHBOUND RAMP AT SR 60 DESIGN-BUILD
Hillsborough County, Florida

WGI was the engineer of record on this low bid design-build project which widened the southbound exit ramp to SR 60 to a two-lane, barrier-separated parallel roadway. The scope of work includes approximately 1 mile of new two-lane ramp construction, two new bridges over the CSX Railroad and Woodberry Road, and bridge deck replacement for the southbound I-75 mainline bridges over the CSX Railroad and Woodberry Road. WGI also provided ITS relocation including MVDS, CCTV pole and DMS panel; signing and pavement marking including replacement OH cantilever guide signs; MSE retaining walls; SWFWMD permit for treatment and attenuation within existing right-of-way; utility coordination; survey; drainage and project management services. WGI performed Quality Level B and A utilities investigations to resolve utility conflicts at the bridge widenings and at proposed drainage structure locations along the ramps.
I-95 AT J TURNER BUTLER BOULEVARD (SR 202) INTERCHANGE IMPROVEMENTS DESIGN-BUILD

Duval County, Florida

Known as one of Jacksonville’s busiest interchanges, this Design-Build project included operational improvements at the existing interchange of I-95 and SR 202 (J. Turner Butler Boulevard) to incorporate a southbound to eastbound flyover of the existing interchange. The project also included several ramp bridges, widening of the I-95 bridge over SR 202, a braided ramp bridge along SR 202, and concrete paving for the widening and reconstruction.

WGI provided survey and subsurface utility engineering (SUE) support for the design of significant ramp improvements, widening, and new signals. Close attention to the high volume of traffic (and proper MOT) was required for all field work. In addition, WGI completed the signing and marking, including numerous overhead truss and cantilever signs; signalization; survey; and SUE.
WGI was the owner’s representative for this complex P3 project that reconstructed several of the Florida Turnpike/I-595 interchange ramps to improve operational characteristics and accommodate future reversible lanes between SR 91 and I-595. This system’s interchange consists of a series of multilevel directional ramps and serves thousands of Florida’s Turnpike Enterprise (FTE) customers daily. Turnpike mainline roadway improvements included in this project extend from north of the Griffin Road interchange to south of Peters Road. Auxiliary lanes, a new southbound exit to Griffin Road, and accommodations for future reversible lanes to/from I-595 are all critical components. WGI was the lead designer for roadway, drainage, utility coordination, environmental permitting, agency coordination, signing and pavement marking, survey, subsurface utility engineering and right-of-way mapping. The project was combined with a number of improvements planned on I-595 as part of a Public Private Partnership (P3) Design-Build project facilitated by FDOT District 4. WGI was retained by FTE to assist as the owner’s representative for all improvements in the vicinity of Florida’s Turnpike.
SUNCOAST PARKWAY AT LUTZ LAKE FERN ROAD INTERCHANGE DESIGN-BUILD
Hillsborough County, Florida

This Design-Build project included the design and construction of a new partial cloverleaf interchange connecting Lutz Lake Fern Road with the Suncoast Parkway in Hillsborough County. Because the County widening of Lutz Lake Fern Road coincided with the interchange project, close coordination was required to ensure the two projects successfully opened on time. As Engineer of Record, WGI was responsible for roadway design, drainage, permitting, survey, lighting, signalization, signing and pavement marking and landscaping.

BUILD PARTNER:
Cone & Graham

REFERENCE:
Florida’s Turnpike Enterprise
Mr. Joseph Chinelly
Mile Post 263, Building #5315
Turkey Lake Service Plaza
Ocoee, Florida 34761
p: 407.532.3999
e: joseph.chinelly@dot.state.fl.us

DATE STARTED:
Design 2007
Construction 2008

DATE COMPLETED:
Design 2008
Construction 2009

TOTAL COST:
Design $900K
Construction $8M

PROJECT MANAGER:
Henri Belrose, PE

KEY STAFF:
Chad Johnson, EI
NEW INTERCHANGE AT SR 9/I-95 AND ST. JOHNS HERITAGE PARKWAY SE DESIGN-BUILD

Brevard County, Florida

WGI was the engineer of record for this new interchange at SR 9/I-95 and St. Johns Heritage Parkway SE in Brevard County. The RFP concept proposed a partial cloverleaf interchange as the preferred configuration. During the Alternate Technical Concepts (ATC) process, our Design-Build Team proposed and was approved for a Diverging Diamond Interchange (DDI). The DDI features a center shared-use path and is the first to be built in Brevard County. The project required preparation of a Supplemental Interchange Modification Report (IMR) for review and approval by FHWA and FDOT prior to construction. In addition, WGI’s alternate drainage conveyance and stormwater treatment plan approved by the St. Johns River Water Management District and FDOT D5. This drainage approach significantly reduced impacts to Florida Gas Transmission facilities (two high-pressure gas mains within a 65-foot easement) along the west side limited-access right-of-and reduced impacts to I-95, I-95 mainline. Overall design and approvals were completed within a nine-month design schedule for RFC plans, without impacts to the construction schedule. This project received FTBA’s Design-Build Award.

PROJECT HIGHLIGHTS:

- First Innovative diverging diamond interchange built in Brevard County.
- Final design eliminated over 450 linear feet of drainage system jack and bore and 1,700 linear feet of deep excavation for stormwater piping along Florida Gas Transmission’s easement to preserve their maintenance access and meet the FGT/FDOT Global Settlement Agreement.
EXPRESS LANES AND TOLLING
Segment AB is the largest and most complex segment of the I-75 Express Lanes project, and extends 3.1 miles from NW 170th Street to south of Miramar Parkway. WGI was engineer of record on this project, and designed: new express lanes in the existing I-75 median; 2.6 miles of reconstruction of the Homestead Extension of Florida's Turnpike (HEFT) to accommodate a third-level direct median-to-median flyover express lane connection; new systems interchange movements; and new CD roads and ramps at the Miami Gardens interchange. The project includes ten new bridges, four bridge widenings, and one bridge deck replacement. This project provided major improvements to the safety, mobility and operations of the corridor in Miami-Dade and Broward counties. WGI provided all roadway and structures design; geospatial services; environmental assessments and permitting; drainage design; signing and pavement marking; utility coordination; and traffic control plans. This project received ACEC Florida's Outstanding Project Award.
I-75 EXPRESS LANES SEGMENT C
DESIGN-BUILD
Broward County, Florida

WGI was the engineer of record for this major project which added barrier-separated express lanes to the median of I-75 in Broward County, Florida. The new express lanes consist of two 12-foot travel lanes in each direction with paved inside shoulders and twelve-foot outside shoulders. The project also included the construction of the Pembroke Road Overpass Bridge replacing the I-75 bridges at the C-4 with a culvert, as well as the reconstruction of the Miramar Parkway Interchange, including the Miramar Parkway Bridge over I-75. WGI's services, as lead designer, included roadway and drainage design, traffic control plans, environmental permitting, survey, landscape architecture, and public involvement. This project received ACEC Florida’s Outstanding Project Award.

BUILD PARTNER:
Ranger Construction Industries, Inc.

REFERENCE:
Florida’s Department of Transportation – District 4
Robert Bostian, Project Manager
3400 West Commercial Blvd.
Fort Lauderdale, Florida
p: 954.777.4427
e: Robert.Bostian@dot.state.fl.us

DATE STARTED:
Construction March 2014

DATE COMPLETED:
Construction November 2016

TOTAL COST:
$85M

PROJECT MANAGER:
David Wantman, PE

KEY STAFF:
Jerry Saval, PE
Brett Fuller, PE
Chad Johnson, EI
John Thomas, PE
Clayton Wolfe, PE
Eric Matthews, PSM
WGI was the engineer of record for the I-75 Express Lanes Segment D project which built new express lanes consisting of barrier wall separated, four-lane tolled roadway within the median of I-75. The new express lanes include two twelve-foot travel lanes in each direction and six-foot paved inside shoulders and twelve-foot outside shoulders. The project also reconstructed the Sheridan Street Interchange. Additional improvements include a new I-75 Express Lanes Bridge over the C-11 Canal, widening and lengthening of the existing Sheridan Street Overpass Bridge, and milling and resurfacing of the I-75 general purpose lanes. WGI’s services as prime consultant included roadway and drainage design, traffic control, environmental permitting, survey, landscape architecture, miscellaneous structures, and public involvement. This project received ACEC Florida's Outstanding Project Award.
FLORIDA'S TURNPIKE ALL ELECTRONIC TOLLING CONVERSION DESIGN-BUILD PHASE 5B
Broward County Florida

WGI was the engineer of record for this project, which converted the Sawgrass Expressway in Broward County to an all-electronic tolling facility from I-75 to Florida's Turnpike. It included design and construction of 17 new toll sites along the 24 mile expressway. The improvements maintained the existing tolling scheme along the Sawgrass Expressway, which utilizes a combination of ramp and mainline tolling points.

The work included modifications at the Sunrise and Deerfield mainline toll plazas and modifications at 15 existing interchange ramp toll plazas. As a requirement of the contract, no two adjacent ramp locations could be closed at the same time. Ramp closures were limited to only two activities: demolition of the existing infrastructure and equipment testing. In addition to the ramp work, there were two areas that needed to be widened, one of which (Turnpike Mainline) carries over 200,000 vehicles per day. Because the job crossed many jurisdictional borders, coordination with and agencies kept the public involvement team busy for the duration of the project. This project improved safety and significantly reduced crashes on the expressway.
SAFETY IMPROVEMENTS
DISTRICT 1 DESIGN-BUILD PUSHBUTTON CONTRACTS E1039 AND E1R18
Twelve Counties in Southwest Florida

WGI was the prime design consultant and engineer of record for this award-winning task work order (TWO)-driven contract that focused on high-priority safety improvements within FDOT District 1. These improvements ranged from median modification and milling and resurfacing to pedestrian and signal upgrades and newly-signalized intersections. The Design-Build delivery format gave FDOT an unprecedented ability to rapidly respond to safety improvement needs using the innovation and expertise of design-builders. Each TWO was designed, constructed, and achieved final acceptance within 365 calendar days and total design and construction costs under $1M. Under these two contracts the Ajax/WGI DB Team completed more than 80 TWOs spanning all 12 counties within District 1, providing widespread improvements to safety with the best value, utilizing DBIA best practices. Both contracts were so successful, they received a combined $15M in additional funding and were extended almost 1 year beyond the original 3-year contract duration to add additional TWOs. Contract E1039 received DBIA Florida's Transportation Project of the Year award and the National Roadway Safety Award from the Roadway Safety Foundation.

PROJECT HIGHLIGHTS:
- Enhanced access to jobs, health services, and schools
- Improved/provided a network for people walking, biking, and taking transit
- Created safe streets for all users, but particularly those walking and biking
- Improved visibility and safety at night for people using the streets
- Enhanced stormwater drainage and reduced flooding impacts
- Supported hurricane recovery and resiliency in the event of future storms
DISTRICT 7 DESIGN-BUILD PUSHBUTTON CONTRACT IV E7R11
Districtwide, Florida

This task work order (TWO)-driven contract provided safety improvements within FDOT District 7 consisting of milling and resurfacing, turn lane extension/widening, new signalized intersections, pedestrian upgrades, lighting retrofits, and miscellaneous structure design. Over 30 TWOs were designed and constructed under this contract, each in less than 365 calendar days. Our team developed innovative design approaches to mitigate right-of-way impacts, such as realigning sidewalk and modifying curb ramps. We designed detailed temporary traffic control plans to account for limited lane closure restrictions. WGI had multiple design teams skilled in coordinating with different maintaining agencies, FDOT, and other owners to streamline the design process. WGI has successfully managed and delivered up to 13 task work orders at once.

PROJECT HIGHLIGHTS:
- Enhanced access to jobs, health services, and schools
- Improved/provided a network for people walking, biking, and taking transit
- Created safe streets for all users, but particularly those walking and biking
- Improved visibility and safety at night for people using the streets
- Enhanced stormwater drainage and reduced flooding impacts
- Supported hurricane recovery and resiliency in the event of future storms
US 41 AND SR 72 MEDIAN MODIFICATIONS
Sarasota County, Florida

WGI was the engineer of record for this project which improved two intersections in Sarasota County. At US 41 from Bee Ridge Road to Siesta Drive, improvements consisted of the modification of an existing two-way left turn lane median to a restrictive raised median. In addition, a southbound directional left turn was provided at the Westfield Southgate shopping mall entrance opposite Jasmine Drive. At SR 72 (Clark Road), improvements consisted of median modifications at the two-way stop control intersection with Rand Boulevard. The median opening was reconstructed to allow only eastbound left turns and egress from Rand Boulevard and Admirals Walk Condominiums was signed for right turn only. In addition, the extension of the eastbound and westbound left turns at the Gantt Road/Approach Road intersection was provided.

BUILD PARTNER:
Cone & Graham

REFERENCE:
Florida Department of Transportation - District 1
Mr. Bob Graham, President
Subconsultant to: Cone and Graham
5101 Cone Road
Tampa, Florida 33610
p. 813.623.2856
e. bgraham@conegraham.com

TOTAL COST:
Design $131K
Construction $1.2M

PROJECT MANAGER:
Henri Belrose, PE

KEY STAFF:
Harkiran Kaur, PE
Erik Brueningen, PE
Doug Burg, PE
US 41 AT COCHRAN AND HARBOR DESIGN-BUILD
Charlotte County, Florida

WGI was the engineer of record for this project which modified two intersections along US 41 in Charlotte County. At US 41 and Cochran Boulevard, improvements consisted of southbound widening to accommodate dual left turn lanes and eastbound widening to accommodate dual left turn lanes, two through lanes and an exclusive right turn lane. At US 41 and Harbor Boulevard, improvements consisted of the northbound extension of the US 41 left turn and right turn lanes and a 5-foot bicycle lane. Westbound Harbor Boulevard was widened to provide dual left turn lanes, a single through lane and an exclusive right turn lane.

BUILD PARTNER:
Cone & Graham

REFERENCE:
Florida Department of Transportation - District 1
Mr. Bob Graham, President
Subconsultant to: Cone and Graham
5101 Cone Road
Tampa, Florida 33610
p. 813.623.2856
e. bgraham@conegraham.com

TOTAL COST:
Design $152K
Construction $1.3M

PROJECT MANAGER:
Henri Belrose, PE

KEY STAFF:
Harkiran Kaur, EI
Erik Brueningen, PE
Doug Burg, PE
OWNER'S REPRESENTATIVE
WGI is the Owner’s Representative for the county’s $130M Transportation Road Bond Program. WGI’s $15.2M professional services contract provides substantial work efforts for many service sectors including Transportation, Survey, SUE, Environmental, ROW acquisition, and administrative services. As part of the contract, WGI manages Construction Management at Risk (CMAR) and Design-Build contracts for seven roadway improvement projects under the program.

The county’s road bond program required a tremendous amount of survey support. WGI provided detailed topographic surveys and accurate right-of-way determination along a significant portion of the county’s roadways. With a compressed schedule, WGI immediately mobilized multiple crews and our Leica Pegasus II mobile scanner to safely and efficiently capture the necessary spatial data for our design team. All above-ground features were captured, and we closely coordinated with local utility providers to create a comprehensive 3D model for the design of future roadway improvements. The location of these seven Design-Build projects are identified in the map above:

1. County Road 218 from Pine Tree Ln to Cosmos Ave, Increase from 2 to 4 lanes
2. County Road 209 from CR 315B to Highway 17, Increase from 2 to 4 lanes
3. County Road 209 from Sandridge Road to CR 315B, Increase from 2 to 3 lanes
4. Sandridge Road from Henley Road to CR 209, Increase from 2 to 3 lanes
5. County Road 220 from Baxley Rd to Henley Rd, Increase from 2 to 4 lanes
6A. First Coast Connector, CR 315 to Highway 17, Increase from 2 to 4 lanes
6B. From First Coast Expressway to CR 315, New 2 lane construction
Brevard County, Florida

WGI was the engineer of record for this project, which improved twelve miles of the northbound lanes of I-95 in Brevard County from the Indian River County line to south of Malabar Road (SR 514). Services also included interchange and signal improvements for the Malabar Road interchange ramps. Design for approximately six miles of median guardrail, from Malabar Road to Palm Bay Road, was also included in the project scope.
NORTHBOUND I-75 RUSKIN REST AREA DESIGN-BUILD
Hillsborough County, Florida

WGI was the engineer of record for this design-build project which replaced the existing northbound I-75 rest area at mile marker 238 in Hillsborough County. Improvements include constructing new buildings, parking areas, dog parks, picnic pavilions, roadway and site lighting, and other improvements. The project enhanced safety, security, parking capacity, and traffic flow and accommodates future I-75 widening.

WGI and its build partner, Pepper, implemented an innovative drainage design that accommodates future impervious area. The new rest area is highly functional with improved security due to clear sightlines, better pedestrian safety, enhanced vehicular circulations, increased parking, and several details that optimize ease of maintenance.

This project uses highly durable materials, such as precast panels with integral coloration for a long design life. In addition, all materials and fixtures are vandal-resistant and low-maintenance. The team provided material warranties in addition to those required by FDOT.
This Design-Build project was a multidisciplinary effort involving roadway, architectural, environmental permitting, signing and pavement markings, drainage, signalization, roadway lighting, electrical, mechanical, structural and landscape architecture design. The project also consisted of site civil providing for potable water, self-supportive septic treatment, a package water treatment plant and an emergency power generator. WGI was the engineer of record for this project. The weigh-in-motion (WIM) static scale system is designed to sort overweight and over-height trucks by requiring potential violators to travel through the station. The southbound I-95 WIM station in Martin County is the first of its kind in the state to weigh trucks in motion with sensors embedded in the outside at-speed travel lane of I-95. Previous WIM stations have used a dedicated lane off the mainline to weigh trucks in motion.

The main administration building for the WIM station is the first LEED Silver Certified weigh station facility in Florida. The facility includes an inspection barn and driver comfort station.
Walter Kloss, PE
Vice President, Transportation
Alternative Delivery
Walter.Kloss@wginc.com
904.813.2068