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# **PINE BLUFF ROAD DRAINAGE IMPROVEMENTS PROJECT QUALIFICATIONS STATEMENT - ENGINEERING SERVICES**



Prepared for:  
**Livingston Parish Government**  
20355 Government Blvd.  
Livingston, LA 70754

Submitted:  
**June 6, 2019**

June 6, 2019

Livingston Parish Government  
Attn: Heather Crain  
20355 Government Blvd.  
Livingston, Louisiana 70754

**Re: Request for Qualifications for Engineering Services  
Pine Bluff Road Drainage Improvements Project**

Dear Ms. Crain:

With this letter, Sigma Consulting Group, Inc. is expressing our interest and qualifications to provide engineering services to the Livingston Parish Government for the Pine Bluff Road Drainage Improvements project. We understand the complexities and risks associated with delivering a roadway and drainage project like this from its conception, through permitting, to eventual construction and closeout. We will provide the most qualified resources and comprehensive drainage design and plan development experience in the region.

We have the technical expertise, diverse capabilities, and professional reputation to provide the highest level of service and can achieve successful results for the Livingston Parish Government. By assigning Jason Crain, as project manager, our team will be led by someone with tremendous design and project delivery experience.

1a) Recognizing that information is key, we intend to begin the project effort by collecting data, coordinating with the Parish, making site visits, and developing the hydrologic and hydraulic (H&H) model necessary under the problem. To be as up-to-date as possible, we also recommend contacting LaDOTD to solicit data from the Amite River Watershed model currently being developed. With the H&H results in hand, we will begin investigating existing utilities and environmental inventory databases. We will utilize the information collected to our conceptual design to raise the roadway while maintaining existing drainage patterns. Livingston Parish can depend on Sigma's more than 30 years of experience in roadway, drainage, and surveying to keep the project moving through design and plan preparation on time and within budget.

The primary obstacle to achieving successful project delivery typically is utility relocations and real estate/right-of-way issues. Since the existing roadway is narrow with little to no shoulders and predominately open ditches, maintaining traffic and providing temporary access to local residents will be crucial. Sigma has successfully completed projects for LA DOTD and other clients in an expedited delivery schedule by integrating all project phases simultaneously. This includes right-of-way acquisitions, utility relocations, permitting, surveying and design. Sigma has considerable experience in all aspects of project delivery affording us the opportunity to work them concurrently, quickly address unexpected issues, and keep the overall project moving forward.

In addition, if Livingston Parish so chooses, Sigma has the construction management resources and experience to continue management of the project through construction to closeout. Please

see the attached Statement of Qualifications for additional information on Sigma's team, project experience and proposed project approach.

1b) Sigma Consulting Group, Inc. is currently in compliance with all the State of Louisiana's appropriate state licensing requirements.

1c) Sigma Consulting Group, Inc. has not engaged in any unethical practices within the last five years.

1d) We agree that if awarded the contract, we acknowledge complete responsibility, including payment of any and all charges resulting from said contract.

Our mission is simple: To utilize our considerable resources with your leadership to bring the most capable, relevant, and versatile, engineering and land surveying team to engineer and design the proposed project.

We are excited about this project. With our relevant expertise, we feel that we can uniquely serve the Parish. If there is any further information that you require, please feel free to contact either Mr. Jason Crain or myself at (225) 298-0800.

Sincerely,  
**SIGMA CONSULTING GROUP, INC.**

A handwritten signature in blue ink, appearing to read 'Miles B. Williams', with a stylized flourish at the end.

Miles B. Williams, PE  
President

Attachments (pdf submitted via [centrallauctionhouse.com](http://centrallauctionhouse.com))

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Appendix A – Recent Relevant Project Experience

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Appendix E – Financial Stability Statement



## 2. Background and Experience

- a. **Sigma Consulting Group, Inc.** is a privately owned civil engineering and surveying company headquartered in Baton Rouge. Sigma has been serving South Louisiana since its beginning in 1987. Sigma currently has a staff of 31 employees (28 in Louisiana), including 10 professional engineers and two (2) professional surveyors. We are registered as a C-Corporation (DUNS #62-368-7335)

We are licensed to perform engineering and surveying in the State of Louisiana under LAPELS registration numbers EF.0001410 and VF.0000302. Sigma has been providing transportation and drainage engineering, program management, surveying, and construction management and inspection services to area Parishes for the past 30 years. We have the experience in surveying, engineering, design and construction support on transportation projects for private developments as well as local, parish, and state highway and bridge projects.



- b. Sigma has considerable relevant experience in project planning and implementation, transportation design and plan development, capital improvement programming, and project budgeting and prioritization. Following is a brief description of a few recent relevant projects. **Further information is provided in Appendix A.**

Sigma has recently completed the design for the Jacock Bridge replacement project in West Feliciana Parish. Subsequently, the Parish has contracted Sigma to provide construction inspection and administrative services. This project was funded entirely with GOHSEP HMGP Funds.

Sigma is very proud of completing the design of the Sullivan Road widening improvements. As part of the Central Thruway, this segment included upgrading an existing 2.5 mile 2-lane suburban road to a 4-lane boulevard with a raised median with a short section of 5-lane highway. This project included a design study to determine design criteria, horizontal and vertical geometry, and typical sections. Sigma was also responsible for the topographic and property surveys as well as [hydraulic design](#) and [outfall channel improvements](#).



At Lake Rosemound in West Feliciana Parish, Sigma performed a new hydrologic assessment to determine pool stages, designed and prepared construction plans for the outfall structure which included culverts, a reinforced concrete flume, a stilling basin with chute and baffle blocks to dissipate energy and minimize the potential for erosion, and a drawdown structure. We understand the hydraulic and geotechnical requirements for dam structures and associated outfall control structures.

Finally, Sigma was contracted by the East Baton Rouge Parish Department of Public Works, in cooperation with the FHWA and LA DOTD, to provide NEPA environmental documentation, planning, and engineering for the improvements to **Hooper Road from Blackwater Road to Sullivan Road** in Central, LA. The existing roadway is a 2-lane rural roadway with open ditches and DPW is proposing capacity and safety upgrades to the corridor using a 4-lane boulevard, subsurface drainage and pedestrian accessibility.

As part of the **NEPA Environmental Assessment**, Sigma performed the **roadway engineering, natural and human environment data assimilation, determining cumulative impacts, conceptual relocation plans, alternative development, public involvement**, and NEPA document preparation. Sigma prepared the initial Solicitation of Views and ran the public meetings to gather community input on the project. A Finding of No Significant Impacts (FONSI) was issued for this project in December 2018.

Through the use of project work plans, excellent communication skills and teamwork, Sigma prides itself on minimizing or eliminating project time delays, cost escalations and overruns. Every project included in the Appendix includes contact information. Our rigorous QA/QC process, attention to constructability and risk assessments in preparing both construction plans and cost estimates lead to higher quality designs. But don't take our word for it – see what others are saying. **Please see the letters of recommendation attached in Appendix D.**

- c. Our current workload will not hinder our ability to adequately provide the services required under this contract should we be selected.
- d. Our entire business model is centered around “Quality First” and works because of our emphasis to align the goals of the company with the goals of clients - like Livingston Parish.

**Sigma's Business Strategy:**

*“is to manage the firm in a way that aligns the goals of the employee with the goals of the company, and the goals of the company with the goals of the clients.”*

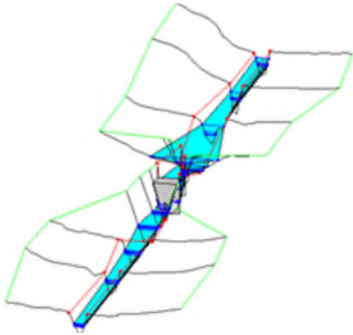
**Sigma's Mission Statement:**

*“To consistently provide the highest quality of service, on time and in budget, while maintaining honest communications and genuine friendship with our clients.”*

- e. Sigma is a Louisiana “born and raised” firm. **Our staff is familiar with Livingston**, including Jason Crain who will serve as our team's project manager. Jason lives in Livingston Parish and is raising his family there. Supported by Parish residents, Holly Fulkerson and Trevor Crain, Jason is particularly familiar with the project area and would love to have the opportunity to be an integral part of a traffic improvement project that provides a great benefit to his community.
- f. Insurance Coverage:
  - Professional Liability Coverage \$2M/\$3M
  - LA Worker's Compensation Coverage
  - Commercial Coverage \$2M/\$2M
  - Umbrella Coverage \$4M
  - Auto Policies (Non-owned \$1M) (Each owned vehicle \$1M)
- g. A statement showing Sigma's financial stability is included in the Appendix E.
- h. Sigma is not Disadvantaged Business Enterprise (DBE) certified by Louisiana. However, Sigma is a self-certified small business as per the federal NAISC Code 541330 – Engineering and 541370 – Surveying standards.

### 3. SPECIALIZED KNOWLEDGE

**Hydraulics / Hydrology** - Sigma has performed a wide variety of hydraulic and hydrological studies and designs including the **design of major culvert crossings for waterways and subsurface drainage systems**, HEC-RAS modeling, **channel design and improvements analysis**, large and small drainage basin studies, and coordinating with FEMA for map revisions and flood risk assessments. We have also prepared numerous drainage impact studies for residential and commercial developments, industrial plants and highway/bridge improvement projects. All our designs incorporate Best Management Practices for erosion control and storm water management. Sigma has developed plans for several transportation and roadway projects requiring detailed analysis and design of subsurface drainage systems, HEC-RAS modeling, and scour analyses.



**Transportation Design** - Sigma has vast experience in designing roadway plans for traffic management projects including intersection improvements, roundabouts, roadway widening for the addition of turn lanes, traffic calming and channelization using geometrics and striping, permanent signing, work zone safety and traffic control plans, and access permits for public and private developments. We also have designed intersection improvements with J-Turns, left and right turn lanes, offset turn lanes for improved sight lines, signals and flashers, and advanced signing. Our capacity improvement project experience includes upgrading existing two-lane roadways with open ditches to 3 or 4 lane sections with curb and gutter and subsurface drainage.



Sigma brings our 30 years of highway design and LA DOTD expertise to the table to serve Livingston Parish. LA DOTD is one of our primary clients, and our business is set up to meet their standards. Our engineers, surveyors and designers have a strong technical background in LA DOTD plan preparation, submittal requirements, specifications (both 2006 and the new 2016 spec books), and project delivery. **LA DOTD has trusted Sigma to serve a primary role in several expedited delivery projects, all with successful results.**





**Surveying and SUE Services** - Every new project starts with understanding the existing conditions. Surveying is a critical element of advancing your project to reality. Sigma's survey crews and surveying professionals provide a wide range of land surveying services. We have the capabilities and experience in providing [GPS control surveys](#), [boundary surveys](#), [topographic surveys](#), in-shore hydrographic surveys, flood elevation certificates, slab surveys, and construction stakeout. We also can prepare [digital terrain models](#), [earthwork computations](#), [right-of-way maps](#), [plats](#), and [legal descriptions](#). Our crews utilize the latest state-of-the-art equipment to perform accurate surveys in a timely manner.



Sigma has experience providing **Subsurface Utility Engineering (SUE) services statewide** through an IDIQ contract with LA DOTD. Tasks under this contract include all quality levels of SUE work including but not limited to [coordination with utility owners](#); [as-built and records research](#); [identifying, locating and marking utilities in the field](#); and [excavation of "Level A" test holes](#) to expose the utility for location surveying and measurement.



Sigma has the utility coordination expertise and relationships to provide proactive, effective, hands-on coordination and relocation services. Successful coordination begins with identification of existing utilities along a project alignment and early contact and interaction with the utility owners. We coordinate closely with the utility owners to try and adjust preliminary routing to avoid existing utilities where feasible. If a utility relocation is required, we can prepare and coordinate Articles of Agreement between the utility owners and Livingston Parish to get utilities moved prior to construction. Even with extensive proactive utility coordination efforts there will inevitably be unknown utility conflicts discovered during construction. [Sigma has worked hand-in-hand with the utility owners, contractors, and owner agencies to quickly identify the issue, bring all parties together, offer mitigation strategies, and push for resolution to minimize the impact to construction schedule and cost.](#)

**Permitting** – Sigma takes a proactive approach to environmental compliance and permitting by fostering positive and effective communication with regulatory agencies, affected landowners and secondary entities, such as pipeline and utility companies, to resolve issues and expedite the process. We can prepare environmental assessments and impact statements; develop compensatory mitigation plans; assist with obtaining coastal use permits, USCG permits, and LA DOTD permits; perform environmental inventory studies; and coordinate with regulatory agencies.

**Land Acquisition** – A critical component of roadway and transportation project delivery is ROW acquisition. It is imperative to begin the process as early in the design phase as possible and keep the process moving concurrently with the design in order to have the needed ROW prior to the construction. Sigma played a key role in the East Baton Rouge (EBR) Parish SSO Program for [real estate acquisitions](#), [right-of-way map preparation/reviews](#), and [expropriations](#). We also provided similar land and real estate advisory services to CPRA for Coastal Master Plan projects.

Under the EBR SSO Program, Sigma was responsible for the review of relocation plans; review of ROW Maps for standards compliance; the [contracting, coordinating, and organizing the delivery of abstracts and appraisals](#); coordination of acquisition maps, and performing various acquisition duties for the Program; as well as [coordinating the acquisition of property](#) with the EBR Parish Attorney's Office. Coordination with the Parish Attorney's Office required review of servitude (easement), title, and permit language for sewer impacts to residents, businesses, governmental bodies, and various pipeline companies.



Over a period of six years Sigma facilitated the successful acquisition of **over 1,000 parcels of land totaling nearly \$20 million** by EBR Parish. These timely parcel acquisitions were vital to the successful delivery of 115 individual projects within the EPA mandated deadline. Properties impacted ranged from single family residences and churches to industrial and commercial uses. Sigma's experience provides the Parish with a unique perspective on all aspects of land acquisition.

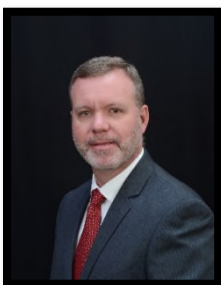
**Bidding Services** - Sigma has served as project bid facilitator for more than 100 projects. We attended pre-bid informational meetings, collected and answered bidder questions and requests for clarifications, prepared addenda, and attended bid openings. After bid openings, we verified bids, made recommendations of award, facilitated the preparation of conformed documents for construction, and monitored progress from contract award through Council approval, execution of contract documents, creation of a purchase order, and issuance of Notice to Proceed. We have scheduled and facilitated pre-construction meetings where construction team members were introduced, roles and responsibilities explained, expectations and requirements discussed, and official construction documents issued.

**Construction Management & Inspection** - Sigma has experienced Construction Managers (CM) on staff. Their experience includes oversight of road, drainage, sewer, and coastal restoration construction. Their responsibilities include communication with the contractor, ensuring compliance with plans and specifications, enforcing project schedules and contract terms, negotiating changes and additions, coordinating with contractors and inspectors, managing third-party testing lab assignments, preparing daily reports of progress, and processing monthly pay requests.

Sigma has experience with facilitation of construction submittals, RFI's, and general contract administrative documents. We have administered construction contracts and processed contractor payments. Sigma has the knowledge and capability to track and manage the status of all potential and actual change orders to aid in timely payment processing and help forecast potential change order costs for the remainder of the project enabling us to monitor and better manage the overall project budget.

#### **4. PERSONNEL/PROFESSIONAL QUALIFICATIONS**

Sigma's professional staff is very strong and experienced in the work required for water resource projects. Along with key team members, we intend to staff this project with the most capable personnel required to deliver the projects. **Detailed resumes are included in the Appendix B.** The following people are a few that will play a significant role.



**Jason Crain, PE, ENV SP** will serve as **project manager** and primary point of contact for this contract. He has over 20 years of experience in highway design, traffic analysis, hydraulics/hydrology, sewer collection design and analysis, and floodplain and drainage impact studies. Jason has served as project manager for several municipal and state highway and bridge projects including projects for LA DOTD. **Jason lives in Livingston Parish, LA and is familiar with the project area**

Jason was the Deputy Program Manager for the East Baton Rouge SSO Program for over 10 years and is extremely knowledgeable in all aspects of project delivery from design and plan development, right-of-way acquisition, permitting, bidding and contract award, construction management, and ultimately project closeout. **As 1 of only 15 certified Envision Sustainability Professionals in Louisiana** Jason has the knowledge to recognize, capture, and implement potential sustainability and resiliency aspects into a project beyond just transportation improvements, providing additional benefits to the community and maximizing public dollars.



**Miles Williams, PE** is Sigma's president and will serve as the principal in charge for this project. Miles has a 30-year engineering career with a foundation in roadway design projects. His expertise in road design offers a vast knowledge base and innovative ideas in roadway design. His background ranges in design of rural local roads to urban interstates with complex interchanges.



**Bryan Harmon, PE** will serve as the senior drainage engineer and has extensive experience in drainage design and flood mitigation as well as a diverse background with experience in right of way acquisitions, standard plan & specification development, cost estimates and funding pursuits, engineering plan development, bid phase services, and the construction administration for: highways, streets, bridges, drainage improvements, traffic signals, sanitary sewers systems and grant administration. He has over 30 years of practical experience and working with federal, state and local government agencies and other entities on successfully implemented infrastructure projects of a similar scale in south Louisiana.



**Gregory Sepeda, PE** is Sigma's Chief Engineer and senior engineer with 26 years of experience. He is responsible for all quality control and overall project oversight. His responsibilities include project cost estimates, staff scheduling, and budget tracking. In addition to overseeing the Quality of our deliverables, Greg also provides Risk Management both at the corporate and project level. Greg has extensive road and drainage design experience on numerous major urban arterials and recently performed as project manager for the Hooper Road Environmental Assessment in East Baton Rouge Parish.



**Bradley Roberts, PLS** will lead all surveying efforts as well as serving as the land surveyor of record for any required right of way maps. Mr. Roberts is a Professional Land Surveyor licensed in Louisiana with 11 years of surveying and mapping experience.

But these are just a few of our team members. We make all Baton Rouge resources available to most projects. This includes a total of 9 Professional Engineers (PE), 2 Professional Land Surveyors (PLS), 1 Engineer Intern (EI), 2 Survey Field Crews, 2 Sr. CAD Designers, 3 CAD Designers, 2 Construction Managers, and 4 administrative support staff.



**We have the experience, personnel, resources and desire to deliver a quality project, within budget, and on time.**

## 5. WHY SELECT SIGMA CONSULTING GROUP?

### Sigma's Value-Added Approach

Our success in expediting projects for LA DOTD is something we take great pride in, and we hope to translate that success to you. This is achieved through frank, open, and honest communication with our clients at all levels. *We treat our relationships with our clients as partnerships.*

#### Proven experience minimizing cost escalations:

- ✓ Establishing Trust & Partnership
- ✓ Quality Design Reviews
- ✓ Constructability Reviews
- ✓ Risk Assessment & Mitigation
- ✓ Coordinated & Expedited Delivery
- ✓ Timely Submittals & Responses
- ✓ Proactive Engagement in Issues
- ✓ Workable & Cost-Effective Solutions

Applying our sound project management strategy through project work plans, excellent communication skills, and teamwork, Sigma prides itself on minimizing or eliminating cost escalations and overruns. Our rigorous QA/QC process, attention to constructability, risk assessments in our design reviews, and preparing cost estimates lead to higher quality design product for the client. Inevitably however, issues and unknowns arise during design and especially construction. *What sets Sigma apart from other firms is that we will bring workable and cost-effective solutions to the client rather than leaving the problem with the client.*

### Ability to Perform Work within Timeframe

Sigma is committed to providing the staffing and support in order to complete projects on time and within budget, all while meeting the expectations of the Parish. We credit our history of excellent performance and project success to the following:

- Staff stability – 1/3 of our company has been with Sigma for more than 20 years. **The qualifications of our key staff have been summarized above and can be found in more detail in the Appendix B.**
- Responsiveness - Sigma is committed to meeting project schedules, and we have proven time and time again our ability to conform to aggressive schedules. Excellent working relationships and a cooperative work ethic contribute to that success. With our current staff and contracted work load, Sigma can easily accommodate and properly schedule the new work assignments that may be required for this project.
- Cost control – with long established in-house project management procedures, all projects are monitored biweekly and reviewed by Sigma's chief engineer.
- Quality - For us, project quality is paramount. Sigma has a quality assurance and quality control program that ensures designated projects fulfill predetermined requirements, can be physically accomplished as designed in the specified time given, and bid reasonably within the engineer's estimate. Sigma does not compromise quality for budget.

### Quality Control / Quality Assurance

Sigma proposes to utilize our currently implemented quality control plan for this contract. The key components to this plan include *communication, redundancy, and application of experience*. The first element of our quality control approach is to establish and maintain an open line of *communication between all members of the project team* and all concerned parties within the Parish. It has been our experience that communication procedures such as *periodic coordination meetings, task scoping meetings and detailed personnel assignment and contact information* is critical to maintaining quality in our final product.



The second element for quality control is applying *redundancy* throughout the project. This is frequently accomplished by establishing alternate lines of communication, overlapping technical expertise and thorough project documentation.

Finally, the 3<sup>rd</sup> component of maintaining quality throughout the project life is *the proper application of our expertise and experience* during all phases of work. We intend to assign key members of our staff to vital roles in each and every phase. This ensures that information is consistently referenced, designed by and presented in a format that is accepted by the client. In order to balance continuity and redundancy, *independent reviews* by the Principal-in-Charge is incorporated into every project.

## **CONCLUSION**

Sigma has structured a team of professionals whose experience in the industry is directly relevant to the requirements set forth in the RFQ. Sigma provides a professional staff with extensive direct hands on experience for; drainage and road design and plan development, utility coordination, right-of-way acquisition, permitting, bidding services and construction management. We understand the engineering process as both a Design Professional and from the governmental perspective. Our firm knows how to get the job done both efficiently and effectively, and we are excited to offer our qualifications for your consideration and are ready to begin work.

*Sigma Consulting Group, Inc. is a progressive established consulting engineering firm in Baton Rouge, Louisiana. We believe that Sigma is especially well suited for this project because we have assembled team members with the qualifications, experience, personnel, and desire to do the job well, within budget, and on time.*



***“where quality and innovation design our future”***

## **APPENDICES**

Appendix A - Recent Relevant Project Experience

Appendix B - Resumes

Appendix C - Sigma's LAPELS Company License

Appendix D - Letters of Recommendation

Appendix E - Financial Stability Statement

## **APPENDIX A – RECENT RELEVANT PROJECT EXPERIENCE**



## Recent work by firm which best illustrates project experience relevant to this project

Project name & location <b>Jones Creek Road Improvements (Segment 2), East Baton Rouge Parish</b>	Project description <b>See below</b>	Nature of firm's responsibility & firm members involved <b>Prime Engineer</b>	Owner's name & Contact Info. <b>City of Baton Rouge /Parish of East Baton Rouge Dept. of Trans. &amp; Drainage Mr. Tom Stephens - (225) 389-3186</b>	Start: <b>Apr. 2002</b> Completion: <b>Feb. 2018</b>
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Sigma was contracted by the LADOTD and East Baton Rouge Parish Department of Public Works, in cooperation with the FHWA, to provide engineering, NEPA environmental documentation, planning, surveying and right-of-way mapping for the improvements of Jones Creek Road from Tiger Bend Road to Coursey Boulevard. This project is an Urban Systems project. The existing roadway was a 2 and 3-lane urban arterial extending approximately 1.5 miles through a mixed residential/commercial urban setting. This segment includes 4 signalized intersections and high traffic volumes.

As part of the NEPA Environmental Assessment, Sigma performed the roadway engineering, alternative development, cost estimate, residential / commercial / utility impact assessment, public involvement and right-of-way estimates. A Finding of No Significant Impacts (FONSI) was issued for this project in December 2004.

Full roadway plans for the preferred 5-lane alternative were developed. Since the 5-lane section is not LA DOTD's now preferred 4-lane divided roadway, a Design Exception is required. Sigma prepared the form and supporting data on behalf of the City-Parish. This package included the preparation of safety performance per the Predictive Method of the Highway Safety Manual. This project was designed using LADOTD design criteria on a city roadway. Sigma prepared the right-of-way surveying, title research and right of way mapping for this project. All right of way work was conducted according to LADOTD and Federal standards.

Sigma also provided construction management support services to assist the DTD staff during the construction of this federal urban system project included review of shop drawings, change orders, project schedules, and utility relocation coordination; as well assisting in resolution of any construction related conflicts that arose in the field.

### Sigma Firm Members Involved

Miles Williams, Greg Sepeda, Jason Crain, Josh Renard & Trevor Crain



### Environmental Assessment

- Line & Grade Study
- Alternative Alignments
- Alternative Conceptual Sections
- Right-of-Way Impacts
- Socio-Economic Impacts
- Opinion of Probable Cost

### Surveying Services

- Control Survey
- Topographic Survey
- Property Survey

### Final Plans

- Typical Sections
- Hor. & Vert. Geometry
- Geometric Details
- Subsurface drainage design
- Cross Sections
- Sequence of Construction
- Sewer Relocation & Upgrades

### Right-of-Way Maps

- Base Mapping
- Acquisition Plans

### Utility Investigations

- Utility Coordination
- Utility Relocation Plans
- Utility Sequencing

## Recent work by firm which best illustrates project experience relevant to this project

Project name & location <b>Hooper Road (LA 408) Blackwater Rd. – Sullivan Rd. East Baton Rouge Parish</b>	Project description <b>See below</b>	Nature of firm's responsibility & firm members involved <b>Prime Engineer</b>	Owner's name & Contact Info. <b>City of Baton Rouge /Parish of East Baton Rouge Dept. of Trans. &amp; Drainage Mr. Tom Stephens - (225) 389-3186</b>	Start: <b>Apr. 2012</b> Completion: <b>Awaiting NTP on Survey &amp; Plans</b>
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Sigma was contracted by the East Baton Rouge Parish Department of Public Works, in cooperation with the FHWA and LA DOTD, to provide NEPA environmental documentation, planning, and engineering for the improvements to Hooper Road from Blackwater Road to Sullivan Road in Central, LA. The existing roadway is a 2-lane rural roadway with open ditches.

DTD is proposing capacity and safety upgrades to the corridor using a 4-lane boulevard, subsurface drainage and pedestrian accessibility. As part of the NEPA Environmental Assessment, Sigma performed the roadway engineering, natural and human environment data assimilation, determining cumulative impacts, conceptual relocation plans, alternative development, public involvement, and NEPA document preparation. Sigma prepared the initial Solicitation of Views and ran the public meetings to gather community input on the project. A Finding of No Significant Impacts (FONSI) was issued for this project in December 2018.

Upon receiving NTP, Sigma will perform the topographic and control survey and produce a 3D digital terrain model and field roll for engineering design. Full roadway plans for the 4-lane boulevard with a raised median will be developed using LA DOTD design criteria. Sigma will also perform the right-of-way surveying, title research and right of way mapping for this project. All right of way work will be conducted according to LA DOTD and Federal standards.

### Sigma Firm Members Involved

Bradley Roberts, Greg Sepeda, Bryan Harmon, Miles Williams, Jason Crain & Josh Renard



### Environmental Assessment

- Line & Grade Study
- Alternative Alignments
- Alternative Conceptual Sections
- Right-of-Way Impacts
- Socio-Economic Impacts
- Environmental Impacts
- Public Involvement
- Solicitation of Views/Purpose & Need
- Opinion of Probable Cost

### Surveying Services \*

- Control Survey
- Topographic Survey
- Property Survey

### Final Plans\*

- Typical Sections
- Hor. & Vert. Geometry
- Geometric Details
- Drainage design
- Cross Sections
- Sequence of Construction
- Permanent Striping Plans

### Right-of-Way Maps\*

- Base Mapping
- Title Take-offs
- Acquisition Plans

*\*Under contract to perform these services but awaiting NTP*



## Recent work by firm which best illustrates project experience relevant to this project

Project name & location <b>Jones Creek Road Extension (Segment 1), East Baton Rouge Parish</b>	Project description <b>See below</b>	Nature of firm's responsibility & firm members involved <b>Prime Engineer</b>	Owner's name & Contact Info. <b>City of Baton Rouge /Parish of East Baton Rouge Dept. of Trans. &amp; Drainage Mr. Tom Stephens - (225) 389-3186</b>	Start: <b>Dec. 2012</b> Completion: <b>Awaiting NTP on Survey &amp; Plans</b>
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Sigma was contracted by the East Baton Rouge Parish Department of Public Works to provide planning, engineering, and topographic surveying for the proposed extension of Jones Creek Road (Segment 1) from Tiger Bend Road / Jones Creek Road Intersection to Jefferson Highway (LA 73). This project consists of a new roadway that will start at the existing intersection and proceed south to end at Jefferson Highway.



This four-lane boulevard curb and gutter project includes sidewalks and requires a major box culvert extension and new bridge crossing Clay Cut Bayou. The original scope was amended to include a connection to Baringer Road, as well as widening alternatives and intersection improvements along Jefferson Highway. When combined with other projects constructed, it will provide an improved north-south corridor extending from southeast Baton Rouge to Central City.

This project required a design study to identify constraints, establish design criteria, set preliminary horizontal and vertical geometry, perform initial drainage analysis, determine bridge type size and location, and typical sections. An environmental assessment and cultural resource survey were conducted to identify any environmental liabilities or potential wetland impacts; as well as any archaeological sites or historical structures that might be affected by construction activities. Utilities were investigated and included in alignment and cost impact analysis.

### Environmental Assessment

- Line & Grade Study
- Alternative Alignments
- Alternative Conceptual Sections
- Right-of-Way Impacts
- Socio-Economic Impacts
- Environmental Impacts
- Public Involvement
- Intersection Analysis
- Opinion of Probable Cost

### Sigma Firm Members Involved

Miles Williams, Greg Sepeda, Josh Renard & Alex Farr





## Recent work by firm which best illustrates project experience relevant to this project

Project name & location <b>Sanitary Sewer Overflow (SSO) Program Management, East Baton Rouge Parish</b>	Project description <b>See below</b>	Nature of firm's responsibility & firm members involved <b>Sub-Consultant to Jacobs Engineering</b>	Owner's name & Contact Info. <b>City of Baton Rouge/Parish of East Baton Rouge Dept. of Environmental Services Mr. Adam Smith - (225) 389-4865</b>	Start: <b>Nov. 2006</b> Completion: <b>Ongoing</b>
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In 2006, East Baton Rouge Parish (EBR) DPW selected the Jacobs (formerly CH2M)/Sigma team to manage their EPA mandated Sanitary Sewer Overflow (SSO) Reduction Program. This \$1.6 billion program is **the largest public works program ever implemented by EBR Parish**. Consent Decree provisions required all projects had be completed by end of year 2018. Sigma's staff worked closely with the Jacobs staff and key EBR Dept. of Environmental Services (DES) personnel in a partnered effort to coordinate all program functions necessary to **successfully deliver the 115 total projects on time and within budget**.

Sigma staff performed program leadership roles, project management and design consultant oversight, utility coordination, land management, bid document preparation, construction management and inspection supervision, invoice administration, and document control. Sigma personnel were also heavily involved in public outreach and the coordination of information with public officials and other major stakeholders.

Sigma managed program land acquisition services necessary to successfully acquire all property needed to complete the 115 projects under the Program including coordination between design engineering consultants, their land surveyors, title abstractors, land appraisers and land acquisition agents. Over a period of six years Sigma facilitated the successful acquisition of **over 1,000 parcels of land totaling nearly \$20 million** by EBR Parish. In many cases acquisitions required expropriation and/or relocation assistance to private property owners or tenants. This work required closely coordinated with DES personnel and the EBR Parish Attorney's office.

Other major responsibilities included technical and quality reviews, document management, establishment of program policies and procedures, change management, and claims negotiations. Sigma was instrumental in preparation of program-wide technical specifications, standards, contract development, and design consultant standards.



BATON ROUGE **SSO**  
**Program**

### Sigma Firm Members Involved

Jason Crain, Miles Williams, Greg Sepeda, Josh Renard, Trevor Crain, Bryan Harmon & Alex Farr

### Program Management

- Project Delivery
- Technical & Quality Reviews
- Document Management
- Public Involvement & Outreach
- Contract Administration

### Land Acquisition

- Acquisition Map Reviews
- Management of Title Abstracts, Appraisals, & Acquisitions
- Management of Relocations

### Bidding Services

- Preparation of Bid Documents
- Pre-bid Meeting Attendance
- Issuance of Addenda
- Recommendation of Award
- Conformed Document Prep
- Pre-construction Meetings & NTP

### Utility Coordination

- Utility Relocations
- Utility Conflict Resolution
- Articles of Agreement

### Construction Management

- Ensuring Compliance w/ Specs
- Daily Progress Reports
- Change Management
- Enforce Project Schedules
- Coordination of Inspectors

## Recent work by firm which best illustrates project experience relevant to this project

Project name & location <b>Jacock Road Bridge Upgrade West Feliciana Parish</b>	Project description <b>See below</b>	Nature of firm's responsibility & firm members involved <b>Consultant</b>	Owner's name & Contact Info. <b>West Feliciana Parish Dept. of Public Works Mr. Jim Ferguson - (225) 635-3864</b>	Start: <b>Sept. 2015</b> Completion: <b>May 2018</b>
<p>The project involved topographic surveying and engineering design for the replacement of the existing bridge on Jacock Road Bridge at Barrow Fork Creek. The work included topographic surveying, drainage design, geometric design, bridge design, and preparation of construction plans.</p> <p>Sigma Consulting Group, Inc. was selected by the West Feliciana Parish Department of Public Works to perform this project. The project was funded entirely with GOHSEP HMGP Funds due to the frequent inundation of the existing bridge and the fact it is the only means of ingress and egress for approximately 60 residences.</p> <p>This improvement will provide for an upgraded and elevated bridge crossing. The new bridge will be 3 feet higher than the existing bridge. The new 7-span slab span bridge totaling 140 feet long will replace the existing 6-span timber bridge totaling 123 feet long. The clear width on the proposed bridge will increase from 20 feet to 24 feet.</p>				<p><b>Surveying</b></p> <ul style="list-style-type: none"> <li>• <i>Topographic</i></li> <li>• <i>R/W Mapping</i></li> </ul> <p><b>Roadway Design</b></p> <ul style="list-style-type: none"> <li>• <i>Raised Profile</i></li> </ul> <p><b>Bridge Design</b></p> <ul style="list-style-type: none"> <li>• <i>Precast Slab Span</i></li> <li>• <i>Split Slab Phased Construction</i></li> </ul> <p><b>Bidding Services</b></p> <ul style="list-style-type: none"> <li>• <i>Preparation of Bid Documents</i></li> <li>• <i>Pre-bid Meeting Attendance</i></li> <li>• <i>Issuance of Addenda</i></li> <li>• <i>Recommendation of Award</i></li> <li>• <i>Conformed Document Prep</i></li> <li>• <i>Pre-construction Meetings &amp; NTP</i></li> </ul> <p><b>Construction Administration</b></p>

## Recent work by firm which best illustrates project experience relevant to this project

Project name & location	Project description	Nature of firm's responsibility & firm members involved	Owner's name & Contact Info.	Start: <b>Dec. 2017</b> Completion: <b>July 2018</b>
<b>Subsurface Utility Engineering</b> <b>LA 675 &amp; 87 Improvements</b> <b>Iberia Parish</b>	<b>See below</b>	<b>Prime Engineer</b>	<b>LA DOTD</b> <b>JoAnn Kurts, PE (225) 379-1427</b>	

Sigma was the lead firm for this \$196,000 Subsurface Engineering Project (SUE) in Iberia Parish. The project consists of providing quality level A through D utility locates on LA 675 (S. Hopkins Street) for 0.8 miles, extending from West Dale to Bayou Teche. The locates were provided to DOTD for use in the plan development for drainage improvements and resurfacing project on Hopkins Street. The 0.8 mile urban roadway included constricted right of way with multiple utilities in the roadway and under sidewalks. Quality Level B locates were conducted using multiple geophysical scanning methods, and 40 QL-A test holes were performed by Sigma. Final SUE plans were prepared in accordance with CI/ASCE Standard 38-02 and DOTD standards.

During this project, we coordinated with applicable utility companies and performed all quality level A through D utility identification, locates, and markings, including service laterals within the DOTD right of way. Sigma also maintained traffic control throughout the project site during field locating and designating services. We utilized a specialty sub-consultant for the CCTV of sewer trunk lines and laterals. Sigma coordinated with the project's surveying consultant to have all markings surveyed. Sigma's final deliverables included the SUE Plan Set, Utility Contact List, Test Hole Data Form, Utility Conflict Matrix, and Shot Count Sheets.



### **Sigma Firm Members Involved**

Miles Williams, Robbie Lear, Josh Renard, BJ Roberts, Derek Wheat, Josh Davis, Jenee Gibbs, Jamal Yarborough





## Recent work by firm which best illustrates project experience relevant to this project

Project name & location <b>La 73 Improvements I-10 To US 61 Ascension Parish</b>	Project description <b>See below</b>	Nature of firm's responsibility & firm members involved <b>Prime Engineer</b>	Owner's name & Contact Info. <b>LA DOTD Mr. Jeff Burst, PE - (225) 379-1356</b>	Start: <b>Oct. 2006</b> Completion: <b>Feb. 2011</b>
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This project involved the improvement of 2.24 miles of LA Highway 73. The existing 2-lane rural highway was widened to a 3-lane urban section. Sigma's work included a design study for alternate sections in addition to the 3-lane adopted. Sigma also evaluated 4-lane divided and 5-lane sections as well as different shoulder widths. Sigma provided preliminary & final plan preparation including hydraulic design and reports for a subsurface drainage system, geometric road design, striping plans, sequence of construction, and quantity & cost estimates. The design of a sanitary sewer collection system with a pump station was included in the project design. The sewer system is designed to be part a parish wide system for Ascension Parish.

LA DOTD provided the initial topographic surveys which were supplemented by Sigma's staff. Sigma prepared all construction plan sheets, including typical sections, plan/profile sheets, drainage plan/profile sheets, drainage maps, sewer plan/profile sheets, geometric details, striping plans, sequence of construction and cross-sections. Sigma also performed all drainage design and prepared quantities for this project. Sigma also set taking lines and coordinated with SJB Group who prepared right-of-way plans under separate contract with LA DOTD.

### **Sigma Firm Members Involved**

Miles Williams, Greg Sepeda, Robbie Lear, Lance Amedee, Donnie Thymes

### **Preliminary and Final Design**

#### **Road Design**

- *Horizontal & Vertical Geometry*
- *Typical Sections*
- *Geometric Details*
- *Plans/Profiles*
- *Cross Sections*
- *Determine R/W & Servitude Limits*
- *Striping*
- *Construction Sequencing*

#### **Drainage Design**

- *Drainage Plan/Profile for Subsurface System*
- *Outfall Improvements*
- *Sanitary Sewer Collection System*

## Recent work by firm which best illustrates project experience relevant to this project

Project name & location <b>Lake Rosemound Dam Updates West Feliciana Parish</b>	Project description <b>See below</b>	Nature of firm's responsibility & firm members involved <b>Prime Engineer</b>	Owner's name & Contact Info. <b>Lake Rosemound Property Owners Association E. C. Dean - (225) 751-8738</b>	Start: <b>April 2019</b> Completion: <b>Ongoing</b>
<p>Sigma was contracted to perform an inspection of the dam and spillway for the 250-acre manmade lake. Constructed in 1995, the outlet works included a 6' x 75' overflow basin, 10-48" corrugated metal pipes placed under the crest of the dam (and access roadway) and a reinforced concrete flume of varying width (75' to 50') approximately 80' in length. In addition, at the base of the discharge flume is an intricate stilling basin with reinforced concrete chute blocks and baffle blocks which was built to dissipate the energy thereby minimizing erosion.</p> <p>Sigma performed the following:</p> <ul style="list-style-type: none"> <li>• Topographic survey of the levee and overflow/spillway</li> <li>• Field inspection of the overflow/spillway structure</li> <li>• Design criteria update</li> <li>• Findings Report</li> </ul> <p><b>Sigma Firm Members Involved</b> Greg Sepeda, Bryan Harmon, Bradley Roberts</p>				<p><b>Topography Survey</b></p> <ul style="list-style-type: none"> <li>• <i>Field Topography</i></li> <li>• <i>3-D Scanning with Trimble SX10</i></li> <li>• <i>Property Survey</i></li> <li>• <i>Structure Monitoring</i></li> </ul> <p><b>Watershed Modeling</b></p> <ul style="list-style-type: none"> <li>• <i>HEC-HMS</i></li> <li>• <i>HEC-RAS</i></li> <li>• <i>Dam Hydraulics</i></li> </ul>

## Recent work by firm which best illustrates project experience relevant to this project

Project name & location <b>Sullivan Road Improvements (Central Thruway to Wax Road) East Baton Rouge Parish</b>	Project description <b>See below</b>	Nature of firm's responsibility & firm members involved <b>Prime Engineer</b>	Owner's name & Contact Info. <b>City of Baton Rouge /Parish of East Baton Rouge Dept. of Trans. &amp; Drainage Mr. Tom Stephens - (225) 389-3186</b>	Start: <b>Dec. 2003</b> Completion: <b>Jan. 2012</b>
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Sigma was contracted by the East Baton Rouge Parish Department of Public Works to provide planning, engineering, surveying and right-of-way mapping for the improvements of Sullivan Road from Central Thruway to Wax Road.

This project included upgrading an existing 2.5 mile 2-lane suburban road to a 4-lane boulevard with a raised median with a short section of 5-lane highway. This project included a design study to determine design criteria, horizontal and vertical geometry, and typical sections.

### Design Study

- Design Criteria
- Alternative Analysis
- Cost Estimate
- Impact Assessment
- Drainage Review

### Sigma Firm Members Involved

Miles Williams, Greg Sepeda, Robbie Lear, Geoff Wilson,  
Greg Breaux, Lance Amedee, Donnie Thymes, Jamal Yarbrough



### Design Study

- *Design Criteria*
- *Alternative Analysis*
- *Cost Estimate*
- *Impact Assessment*
- *Drainage Review*

### Surveying

- *Control Survey*
- *Topographic Survey*
- *Property Survey*

### Final Plans

- *Typical Sections*
- *Hor. & Vert. Geometry*
- *Geometric Details*
- *Open ditch and subsurface drainage design*
- *Cross Sections*
- *Sequence of Construction*
- *Min. Construction Signing*

### Right of Way Maps

- *Base mapping*
- *Acquisition plans*

### Utility Investigations

- *Relocation Plans*
- *SUE Quality Level B*

## Recent work by firm which best illustrates project experience relevant to this project

Project name & location <b>Villages Lakes Subdivision &amp; Draughan Creek Improvement</b> Central, LA East Baton Rouge Parish	Project description <b>See below</b>	Nature of firm's responsibility & firm members involved <b>Prime Engineer</b>	Owner's name & Contact Info. <b>Titan Development Group</b> <b>Mr. Blake Seguin - (225) 261-1446</b>	Start: <b>Nov. 2004</b> Completion: <b>Aug. 2008</b>
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Sigma was the design engineer for Village Lakes Subdivision in Central, LA. The development is a 78 acre site with 148 residential lots and 4 detention ponds

A detailed Drainage Impact Study was conducted to determine the site developments impacts to existing drainage patterns. Peak flows were computed and hydraulic / hydrologic models were generated for pre and post development flows. Four detention ponds were designed for the subdivision, and channel improvements to Draughan Creek were included in the subdivision design package.

A FEMA Letter of Map Revision based on Fill was prepared by Sigma. Detailed HEC-RAS models were prepared to compute the water surface elevation and drainage characteristics of the bayou.

### Sigma Firm Members Involved

Greg Sepeda, Jason Crain & Robbie Lear



### Surveying

- Topographic Surveying
- Control Surveying
- Draughan Creek Survey

### Drainage Impact Study

- Watershed Determination
- 10 yr Peak Flow Computation
- 25 yr Peak Flow Computation
- 100 yr Peak Flow Computation
- Pre & Post Development Flows
- HEC-RAS Modeling
- PondPack Detention Modeling

### Channel Improvements

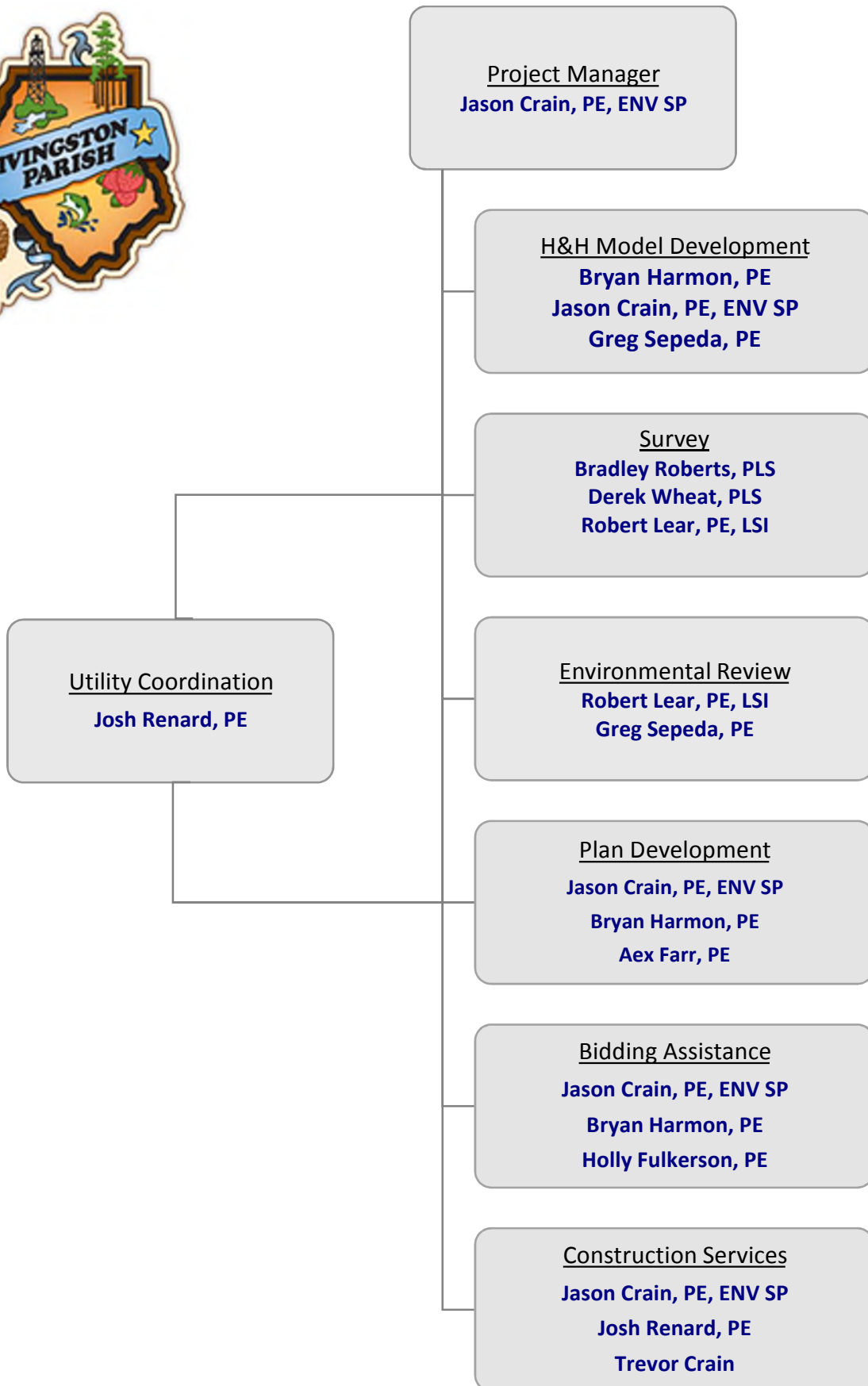
- Channel Upgrades
- Existing & Proposed Cross Sections
- Quantity Computations

### Subdivision Design

- Preliminary Plat Preparation
- Geometric Street Layout
- Drainage Design
- FEMA LOMR-F
- Sanitary Sewers
- Utility Coordination
- Corps of Engineer Permitting
- Fill Mitigation
- Final Inspection



## **APPENDIX B – RESUMES**



## RESUME

a. Name & Title

**Jason L. Crain, PE, ENV SP**  
**Vice President/Sr. Project Manager**



b. Position or Assignment for This Project

**Project Manager**

c. Years Professional Experience

With this Firm **21** Other Firms **1**

d. Active Registration: Year First Registered/Discipline or Applicable Certifications for Inspectors

**2002 / Civil Engineering / LA No. 30275**

e. Specific Experience and Qualifications Relevant to This Project:

Mr. Crain is Senior Project Manager at Sigma with over 20 years of experience with stormwater, wastewater, transportation, and civil site development projects for municipal, industrial, and private clients.

Sigma has been the lead partner with Jacobs Engineering (formerly CH2M) as the Program Management firm for the City-Parish of East Baton Rouge's \$1.6B SSO Reduction Program for the past 13 years. Mr. Crain was integral developing the Program Delivery Plan which consisted of 115 related individual sewer projects to meet the EPA mandated consent decree to reduce SSO's by the year 2019. He served as Deputy Program Manager for Project Delivery ensuring all program projects were progressed through design, bidding, and construction on schedule and within budget.

As lead engineer for several municipal and industrial sanitary and storm sewer system projects, Mr. Crain has experience in developing design studies that investigate **alternative upgrade scenarios, hydraulic modeling to determine local and regional flows**, and construction plans and specifications. He has working experience with the following hydraulic modeling software: **XPSWMM, HEC-HMS, HEC-RAS, PondPack, Hydroflow, and HYDRWIN**.

During his tenure with Sigma, Mr. Crain has performed drainage design on both **subsurface piping systems and open channel systems** on many highway and roadway projects for both LADOTD and East Baton Rouge Parish DPW:

- **I-10, Causeway Blvd. to 17<sup>th</sup> St. (LADOTD – Urban Drainage)**
- **US 167 – Bentley to Dry Prong (LADOTD – Urban & Rural Drainage)**
- **Wooddale Blvd. Drainage Improv. (EBR DPW – Urban Drainage)**
- **George O'Neal Road Improvements (EBR DPW Urban Drainage)**

### **US 167 – LA 1236 to Jonesboro Bypass, Winn/Grant Parishes, LA**

Mr. Crain served as the project manager and was responsible for design and alternative study, highway geometric design, subsurface drainage design, typical sections and plan profile preparation for the project. Mr. Crain supervised the design team and subconsultants, and successfully managed the project schedule and budget, which included design fees of \$2.2 million.

Mr. Crain has executed **plant-wide Stormwater Studies** for various industrial plants in the area. This involved coordinating with plant officials and collecting existing drainage information for the plant. He developed a hydraulic model of the plant's existing storm sewer system using XP-SWMM hydraulic software, verified areas of flooding, and determined recommendations for improvements such as pipe size upgrades, open channel modifications, pump improvements, and storage tanks required to capture and treat the "first flush". He organized a **capital outlay program by prioritizing individual improvements and preparing cost estimates**. This allowed the client to phase construction over 5 years and plan annual budgets accordingly.

Mr. Crain has been responsible for preparing **Drainage Impact Studies** for a multitude of residential and commercial developments located in East Baton Rouge Parish and surrounding parishes. These studies address the hydrologic impact to the development's watershed with the goal of no negative impact to downstream structures and surrounding properties. This requires determining watershed boundaries and receiving waters, investigation of historic flooding, computing pre- and post-development flows for various design storms, hydraulic review of major drainage structures, and typically designing a stormwater detention pond or similar element.

- **Village Lakes Subdivision, Central, LA.** 148 lot development over 78 acres requiring 4 detention ponds draining to Draughan Creek. The ponds were designed using PondPack software. HEC-RAS was utilized to model significant channel improvements to Draughan Creek to accommodate the subdivision's peak runoff and floodplain mitigation.
- **Rivergate Subdivision, Dutchtown, LA.** Prepared the Drainage Impact Study for the subdivision, determining channel improvements for the Southern Branch of Grand Goudine, and the subdivision internal drainage design for a 21 acre, 60 lot residential development. The Drainage Impact Statement and channel improvements required **HEC-RAS modeling and a FEMA LOMR-F**.

In 2002, Sigma was chosen by Ascension Parish to be their Development Review Agency and Mr. Crain was tasked with **creating requirements and levels of analysis for Drainage Impact Studies** for subdivision and commercial developments in Ascension Parish. He was responsible for reviewing all Drainage and Traffic Impact Studies and checking construction plans for **compliance with parish requirements**.

## RESUME

a. Name & Title

**Bryan K. Harmon, PE**  
**Vice-President/  
Special Projects Engineer**



b. Position or Assignment for this Project

**Drainage Engineer / Road Design**

c. Years Professional Experience

With this Firm **4** Other Firms **33.5**

d. Active Registration: Year First Registered/Discipline or Applicable Certifications for Inspectors

Year registered: 1987/1994

Branch: Civil/Environmental State: LA

License No.: LA 22595

e. Specific Experience and Qualifications Relevant to This Project:

Mr. Harmon is a Vice President and Special Projects Engineer at Sigma, responsible for project management and project development including; planning, design, plan preparation, construction documents, bid and construction phase services, and oversight for various projects. He has over 35 years of experience in the transportation, drainage, and municipal engineering functions with extensive experience in the full spectrum of Project/Program delivery having worked with the State, Federal and local officials in association with a wide variety project and program deliveries.

Prior to joining Sigma, Mr. Harmon spent over 25 years with the Department of Public Works for the City of Baton Rouge and Parish of East Baton Rouge. During his tenure with the City-Parish Mr. Harmon served as the Drainage Eng., Chief Eng., Deputy Director, and was Interim Director prior to his retirement. Specific duties included the administration of flood plain and storm water regulations/flood plain administrator, right of way acquisitions, standard plan & specification development, engineering planning & design studies, cost estimates, **funding pursuits, engineering plan development**, bid phase services, and construction administration for: highways, streets, bridges, drainage improvements, traffic signals, sanitary sewers, **and grant administration**.

In addition to the flood plain administrative duties Mr. Harmon was the project lead on several **federal flood mitigation efforts in EBR that included Flood Mitigation Assistance (FMA) and Hazard Mitigation Grant Program funding for repetitive loss structure acquisitions and flood proofing, flood preparedness and planning, USGS stream gaging program**, and public outreach. Mr. Harmon served as the Engineer of Record or in the "Responsible Charge Role" for numerous drainage evaluations and drainage studies, grant funding applications, wetland restorations, and major drainage capital improvements including flood control, bridge replacements, channel stability, and erosion control. Just a few of these relevant projects include:

- Statewide Flood Control Program (LADOTD)
  - Country Club Lateral Improvements
  - Bayou Fountain Drainage Improvements
  - Aster-Chimes Drainage Improvements
  - Beaver Bayou Drainage Improvements
  - Weiner Creek Drainage Improvements
- Blackwater Bayou Conservation and Wetland Restoration Project (COE and DNR)
- Comite River at Pride Port Hudson Road Erosion Control & Stability (NRCS)
- North Branch Wards Creek and Harrelson Lateral Erosion Control & Stability (NRCS)
- Wards Creek and Dawson Creek Concrete Channel Lining Replacements (DPW)
- FEMA Hazard Mitigation Grant Program (HMGP)
  - HMGP 1380 Acquisition/Elev of Repetitive Loss Structures
  - HMGP 1246 Acquisition Top 50 Repetitive Loss Structures

During his tenure with the EBR City-Parish Mr. Harmon had the opportunity to implement EBR's Floodplain Regulations at Higher Regulatory Standards, develop the Drainage Impact Study Ordinance, develop and provide oversight to EBR's Community Rating System Program whereby they attained a Class 6 rating, participated in numerous FIRM Map Modernizations/updates (1993-2012), and was instrumental in initiating the local bench mark and stream gage height modernization program within the parish.

**Additional Certifications/Training:**

- Urban Watershed Hydrology Using HEC-1
- HEC-2 User Seminar Current Trends and Applications
- NEPA and Transportation Decision Making (FHWA-NHI NEPA)
- Principles of Writing Hwy Construction Specifications (FHWA-NHI-134001A)
- DOTD/FHWA-Local Public Agency Const. Eng. & Inspection (CE&I) Training



## RESUME

a. Name & Title

**Gregory P. Sepeda, PE**  
**Vice President / Chief Engineer**



b. Position or Assignment For this Project

**Quality Management / Drainage Design**

c. Years Professional Experience

With this Firm **22** Other Firms **5**

d. Active Registration: Year First Registered/Discipline or Applicable Certifications For Inspectors

**1996 / Civil Engineering / LA No. 26669**

e. Specific Experience and Qualifications Relevant to This Project:

Mr. Sepeda is Sigma's chief engineer and is responsible for all technical aspects within Sigma. He serves as project manager for various highway, bridge, drainage, structural, and civil projects. His responsibilities include project cost estimates, staff scheduling, design calculations and drawings, specifications, and budget tracking. In addition to overseeing the *Quality of our deliverables*, Greg also provides *Risk Management* both at the corporate and project levels.

In addition to his responsibilities at Sigma, Mr. Sepeda is a *past LES Chapter President* and was the 1999 recipient of the *LES "F Hugh Coughlin" Young Engineer Award*.

**I-10: Jct. I-49 to Atchafalaya Floodway Bridge, Lafayette & St. Martin, LA**

This roadway improvement is split into three segments requiring three separate Transportation Management Plans (TMP). The first 2 segments also required an *Initial Financial Plan* to be developed. Mr. Sepeda drafted this plan which included *cost estimates, scheduling, and identifying risk*.

**Jones Creek Road – Segment 3, East Baton Rouge Parish, LA**

Mr. Sepeda was the project manager for the widening of an existing two lane roadway into a 4-lane boulevard. This project in Baton Rouge included a design study to determine design criteria, horizontal and vertical geometry, bridge type size and location, and typical sections. Mr. Sepeda also managed final plan preparation, including the design of twin precast-prestressed concrete (PPC) girder bridges and channel improvements.

**I-10: Highland to LA 73 D/B Project, East Baton Rouge & Ascension, LA**

Mr. Sepeda is serving as the project *Design Quality Manager (DQM)* for all design efforts on the project. As the DQM, he is responsible for the quality control of all Work conducted by the Designer. Mr. Sepeda developed a project specific *Design Quality Plan* as well as QA processes to ensure that the design activities comply with the Contract requirements. As a component of the QA process, he also *performed design assessment reviews* of every submittal to review for general compliance with the requirements of the Contract, taking into consideration the proposed method of construction, and covered areas such as: *design criteria; codes and standards; constructability; and fatigue and durability performance*.

**Jones Creek Road – Seg. 1, East Baton Rouge Parish, LA**

Mr. Sepeda is the project manager for a *design study of the extension of a new roadway* south from the Jones Creek Road / Tiger Bend Road intersection. The proposed new road will cross Claycut Bayou and connect to Jefferson Highway. The design study included *determining design criteria, horizontal and vertical geometry, bridge type size and location, and typical sections*. Alternate roundabout designs were developed for the Jefferson Highway intersection as well as another existing intersection just east of the tie-in. He also managed a preliminary survey to identify major topography and exiting utilities. He coordinated the efforts of traffic and environmental subconsultants.

**Sullivan Road (Central Thruway to Wax Road), East Baton Rouge, LA**

Mr. Sepeda was responsible for the *quality control / quality assurance* for the design of a 4-lane/5-lane, 2.5-mile suburban roadway in the City of Central. The project is an East Baton Rouge Parish Department of Public Works project in the Green Light Program. A portion of the project is in LA DOTD jurisdiction.

**Hooper Road (LA 408) Environmental Assessment East Baton Rouge Parish, LA**

Mr. Sepeda is the project manager to *provide NEPA environmental documentation, planning, and engineering for the improvements* to Hooper Road in Central, LA from Blackwater Road to Sullivan Road. The E.A. includes a line & grade study as well as quantifying the *environmental and property impacts* along the route for three (3) alternatives and recommends a preferred alternative. Mr. Sepeda also managed the public involvement and cost estimates for the project.

**Additional Training:**

- ATSSA "Traffic Control Supervisor"
- NEPA and Transportation Decision Making Course

## RESUME

a. Name & Title

**Bradley J. Roberts, PLS**  
**Land Surveyor**



b. Position or Assignment For This Project:

**Surveying & ROW Mapping**

c. Years Professional Experience

With this Firm **10** Other Firms **1**

d. Active Registration: Year First Registered/Discipline or Applicable Certifications For Inspectors

**2013 / Land Surveyor / LA No. 5101**

e. Specific Experience and Qualifications Relevant to This Project:

With 10 years of experience, Bradley serves as one of Sigma's Professional Land Surveyors for all *governmental, residential, commercial boundary and topographic surveys*. His major responsibilities include *field crew coordination, survey data processing, title and ownership research, mapping and plat preparation*. Bradley also serves as a party chief during peak workload. He has experience with Leica Geosystems; implementing the latest in GPS/GNSS technology into field operations while keeping a command for Leica total stations ranging from models 1100 to TS15. He also has experience in property and topographic survey map generation using AutoCAD Civil 3D 2012 and Land Development Desktop software.

**US 171: J-Turns @ N. Perkins Ferry Road, Beauregard & Calcasieu Parishes, LA**

Mr. Roberts was the lead surveyor and survey coordinator for the *topographic and control surveys* of a 3-leg intersection north of Lake Charles, LA. He is responsible for daily field crew management, field surveying, data downloads and processing, field note and coding review, and coordinating with the support staff for topo mapping. Mr. Roberts was also the land *surveyor of record for the right of way maps*. This survey was performed in accordance with Location and Survey Standards using Inroads Survey, CAD Conform and LADOTD electronic plan delivery requirements. He was responsible for La One Call as well as Quality Level-C and D locates.

**LA 427: S. Acadian Thruway (Perkins Rd – LA 73), East Baton Rouge Parish, LA**

Mr. Roberts was the *surveyor of record for the control and topographic survey* of an urban roadway in Baton Rouge. The survey includes

topography of the existing roadway, subsurface drainage, existing utilities and other roadside features. Mr. Roberts coordinated with *La One Call, DOTD District 61 Utility Coordinator, and utility owners* to ensure adequate locates and proper presentation of the utilities.

**I-10: LA 328 to Atchafalaya Floodway Bridge, St. Martin Parish, LA**

Mr. Roberts was the *lead surveyor for the topographic and control surveys* along a 5.6-mile section and a 4.4-mile section of I-10 near Henderson, LA. He was responsible for daily field crew management, data downloads and processing, field note and coding review, and coordinating with the support staff for topo mapping. He performed the *field surveying for all Quality Levels-A through D* locates on the project.

**LA342: Roundabout @ LA 724 Lafayette Parish, LA**

Mr. Roberts is the *land surveyor of record for the topographic and control surveys* for this LA DOTD project. He also is responsible for preparation and review of the R/W maps for this project. His responsibilities include *QA/QC of established existing right of way lines, field survey QA/QC, and right of way map checking*. All deliverables were prepared using InRoads Survey, CadConform and Microstation software.

**LA347: Roundabout @ Melancon Road St. Martin Parish, LA**

Mr. Roberts is the *land surveyor of record for the topographic and control surveys* for this LA DOTD project. He also is responsible for preparation and review of the R/W maps for this project. His responsibilities include *QA/QC of established existing right of way lines, field survey QA/QC, and right of way map checking*. All deliverables were prepared using InRoads Survey, CadConform and Microstation software.

**Pigott – McDaniel WRP Easement, Washington Parish, LA**

Mr. Roberts was the surveyor of record for a 769.22-acre WRP boundary survey performed by Sigma. His role included *reviewing and researching titles, re-establishing the parent tract in the field, monumenting the WRP boundary* through remote regions of Pearl River Swamp, mapping and preparing the final deliverables.

**La 675 & LA 87 Improvements – Subsurface Utility Engineering (SUE) Iberia Parish, LA**

Mr. Roberts was the secondary project manager for *subsurface utility engineering* on S. Hopkins Rd in New Iberia, LA. The project included *Quality Level A, B, C and D locates in accordance with CI/ASCE Standard 38-02* for underground utilities owned by 9 companies. The 0.8 mile urban roadway included constricted right-of-way with multiple utilities in the roadway and under sidewalks. *Quality Level B locates were conducted using multiple geophysical scanning methods*, and 40 *QL-A test holes were performed by Sigma*. Final SUE plans were prepared in accordance with CI/ASCE Standard 38-02 and DOTD standards.

## RESUME

a. Name & Title

**Derek S. Wheat, PLS  
Land Surveyor**



b. Position or Assignment For This Project:

**Surveying & ROW Mapping**

c. Years Professional Experience

With this Firm **4** Other Firms **4**

d. Active Registration: Year First Registered/Discipline or Applicable  
Certifications For Inspectors

**2019 / Land Surveyor / LA No. 5213**

e. Specific Experience and Qualifications Relevant to This Project:

Mr. Wheat is a Professional Land Surveyor for surveying projects with Sigma Consulting Group, INC. His active role is coordinating and overseeing the daily operations of the field survey crews. He is also responsible for processing the field data and then converting it into a deliverable format for Sigma's customers. In addition to his active role, Mr. Wheat also assists in surveying's project planning and bid estimating.

Prior roles with other companies have given Mr. Wheat experience with coastal restoration projects in Louisiana. His collection of data with the CRMS has allowed him to observe coastal projects from the pre-construction phase through the life of the project and well into post construction. Having firsthand knowledge of the data collected has allowed Mr. Wheat to witness successful projects and provide valuable input for projects to come.

**La 675 & LA 87 Improvements – Subsurface Utility Engineering (SUE)  
Iberia Parish, LA**

Mr. Wheat served as the QL-B designating and QL-A locates party chief subsurface utility engineering on S. Hopkins Rd in New Iberia, LA H.011781. The project included Quality Level A, B, C and D locates in accordance with CI/ASCE Standard 38-02 for underground utilities owned by 9 companies. The 0.8 mile urban roadway included constricted right of way with multiple utilities in the roadway and under sidewalks. Quality Level B locates were conducted using multiple geophysical scanning methods, and 40 QL-A test holes were performed by Sigma. Final SUE plans were prepared in accordance with CI/ASCE Standard 38-02 and DOTD standards. He was responsible for QL-B locates, shot count sheets, QL-A test hole data sheets, SUE plan preparation, coordinating with utility companies, unknown line research and traffic control for the project.

**I-10: LA 347 to Atchafalaya Floodway Bridge, St. Martin Parish (H.003014)  
(2013-Present)**

Mr. Wheat served as a party chief for topographic surveying of existing features and utilities for for pavement replacement of 2.7 miles of I-10 near Henderson, LA. He was responsible for data collection, utility coordination with the SUE subconsultant, data processing and mapping. The survey was performed using DOTD codes and linework automation.

**Jacock Road Bridge Upgrade, West Feliciana Parish**

The project involved topographic surveying and engineering design for the replacement of the existing bridge on Jacock Road Bridge at Barrow Fork Creek. The work included topographic surveying, drainage design, geometric design, bridge design, and preparation of construction plans. Mr. Wheat set the project control and also collected the topographic data of the creek, road, and bridge structure.

**Cameron Parish Police Jury and LA DOTD/ Monkey Island Project**

Sigma was contracted by the Cameron Parish Police Jury, in cooperation with LA DOTD, to provide NEPA environmental documentation, planning, and engineering for a bridge across the Cameron Loop to access Monkey Island in Cameron, LA. Mr. Wheat worked to survey LA State Highway 1141, the immediate water bottom, and the surrounding marsh to provide topographic data for the designed reconstruction of the highway.

## RESUME

a. Name & Title

**Robert J. Lear, Jr., PE, LSI**  
**Project Manager**



b. Position or Assignment For this Project

**Survey Oversight / Environmental Review**

c. Years Professional Experience

With this Firm **20** Other Firms **3**

d. Active Registration: Year First Registered/Discipline or Applicable Certifications For Inspectors

**2001 / Civil Engineering / LA No. 29394**

**2005 / Land Surveyor Intern / LA No. 508**

e. Specific Experience and Qualifications Relevant to This Project:

Robbie is a vice president, senior civil engineer, surveyor intern and project manager at Sigma. He has over 20 years of experience in **mapping at both a surveying and GIS level, data management**, surveying, general civil engineering, subdivision design, roadway design and project management experience. He has extensive knowledge of **AutoDesk Civil3D, ESRI Arcview GIS, Global Mapper, GPS Survey Processing and MS Access softwares.**

**2005 - NEPA and Transportation Decision Making**

**2012 – NHI #380075 New Approaches to Highway Safety Analysis**

**2017 – ATTSA TCT/TCS Supervisor Certification #337850**

**Sullivan Road (Central Thruway to Wax Road), East Baton Rouge Parish, LA (Project Manager)**

Mr. Lear was the project manager for the design of a 4-lane / 5-lane suburban roadway in Central, LA. His responsibilities included designing all horizontal and vertical geometrics, geometric details, joint layouts and graphical grades, permanent pavement markings, cross sections, traffic control, determining right of way limits, right of way map preparation, quantity computations and cost estimating.

**Jones Creek Road Improvements, East Baton Rouge Parish, Project Manager.**

Mr. Lear was the project manager for an urban systems project to upgrade Jones Creek Road from a 2-lane to a 5-lane roadway. His responsibilities included preparing an Environmental Assessment NEPA document, preliminary and final roadway plans, clearing and grubbing plans, SUE investigations and utility relocation plans, and construction support.

**LA1 Improvements (Golden Meadow – Fourchon), Multiple Phases.**

Mr. Lear is the environmental/permitting manager and served as a design engineer for this 17-mile DOTD megaproject in Lafourche Parish. The entire project is estimated at \$1billion. He was responsible for assisting DOTD with multiple modifications to the Record of Decision for environmental and tolling related updates. He was actively involved in mapping the active oil and gas field to determine project impacts, coordinating with regulatory agencies and stakeholders, permit application preparation, compensatory mitigation development, and roadway design. He was the DOTD/LTA agent for securing permits from the USACE (10/404/408), DNR, CPRA, US Coast Guard, LDEQ, South Lafourche Levee District, and coordinated with multiple agencies such as EPA, DWF, USFW, NMFS, FAA, LACRT, SHPO, and NRCS. He has served as the environmental permit manager for this project since 2003. He also served as a design engineer for multiple transportation and coastal engineering tasks such as road design, permanent signing, permanent striping, toll system infrastructure, roadway lighting, bridge demolition plans, utility relocation, pipeline removal plans, marsh creation plans, constructability reviews, maint. of traffic, public involvement and construction support.

**Hooper Road (Blackwater – Joor), East Baton Rouge Parish, Project Engineer.**

Mr. Lear served as a project engineer during Environmental Assessment preparation for this Green Light Plan project. He prepared the initial Solicitation of Views and ran the public meeting to gather public input on the project. He engineered the conceptual design and design criteria for the project. He was also responsible for coordinating with FHWA and DOTD during the environmental process for corridor continuity with adjacent projects.

**Permitting Agent:** Mr. Lear served as the permitting agent for multiple government and private projects. Permits included Water Quality Certifications, USACE Section 10/404/408 permits, DNR Coastal Use Permits, and CPRA/Levee District permits.



## RESUME

a. Name & Title

**Alex D. Farr, PE**  
**Project Engineer**



b. Position or Assignment For this Project

**Design Engineer**

c. Years Professional Experience

With this Firm **5** Other Firms **2**

d. Active Registration: Year First Registered/Discipline or Applicable Certifications For Inspectors

**2011 / Civil Engineering / LA No. 40426**

e. Specific Experience and Qualifications Relevant to This Project:

Mr. Farr is a design engineer with Sigma Consulting Group. He primarily works with road design and transportation projects, with an emphasis on safety components.

Prior to joining Sigma, Mr. Farr worked as an Engineer-in-Training for LA DOTD in the Highway/Traffic Safety Unit. Mr. Farr was involved in various *safety crash data analyses involving corridors, intersection, and spot locations*. Mr. Farr has been previously trained on use of the Highway Safety Manual as well as being *trained in the Interactive Highway Safety Design Model (IHSDM) through LA DOTD*. Mr. Farr has also attended training courses for *Traffic Engineering, Crash Reconstruction, and Access Management through NHI and Northwestern University*.

### **Retainer Contract for Safety Studies, Statewide (LA DOTD)**

Mr. Farr was previously a project manager for a retainer contract at LA DOTD. The contract involved *feasibility safety studies for various roadways including corridor studies, roundabouts, and spot locations*. Mr. Farr was responsible for coordinating with the consultant project manager and scheduling meetings, etc. to discuss task orders along with reviewing and commenting on submittals.

### **I-10: East Jct. I-49 to LA 328, Lafayette and St. Martin Parishes, LA (Asst. Project Manager)**

In addition to assisting with project management duties, Mr. Farr was responsible for producing the *Level 4 Transportation Management Plan (TMP)* for the I-10 widening project from I-49 to the LA 328. The TMP pertained to

*alternate route analysis, public information, stakeholder involvement, traffic and safety data, temporary traffic control, and work zone impact management strategies*. Mr. Farr was also responsible for the suggested sequence of construction, temporary signing, quantity/pay item computations, and roadway plan preparation.

### **I-10: Highland to LA 73 Design-Build Project, East Baton Rouge and Ascension Parishes, LA**

Mr. Farr was responsible for performing the TMP as well as the *Safety Analysis for this project to determine what safety concerns correlated to the construction* of this segment. He was also responsible for the suggested sequence of construction, guardrail design, and the quantity estimate for the above-mentioned project.

### **I-49 South: US 90 & Ambassador Caffery Interchange, Lafayette Parish, LA**

Mr. Farr was responsible for the storm sewer drainage design along the northbound and southbound service roads for this project. Mr. Farr was also responsible for *preparing a traffic signal plan including a traffic signal warrant analysis as well as an operational analysis* concerning the two new proposed signals at the NB and SB service roads and Ambassador Caffery.

### **I-10: LA 30 to LA 22, Ascension Parish, LA**

Mr. Farr was responsible for performing the TMP as well as the Safety Analysis for this project to determine what safety concerns correlated to the construction of this segment. Mr. Farr was also responsible for the suggested *sequence of construction, diversion road design, guardrail design, and the quantity estimate* for the above-mentioned project.

### **Capital Area Pathways Project (CAPP) Bike Trail - Scotlandville Parkway to Downtown, East Baton Rouge Parish, LA**

Mr. Farr's responsibilities for this project included man hour and cost estimate, project schedules, and budget review. Mr. Farr was also responsible for setting up meetings with the Metropolitan Council of Baton Rouge to present an overview of the project. Mr. Farr was responsible for the *design of a bike trail* for the above-mentioned project. This includes *separated shared use paths, road to trail conversions, and shared lanes*. Mr. Farr also designed striping and signing plans for this route.

### **LA342: Roundabout @ LA 724 Lafayette Parish, LA**

Mr. Farr was responsible for the *permanent signing and striping design plans and quantity/pay item computations* for this project. Mr. Farr also assisted in the design of the suggested sequence of construction.

## RESUME

a. Name & Title

**Joshua K. Renard, PE**  
**Project Manager**



b. Position or Assignment For this Project

**Utility Coordination / Construction Management**

c. Years Professional Experience

With this Firm **13** Other Firms **0.3**

d. Active Registration: Year First Registered/Discipline or Applicable Certifications For Inspectors

**2010 / Civil Engineering / LA No. 36015**

e. Specific Experience and Qualifications Relevant to This Project:

Mr. Renard has 11 years of experience working on subsurface utility engineering, transportation, drainage, and wastewater related projects. These projects include utility coordination, utility relocation agreements, utility damage assessments, utility location services, sewer construction management, road construction management, and highway design.

He has extensive knowledge in Louisiana's underground utilities & facilities damage prevention law (statutes 1749.11 through 1749.27), LA DOTD's Title 70 on Transportation & Utilities, as well as the full relocation agreement process. Mr. Renard meets monthly with the Baton Rouge Utility Coordination Council to stay abreast of changes in the utility contacts and to work out utility issues on various projects.

**Sanitary Sewer Overflow (SSO) Reduction Program Management, East Baton Rouge Parish, LA**

- For over 2 years Mr. Renard served as the main point of contact for the sewer program with all utility companies during the design and construction phase for all projects.
- He worked directly with contractors and the utility owners to have poles moved or braced, underground lines relocated, and transformers and cable boxes relocated. He also worked with Entergy and DEMCO to create Utility Relocation Agreements and to have numerous sewer pump stations energized.

**Subsurface Utility Engineering LA 675 (Hopkins Street) and LA 87 Improvements, Iberia Parish, LA**

- Mr. Renard served as the project manager for this LA DOTD project, which included Quality Levels A through D underground utility location efforts as well as video inspection of sewer mainlines and laterals along a one-mile section of Hopkins Street in New Iberia, LA.
- His responsibilities included coordination with utility companies and local government representatives to obtain as-built drawings, meeting with LA DOTD representatives, design engineers, surveyors and subcontractors to coordinate the location work, providing valuable utility location information to the design team. He also created the utility conflict matrix which and utility contact list for this project.

**Jones Creek Road Improvements, East Baton Rouge Parish, LA**

- Mr. Renard served as the Construction Engineer on this project. Sigma's design contract was augmented to include Construction Management services to assist the Department of Public Works' staff during the construction of this federal urban system project.
- Mr. Renard's responsibilities included review of shop drawings, change orders, project schedules, and utility relocation coordination; as well as resolving any construction related conflicts that arose in the field.

**LA342: Roundabout @ LA 724, Lafayette Parish, LA**

Mr. Renard is the project manager and road design engineer for a one-lane roundabout in Lafayette Parish. He is responsible for horizontal and vertical geometry design, typical sections, sequencing, pavement markings, permanent signing, quantities and opinion of probable costs for this project.

**Additional Training**

- 2014 – NEPA and Transportation Decision Making Seminar
- 2016 – ATSSA Traffic Control Supervisor
- 2019 –ASCE Designing Bicycle Facilities
- 2019 – NHI Utility Coordination for Highway Projects

## RESUME

a. Name & Title  
**Holly M. Fulkerson, PE**  
**Project Manager**



b. Position or Assignment for This Project  
**Project Engineer / Bidding Assistance**

c. Years Professional Experience  
 With this Firm **11** Other Firms **0**

d. Active Registration: Year First Registered/Discipline or Applicable  
 Certifications for Inspectors  
**2012 / Civil Engineering / LA No. 37247**

e. Specific Experience and Qualifications Relevant to This Project:

Ms. Morgan has experience as a professional engineer responsible for planning projects, management of other team members, maintaining schedules and budgets, preparing project specifications and bid packages, progress reporting to client, coordinating with engineering consultants and contractors, and general client consultation. She also has experience as a project engineer responsible for the engineering and design of drainage, wastewater, and transportation related projects. These projects have included site developments, dam improvements, sewer rehabilitation projects, and transportation projects for LA DOTD, EBR DPW and other clients.

### **Abita Meadows Subdivision, St. Tammany Parish, LA**

Ms. Morgan served as a project engineer on the project. She was responsible for geometric details and sanitary sewer checking for this project.

### **Jones Creek Road Extension, East Baton Rouge Parish, LA**

Ms. Morgan served as a project engineer on the project. She was responsible for the preliminary alignment and profile of the 4-lane extension.

### **Fox Fire Dam**

Ms. Morgan served as a project engineer on the project. She performed design of overflow structure, spillway, and erosion control components.

### **LA 73 Improvements**

Ms. Morgan served as a project engineer on the project. She was responsible for all striping and sanitary sewer checking for this project.

### **Sanitary Sewer Overflow Reduction Program, East Baton Rouge Parish, LA**

Sigma is the lead partner with Jacobs (formerly CH2M HILL) as the Program Management firm for the City-Parish of East Baton Rouge. The Program Managers are responsible for developing, planning, administering (design and construction) and delivering a \$1.6 billion program consisting of 115 related individual projects to meet the EPA mandated consent decree to reduce SSO's by the year 2019.

Ms. Morgan currently serves as Rehabilitation Project Manager for the SSO Program managing the \$300 million rehabilitation portion of the Program. This includes planning projects, management of other team members, maintaining schedules and budgets, preparing project specifications and bid packages, progress reporting to client, coordinating with engineering consultants and contractors, and general consultation to the client. In addition, Holly manages measurement and payment audits on all rehabilitation projects and manages, reviews, and processes all contract change orders for the entire SSO Program.

Prior to Holly's current role on the Program, she analyzed smoke testing data, CCTV video inspections, and sonar profiling of sanitary sewer collection mainlines, sanitary sewer service laterals, and sewer manholes. With the analyzed data, she would prepare an I/I reduction plan which included repairs and rehabilitation to the basin sewer system. The types of repairs and rehabilitation methods recommended include point repairs, complete remove and replace, CIPP/Lining of service lateral connections (tophats), pipe-bursting, manhole rehab and replacement, and replacement of service laterals up to property lines. Ms. Morgan managed all data requested and received by the City-Parish Annual Physical Inspection Contractor. This included coordinating with the Contractor ensuring that the correct data was received, performed QA on all received data, coordinated field inspections for quality control, and attended monthly progress meetings with the Contractor. She trained team members to also analyze this data and managed team members in the characterization of the data. Ms. Morgan was tasked with reviewing conflicts that are identified in the field during construction and developed alternative solutions.

At this time, Ms. Morgan is managing multiple projects funded through the Louisiana Clean Water State Revolving Fund (CWSRF). This includes preparing bid packages with all required guidelines and federal forms including Davis-Bacon and American Iron & Steel requirements, contractor payroll reports, progress reporting to LDEQ, and insuring compliance with CWSRF project guidelines during construction.

## RESUME

a. Name & Title

**Trevor Crain**  
**Construction Manager**



b. Position or Assignment For this Project

**Construction Management / Inspection**

c. Years Professional Experience

With this Firm **5** Other Firms **8**

d. Active Registration: Year First Registered/Discipline or Applicable Certifications For Inspectors

**N.A.**

e. Specific Experience and Qualifications Relevant to This Project:

Mr. Crain has 8 years of experience with construction related projects including drainage and sewer construction. As Construction Manager (CM), Mr. Crain monitors construction activities for various projects and his responsibilities include: ensuring compliance with plans and specifications, enforcing project schedules and contract terms, negotiating changes and additions, coordinating with contractors and inspectors, and preparing daily reports of progress.

### **Sanitary Sewer Overflow (SSO) Reduction Program Management, East Baton Rouge Parish, LA**

As Construction Manager, Mr. Crain monitors construction activities for various projects and his responsibilities include *communication with the contractor, ensuring compliance with plans and specifications, enforcing project schedules and contract terms, negotiating changes and additions, coordinating with contractors and inspectors, managing third-party testing lab assignments, preparing daily reports of progress, and processing monthly pay requests.*

Mr. Crain served as Construction Manager for several sanitary sewer construction projects including:

- **Lovett Rd./Greenwell Springs Rd. Area Sewer Upgrades**
- **ZATNIP Sewer Upgrade – Phases II & III Projects**
- **I-110/Hollywood Blvd. Area Sewer Rehabilitation Project**
- **Airline/Goodwood Area Sewer Rehabilitation Project – Phase II**

### **Jones Creek Road Improvements, East Baton Rouge Parish, LA**

Mr. Crain served as a Construction Manager on this project. Sigma's design contract was augmented to include *Construction Management services* to assist the Department of Public Works' staff during the construction of this urban project. Mr. Crain's responsibilities include *review of shop drawings, change orders, construction schedule review, utility coordination and periodic observation of construction activities.*

### **Lost Lake Marsh Creation and Hydrologic Restoration, Terrebonne Parish, LA**

Mr. Crain served as a *Resident Project Representative (RPR)* for the project. The project consisted of marsh creation using dredged material from Lost Lake, creation of earthen terraces utilizing in-situ material, and the construction/rehabilitation of five (5) water control structures within the Project Area. Mr. Crain's responsibilities included providing *on-site determinations of compliance with the detailed construction plans and specifications, determination of work completed, keeping detailed records of quantities of materials, maintaining weather and working day reports, listing equipment on-site, and reporting Construction Contractor's performance and daily activities.*

### **Senior Construction Inspector (w/Stantec Consulting)**

Mr. Crain served as Senior Construction Inspector on various sewer projects under the SSO Program, which consisted of *coordinating between construction managers, contractor representatives and onsite inspectors.* His responsibilities include correct *staffing of project, training of new inspectors,* efficient planning and coordination of activities with contractor, resolution of plan conflicts with subcontractors, and review of subcontractor payment applications.

### **Contract Inspector (w/ East Baton Rouge Parish DPW)**

Mr. Crain served as Senior Construction Inspector on various sewer projects, which consisted of coordinating between construction managers, contractor representatives and DPW. His responsibilities include inspection of removal of faulty pipe, new pipe installation, installation of sewer pump station, resolve property owner disputes, and *maintain accurate and timely work records to facilitate reconciliation of pay applications.*

### **Additional Training**

- Primavera 6 Scheduling Software
- ATSSA Traffic Control Supervisor
- OSHA HAZWOPER - 40
- NHI Utility Coordination for Highway Projects
- FAA-Certified Drone Pilot



## RESUME

a. Name & Title

**Miles B. Williams, PE  
President**



b. Position or Assignment for This Project

**Principal-In-Charge**

c. Years Professional Experience

With this Firm **29** Other Firms **8**

d. Active Registration: Year First Registered/Discipline or Applicable Certifications For Inspectors

**1988 / Civil Engineering / LA No. 23094**

e. Specific Experience and Qualifications Relevant to This Project:

Miles is currently working for Sigma Consulting Group as the President and co-owner. He is *responsible for project management, design and plan preparation oversight, client liaison, project estimating and budgeting and contract negotiations*. He has experience in highway design, corridor studies, sewer improvement projects, subdivisions, land development, right of way and topographic mapping, construction management and coordination, and engineering cost estimates.

**Sanitary Sewer Overflow (SSO) Reduction Program Management, East Baton Rouge Parish, LA**

- Mr. Williams has supervised all of Sigma's efforts on the \$1.6 billion program to rehabilitate and upgrade the sanitary sewer collection and treatment system in East Baton Rouge Parish. Sigma is the major local firm on the program management team, led by Jacobs Engineering (formerly CH2MHill), performing 25% of the program and project management efforts.
- Mr. Williams oversaw the Sigma staff on efforts such as *coordination of all real estate acquisitions, implementation of all gravity sewer rehabilitation projects, program controls, project bidding and construction administration*.
- He also served on the Program Management Executive Advisory team helping to *develop and implement strategic planning of the program*.

**Sullivan Road Improvements, East Baton Rouge Parish, LA.**

Mr. Williams was the principal in charge for the design of a 4-lane / 5-lane suburban roadway in Central, LA. Miles also serves as a project engineer for the design study and roadway design, with an emphasis on Construction Sequencing and Traffic Control.

**I-10: Highland to LA 73 Design-Build Project, East Baton Rouge and Ascension Parish, LA**

- Mr. Williams is serving as the Project Design Manager for all design efforts on the project. As such, he is responsible for *leading and coordinating all disciplines*: road design; bridge design; lighting; geotechnical investigation; and traffic control.
- He also is the responsible engineer for *geometric design, roadway construction and traffic control plans*.
- During construction, he is interacting with both the Contractor and the designers of various temporary components to ensure that all project requirements are being met.

**Jones Creek Road Improvements, East Baton Rouge Parish, LA.**

Mr. Williams was the project principal for the Jones Creek Rd. project for LaDOTD / EBRDPW. The project involves widening an existing 2-lane roadway to a 5-lane curb and gutter roadway with subsurface drainage from Tiger Bend Rd to George O'Neal Rd. Miles was responsible for contracts, geometrics, road design, sequence of construction, signing and coordination of signalization.

**George O'Neal Road Improvements, East Baton Rouge Parish, LA.**

Mr. Williams was project manager for the George O'Neal Rd project for EBRDPW. The project includes widening an existing 2-lane roadway to a 5-lane curb and gutter roadway with subsurface drainage. Miles coordinated all design efforts for the project including *right-of-way map preparation*.

**Jefferson Highway Improvements, East Baton Rouge Parish, LA.**

Mr. Williams served as the engineer of record for the suburban highway design of Jefferson Hwy from Corporate Blvd. to Lobdell Ave. in Baton Rouge, LA. He also assisted in the *right-of-way map preparation* for this project.

**N. Harrell's Ferry Rd. @ Sherwood Forest Blvd., East Baton Rouge Parish, LA.**

Mr. Williams served as the engineer of record for the intersection design of N. Harrell's Ferry Rd and Sherwood Forest Blvd in Baton Rouge, LA. He was responsible for construction plans and *right-of-way map preparation*.

In addition to his responsibilities at Sigma, Mr. Williams is *a past; LAPELS Board Chairman, LES Chapter President, ASCE Outstanding CE recipient, and he currently serves as an Adjunct Faculty Member at LSU*. On May 2, 2017 he was inducted into the *LSU Hall of Distinction* for his professional excellence and service dedication to the field of Civil and Environmental Engineering.

## **APPENDIX C – SIGMA’S LAPELS COMPANY LICENSE**

**The Louisiana Professional Engineering and Land Surveying Board has the following information on file:**

Name:	Public Address:
Sigma Consulting Group, Inc.	Mr. Miles B. Williams 10305 Airline Highway Baton Rouge, LA 70816

**License/Certificate Information w/ Supervision**

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
EF.0001410	ACTIVE	08/21/1987	09/30/2019	Mr. Miles Bonner Williams # PE.0023094 - Active

**The Louisiana Professional Engineering and Land Surveying Board has the following information on file:**

Name:	Public Address:
Sigma Consulting Group, Inc.	Mr. Miles B. Williams 10305 Airline Highway Baton Rouge, LA 70816

**License/Certificate Information w/ Supervision**

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
VF.0000302	ACTIVE	08/21/1987	09/30/2019	Mr. Bradley Joseph Roberts # PLS.0005101 - Active



## **APPENDIX D – LETTERS OF RECOMMENDATION**



**Department of  
Transportation and Drainage**

***Engineering Division***

City of Baton Rouge  
Parish of East Baton Rouge  
P.O. Box 1471  
Baton Rouge, Louisiana 70821  
(225) 389-3186

June 20, 2017

To whom it may concern:

Based upon my experience working with the Sigma Consulting Group I am pleased to offer my recommendation of them for surveying, mapping services, drainage and road and bridge design work.

Over many years of working on projects for this department on various types of projects, Sigma Consulting has proven to be a highly competent and qualified firm. Their work has included a number of road, bridge, sanitary sewer, and drainage projects. These included area drainage projects that effectively addressed repetitive local flooding on an important arterial street to the design of a series of bridge and highway design projects that provided for widening a narrow two-lane collector to a modern four-lane boulevard.

Most recently, Sigma Consulting assisted the department by providing engineering support for the construction of our Jones Creek Road – Segment 2 project. Their efforts provided for the coordination of the construction of the four lane divided road section and a major sewer force main installation while maintaining traffic throughout the course of the work.

Sincerely,

A handwritten signature in blue ink that reads "Thomas A. Stephens". The signature is written in a cursive, flowing style.

Thomas A. Stephens, P.E.  
Chief Design and Construction Engineer

TAS

April 17, 2019

To whom it may concern:

As the project manager of La DOTD's highway safety retainer contract, I am pleased to offer my recommendation for Sigma Consulting Group, Inc. In fulfilling the terms of their contract with the department, they have performed well in surveying, and road design work for me.

They have successfully completed several projects under their retainer including a ramp lengthening project, a J-turn project, and a couple of roundabout projects. These projects required surveying, and road design expertise as well as highway safety.

Sigma routinely presented appropriate technical solutions to project specific issues. They ensured that I was aware of their scheduled progress and let me know ahead of time if there seemed to be any potential problems. This allowed our team to work together to either meet the current schedule or modify it slightly to still meet project goals.

Sincerely,



Trey Jesclard, P.E.

Highway Safety Assistant Administrator

La DOTD



Board of County Commissioners • Escambia County, Florida

Joy D. Blackmon, P.E.  
Director, County Engineer  
Public Works Department

June 7, 2017

To whom it may concern:

Sigma Consulting Group, Inc. has performed many tasks, including utility, roadway and drainage design for Escambia County in past years. I highly recommend them for engineering design work. They provide thorough and timely service for us and they have a high level of technical expertise.

If you have any questions, please contact me at your convenience.

Sincerely,

A handwritten signature in blue ink, appearing to read "J.D. Blackmon", is written over a faint, larger version of the same signature.

Joy D. Blackmon, P.E.  
Public Works Director, County Engineer





June 21, 2017

To whom it may concern:

Sigma Consulting Group, Inc. has provided engineering and surveying services to the City/Parish Department of Public Works for over 20 years and specifically with the Department of Environmental Services (DES) under my purview for the past 3 years. In that time, we have had a successful working relationship with Sigma, and have been very pleased with their work and service.

Sigma has been involved in a wide variety of design projects for the Department of Public Works, however for the past 10 years they have been a key member of our Sanitary Sewer Overflow (SSO) Reduction Program Management Team. This \$1.6 billion program included 115 projects consisting of comprehensive collection system rehabilitation, pipeline and pump station capacity upgrades, and treatment plant and storage improvement projects. Sigma was specifically instrumental in helping us develop new specifications and standards; design and management of the rehabilitation projects; plan reviews; management of land acquisitions; construction management; and contractor relations and claims management. These projects have been important to our community and Sigma's participation was one of the key components of them being completed successfully. Sigma's knowledge, experience and cooperation have been outstanding and our staff has enjoyed working with them.

It has been our experience that Sigma provides a quality product, and they are cooperative and friendly in the process. Based on our past interactions with them, I am comfortable recommending Sigma Consulting Group, Inc. to anyone in need of engineering or surveying services.

Sincerely yours,

Adam M. Smith, PE  
Chief of Wastewater Operations & Maintenance

Mike Dooley  
Sigma Consulting Group, Inc.  
3298 Summit Boulevard  
Suite 32  
Pensacola, FL 32503

July 6, 2016

Mike,

Although I addressed this letter to you, my real audience is your future clients for I want them to know how extremely pleased I am with the work that your firm performed for my organization.

By way of background, I hired Sigma to inspect a private bridge in my subdivision which our local fire department did not believe to be capable of handling the weight of their fire engines. Given that the bridge is the only access we have, this was a critical issue.

Your final report on our bridge's load bearing limits was favorable to our situation and now allows our fire department to cross our bridge. That, however, is not really the point I want to make. Instead, I want everyone to know a few things about the process that I observed that got us to that result.

First, Mike Dooley was a pleasure to work with. Although a firm's technical capabilities are critical, so too is a firm's interaction with their client. Mike was thorough, asked good questions, offered realistic expectations, communicated frequently, provided ample status reports, and perhaps most importantly, did an exceptional job in understanding our needs and working diligently to give us the best analysis possible.

On the technical side, I observed that Sigma engineers, Greg Sepeda in particular, analyzed our bridge using several methods, some "old school" and some more modern approaches. Each approach certainly has tradeoffs and I know that several times I was asked for more detailed data on our bridge so that they could attempt to expand their analysis using the different methods. As a mechanical engineer I believe I had a fairly critical eye on the overall process. The bottom line is that they absolutely went above and beyond to study our problem, brainstorm the best way to analyze the information, and provide a fair and complete analysis.

It was abundantly clear to me that this company worked very hard to help this customer. It is rare to work with a group that cares so much about their product. I was impressed.



L Stephen Fikar  
Black Pointe Property Owners Association  
Shalimar, FL

Hi MIKE.

THANKS AGAIN FOR  
ALL YOUR HELP.  
MY BEST,  
Steve

## **APPENDIX E – FINANCIAL STABILITY STATEMENT**

**SIGMA CONSULTING GROUP, INC.**

Baton Rouge, Louisiana

**FINANCIAL STATEMENTS**

(Compiled)

December 31, 2016, 2015, and 2014



# **SIGMA CONSULTING GROUP, INC.**

Baton Rouge, Louisiana

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December 31, 2016, 2015, and 2014

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## INDEPENDENT ACCOUNTANTS' COMPILATION REPORT

To the Stockholders'  
Sigma Consulting Group, Inc.  
Baton Rouge, Louisiana

Management is responsible for the accompanying financial statements of **SIGMA CONSULTING GROUP, INC.** (referred to as the "Company") which comprise the balance sheets as of December 31, 2016, 2015, and 2014 and the related statements of operations and changes in stockholders' equity and cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America. We have performed a compilation engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. We did not audit or review the financial statements nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by management. Accordingly, we do not express an opinion, a conclusion, nor provide any form of assurance on these financial statements.

Management has elected to omit substantially all disclosures required by generally accepted accounting principles. If the omitted disclosures were included in the financial statements, they might influence the user's conclusions about the Company's financial position, results of operations, and cash flows. Accordingly, the financial statements are not designed for those who are not informed about such matters.

Accounting principles generally accepted in the United States of America require that property be depreciated over the expected useful life of the asset in such a way as to allocate equitably to the periods during which services are obtained from the use of these assets. Management has informed us that accelerated tax depreciation methods have been used to depreciate property in the accompanying financial statements. Furthermore, the Company has not reported deferred income taxes in accordance with accounting principles generally accepted in the United States of America. Management has not determined the effects of these departures from accounting principles generally accepted in the United States of America on financial position, results of operations, and cash flows.

*Faulk & Winkler, LLC*  
Certified Public Accountants

Baton Rouge, Louisiana  
March 21, 2018

**SIGMA CONSULTING GROUP, INC.**

Baton Rouge, Louisiana

**BALANCE SHEETS**

December 31, 2016, 2015, and 2014

(See Independent Accountants' Compilation Report)

<b>ASSETS</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
<b>CURRENT</b>			
Cash	\$ 21,681	\$ 21,309	\$ 311,257
Accounts receivable, net	951,856	1,046,862	1,877,896
Other	-	-	580
Total current assets	973,537	1,068,171	2,189,733
<b>DUE FROM AFFILIATE</b>	344,501	369,684	489,841
<b>PROPERTY, net</b>	30,785	13,989	21,099
Total assets	<u>\$ 1,348,823</u>	<u>\$ 1,451,844</u>	<u>\$ 2,700,673</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>			
<b>CURRENT</b>			
Accounts payable and accrued expenses	\$ 214,615	\$ 255,009	\$ 290,815
Outstanding checks in excess of bank balance	748,523	830,473	1,286,713
Line of credit	500,000	250,000	-
Due to affiliate and other current liabilities	76,860	75,725	106,510
Total current liabilities	1,539,998	1,411,207	1,684,038
<b>NOTE PAYABLE - AFFILIATE</b>	-	76,860	152,585
Total liabilities	<u>1,539,998</u>	<u>1,488,067</u>	<u>1,836,623</u>
<b>STOCKHOLDERS' EQUITY</b>			
Common stock	7,628	7,628	7,628
Treasury Stock	(741,600)	(741,600)	(741,600)
Retained earnings	542,797	697,749	1,598,022
Total stockholders' equity	<u>(191,175)</u>	<u>(36,223)</u>	<u>864,050</u>
Total liabilities and stockholders' equity	<u>\$ 1,348,823</u>	<u>\$ 1,451,844</u>	<u>\$ 2,700,673</u>

**SIGMA CONSULTING GROUP, INC.**

Baton Rouge, Louisiana

**STATEMENTS OF OPERATIONS  
AND CHANGES IN STOCKHOLDERS' EQUITY**

For the year ended December 31, 2016, 2015, and 2014

(See Independent Accountants' Compilation Report)

	<u>2016</u>	<u>2015</u>	<u>2014</u>
<b>REVENUES</b>	5,642,684	5,992,865	6,690,964
<b>OPERATING EXPENSES</b>	<u>5,782,486</u>	<u>6,916,863</u>	<u>7,286,483</u>
Net loss from operations	<u>(139,802)</u>	<u>(923,998)</u>	<u>(595,519)</u>
<b>OTHER</b>			
Interest income	5,981	41,192	5,562
Interest expense	(4,402)	(4,896)	(5,491)
Loss on sale of property	<u>(680)</u>	<u>-</u>	<u>-</u>
Net loss before income taxes	(138,903)	(887,702)	(595,448)
<b>PROVISION FOR INCOME TAXES</b>	<u>(16,049)</u>	<u>(12,571)</u>	<u>(36,551)</u>
Net loss	(154,952)	(900,273)	(631,999)
<b>STOCKHOLDERS' EQUITY</b>			
Beginning of year	<u>(36,223)</u>	<u>864,050</u>	<u>1,496,049</u>
End of year	<u>\$ (191,175)</u>	<u>\$ (36,223)</u>	<u>\$ 864,050</u>



**SIGMA CONSULTING GROUP, INC.**

Baton Rouge, Louisiana

**STATEMENTS OF CASH FLOWS**

December 31, 2016, 2015, and 2014

(See Independent Accountants' Compilation Report)

	<u>2016</u>	<u>2015</u>	<u>2014</u>
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
Net loss	\$ (154,952)	\$ (900,273)	\$ (631,999)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation	5,175	93,472	129,387
Loss on disposition of fixed assets	680	-	-
Change in allowance for doubtful accounts	280	-	3,246
Change in operating assets and liabilities:			
Accounts receivable	94,726	831,034	620,453
Other assets	-	580	-
Outstanding checks in excess of bank balance	(81,950)	(456,240)	425,622
Accounts payable and accrued expenses	(40,394)	(35,806)	140,310
Net cash provided (used) by operating activities	<u>(176,435)</u>	<u>(467,233)</u>	<u>687,019</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Due from affiliate	25,183	120,157	8,748
Property and equipment acquisitions, net	<u>(22,651)</u>	<u>(86,362)</u>	<u>(119,830)</u>
Net cash provided (used) by investing activities	<u>2,532</u>	<u>33,795</u>	<u>(111,082)</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Line of credit	250,000	250,000	(200,000)
Due to affiliate and other current liabilities	1,135	(30,785)	1,103
Notes payable	<u>(76,860)</u>	<u>(75,725)</u>	<u>(74,605)</u>
Net cash provided (used) by financing activities	<u>174,275</u>	<u>143,490</u>	<u>(273,502)</u>
Net increase (decrease) in cash	372	(289,948)	302,435
<b>CASH</b>			
Beginning of year	<u>21,309</u>	<u>311,257</u>	<u>8,822</u>
End of year	<u>\$ 21,681</u>	<u>\$ 21,309</u>	<u>\$ 311,257</u>