

November 18, 2019

Mr. Robert Companion, PE
County Engineer
Nassau County Engineering Services
96161 Nassau Place
Yulee, FL 32097

Subject: Bid No. NC19-016 Design Services for the William Burgess Extension

Dear Mr. Companion,

GAI Consultants, Inc. (GAI) respectfully submits the following Scope of Services and Fee Proposal to complete the Design Services for the William Burgess Extension (WBE) in Nassau County, FL, as described in the RFQ and as detailed below.

Project Understanding

Based on the RFQ, the project will create a two (2) lane extension of William Burgess Boulevard (WBB) from US Highway 17 (US 17) to Miner Road and include the following: Signalization and improvements at the intersection of US 17, intersection improvements at the intersection of Miner Rd., Construction of approximately 1.5 miles of new roadway, construction of drainage facilities and construction of a new 8 ft to 10 ft wide multi-use path. It is also noted that the WBE is being partially funded by the Florida Department of Transportation (FDOT) and will require a separate (or component) set of plans and specifications so that design, construction and construction engineering and inspection (CEI) costs can be accounted for appropriately.

The RFQ further defines the "Scope of Project" under Section 2.0 and subsections 2.1 through 2.8. To better define the details requested, GAI attended a Scope of services meeting on November 6th with Nassau County (County) to review the anticipated consulting services for initial contract negotiations. In this meeting, it was agreed that under subsection 2.8 of the Scope of Services, Post design services would not be included in the initial proposal, however, it can be added later by a change order once the level of work and project complexities are better understood.

Scope of Work

This consulting services are for the engineering, design, permitting and bid documents to construct the William Burgess Extension project described above. GAI will provide the following services:

Task 1 – Project Management, Meetings and Coordination

GAI will provide project management and coordination with the County, FDOT and utility stakeholders through the duration of the project. The following tasks are included:

- Kick-off meeting, progress meetings, Field meetings and project reviews.
- Progress Reports to be included with monthly invoices.
- Contract Administration
- Assist the County with one open house public information meeting. Provide project board displays and power point.

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- Utility Coordination to include a field meeting with each utility and then formal meeting with all utilities after the 60% plan submittal. GAI will create a conflict utility matrix to use for utility work schedules. The Utility work schedules signed by the respective utilities will be included in the contract specifications. Utilities anticipated within the project limits include JEA, AT&T, Comcast, Broadband CTI and Peninsula Gas Co.
- An FDOT permit submittal will be required for work impacting the US 17 intersection. GAI will meet with FDOT prior to plan submittal to review intended permit requirements and then submit for a permit using the 60% progress plans. Approved permit will be included in the contract specifications.
- The County is currently coordinating some of the ROW acquisitions in advance, primarily with the Hideaway Development. GAI is not anticipating ROW change at this location. GAI will assist the County with investigations for the remaining parcels that will affect the JEA and Yulee School. It is anticipated that the parcels will include two ponds and the corridor width along these two properties. GAI will assist the County with FDOT coordination on ROW as needed.

Task 2 – Concept Refinement

The objective of this task is to refine the concept alignment to verify ROW requirements:

- Data Collection: Collect existing plans from the County, FDOT, St. Johns River Water Management District (SJRWMD) and existing utilities.
- Establish roadway typical sections for approval.
- Roadway 15% line and grade determined from approved typical sections and survey.
- Preliminary Cross Sections
- Provide preliminary drainage design requirements (pond locations and anticipated conveyance).
- Provide an estimated ROW corridor and boundary width.
- Provide an engineer's estimate of concept developed to date.
- Signing and Marking Concept plan.
- Route and Topographic Survey for proposed alignment as defined below.
- Geotechnical Borings and Engineering Report for the new alignment as detailed below.
- Environmental Assessments as detailed below.
- GAI will conduct a preapplication meeting with SJRWMD on the proposed alignment.
- Subsequent to performing the next stage in design, GAI to obtain consensus from the County on the 15% line and grade plan. The summary of findings will serve as the basis for final engineering.

Task 3 – Engineering, Permitting, Costs, Plan Production and Specifications

GAI will progress plans to the 60%, 90%, and 100% phase. Upon the conclusion of each phase, a progress set of plans will be provided. All reports, calculations and plan submittal will go through the GAI QaQc process. All engineering design tasks will be developed in accordance with the Nassau County, then Florida Greenbook and then Florida Department of Transportation (FDOT) standards and requirements in that order. Understanding that the County is receiving partial funding from the FDOT,

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those relevant items associated with FDOT criteria will be followed (i.e. ROW mapping, and Environmental Clearances).

The following list of plans sheets is anticipated but is not limited to:

- Key Sheet
- Roadway typical sections and pavement design (Nassau County standard). Note: Four typical urban roadway sections are anticipated. Prepare typical for US17 to show future FDOT widening template and match existing pavement thickness per geotechnical cores (reference straight line diagram)
- General Notes
- Drainage Map
- Summary of Drainage Structures
- Project Layout
- Plan and Profile Roadway Sheets
- US 17 Signalization Plans. Note: Three Mast Arm structures are anticipated and Traffic Signal Warrant Analysis to justify proposed installation.
- Miner Road Roundabout sheets. Note: Design will require operational modeling (capacity analysis using HCM methodology, LOS and lane configurations, am/pm peak volumes and growth factors). Design documentation including exhibits for design vehicle turning paths, fastest path analysis, and sight distance.
- Also, the installation of this roundabout will require Miner Road Reconstruction due to re-alignment needed to minimize ROW outside the County School property limits. The design will also include additional street lighting with pedestrian crossings.
- Two wet detention ponds and control details (estimated at 2-acres each).
- Drainage Structure Cross Sections
- Roadway and Pond Cross Sections
- County Standard Details
- Maintenance of Traffic Phasing Sections, Plan Sheets and a detour plan.
- Utility Adjustment Sheets. Note: GAI will provide utility coordination
- SWPPP/Erosion Control standard detail sheets
- Signing and pavement Marking Plans. Note: Requirement to also meet Manual of Uniform Traffic Control Devices (MUTCD).
- Signalization Plans and details
- Pedestrian Lighting details for US 17 and Miner Road.
- Landscape plans to include drought tolerant trees and no irrigation along the proposed roadway.

Permits: GAI will provide for the following permitting services to include permitting with the County, FDOT, SJRWMD and/or the US Army Corps of Engineers (USACOE). Costs for permitting fees are included as a reimbursable not to exceed item.

Costs: An Engineers Opinion of Probable Cost (OPC) will be submitted at each of the plan submittal milestones. GAI will prepare a project specifications package and bid form in accordance with the County Standards.

Specs: The Specification package will be developed to meet County requirements. Reference FDOT standard/spec requirements on US17.

Task 4 – Survey (task 4.1) / ROW Mapping (task 4.2)

Project Description: Corridor route will begin 200 feet west of William Burgess intersection with US 17, then continue along the preliminary alignment that maintains west and north of the JEA powerline right-of-way to connecting intersection of Miner Road and the Yulee High School entrance road. Also, assuming 200 feet of tie-ins north and south of US 17 and Miner Road provides an approximate corridor length of 1.92 miles or 10,140 feet. New and existing road will extend in width by 20 feet past anticipated right-of-way. The 3D Route, topographic, tree & utility survey will include the route centerline of road and right-of-way lines, located from available property corners. GAI will not be verifying private boundary lines.

GAI will locate utilities from above ground indicators to the underground utilities along with any hand holes or manholes that can be opened. The survey will include 3D topography of the route with any buildings, driveways, sidewalks, above ground utility indicators to underground utilities, signs, light poles, drainage, fences, parking, curbing and other topography features along route. The survey may extend past right-of-way to include adjacent significant property features. Work will also produce topographic survey for ponds or ditches running from road. Task to include the following:

- Add a horizontal control (NAD83 state plane datum) by Survey grade GPS Trimble R-8 receivers through a networked control station with accuracies of 0.02' and benchmarks will be set coming off benchmarks on State Road 100 and will be on a NAVD88 datum and per professional standards run closed traverse to 2 different control and benchmarks for Quality check.
- Locate available monumentation along the right-of-way lines to determine alignment and create Right-of-way Lines.
- Locate 3D topography along the route and may extend beyond the right-of-way to connect adjacent topographic features to the project route. The topographic survey will include any buildings, driveways, sidewalks, fences, walls, signs, light poles, drainage, parking, and other topographic features within the route and may locate topographic features within adjacent Right-of-way. All topography will have elevations and contours plotted into Survey Map and CAD files.
- Locate any utility tops, markers, cuts in pavement, signs of utilities, or sunshine utility painted locations along the road. Also review any as-builts for any information they may have and show on survey.
- Survey the flagged wetland limits, once completed.
- A new Right-of-way Map, Route, 3D Topographic, & Utility Survey map will be produced from the above information. The surveyor will show all information and produce this survey in CAD format with 1-foot contours and to a scaled relation to the existing ground conditions depicting as much information on the survey as per scope for an urban project. The Survey map will be professionally printed with the Surveyor signing and sealing as many prints as requested.

Task 5 – Traffic Modeling

Traffic Counts and modeling scope of work detail is attached under the Ossiris9 fee proposal for subconsultant.

Task 6 –Environmental/Permit

Task 6.1 Ecological Assessment/Wetland Delineation and Permitting

- Research existing published literature and available documents pertinent to the project area, particularly prior wetland delineations and wildlife surveys.
- Review existing databases from the US Fish and Wildlife Service and the Florida Fish and Wildlife Conservation Commission for the presence of federal and state listed plant and animal species, including requesting a database search from the FWC for the presence of the Southern Bald Eagle on-site or within a one-mile radius of the project area.
- Conduct one site assessment to evaluate the presence of threatened and endangered species, critical habitat, natural communities, and the location, landward extent, and quality of potentially jurisdictional wetlands.
- Field flag the landward extent of wetlands potentially within the jurisdiction of governmental agencies with statutory permitting authority following the 2010 Final Supplement to the Corps of Engineers Wetlands Delineations Manual (1987) and the Unified Wetland Delineation Methodology for the State of Florida dated 1 July 1994.
- Coordinate with surveyors and/or engineers to locate the field flags as previously placed.
- Prepare an Ecological Assessment Report for inclusion in the Environmental Resource Permit application which will include the following information pertinent to the project site:
 - o Existing site conditions (including a FLUCCS map).
 - o Approximate landward extent of wetlands.
 - o Potential for occurrence of listed plant and animal species, including wetland dependent animal species.
 - o Projected wetland impacts and analysis of proposed wetland impacts utilizing the Unified Mitigation Assessment Methodology (UMAM) and/or Wetland Rapid Assessment Process (WRAP).
 - o A discussion of secondary and cumulative impacts associated with the project.
 - o A discussion of avoidance and minimization of wetland impacts associated with the project (alternate site plans must be prepared by others if required by the agencies).
 - o Proposed use of an approved mitigation bank to off-set projected wetland impacts.
- Participate in a pre-application conference with the SJRWMD.
- Assist EOR with preparing Environmental Resource Permit (ERP) application for submittal to SJRWMD and a Federal Dredge and Fill Permit application for submittal to the US Army Corps of Engineers (Corps).
- Schedule and conduct site reviews with representatives of SJRWMD and/or the Corps for verification of the landward extent of jurisdictional wetland limits.
- Prepare responses to Requests for Additional Information (RAI's).

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Task 6.2 Archaeological Phase I Site Assessment (Environmental Clearance for ROW acquisition only)

- Conduct background research to determine the extent of previously-recorded cultural resources in the vicinity of the proposed pond sites and to characterize the potential of the Area of Potential Effect (APE) to contain unrecorded cultural resources.
- Includes submittal of a Florida Master Site File (FMSF) Township, Range, and Section (TRS) Data Request Form to the Florida Division of Historical Resources (FDHR) to receive information for both architectural and archaeological resources in the project vicinity including the completion of previously-completed Cultural Resources Assessment Surveys.
- It is assumed that neither a visit to the FDHR's office nor on-site fieldwork will be required for this study.
- To the extent feasible, consult the county's GIS website, historic-period maps, and any historic aerials.
- Prepare a brief summary of the results of this effort and any recommendations.
- Additional services to conducting archaeological and architectural fieldwork to determine if there are any potential historic resources in the areas are to be affected by the proposed work can be added as a supplement to the current scope of work.

Task 6.3 Contamination Phase I Site Assessment (Environmental Clearance for ROW acquisition only):

The detail scope of work detail is attached under the NDN Companies fee proposal for subconsultant.

Task 7 - Geotechnical Engineering

- Geotechnical exploration and investigation to include field explorations and report. The detail scope of work detail is attached under CSI-geo fee proposal for subconsultant.

Task 8 - Subsurface Utility Exploration (SUE)

- SUE within the existing roadway is expected at the US 17 and Miner Road intersections, and along School driveway. The work effort will include designation and approximately thirty (40) locates. The detail scope of work detail is attached under FR Aleman fee proposal for subconsultant.

Task 9 –Bidding Assistance

- Assist the County during the bidding phase, including attending a pre-bid meeting, addressing bid questions, addendums and in the award process by analyzing unit bids versus cost calculated.

ASSUMPTIONS

- ROW needs are limited to those described
- Environmental assessments or other planning requirements are not required outside those proposed.
- The County will provide coordination with property owners should driveways, and encroachments be required.
- Mitigation impacts to be paid by the County from local mitigation bank.

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- Modification of the Yulee School permit will not require separate plan submittals that would require another other plan set. (i.e. If adjacent pond to school driveway is impacted, these changes are including in the William Burgess Extension plan set.
- Assume that the US17 intersection can be widened and not reconstructed (affects MOT complexity)
- The cost of reproduction for Bidding (plans and specs), to be paid by each bidder.

EXCLUSIONS

- No post design services including review of shop drawings, response to RFI's or field reviews are included in this scope
- No construction engineering inspection services are included in this scope of services
- No utility designs
- No ITS system design
- No ROW Acquisition Services
- Changes to the Yulee School site plan (changes to parking area, ingress/egress).
- RR Coordination not anticipated in signalization design, due to distance from US17 intersection (approximately 900 feet).

DELIVERABLES/ Schedule

- Provide the County with electronic progress submittals for review, final plans and specifications as well as quantities, permits outlines and bid form for bidding a unit price contract.
- A detailed schedule will be submitted within 10 days of receiving an NTP.

Fee Breakdown (Refer to Fee Summary Exhibits attached):

GAI Design (LS)	\$516,340
GAI Expenses (LS)	\$ 3,100
GAI Field Survey (LS)	\$ 88,465
GAI ROW Mapping (LS)	\$ 22,405
Osiris9/ PMA (Traffic) (LS)	\$ 41,615
NDN (Contamination Phase I) (LS)	\$ 2,400
CSI-Geo (Geotech) (Reimbursable)	\$91,085
FR Aleman and Assoc. (SUE) (Reimbursable)	<u>\$24,825</u>
Total Fee	\$790,235

Thank you for giving us the opportunity to submit this proposal and providing you with the above services. I trust that this proposal meets with your expectations. Please if you have any questions or need additional information related to this proposal, do not hesitate to contact me.

Sincerely,



Ronald Hoogland, P.E.
Project Manager

**Contract Fee Summary for
Professional Design Services for William Burgess Extension**

PART I - GENERAL				
1. Project - Prof. Design Svcs. WBE			2. Project Number NC19-016	
3. Name of Consultant GAI Consultants, Inc.			4. Date of Proposal 11/18/2018	
PART II - LABOR RELATED COSTS				
5. DIRECT LABOR	Hourly Rate	Estimated Hours	Estimated Cost	TOTAL
Project Manager (E09)	\$ 280.00	218	\$ 61,040.00	
Chief Engineer (E08)	\$ 240.00	146	\$ 35,040.00	
Senior Engineering Manager	\$ 195.00	104	\$ 20,280.00	
Drainage Engineer/ Roundabout Eng (E07)	\$ 195.00	376	\$ 73,320.00	
FDOT/Lead Engineer/ Structural (E06)	\$ 170.00	321	\$ 54,570.00	
Senior Project Engineer/ LA (E05)	\$ 150.00	607	\$ 91,050.00	
Project Engineer (E04)	\$ 125.00	527	\$ 65,875.00	
EI (E03)	\$ 105.00	334	\$ 35,070.00	
Cadd (N03)	\$ 95.00	597	\$ 56,715.00	
Environmental Manager E06)	\$ 170.00	10	\$ 1,700.00	
Senior Specialist (E05)	\$ 150.00	80	\$ 12,000.00	
Archaeol. (03)	\$ 105.00	10	\$ 1,050.00	
Environmental / GIS/ Arch (E02)	\$ 90.00	56	\$ 5,040.00	
Cultural Resources (E01)	\$ 75.00	8	600.00	
clerical	\$ 65.00	46	2,990.00	
		3,440		
SUB-TOTAL SALARY RELATED COSTS			\$	516,340.00
PART III - OTHER COSTS				
6. MISCELLANEOUS DIRECT COSTS (LS)				
SJRWMD General Permit, misc copies, public meeting boards				\$ 3,100.00
MISCELLANEOUS DIRECT COSTS SUB-TOTAL			\$	3,100.00
7. Survey and Subconsultant (LS)				
GAI Field Survey (Task 3.1)				\$ 88,465.00
GAI Mapping (Task 3.2)				\$ 22,405.00
Osiris9/Peggy Malone (Task 4)				\$ 41,615.00
NDN (Task 5.3)				\$ 2,400.00
SUB-CONTRACT SUB-TOTAL			\$	154,885.00
8. SUBCONTRACTS (Reimbursable/ Not to Exceed)				
CSI-Geo (Task 7)				\$ 91,085.00
FR Aleman (Task 8)				\$ 24,825.00
SUB-CONTRACT SUB-TOTAL			\$	115,910.00
PART IV - SUMMARY				
TOTAL LUMP SUM AMOUNT (Items 5, 6, 7 and 8)				\$ 790,235.00

27. Survey

Estimator: Joe Lek

William Burgess Road Survey
0

Representing	Print Name	Signature / Date
William Burgess		
GAI Consultants		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No of Units	Field Crew Days/Unit	Crew Days	Field Support Hours / Crew Days	Field Support Hours	Office Support Hours / Crew Days	Office Support Hours	Comments
27.1	Horizontal Project Control (HPC)									
	2-Lane Roadway	Mile	2.50	1.00	2.50	1.50	3.75	3.00	7.50	Set Horizontal Control
	Multi-lane Roadway	Mile			0.00		0.00		0.00	
	Interstate	Mile			0.00		0.00		0.00	
27.2	Vertical PC / Bench Line									
	2-Lane Roadway	Mile	2.50	1.00	2.50	1.50	3.75	3.00	7.50	Set Vertical Control
	Multi-lane Roadway	Mile			0.00		0.00		0.00	
	Interstate	Mile			0.00		0.00		0.00	
27.3	Alignment and Existing R/W Lines									
		Mile	2.50	2.00	5.00	1.50	7.50	3.00	15.00	Determine existing ROW and alignment
27.4	Aerial Targets			Units/Day						
	2-Lane Roadway	EA			0.00		0.00		0.00	
	Multi-lane Roadway	EA			0.00		0.00		0.00	
	Interstate	EA			0.00		0.00		0.00	
27.5	Reference Points	"A"		Units/Day						
	2-Lane Roadway	EA			0.00		0.00		0.00	
	Multi-lane Roadway	EA			0.00		0.00		0.00	
	Interstate	EA			0.00		0.00		0.00	
	Reference Points	"B"		Units/Day						
	Non Alignment Points/Approximate	EA			0.00		0.00		0.00	
27.6	Topography/DTM (3D)									
		Mile	2.50	10.00	25.00	1.50	37.50	3.00	75.00	Topo, trees, an dabove ground utilities
27.7	Planimetric (2D)									
		Mile			0.00		0.00		0.00	
27.8	Roadway Cross-Sections/Profiles									
		Mile			0.00		0.00		0.00	
27.9	Side Street Surveys									
		Mile			0.00		0.00		0.00	
27.10	Underground Utilities									
	Designates	Mile/Site			0.00		0.00		0.00	
	Locates	Point			0.00		0.00		0.00	
	Survey		0%	0.00	0.00		0.00		0.00	
27.11	Outfall Survey									
		Mile			0.00		0.00		0.00	
27.12	Drainage Survey			Units/Day						
		EA			0.00		0.00		0.00	
27.13	Bridge Survey									
	Minor / Major	EA			0.00		0.00		0.00	
27.14	Channel Survey									
		EA			0.00		0.00		0.00	
27.15	Pond Site Survey									
		EA	3.00	1.50	4.50	1.50	6.75	3.00	13.50	Pond surveys
27.16	Mitigation Survey									
		Mile			0.00		0.00		0.00	
27.17	Jurisdiction Line Survey									

27. Survey

Task No.	Task	Units	No of Units	Field Crew Days/Unit	Crew Days	Field Support Hours / Crew Days	Field Support Hours	Office Support Hours / Crew Days	Office Support Hours	Comments
		Mile			0.00		0.00		0.00	
27.18	Geotechnical Support			Units/Day						
		EA			0.00		0.00		0.00	
27.19	Sectional / Grant Survey									
		Corner			0.00		0.00		0.00	
		Mile			0.00		0.00		0.00	
27.20	Subdivision Location									
		Block			0.00		0.00		0.00	
27.21	Maintained R/W									
		Mile			0.00		0.00		0.00	
27.22	Boundary Survey									
		EA			0.00		0.00		0.00	
27.23	Water Boundary Survey									
		EA			0.00		0.00		0.00	
27.24	R/W Staking / R/W Line									
		EA	30	0.10	3.00	2.00	6.00	2.00	6.00	Parcels will have to be re-staked due to ROW changes
		Mile			0.00		0.00		0.00	
27.25	R/W Monumentation									
		Point			0.00		0.00		0.00	
27.26	Line Cutting									
		Mile	1.00	2.00	2.00					
27.27	Work Zone Safety									
					0.00					
27.28	Miscellaneous Surveys									
					0.00		0.00		0.00	
Survey Subtotal				Crew Days	45	Field Support Hours	65	Office Support Hours	125	
27.29	Supplemental Surveys									THE % FOR SUPPLEMENTAL WILL BE DETERMINED AT NEGOTIATIONS. THIS ITEM CAN ONLY BE USED IF AUTHORIZED IN WRITING BY THE DISTRICT SURVEYOR
				45	0		0		0	
27.30	Document Research	Units								Research ROW
			16.00						16	
27.31	Field Reviews	Units								Check survey
			16.00						16	
27.32	Technical Meetings	LS								Meetings
			4.00						4	
27.33	Quality Assurance / Quality Control	LS								
								5%	6	
27.34	Supervision	LS								
								5%	11	
27.35	Coordination	LS								
								3%	4	
27. Survey Total				Crew Days	45	Field Support Hours	65	Office Support Hours	182	

29. Mapping

Estimator:

William Burgess Road Survey
0

Representing	Print Name	Signature / Date
William Burgess		
GAI Consultants		

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
Master CADD File							
29.1	Alignment	Mile	0	0		0	
29.2	Section and 1/4 Section Lines	Section	0	0		0	
29.3	Subdivisions / Property Lines	EA	0	0		0	
29.4	Existing R/W	Mile	0	0		0	
29.5	Topography	Mile	0	0		0	
29.6	Parent Tract Properties/Existing Easements	Parcel	0	0		0	
29.7	Proposed R/W Requirements	Parcel	0	0		0	
29.8	Limits of Construction	Mile	0	0		0	
29.9	Jurisdictional/Agency Lines	Linear Mile	0	0		0	
Sheet Files							
29.10	Control Survey Cover Sheet	Sheet	0	0		0	
29.11	Control Survey Key Sheet	Sheet	0	0		0	
29.12	Control Survey Detail Sheet	Sheet	0	0		0	
29.13	R/W Map Cover Sheet	Sheet	1	8		8	
29.14	R/W Map Key Sheet	Sheet	1	12		12	
29.15	R/W Map Detail Sheet	Sheet	9	16		144	
29.16	Maintenance Map Cover Sheet	Sheet	0	0		0	
29.17	Maintenance Map Key Sheet	Sheet	0	0		0	
29.18	Maintenance Map Detail Sheet	Sheet	0	0		0	
29.19	Reference Point Sheet	Sheet	0	0		0	
29.20	Project Network Control Sheet	Sheet	0	0		0	
29.21	Table of Ownerships Sheet	Sheet	0	0		0	
Miscellaneous							
29.22	Parcel Sketches	Parcel	0	0.00		0	
29.23	TIITF Sketches	Parcel	0	0.00		0	
29.24	Other Specific Purpose Survey Map	EA	0	0.00		0	
29.25	Boundary Survey(s) Map	EA	0	0.00		0	
29.26	R/W Monumentation Map	Sheet	0	0.00		0	
29.27	Title Search Map	LS	0	0.00		0	
29.28	Title Search Report	LS	0	0.00		0	
29.29	Legal Descriptions	Parcel	0	0.00		0	
29.30	Final Maps/Plans Comparison	Sheet	0	0.00		0	
Mapping Technical Subtotal					0	164	
29.31	Field Reviews	EA	1	0		0	
29.32	Technical Meetings	LS	1	0		0	
29.33	Quality Assurance/Quality Control	EA	%	3%		5	
29.34	Supervision	EA	%	3%		5	
Mapping Nontechnical Subtotal						10	
29.35	Coordination	LS	%	3%		5	
29.36	Supplemental Mapping	LA	%	0%		0	
29. Mapping Total					0	179	

November 15, 2019

Ronald Hoogland
GAI Associates
Riverplace Tower, Suite 900
Jacksonville, FL 32207

Osiris 9 Consulting is please to submit the following fee estimate and scope of services for the William Burgess Project in Nassau County.

Fee Estimate

Data Collection = \$1,318.00 (see attached quote from Peggy Malone & Associate)

Traffic Analysis = \$40,296.80

Position	Corporate Fee	Hours	Total
Project Manager	225	60	\$13,500.00
Senior Planner	114.21	80	\$9,136.80
Planner	66.75	80	\$5,340.00
Engineering Technician	80.25	80	\$6,420.00
Engineering Intern	73.75	80	\$5,900.00

TOTAL \$ 40,296.80

Scope of Services

The CONSULTANT will review existing traffic data from previous planning studies to carry out traffic analysis for this Project and determine whether additional data may be needed. The CONSULTANT must collect additional data for the Study Area if the data gaps are identified.

1.1 Traffic Analysis Methodology

The CONSULTANT will perform traffic analysis in accordance with guidance from the **FDOT PD&E Manual, Traffic Analysis Handbook, and Project Traffic Forecasting**

Handbook. The CONSULTANT will prepare a forecast and analysis methodology which must be agreed upon by COUNTY prior to beginning any analysis. The methodology must state the type of documentation, Project Study Area to be analyzed, and method and assumptions that will be used to analyze existing and future traffic conditions. The development of future forecast data must use the currently adopted version of the Metropolitan Planning Organization (MPO) Long Range Transportation Plan (LRTP) travel demand model: North East Regional Planning Model

Capacity analysis will be based on the latest Highway Capacity Manual procedures. The need to conduct microsimulation traffic analysis using software packages such as SimTraffic will be determined by the CONSULTANT based on coordination with the COUNTY.

All traffic analysis documentation must be written in plain language and in a format that can be easily followed. The CONSULTANT must submit all traffic analysis files for assumptions, inputs, outputs, network data, calculations, and results to the COUNTY.

1.2 Traffic Counts

The CONSULTANT will collect 24-48 traffic counts on:

- US 17
- William Burgess Blvd.
- Miner Road

Additionally, the CONSULTANT will collect turning movements during AM and PM peak hours at the following intersection:

- US 17 and William Burgess
- SR A1A and Miner Road
- Yulee High School and Miner Road

1.3 Future Demand Forecasting

- **No-Build Model Forecast Daily Traffic:** The CONSULTANT will develop a 2040 No-Build Forecast Traffic Model for use in developing Average Annual Daily Traffic (AADT) forecast volumes for the No Build Alternative. This model will be based on the adopted 2040 LRTP Cost Feasible model.

- **Build Model Forecast Daily Traffic:** The CONSULTANT will develop 2040 Build alternative model that extends William Burgess Blvd from US 17 to Miner Road. The CONSULTANT will document any changes to the socio-economic data, highway and transit network or any other parameters in the North East Regional Planning Model.

1.4 Design Traffic Forecast

The CONSULTANT will develop opening and design year Directional Design Hour Volumes for the No-Build and Build Alternative. The DDHV will be developed in accordance with the FDOT project Traffic Forecasting Handbook. The CONSULTANT will develop turning movement projections for AM and PM peak hour using COUNTY approved methodology.

1.5 Operational Analysis

The CONSULTANT will analyze the operational performance of the No Build Alternative for the analysis years to identify deficiencies related to the purpose and need for the project. The CONSULTANT will evaluate the operational effectiveness of the No Build Alternative using agreed upon performance measures of effectiveness (MOEs). The CONSULTANT will use Highway Capacity Software or Synchro to obtain intersection delay at signalized and unsignalized intersections.

The CONSULTANT will analyze the operational performance of the Build Alternative for the analysis years using the agreed upon measures of effectiveness (MOEs).

1.6 Project Traffic Analysis Report

The CONSULTANT shall document the traffic data collection, existing conditions, travel demand forecasting analysis, future traffic projections and operational analysis in a Project Traffic Analysis Report.



DBE Certified in: FL, GA, and VA

PRICE QUOTE

Quote # : Q19-548
Date: November 14, 2019
Expiration Date: May 14, 2020
Client: Osiris9 Consulting
Contact: Imran Ghani
E-mail: imran.ghani@osiris9.com
State: FL

Client Phone # 352-317-6131

Job Description:

William Burgess Project
Nassau County
Contract: n/a

Type of count	Unit Price	# Units	Total
4 Hour Turning Movement, 1 person	\$305.00	2	\$610.00
24 Hour Volume Hose, 2 Directions	\$177.00	4	\$708.00

GRAND TOTAL **\$1,318.00**

Janette Simpson, Vice President
js

11/14/2019

Date

Important Notice: Pricing valid for quantities shown until expiration date.



November 14, 2019

Mr. Ronald Hoogland, P.E.
GAI Consultants, Inc.
1301 Riverplace Boulevard., Suite 900
Jacksonville, FL 32207

**RE: Proposal for a Phase I Environmental Site Assessment
Yulee Right-of-Way Corridor Parcels
Yulee, Nassau County, Florida**

Dear Mr. Hoogland:

The NDN Companies, Inc. (NDN) is pleased to provide this proposal and cost estimate to perform a Phase I Environmental Site Assessment (ESA) on three parcels along the referenced corridor. A figure showing the corridor is included as Appendix A. The sites consist of two approximate, 1-acre ponds (Ponds A & B) and an approximate ½-mile section of the corridor right-of-way beginning at the intersection of Flounder Gig Drive and U.S. Highway 17, extending easterly along the southern perimeter of Flounder Gig Drive, then generally southeasterly along Jamnik Street, and transecting a portion of Parcel 42-2N-27-0000-0001-0120, then extending along an unnamed roadway south adjoining of Yulee High School, and terminating at Miner Road.

The following scope of work outlines the activities necessary to complete a Phase I ESA in general accordance with ASTM Standard E 1527-13. Based on the length of the site corridor area, NDN's site inspection will include a windshield survey of the site corridor from the existing roadways/rights-of-ways, a walkthrough of the undeveloped areas, and individual perimetral inspections of Ponds A & B.

SCOPE OF WORK

Task 1: Site Reconnaissance

An environmental specialist will conduct a windshield survey of the accessible portions of the site corridor from the existing roadways/rights-of-ways, a walkthrough of the undeveloped areas, and individual perimetral inspections of Ponds A & B.

Task 2: Regulatory Review (including database search)

NDN will review site background information and preliminary data provided by the client and/or other sources prior to conducting site inspection. An environmental regulatory database search report will also be reviewed. A search of the following databases will be conducted, as appropriate for the property, to help determine if hazardous sites or serious local environmental problems may exist on or immediately adjacent (see radius specifications) to the property:

- * Federal National Priorities List (1 mile radius);

- * Federal Delisted National Priorities List (0.5 mile radius);
- * Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list (0.5 mile radius);
- * Federal CERCLIS NFRAP list (0.5 mile radius);
- * Federal RCRA CORRACTS list (1 mile radius);
- * Federal RCRA non-CORRACTS TSD list (0.5 mile radius);
- * Federal RCRA Generators list (property and adjoining properties only);
- * Federal institutional control/engineering control registries (property only);
- * Federal ERNS list (property only);
- * State and tribal equivalent NPL (1 mile radius);
- * State and tribal equivalent CERCLIS (0.5 mile radius);
- * State and tribal landfill and/or solid waste disposal site lists (0.5 mile radius);
- * State and tribal equivalent Leaking Underground Storage Tank (LUST) list (0.5 mile radius);
- * State and tribal registered storage tank lists (property and adjoining properties only);
- * State and tribal institutional control/engineering control registries (property only);
- * State and tribal voluntary cleanup sites (0.5 mile radius); and,
- * State or tribal Brownfield sites (0.5 mile radius).

Task 3: Review of Site History

A review of site history will be conducted to help establish what types of activities were previously conducted on the property. Standard historical sources that are reasonably ascertainable, such as fire insurance maps, USGS topographic maps, historical aerial photographs, city directories, and building department records, will be reviewed. This proposal does not include an environmental lien search. The environmental lien search is required by AAI. This proposal does not include a 50-year chain-of-title search. The 50-year chain-of-title search is not a requirement of AAI, but it is listed as an appropriate historical record source. The NDN Companies can provide these services if requested.

Task 4: Interviews

Interviews will be conducted with available knowledgeable persons regarding site history and current uses of the site corridor. This may include, but is not limited to, JEA employees (if allowable), state and local agency officials, or knowledgeable residents of the area.

Task 5: Report Preparation

A report will be prepared documenting our research, on-site inspection, and other findings. The report will provide an overall assessment of recognized environmental conditions and make recommendations.

COST ESTIMATE

Phase I ESA \$ 2,400.00

The NDN Companies anticipates completing the project within 10 business days of receipt of authorization to proceed.

NDN appreciates the opportunity to provide this cost estimate. If you have any questions or require additional information, please feel free to contact me at (904) 800-2671.

Sincerely,

The NDN Companies, Inc



Geoff Reichold, P.G.
Principal

APPENDIX A



GEOTECHNICAL SCOPE OF WORK

**William Burgess Extension
from US Highway 17 to Miner Road
NC19-016
Nassau County, Florida**

SCOPE OF PROPOSED GEOTECHNICAL SERVICES

The geotechnical exploration will consist of field exploratory borings, laboratory testing, and a geotechnical analysis of the collected data. All geotechnical work will be in general accordance with FDOT Standards, the Soils and Foundations Handbook, related directives, Federal Highway Administration Checklist and Guidelines for review of Geotechnical Reports and Preliminary Plans and Specifications, F.H.W.A. Work Zone Traffic Control Practices Manual.

PROPOSED GEOTECHNICAL EXPLORATION

General - The project will create a new two (2) lane extension of William Burgess Boulevard from US Highway 17 to Miner Road, and includes:

- Signalization and improvements at the intersection of US Highway 17.
- Intersection improvements at the intersection of Miner Road.
- Construction of roadway drainage facilities.
- Construction of a new 8'-10' wide multi-use path.

Field Exploration

The proposed exploration will consist of geotechnical studies and the collection of subsurface data as follows:

Roadway – Auger borings will be performed to a depth of 5 feet at 100 feet spacing with 20 foot deep auger borings every 500 feet. In areas which have significant organic materials (i.e., muck); these areas will be delineated with additional auger borings. Soil samples for laboratory soil testing will be obtained on a frequency of three samples per stratum per mile. Soil samples for pipe corrosion testing will be obtained on a frequency of one sample per 1,500 feet of alignment. Additionally, samples will be collected from the existing subgrade soils at a frequency of one sample for every 2,500 feet of alignment and tested for the design LBR value. Work will also include review of the encountered ground water levels and estimation of the seasonal high ground water levels as well as delineation of limits of unsuitable material(s).

Ponds - The proposed stormwater management ponds will be explored by means of Standard Penetration Test (SPT) borings with continuous sampling which will extend to a depth of 20 feet at a frequency of three borings per one acre of stormwater pond. In addition, the ponds will be tested for environmental classification testing. Sufficient testing will be performed on soils recovered from the ponds.

Traffic Signal Foundations - These areas will be explored by means of one Standard Penetration Test (SPT) boring at each proposed foundation location. The borings will be extended to a depth of 25 feet each below the ground surface. One soil sample from each location will also be tested for environmental classification testing.

Soil samples will be classified, containerized, and marked in the field and returned to the laboratory for visual inspection and classification by the geotechnical engineer using the AASHTO and the Unified Soil Classification System.

Usage of Special Equipment – Usage of truck mounted and All-Terrain Vehicle (ATV) mounted drill rigs has been accounted for in the preparation of the Geotechnical Cost Estimate. Type of equipment used for boring and sampling is a function of the site conditions actually encountered. Please note that usage of special equipment such as track mounted rigs, or amphibious rigs has not been accounted for, since usage of such equipment is not believed to be needed at this stage based on the available information. However, if site conditions are found to require the usage of special equipment, the associated cost will need to be negotiated separately and added to the contract amount. Compensation for the exploration outlined above, or any additional services you request, will be based upon the actual type of equipment used, actual time spent, and tests performed in accordance with the enclosed Geotechnical Cost Estimate. We will not exceed our cost estimate without an extension of the scope of services by your office.

Laboratory Testing - Routine laboratory testing will be conducted on representative soil samples to determine classification, and aggressiveness. Laboratory classification and index soil tests will be performed as necessary on selected soil samples obtained from the exploration. Specific tests to be performed are Organic Content, Moisture Content, Percent Fines, Grain Size Analysis, Atterberg Limits, and Environmental/Corrosion Testing.

Engineering/Support Services - A geotechnical engineer, registered in the State of Florida, will direct the geotechnical exploration and provide a presentation of the site and subsurface conditions with respect to the planned construction. The results of the exploration will be presented in reports containing the following:

- A brief discussion of the planned construction.
- A graphical representation of the subsurface conditions encountered as well as the existing on-site conditions, such as topography, surface vegetation, encountered and seasonal high water tables, etc., as they relate to the planned construction.
- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials) and construction recommendations relative to Standards.
- An appendix that contains stratified soil boring profiles, laboratory test data sheets, and other pertinent calculations.
- Written discussion of the subsurface conditions encountered.
- Evaluation of the subsurface soils and recommendations concerning the suitability of the subsurface soils for support of the planned roadway.
- Evaluation of pond material and the existing subgrade soils for roadway construction.
- Soil properties for design of traffic signal foundations.
- Recommendations for the required site preparation and earthwork construction.

Geotechnical Cost Estimate
William Burgess Extension
from US Highway 17 to Miner Road
NC19-016
Nassau County, Florida

2394 St. Johns Bluff Road, Ste 200
Jacksonville, Florida 32246
tel (904) 641-1993
fax (904) 645-0057

Geotechnical Item	Unit	Number of Units	Cost / Unit	Estimated Cost
<u>Field Investigation</u>				
Crew & Equipment Mobilization / Demobilization:				
Mobilization - Truck Rig	ea.	2	\$550.00 /ea.	\$1,100.00
Mobilization - ATV Rig	ea.	2	\$550.00 /ea.	\$1,100.00
Roadway:				
103 Auger Borings @ 5' ea.	lin. ft.	515	\$10.50 /lin. ft.	\$5,407.50
26 Auger Borings @ 20' ea.	lin. ft.	520	\$10.50 /lin. ft.	\$5,460.00
10 Pavement Cores with Base Depth Check	ea.	10.0	\$125.00 /ea.	\$1,250.00
LBR Sample Pickup	ea.	7	\$90.00 /ea.	\$630.00
Clearing	hr.	24	\$225.00 /hr.	\$5,400.00
Standby Time /Difficult Access	hr.	7	\$225.00 /hr.	\$1,575.00
MOT	day	2	\$1,150.00 /day	\$2,300.00
Ponds (2 @ 3 acres ea., 3 SPT Borings per acre @ 20' ea.)				
18 Standard Penetration Test (SPT) @ 20' ea.:	lin. ft.	360	\$13.50 /lin. ft.	\$4,860.00
Extra Split Spoon Sample 0-50' SPT	ea.	54	\$34.00 /ea.	\$1,836.00
Clearing	hr.	32	\$225.00 /hr.	\$7,200.00
Standby Time /Difficult Access	hr.	9	\$225.00 /hr.	\$2,025.00
Traffic Signals (4)				
4 SPTs @ 25' ea.:	lin. ft.	100	\$13.50 /lin. ft.	\$1,350.00
MOT	day	1	\$1,150.00 /day	\$1,150.00
Subtotal:				\$42,643.50
<u>Laboratory Testing</u>				
Moisture Content of Soils	ea.	36	\$21.00 /ea.	\$756.00
Organic Content in Soils	ea.	36	\$37.00 /ea.	\$1,332.00
Material Finer Than No. 200 Sieve	ea.	36	\$38.85 /ea.	\$1,398.60
Grain Size Analysis	ea.	16	\$67.00 /ea.	\$1,072.00
Plastic limit of soil	ea.	11	\$49.00 /ea.	\$539.00
Liquid limit of soil	ea.	11	\$50.00 /ea.	\$550.00
Corrosion Series Test - (Environmental Corrosion)	ea.	16	\$225.00 /ea.	\$3,600.00
LBR	ea.	7	\$335.00 /ea.	\$2,345.00
Subtotal:				\$11,592.60
<u>Engineering/Support Services</u>				
Project Manager	hr.	15	\$221.86 /hr.	\$3,327.90
Project Engineer	hr.	31	\$153.09 /hr.	\$4,745.79
Staff Engineer	hr.	61	\$150.22 /hr.	\$9,163.42
CADD/Computer Technician	hr.	98	\$112.10 /hr.	\$10,985.80
Geotechnical Technician	hr.	80	\$92.40 /hr.	\$7,392.00
Secretary/Clerical	hr.	22	\$56.10 /hr.	\$1,234.20
Subtotal:				\$36,849.11
GRAND TOTAL ESTIMATED FEE:				\$91,085.21



T 904.779.5972 E FRAJax@FR-ALEMAN.COM
F 904.779.5974 W FR-ALEMAN.COM

November 13, 2019

GAI CONSULTANTS

ATTN: Ron Hoogland
1301 Riverplace Blvd., Suite 900,
Jacksonville, FL 32207
r.hoogland@gaiconsultants.com

Reference: Price Proposal for Subsurface Utility Locating Services
Design Services William Burgess Extension
Board of County Commissioners, Nassau County: NC19-016
FRA Project No.: 3231

Dear Mr. Hoogland:

Per your request, F.R. Aleman & Associates, Inc. (FRA) is pleased to submit our proposal to provide subsurface utility locating services to your organization.

Fee Proposal

3 Days for Designating Services @ \$2,000 per Day	\$ 6,000.00
15 Utility Test Hole @ \$375 per Test Hole (Soft surface) - (US-17)	\$ 5,625.00
5 Utility Test Hole @ \$400 per Test Hole (Hard surface) - (US-17)	\$ 2,000.00
10 Utility Test Hole @ \$375 per Test Hole (Soft surface) - (Minor Rd.)	\$ 3,750.00
10 Utility Test Hole @ \$400 per Test Hole (Hard surface) - (Minor Rd.)	\$ 4,000.00
FDOT General Permit	\$ 350.00
Nassau County Permit	\$ 350.00
2 Day Standard MOT @ \$500 per Day	\$ 1,000.00
10 Hours of Project Manager @ \$175 per Hour	\$ 1,750.00
Total Lump Sum	\$ 24,825.00

Note: It should be noted obtaining a FDOT permit for lane closure (if required) could take up to 4 weeks upon receiving the signed contract.

Description of Services & Deliverables

General Notes

FRA will provide subsurface utilities engineering (SUE) personnel, tools, and specialized equipment to locate apparent underground public utilities. FRA is aware that utility test holes are being requested on an as needed basis and exact locations have not yet been established. Utility test holes shall be performed per ASCE/CI 38-02 (Quality Level A) Standards. This proposal is based on public agencies allowing standard maintenance of traffic (MOT) (limited to Index 613) and typical working hours (Monday through Friday, 8:00 AM – 5:00 PM). Should additional permitting and/or MOT be required, this proposal may need to be revised. Restoration shall be limited to standard SUE practices. Should additional restoration become necessary, this proposal may need to be revised. Survey is not included in this proposal.

6196 LAKE GRAY BOULEVARD, SUITE 101
JACKSONVILLE, FLORIDA 32244

Designation Services

- Designate the horizontal location of existing utilities for this project using Ground Penetrating Radar (GPR) with paint and flags.
- Hand dig holes in all situations when excavating within 24" of FRA's markings.
- Conduct appropriate records research.
- Program and calibrate electromagnetic utility locating equipment.
- Perform horizontal locations of existing conductive utilities using electromagnetic techniques.
- Mark selected targets on the ground surface, as necessary.
- Interpret field data and perform on-site designating field sketches.

Utility Test Holes

- Provide 40 test holes at sites specified by GAI.
- Test holes will be used to locate utilities and minimize the likelihood of damage during construction or other forms of excavation.
- The techniques listed above are not guaranteed to identify all utilities. Therefore, FRA by no means guarantees or warrants these markings to be exact for any utility and accepts no responsibility for any utility damages, down-time, delays, etc.
- Obtain all necessary permits from the involved entities and coordinate with utility agency owners to perform the required work.
- Cut and remove existing pavement or ground surface (not to exceed 225-sq. in. per cut).
- Excavate the cut in a manner as to prevent any damage to wrappings, coatings, or other protective coverings (i.e., vacuum/pressure excavations and hand digging).
- Furnish and install color-coded permanent, above ground markers (i.e., pk, nails, and steel rods) directly above the centerline of the utility structure and record the elevation of the marker.
- Provide restoration of the test hole area by backfilling to its prior condition using pavement or other materials that were removed.
- Provide a complete clean-up of the work site to equal or better condition than before restoration.

Conditions & Exclusions

- FRA is not responsible for moved, altered, obliterated, or maintaining marks. If marks are destroyed, FRA may impose additional fees to relocate/remark facilities.
- If underground facilities are damaged, whether marked by FRA or not, it is WASD's obligation to inform FRA within 24 hours of the damage.
- Use of the above techniques does not guarantee the identification of all utilities.
- FRA by no means guarantees or warrants these markings to be exact for any utility and accepts no responsibility for any utility damages, down-time, delays, etc.
- Additional fees may be applicable, depending on unforeseen site conditions.
- Prior to excavation for test holes, FRA will be responsible for securing locations of public utilities through Sunshine 811, (800-432-4770).
- This proposal assumes access to the project site is available and work can be performed between the hours of 8:00 am to 5:00 pm, Monday through Friday.
- This proposal does not include fees for any security/police escort that may be needed.
- Requests outside the scope of this proposal will be discussed and agreed upon prior to starting additional work.

- This proposal is valid for acceptance for 30 days from November 13, 2019, after which time it shall be subject to review and adjustment by FRA.

FRA has estimated approximately **3 days for designating services and 40 utility test holes** for apparent underground public utilities. Should significantly more utilities be found, or if utilities cannot be located, more test holes may be required. If needed, any additional test holes will be at the same rate as above and only done at your direction.

FRA appreciates the opportunity to submit this proposal and looks forward to partnering on this project. If you find this proposal acceptable, please sign the agreement in the spaces provided below and return the executed copy for our files, which will serve as your formal authorization for our services. We are prepared to commence work upon your authorization. Please do not hesitate to contact me if you have a question.

Sincerely,



Lis R. Tolstoy, PSM - Survey Director
FR Aleman & Associates
Date: November 13, 2019

ACCEPTED AND AGREED:	
Client:	GAI Consultants
Approved By:	
Title:	
Date:	
Client Project No.	