

24B

**WORK AUTHORIZATION NO. 2  
AGREEMENT FOR PROFESSIONAL SERVICES**

**THIS WORK AUTHORIZATION** is made and entered into pursuant to the terms and conditions of Section 2 of the Agreement for Planning, Engineering, Environmental Analysis, and Design, (hereinafter Agreement) executed by Fort Bend County (hereinafter "County") and Lockwood, Andrews & Newnam, Inc., (hereinafter "Contractor"), on April 1, 2014.

**PART I.** Contractor will perform professional services as defined in the attached Exhibit A.

**PART II.** The maximum amount payable under this Work Authorization is nine hundred ninety-three thousand five hundred and twenty-six dollars and no/100 (\$993,526.00). This amount is based upon fees set forth in attached Exhibit B.

**PART III.** Payment to the Consultant for the services established under this Work Authorization shall be made in accordance with Section 4 of the Agreement.

**PART IV.** This Work Authorization shall become effective upon final execution of this work authorization and shall terminate on December 31, 2020, unless extended by a Supplemental Work Authorization as provided in the Agreement.

**PART V.** This Work Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

**IN WITNESS WHEREOF**, this Work Authorization is executed in duplicate counterparts and hereby accepted and acknowledged below.

**FORT BEND COUNTY**

Robert E. Hebert, County Judge

11-3-2015

Date

ATTEST:

Laura Richard, County Clerk



**LOCKWOOD, ANDREWS & NEWNAM, INC.**

Authorized Agent- Signature

JON D. JELINEK

Authorized Agent- Printed Name

ASSOCIATE, TEAM LEADER

Title

10/29/15

Date

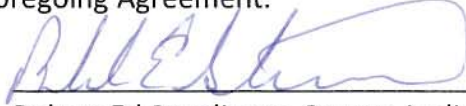


**AUDITOR'S CERTIFICATE**

11/13/2015  
\$993,526.00



I hereby certify that funds in the amount of \$ ~~993,526.00~~ <sup>999,526.00</sup> are available to pay the obligation of Fort Bend County within the foregoing Agreement.



Robert Ed Sturdivant, County Auditor



# EXHIBIT A

# **Attachment A**

## **Work Authorization #2 Scope of Work**

The scope of work for this work authorization includes the remaining activities requested by the county. Services to include design documents, funding source response, pre-construction and construction phase support for the transit facility located at the fairgrounds site identified in work authorization #1. This scope and fee is based on construction of a combined facility, with administration, operations, fueling, bus washing and maintenance, on a single site. Design coordination and performance specifications for a packaged bus wash and packaged fueling station are included. Geotechnical information and foundation recommendations are provided by other contractors retained by the County. LAN to provide these contractors with the information needed to complete their work and coordinate inclusion into plan/bid documents.

### **Section 1 – Entire Project**

#### ***Site Master Plan:***

ENGINEER will provide a master plan showing the final configuration of the ultimate build-out of the site. This plan will show all elements of the facility and provide a platform to define the phasing boundaries as needed for phased design and construction.

#### ***Civil Site Utilities:***

ENGINEER will provide site plans based on survey information showing utilities, drainage and grading for the green-field site. Should a phased approach be undertaken, design will include a driveway over the existing drainage ditch to provide access to the existing fuel depot from the proposed site.

#### ***Schematic Design:***

ENGINEER will prepare schematic (concept) design (SD) documents capturing and expanding upon the facility program defined during the site selection phase of this project. The SD package includes preliminary drawings of the building spaces, and site layout. A cost of construction estimate is provided at this stage.

***Design Development:***

ENGINEER will develop schematic design documents into design drawings capturing changes made during schematic design. Details and coordination issues are typically resolved at this stage of design. An updated cost of construction estimate is provided at this stage.

***Construction Documents:***

ENGINEER will develop design documents into a set of documents suitable for bidding and construction. Deliverable includes drawings and specifications per Fort Bend County design guidelines. An updated cost of construction estimate is provided at this stage.

At each stage of design allow the county to comment and address all comments prior to initiating the subsequent design phase.

***Value Engineering:***

ENGINEER will perform a value engineering review of the project's design in accordance with federal regulations. Recommend appropriate cost-saving methods identified during the value engineering exercise.

***Peer Review:***

ENGINEER will coordinate a review of the project by other professionals and document suggested improvements to the project's design, construction, and operation. Incorporate design changes as applicable. This will be combined with the VE process and will only be performed if required by funding sources.

***Bid and Construction Phase Services:***

ENGINEER will provide pre-bid, bid and construction phase services. Service to include review of Requests for Information (RFI's), product submittals and shop drawings as required before and during construction of this project. ENGINEER will assist County personnel in construction service procurement. ENGINEER will review all change order requests and make recommendations to County. ENGINEER will provide technical assistance, analysis, and evaluation of all unforeseen construction circumstances. ENGINEER or subcontractors will provide on-site support during construction, i.e. bi-weekly meeting attendance and attendance at critical events. Special inspections are the responsibility of the owner (County).

Upon completion of final design services, the County will determine an advertisement and bid opening schedule. All administrative project manual documents (cover page, Notice to Bidders, etc.) will be prepared by the County and provided to the design consultant in Adobe

Acrobat (pdf) format. The design consultant will prepare a single project manual file in Adobe Acrobat format, consisting of:

- Administrative documents
- The bid form (prepared by the design consultant)
- A sealed specification table of contents
- Applicable specifications and documents

The design consultant will prepare a single file in Adobe Acrobat format for the entire drawing set. Except for the cover sheet, which contains approval signature(s), all drawings may be printed directly to Adobe Acrobat format with electronic seal and signature.

The design consultant will prepare 28 compact discs, each with one project manual file and one drawing file and two full size paper copies. Of these, 25 compact discs will be delivered to the County Purchasing Agent for advertising, and three discs will be provided to the County's Engineering Department. Paper copies to be provided to County Facilities Department.

The Purchasing Agent will forward bidder questions to the design consultant. Answers to questions, as well as any other required changes, will be included in an addendum, prepared by the design consultant if necessary. The Purchasing Agent will distribute the addendum.

After the bid, the County's project management consultant will prepare a bid tabulation and provide a copy to the design consultant for filing.

The design consultant will attend a pre-construction meeting with the County, project management consultant, general contractor, and construction materials testing contractor.

The design consultant will be responsible for reviewing contractor submittals and responding to Requests for Information.

The design consultant will participate in a substantial completion walkthrough.

After project completion, the design consultant will prepare 1 CD and two full size paper record drawings based on contractor as-built markups. The record drawings shall be on full

size paper and delivered to the County Facilities Department. The CD shall be delivered to the County Engineering Department.

***Other services:***

ENGINEER will prepare, submit and obtain approved platting documents. Parcel layout to be approved by County prior to submission. Parcel split to include dedicated ROW for Bamore Road.

ENGINEER will obtain and submit land appraisals according to funding source regulations. Services will include an appraisal and review appraisal for one location.

ENGINEER will prepare and submit Traffic Analysis/flow (to facility and within facility) incorporating road extension for access. Prior to initiation of analysis, ENGINEER will verify City/County/Funding Source requirement.

***Request for Letter of No Prejudice:***

ENGINEER will assist the county in preparing a request for a letter of no prejudice (LONP) for submission to FTA. Services to include responses to funding source follow-up questions and requests for information. A phased implementation plan will be provided if required for the LONP. If necessary, phased construction documents will be provided. In no event shall the ENGINEER be liable, whether in contract or tort or otherwise, to Fort Bend County nor the members of the Commissioner's Court for loss of profits, delay damages, or for any special incidental or consequential loss or damage of any nature arising at any time by the denial by the FTA or other funding agency of the funding for this project.

***Fixtures, Furnishings & Equipment (FF&E):***

If needed, ENGINEER will provide coordination services for furniture, fixtures and equipment as follows:

1. Meet with Owner's representative to review county furniture layout standards and select appropriate standard for positions at this facility.
2. Select up to two options from county approved furniture manufacturer products OR from similar product lines from GSA approved manufacturers for the spaces as indicated in the preliminary program.
3. Coordinate all architectural finishes with furniture finishes.
4. Prepare furniture specifications for use by county procurement office.

Maintenance, bus wash and fueling facility equipment will be reviewed with the county and selection assistance and recommendations will be provided for inclusion with bidding

documents. ENGINEER will provide responses to RFI's, change orders, and oversight of installation and testing.

***Modifications to Existing Fuel Depot:***

If needed, ENGINEER will prepare plans and specifications to modify the existing county fuel depot to allow automatic fuel transfer from the bulk tank to the distribution tank and to accommodate one additional gasoline and one additional diesel fuel dispenser. Design will include pavement modifications as necessary to allow multiple buses to fuel simultaneously. Modifications to fuel depot will be coordinated with proposed facility to streamline access to the site with fencing and access controls.

***PS&E Deliverables***

**1. SUBMISSIONS**

The following is a list of submissions to be provided:

**30% Complete Submittal**

Provide Five (5) paper copies of the items below:

1. Preliminary Title Sheet
2. Existing and Proposed Typical Sections
3. Preliminary Summary Sheets
4. Control Data Sheets
5. Preliminary Plan & Profile Sheets for all Alignments
6. Preliminary Intersection Layouts
7. Preliminary Grading Sheets
8. Preliminary Drainage Area Maps
9. Preliminary Culvert Computations
10. Preliminary Estimate

**60% Complete Submittal**

Provide five (5) paper copy of the items below..

1. Address 30% Comments
2. Updated Title Sheet with Index of Sheets including Standards
3. Final Existing and Proposed Typical Sections
4. Updated Summary Sheets
5. Preliminary Traffic Control Plan Sheets
6. Control Data Sheets & Right Of Way Marker Sheets
7. Final Plan & Profile Sheets for all Alignments

8. Final Intersection Layouts
9. Preliminary Miscellaneous Roadway Details
10. Final Drainage Area Maps
11. Preliminary Storm Sewer Plan & Profile Sheets
12. Preliminary Hydraulic Computations
13. Preliminary Signing Layouts
14. Preliminary Pavement Marking Layouts and Delineation
15. Preliminary SW3P Layouts
16. Roadway Cross-Sections (scale 1"=20' horizontally and vertically)
17. Updated Estimate
18. Preliminary Contract Time Determination
19. Level "A" SUE Information and a List of Potential Utility Conflicts

### **95% Complete Submittal**

Provide five (5) paper copy of the items below.

1. Update 60% Comments
2. Update Title Sheet with Index of Sheets
3. Final Existing and Proposed Typical Sections
4. Final Summary Sheets
5. Final Traffic Control Plan
6. Final Control Data Sheets
7. Final Plan and Profile Sheets
8. Final Intersection Layouts
9. Final Traffic Signal Sheets
10. Final Miscellaneous Roadway Details
11. Final Drainage Area Map
12. Final Storm Sewer Plan & Profile Sheets
13. Final Hydraulic Computations
14. Final Utility Exhibits
15. Final Signing Layouts
16. Final Pavement Markings Layouts and Delineation
17. Final SW3P Layouts
18. Final Estimate, General Notes, Specifications, Contract Time Determination

### ***OTHER DELIVERABLES***

The Engineer shall forward two (2) sets of electronic media with all the files containing the information and layouts used to prepare the PS&E.

The ENGINEER shall provide a notebook containing the project design calculations and associated data.

### 3. REVIEWS AND REVIEW MEETINGS

The ENGINEER will attend 30%, 60%, and 95% submittal review meetings. Plan sheets shall be numbered and five (5) copies will be required for each submittal. Comments and revisions requested at the review meetings shall be incorporated into the plans for the next submittal.

At each meeting, continued discussion on basic design issues such as alignment, drainage, traffic control, erosion control, safety control, pedestrian and bicycle needs, ADA requirements, review of how environmental conditions of approval is addressed and any design waivers/exceptions not previously identified.

The ENGINEER shall take minutes of each review meeting.

#### ***Exclusions / Limitations to this scope of work:***

Foundation design is limited to simple foundation types. ENGINEER reserves the right to seek additional compensation should the Geotechnical engineer propose complex foundation requirements.

This fee is for simple building construction, i.e. single story pre-engineered metal building with decorative façade and typical county finishes. This fee expects all buildings to occupy the same building site. ENGINEER reserves the right to negotiate additional compensation should the county decide to use multiple sites and or increase the complexity of the type of building.

#### ***Schedule:***

ENGINEER expects the master planning activities to be completed 45 days from receipt of notice to proceed. The subsequent schedule will be defined at that time.

ENGINEER shall complete the LONP within 10 days of contract execution.

#### ***Section II - Bamore Road Extension:***

The work to be performed by the ENGINEER under this contract for the Bamore Road Extension will consist primarily of the preparation of plan, specification and estimate (PS&E) documents for Bamore Road in Fort Bend County. (See attached map)

## **Preliminary Design**

The primary goals are to (1) establish a typical cross section and cross sections in non-standard areas, (2) positively determine right-of-way acquisition needs, (3) determine potential conflicts with existing facilities, (4) identify critical path items, (5) identify problem areas and potential resolution(s), and (6) prepare a reasonable construction cost estimate. Normally, a “30 percent” plan set will be prepared, consisting of all existing features (seen and unseen) shown in plan and profile, and proposed improvements in plan only with minor annotation. These plans, along with a typical section sheet, are the only drawings that are necessary at this point.

Topographic survey should be completed during preliminary design, unless the project includes a completely new roadway alignment that needs to be approved. Normally, right-of-way acquisition will be required for road expansions, and part of preliminary design includes determining where to expand. To cover all options, topographic survey should be taken within existing right-of-way and then at least 20 feet beyond the right-of-way on each side, or as determined in a scoping meeting.

Temporary benchmarks and baseline control should be set, both with 1,000-foot maximum spacing between points. Abstracting should be performed to gain a preliminary determination of property ownership and existing right-of-way widths. During topographic survey, found property corners should be documented so that the approximate location of the right-of-way can be determined.

Structures in clear view and within 100 feet of the existing right-of-way should be surveyed.

Once right-of-way needs have been determined and approved by the County, a Category 1A survey must be performed to produce a parcel map and metes-and-bounds description for each parcel to be acquired in the project. These documents will be submitted separately from other design documents, and will be paid for on a per-parcel basis.

Research to determine the existence and location of underground utilities (pipelines, duct banks, etc.) is the design consultant’s responsibility. A reasonable amount of research should be conducted, including but not limited to contact with companies identified on above-ground markers, Railroad Commission website research, and map requests from prominent companies (CenterPoint, AT&T, etc.). CenterPoint Energy and AT&T I.D. numbers should be obtained. An appropriate attempt must be made to depict underground utilities accurately in the plan and profile drawings, and potential conflicts between existing utilities and proposed features should be identified. Any subsurface utility investigation (SUI) should be at the expense of the utility company. Contact with utility companies (both overhead and underground) to coordinate the

adjustment of existing utilities will be made by the County and/or its project management consultant.

A Preliminary Engineering Report will normally be prepared for preliminary design, and the purpose of the report is to document the six goals stated above. It is not necessary to prepare a presentation-quality document, as the report will remain internal to Engineering staff. The report should include a narrative, applicable plans, a drainage report, a construction cost estimate, a geotechnical report, and an environmental report, as applicable. Any further requirements can be discussed in a scoping meeting. Unless other agencies are involved in the project, no more than three copies of the report should be required. No technical presentations should be required, unless stated otherwise in a scoping meeting.

### **Final Design**

The goal is to prepare construction drawings and specifications accurately and efficiently. Interim submittals will normally be made at 60 percent and 95 percent completion, and should include drawings, a specification table of contents (and/or special specifications, as applicable), and a construction cost estimate.

Applicable design criteria include, in order of priority, (1) Fort Bend County Drainage Criteria Manual (Fort Bend County Drainage District, November 1987, revised April 1999), (2) municipal design criteria if the project is located within the limits of a municipality and/or ETJ that has design criteria, (3) Guidelines for Engineers Having Contracts with Harris County, Texas (Harris County Public Infrastructure Department, 1987), (4) applicable Texas Department of Transportation design criteria (all County-maintained traffic signals, other items as applicable), and (5) the Infrastructure Design Manual (City of Houston Department of Public Works and Engineering, current version, used for infrastructure for which design criteria do not exist in the preceding criteria documents). Municipalities contributing funds to the project may review the submittals.

The 60 percent submittal should include the following:

- Cover sheet (Fort Bend County name and seal, project name with limits, vicinity and location maps, names of County Judge and Commissioners, signature line for County Engineer, design firm name and registration number)

- Typical and non-standard cross sections (not-to-scale proposed sections with station limits for each section; show pavement/subgrade material and thickness, right-of-way and roadway width, applicable dimensions, profile grade line, and general location of existing and proposed utilities)
- Overall project layout (scale as appropriate with sheet references left blank since they are subject to change in subsequent submittals)
- Survey control map
- Drainage area map with hydraulic calculations (display calculations clearly for future use by area developers)
- Plan and profile sheets (1"=20' plan scale but printed half-size for a 1"=40' scale; all existing and proposed facilities correctly shown in plan and profile; separate drawings for roadway and storm sewer are not necessary; detailed callouts not required at 70%)
- Traffic control plan (phasing and traffic control; avoid detours unless approved by the County; use of construction zone standards is encouraged)
- Storm Water Pollution Prevention Plan (drawings and text; drawings may consist of a layout and details)
- Bridge layout and details (if applicable)
- Specification table of contents (use Harris County Specifications)
- Bid form with estimated unit and total costs (spreadsheet based)

Five copies of the 60 percent submittal will be required for County review, and drawings can be submitted on 11-inch by 17-inch sheets.

The 95 percent submittal should be considered complete with 95% interim seal, and shall include all of the 60 percent requirements plus the following:

- General notes sheet
- Verify earthwork quantities with cross sections at 100-foot intervals (only non-standard sections should be included in plans)
- Signage and pavement marking plans (signs may be shown on plan and profile sheets and use of pavement marking standards is encouraged)
- Standard construction details
- Project manual (bid form, specification table of contents, any special specifications or conditions; contract documents excluded)
- Responses to 60 percent comments

Five copies of the 95 percent submittal will be required for County review, and drawings should be submitted on 22-inch by 34-inch sheets.

Final design efforts will be considered complete when comments to the 95 percent submittal have been addressed.

Bamore Road Extension Exclusions:

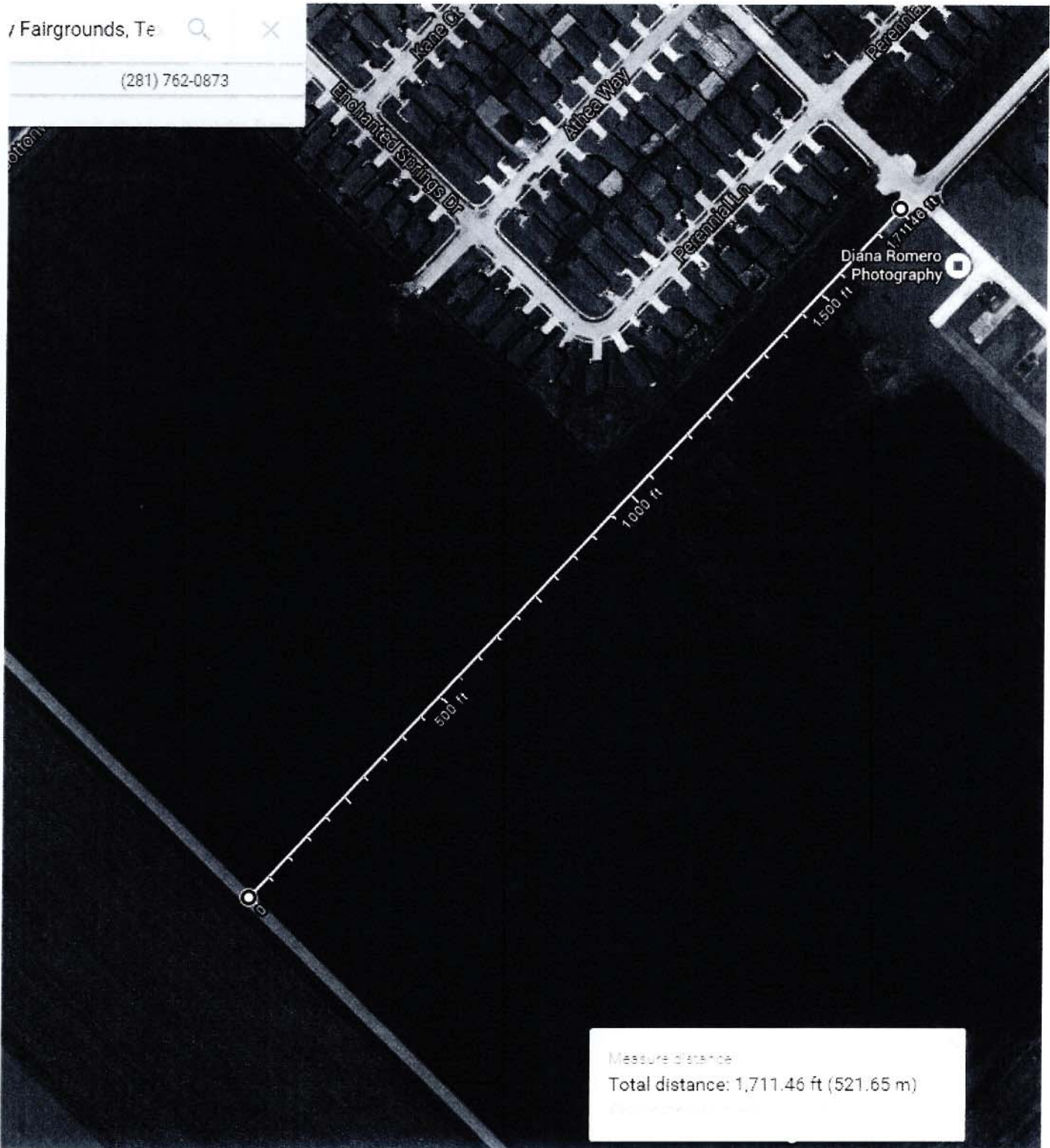
- 1) No separate survey for roadway design.
- 2) Pavement and storm sewer trenching design will be provided by county.
- 3) No separate geotech analysis for roadway design.
- 4) Survey control maps will be supplied by site surveyor.
- 5) Illumination design for Bamore will not be part of the scope.
- 6) Traffic signal design and warrant studies will not be part of the scope.
- 7) Storm Sewer outfall channel design or surveying will not be included in fee as it is part of the overall design.
- 8) County will supply subdivision plats, survey and as-built plans.
- 9) County will coordinate with MUD districts.
- 10) Construction Inspection and Construction material Testing will not be part of the scope.

11) No sidewalk or shared path design

12) No newspaper bid adds

/ Fairgrounds, Te

(281) 762-0873



Measure distance

Total distance: 1,711.46 ft (521.65 m)

# EXHIBIT B

## SCHEDULE

| Task                   | Due Date                                |
|------------------------|---|
| LONP                   | 10 Days After Contract Execution        |
| Master Plan - 45 days  | 45 Days After Contract Execution        |
| 30% Design - 30 days   | 30 Days After Acceptance of Master Plan |
| 60% Design - 60 days   | 60 Days After Acceptance of 30% Design  |
| 95% Design - 30 days   | 30 Days After Acceptance of 60% Design  |
| Final Design - 10 days | 10 Days After Acceptance of 95% Design  |
| As Needed Items        | Determined at time of Request           |

**WORK AUTHORIZATION NO. 2  
PAYMENT SCHEDULE**

| DESCRIPTION                                | TOTAL NTE        |
|--|------------------|
| Basic Services                             |                  |
| Platting of Existing Site                  |                  |
| Appraisal/Review Appraisal                 |                  |
| Architecture/MEP/Foundations               |                  |
| Admin & Operations                         |                  |
| Maintenance                                |                  |
| Service Areas                              |                  |
| Sitework/Utilities                         |                  |
| Paving                                     |                  |
| Fuel/Island/Cleaning Station               |                  |
| Building                                   |                  |
| MEP Infrastructure                         |                  |
| Cleaning System(s)                         |                  |
| Tanks (2@12K Gallons)                      |                  |
| Product Dispenser (2)                      |                  |
| Foundations (2)                            |                  |
| Bus Wash                                   |                  |
| Building                                   |                  |
| MEP Infrastructure                         |                  |
| Apparatus                                  |                  |
| <b>Subtotal Basic Services Design</b>      | <b>\$675,296</b> |
| Additional Services                        |                  |
| Modify Existing Fuel Depot                 | \$55,000         |
| Extend Bamore Road 1,750'                  | \$188,000        |
| Obtain ROW for Bamore Extension            | \$15,000         |
| FFE Office Space Turnkey                   | \$42,680         |
| FFE Maintenance Turnkey                    | \$3,750          |
| LONP Preparation                           | \$8,800          |
| Peer Review                                | \$5,000          |
| <b>Subtotal Additional Design Services</b> | <b>\$318,230</b> |
| <b>Total WA # 2 Services</b>               | <b>\$993,526</b> |

| PAYMENT SCHEDULE   | TOTAL NTE        |
|--|------------------|
| Design Completion - 30% at 30% Completion Acceptance                                   | \$202,589        |
| Design Completion - 30% at 60% Completion Acceptance                                   | \$202,589        |
| Design Completion - 30% at 95% Completion Acceptance                                   | \$202,589        |
| Basic Services Design Completion - 10% at Contract Conclusion Acceptance               | \$67,530         |
| Extend Bamore Road 1,750' - 30% at 30% Completion Acceptance                           | \$56,400         |
| Extend Bamore Road 1,750' - 30% at 60% Completion Acceptance                           | \$56,400         |
| Extend Bamore Road 1,750' - 30% at 95% Completion Acceptance                           | \$56,400         |
| Extend Bamore Road Design Completion - 10% at Contract Conclusion Acceptance           | \$18,800         |
| LONP Preparation - 100% at Task Completion   | \$8,800          |
| <b>PAID ONLY IF NEEDED</b>   |                  |
| Design Completion - Modify Existing Fuel Depot - 30% at 30% Completion Acceptance      | \$16,500         |
| Design Completion - Modify Existing Fuel Depot - 30% at 60% Completion Acceptance      | \$16,500         |
| Design Completion - Modify Existing Fuel Depot - 30% at 95% Completion Acceptance      | \$16,500         |
| Design Completion - Modify Existing Fuel Depot - 10% at Contract Conclusion Acceptance | \$5,500          |
| Obtain ROW for Bamore Extension  | \$15,000         |
| FFE Office Space Turnkey n- 100% at Task Completion                                    | \$42,680         |
| FFE Maintenance Turnkey - 100% at Task Completion                                      | \$3,750          |
| Peer Review - 100% at Task Completion  | \$5,000          |
| <b>Total NTE</b>   | <b>\$993,526</b> |

Highlight - only if needed items