

**ATTACHMENT “A” TO AMENDMENT NO. 1  
PROJECT SCOPE  
AMENDMENT NO.1 (REVISED PER ORDINANCE 22-\_-\_-)**

DES ALLEMANDS BULKHEAD  
Project No. (P210601)

The Scope of Work is as follows:

**ORIGINAL CONTRACT:** The scope involves the design of a new steel sheet pile bulkhead along the bank of Bayou Des Allemands, along both Down the Bayou Road and Up the Bayou Road, approximately a total of 8,700 linear feet. The purpose of this project is to replace the existing timber bulkhead with a more structurally sound and longer lasting steel bulkhead. Over the years the timber bulkhead has deteriorated and become undermined. The project will be completed in phases with Phase I consisting of approximately 1,000 linear feet from a point south of Hwy. 90 Bridge to the Old Hwy. 90 Bridge. The basic services described herein are for Phase I of this project, but the survey and geotechnical portions of the work will be completed for the entire length of project.

**AMENDMENT NO.1:** The scope involves the design of an emergency steel sheet pile bulkhead to be installed along Down the Bayou Road in Des Allemands, LA. This sheet pile wall installation is necessary as a result of significant damage to the existing timber bulkhead due to Hurricane IDA. The new sheet pile wall will be installed on the outside limits of the existing bulkhead with flowable fill in between the two bulkheads to fill all voids. The new wall will act as a temporary bulkhead until the design is complete for the permanent wall, as described in the original contract scope above.

**PART 1 – BASIC SERVICES**

A. **PRELIMINARY DESIGN PHASE**

After written acceptance by OWNER of the Conceptual Report, selection by OWNER of a recommended solution, and upon written authorization from OWNER, ENGINEER shall:

- a. Prepare Preliminary Design Phase documents consisting of final design criteria, preliminary drawings, and outline specifications. Visit the Site, as needed, to prepare the Preliminary Design Phase documents.
- b. Coordinate all surveys and other investigations (see Additional Services) as may be required to prepare construction plans. Investigations and/or surveys shall locate existing utilities (private and public) affected by the project and shall locate and define such utilities sufficiently in the event that utilities have to be relocated.
- c. Prepare a program of borings and other soil investigations that may be required.
- d. Provide written notice to all utility companies (private and public) about the project and request utility “as-built” information from them.

- e. Advise OWNER if additional reports, data, information, and/or services not already identified in the Conceptual Phase which are necessary and assist OWNER in obtaining such reports, data, information, and/or services.
- f. Based on the information contained in the Preliminary Design Phase documents, prepare a revised opinion of probable Construction Cost.
- g. Obtain and review OWNER's contract documents and OWNER specifications for inclusion within the final contract, plans and specifications. ENGINEER shall also consult with OWNER in regards to OWNER policies and practices in regard to contract administration and construction management.
- h. Furnish three review copies of the Preliminary Design Phase documents and revised opinion of probable Construction Cost to OWNER as well as submitting electronically to appropriate parties specified by OWNER. ENGINEER's services under the Preliminary Design Phase will be considered complete on the date when ENGINEER has delivered to OWNER the final Preliminary Design Phase documents and opinion of probable Construction Cost.

B. FINAL DESIGN PHASE

After written acceptance by OWNER of the final Preliminary Design Phase documents and upon written authorization from OWNER, ENGINEER shall:

- a. Prepare Final Drawings and Specifications indicating the scope, extent, and character of the Work to be performed and furnished by CONTRACTOR.
- b. These Drawings shall include locations of all utilities affected, with ownership and rights-of-way where required. The existing and ownership of any existing utilities shall be determined by contacting each utility provider in writing to obtain such records as may be available and information from the survey. Coordinate with said utility companies on the adjustment, relocation, or removal of existing utility lines and structures within the project that are in conflict with the proposed improvements.
- c. Visit the Site as needed to assist in preparing the Final Drawings and Specifications.
- d. Prepare necessary applications for permits for submission for approval of local, state, and federal authorities.
- e. Prepare a detailed Final Cost Estimate.
- f. Furnish for review by OWNER three copies of the Final Drawings, Specifications, and Cost Estimate as well as submitting electronically to appropriate parties specified by OWNER. OWNER shall submit to ENGINEER any comments regarding the furnished items, and any instructions for revisions. ENGINEER's services under the Final Design Phase will be considered complete on the date when

ENGINEER has delivered to OWNER the Final Drawings, Specifications, and Cost Estimate.

C. BID PHASE

After acceptance by OWNER of the Final Drawings, Specifications, the most recent opinion of probable Construction Cost, and upon written authorization by OWNER to proceed, ENGINEER shall:

- a. Assist OWNER in advertising for and obtaining bids or proposals for the Work, assist OWNER in issuing assembled design, contract, and bidding-related documents to prospective CONTRACTORS, and, where applicable, maintain a record of prospective CONTRACTORS to which documents have been issued, pre-bid conferences, if any, and receive and process CONTRACTOR deposits or charges for the issued documents.
- b. Prepare and issue Addenda as appropriate to clarify, correct, or change the issued documents.
- c. Consult with OWNER as to the qualifications of prospective CONTRACTORS. Consult with OWNER as to the qualifications of Subcontractors, suppliers, and other individuals and entities proposed by prospective CONTRACTORS, for those portions of the Work as to which review of qualifications is required by the issued documents.
- d. If the issued documents require, ENGINEER shall evaluate and determine the acceptability of "or equals" and substitute materials and equipment proposed by prospective CONTRACTORS.
- e. Attend the bid opening, prepare bid tabulation sheets and recommendation of award to meet OWNER's schedule, and assist OWNER in evaluating bids or proposals, assemble final contracts for the Work for execution by OWNER and CONTRACTOR, and in issuing notices of award of such contracts.
- f. The Bid Phase will be considered complete upon commencement of the Construction Phase.

D. CONSTRUCTION PHASE

Upon successful completion of the Bid Phase and upon written authorization from OWNER, ENGINEER shall:

- a. Prepare formal contract documents for the execution of the construction contract.
- b. Pre-Construction Conference: Participate in a pre-construction conference prior to commencement of Work at the Site.
- c. Establish construction monuments, project baseline, and benchmarks as necessary.

- d. Coordinate with owners of utilities for relocation of their facilities to clear the site for construction.
- e. Require and review tests of materials necessary for the project.
- f. Verify and approve CONTRACTOR's Applications for Payment and schedules (Progress Schedules, Schedule of Submittals, and Schedule of Values) and submit to the OWNER.
- g. Prepare progress reports for the OWNER when requested and coordinate monthly progress meetings between OWNER, CONTRACTOR, ENGINEER, and inspector, as necessary throughout the duration of the project.
- h. Review shop drawings and sampled for conformance with the design concept of the project and for compliance with the result required in the Contract Documents. Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by CONTRACTOR.
- i. Prepare all necessary documentation required for construction RFIs (Requests for Information/Interpretation), Change Orders, and Work Change Directives.
- j. Attend Council meetings and other meetings necessary to discuss issues associated with the project.
- k. Record Drawings: The ENGINEER shall furnish reproducible "RECORD" drawings, based on information provided by the CONTRACTOR, both printed on full size paper as well as electronically via AutoCAD.
- l. Receive from CONTRACTOR, review, and transmit to OWNER maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance required by the Construction Contract Documents
- m. Make visits to the Site at intervals appropriate to the various stages of construction, as ENGINEER deems necessary, to observe as an experienced and qualified design professional the progress of CONTRACTOR's executed Work.
- n. Perform Substantial Completion walk through, generate Substantial Completion recommendation and accompanying Punch List. Perform final inspection and make a recommendation for acceptance.
- o. The Construction Phase will commence with the execution of the Notice of Intent to Award for the Project and will terminate upon written recommendation by ENGINEER for final payment to CONTRACTORS.

## **PART 2 – ADDITIONAL SERVICES**

### **A. SURVEY**

ENGINEER shall obtain a contract with a Licensed Professional Surveyor to complete the work as outlined in the scope of survey work the ENGINEER developed in the Preliminary Design Phase of the project. The survey's purpose is to locate all existing features both manmade and natural features, both above ground and subsurface within the project limits. The survey shall include the following elements:

1. Established baselines and temporary benchmarks along the project corridor and specified datums used,
2. Utilities as shown after contacting Louisiana One Call,
3. Descriptions, locations, depths, and sizes of all pipes within the project,
4. Descriptions, locations, diameters of all trees within the project,
5. Ground elevations within the project limits to properly develop contours,
6. Locations of all buildings, fences, and other structures,
7. Cross sections along roadways at 100-foot intervals minimum,
8. Cross sections along ditches at 50-foot intervals minimum,
9. Locations of all apparent rights-of-way and servitudes.

Survey shall be submitted to the Parish both in PDF and CAD format.

#### **Data Collection and Processing:**

1. Spatial data collected for projects shall be referenced to the updated NAD83 and NAVD88 reference datums established by NOAA (National Oceanic and Atmospheric Administration). Monumentation shall be set in an area outside the construction limits so as not to be disturbed during the construction phase. Existing control monumentation located within the vicinity may be used in lieu of setting new monuments. Field observations data must be processed and delivered to the Parish and comply with the specific deliverables requirements defined below.

### Project Control:

1. Information on project control monuments that are applicable to the survey/project limits shall be provided by contractors, designers, engineers, or surveyors. This documentation should be labeled or clearly defined as Datum and Control.
2. Monument documentation must include source documentation such as Report of Survey Mark or NGS (National Geodetic Survey) Data Sheet and should remain in its original format as well as retain its original name as provided by the source. Monument maps may be scanned and the electronic scan treated as the source. PDF is the preferred format for scanned monument maps, although jpg and tif files are also acceptable.
3. All existing monuments used in the establishment of the project control network must have documentation as described above.
4. The Surveyor shall acquire the elevation and datum of all bench marks to be use in the survey. The elevation used shall be based on the updated NAD83 and NAVD88 reference datums.

### Survey Data Deliverables:

1. A complete survey package as described below must be submitted by assembling all the appropriate electronic information used to conduct the survey. These documents should indicate the following (where applicable) for project control monuments:
  - a. Designation - the “name” of the mark used.
  - b. CORS Identifier - the mark is either a Continuously Operational Reference Station (CORS) or is associated with one.
  - c. PID - Permanent Identifier
  - d. GEOID – Geoid model used (ex. 12B)
  - e. Epoch – ex. 2010
  - f. Latitude/Longitude – X,Y; Northing/Easting; State Plane Louisiana South FIPS1702 (Feet)
  - g. Orthometric Height – Z (Feet)
  - h. Horizontal Datum – ex. coordinates in North American Datum (NAD 1983)
  - i. Vertical Datum – ex. North American Vertical Datum (NAVD 88) elevation (if measured)
  - j. Horizontal and vertical accuracy

k. Units

l. Scale factor

B. GEOTECHNICAL INVESTIGATION

ENGINEER shall obtain a contract with a Licensed Louisiana Geotechnical firm to complete the work as outlines in the scope of geotechnical work the ENGINEER developed in the Preliminary Design Phase of the project. The geotechnical investigation purpose is to determine the properties of the soil in the project area. The geotechnical investigation shall include the following elements:

1. (1) one to (2) two undisturbed soil borings located within proximity to the project location
2. The borings are to be classified and analyzed as necessary in accordance with accepted industry practices for foundation design
3. Subsurface exploration data to include soil profile, exploration logs, lab or in-situ test results, and ground water conditions
4. Engineering recommendations for design such as pile depth, sheet pile design, etc. and recommendations to be project specific
5. The boreholes are to be backfilled and road surfaces patched in accordance with DOTD requirements (Purple book or later).

C. RESIDENT PROJECT REPRESENTATIVE (RPR)

ENGINEER shall furnish a Resident Project Representative (“RPR”), at the request of the OWNER to assist ENGINEER in observing progress and quality of the Work. The RPR may provide full time representation or may provide representation to a lesser degree. RPR is ENGINEER’s representative at the Site and will act as directed by and under the supervision of ENGINEER.

The duties and responsibilities of the RPR are as follows:

1. RPR’s dealings in matters pertaining to the Work in general shall be with ENGINEER and CONTRACTOR. RPR’s dealings with Subcontractors shall only be through or with the full knowledge and approval of CONTRACTOR. RPR shall generally communicate with OWNER only with the knowledge of and under the direction of ENGINEER.
2. Review the progress schedule, schedule of Shop Drawing and Sample submittals, schedule of values, and other schedules prepared by CONTRACTOR and consult with ENGINEER concerning acceptability of such schedules.
3. Attend meetings such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings.

4. Comply with Site safety programs.
5. Serve as ENGINEER's liaison with CONTRACTOR. Assist ENGINEER in serving as OWNER's liaison with CONTRACTOR when CONTRACTOR's operations affect OWNER's On-Site operations.
6. Report to ENGINEER whenever RPR believes that any part of the Work is defective under the terms and standards set forth in the Construction Contract Documents and provide recommendations as to whether such Work should be corrected, removed, and replaced, or accepted as provided in the Construction Contract Documents.
7. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate OWNER's personnel, and that CONTRACTOR maintains adequate records thereof. Observe, record, and report to ENGINEER appropriate details relative to the test procedures and systems start-ups.
8. Prepare a daily report or keep a diary or log book, recording CONTRACTOR's hours on the Site, Subcontractors present at the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to ENGINEER.
9. Immediately inform ENGINEER of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, possible force majeure or delay events, damage to property by fire or other causes, or the discovery of any potential differing site condition or Constituent of Concern.
10. Review applications for payment with CONTRACTOR for compliance with the established procedure for their submission and forward with recommendations to ENGINEER, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.
11. Participate in ENGINEER's and OWNER's visits to the Site regarding Substantial Completion, assist in the determination of Substantial Completion, and prior to the issuance of a Certificate of Substantial Completion submit a punch list of observed items requiring completion or correction.
12. Observe whether all items on the final punch list have been completed or corrected and make recommendations to ENGINEER concerning acceptance.
13. Resident Project Representative shall not:
  - a. Authorize any deviation from the Construction Contract Documents or substitution of materials or equipment (including "or-equal" items).



- b. Undertake any of the responsibilities of CONTRACTOR, Subcontractors, or Suppliers.
- c. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of the Work, by CONTRACTOR.
- d. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of OWNER or CONTRACTOR.

**ATTACHMENT “B” TO AMENDMENT NO. 1  
PROJECT SCHEDULE  
AMENDMENT NO.1 (REVISED PER ORDINANCE 22--\_--)**

DES ALLEMANDS BULKHEAD  
Project No. (P210601)

The CONSULTANT shall complete the following phases of the project within the number of days shown after Notices to Proceed:

<u>Number of Days to Complete</u>		
<u>Phase</u>	<u>Original Contract</u>	<u>Amendment No.1</u>
Preliminary Design Phase	30	15
Final Design Phase	60	15
Bid Phase	30	30
Construction Phase	180	180

Time for Completion

1. If, through no fault of ENGINEER, such periods of time or dates are changed, or the orderly and continuous progress of ENGINEER’s services is impaired, or ENGINEER’s services are delayed or suspended, then the time for completion of ENGINEER’s services shall be adjusted equitably.
2. If OWNER authorizes changes in the scope, extent, or character of the Project or ENGINEER’s services, then the time for completion of ENGINEER’s services, and the rates and amounts of ENGINEER’s compensation, shall be adjusted equitably.
3. If ENGINEER fails, through its own fault, to complete the performance required in this Agreement within the time set forth, as duly adjusted, then OWNER shall be entitled, as its sole remedy, to the recovery of direct damages, if any, resulting from such failure.

**ATTACHMENT “C” TO AMENDMENT NO. 1  
PROJECT COMPENSATION  
AMENDMENT NO.1 (REVISED PER ORDINANCE 22--\_--)**

DES ALLEMANDS BULKHEAD  
Project No. (P210601)

OWNER shall pay ENGINEER on a Not to Exceed basis for Basic Services set forth in Attachment A as follows:

- a. **ORIGINAL CONTRACT:** The total compensation for basic services as described in Attachment A is estimated to be \$325,180.00 based on the following estimated distribution of compensation:
- |                                   |              |
|-----------------------------------|--------------|
| 1. Preliminary Design Phase (30%) | \$97,554.00  |
| 2. Final Design Phase (40%)       | \$130,072.00 |
| 3. Bid Phase (5%)                 | \$16,259.00  |
| 4. Construction Phase (25%)       | \$81,295.00  |
- b. **AMENDMENT NO.1:** The total compensation for basic services as described in Attachment A is estimated to be \$166,550.00 based on the following estimated distribution of compensation:
- |                                   |             |
|-----------------------------------|-------------|
| 1. Preliminary Design Phase (30%) | \$49,965.00 |
| 2. Final Design Phase (40%)       | \$66,620.00 |
| 3. Bid Phase (5%)                 | \$8,327.50  |
| 4. Construction Phase (25%)       | \$41,637.50 |
- c. ENGINEER may, with OWNER’s consent, alter the distribution of compensation between individual phases of the Work noted herein to be consistent with services actually rendered, but shall not exceed the total estimated compensation amount unless approved in writing by OWNER.

- d. The amounts billed for ENGINEER's services under this Agreement will be based on the cumulative hours charged to the Project during the billing period by each class of ENGINEER's employees times Standard Hourly Rates for each applicable billing class, plus ENGINEER's CONSULTANT's charges.
- e. The Standard Hourly Rates charged by ENGINEER constitute full and complete compensation for ENGINEER's services, including labor costs, overhead, and profit; the Standard Hourly Rates do not include ENGINEER's CONSULTANT's charges.
- f. ENGINEER's Standard Hourly Rates are attached to this Agreement as Appendix A.

OWNER shall pay ENGINEER on a Not to Exceed basis for Additional Services set forth in Attachment A as follows:

- |                               |             |
|-------------------------------|-------------|
| a. Surveying                  | \$71,970.00 |
| a. Geotechnical Investigation | \$43,245.00 |

OWNER shall pay ENGINEER for Resident Project Representative Basic Services as follows:

1. Resident Project Representative Services: For services of ENGINEER's Resident Project Representative, if requested, as outlined in Part 2.C of Attachment A, a total amount of \$120,000.00, at the hourly rate as listed in Appendix A.
2. Resident Project Representative Schedule: The Hourly Rate amount set forth above is based on full-time RPR services on an eight-hour workday Monday through Friday over a 180-day construction schedule.