
# CONTRACT FOR PROFESSIONAL SERVICES

## OLD RELIANCE ROAD WIDENING
## CIP PROJECT NUMBER 332-D3-1512
## RFQ#24-008

This Contract, dated _____, 2024, is between the **City of Bryan**, a Texas home-rule municipal corporation, (City) and **Goodwin-Lasiter, Inc. d/b/a GLS**, a Texas corporation (Engineer). City and Engineer, in consideration of the mutual covenants set forth herein, agree as follows:

### 1. Scope of Services

The Engineer agrees to provide professional services for the roadway construction and culvert replacement on Old Reliance Road from Austin's Colony Parkway to the city limits. (approximately 3650 LF). The services are more particularly described in **Attachment A**.

### 2. Payment

The City shall pay the Engineer according to the terms set forth in **Attachment A**. Except in the event of a duly authorized change order, approved by the City in writing, the total cost of all professional services provided under this Contract may not exceed **$648,300.00**

### 3. Time of Performance

A. All professional services under this Contract must be completed by the following date: **December 31, 2025.** Any extension of time for completion must be approved by the Public Works Director and agreed by both parties in writing.

B. **Time is of the essence of this Contract.** The Engineer shall be prepared to provide the professional services in the most expedient and efficient manner possible in order to complete the work by December 31, 2025.

## 4. Warranty, Indemnification, & Release

A. As an experienced and qualified design professional, the Engineer warrants that Engineer will perform all services pursuant to this Contract, including but not limited to providing information, design preparation of drawing, designation or selection of materials and equipment and selection and supervision of personnel, (1) with the professional skill and care ordinarily provided by competent engineers practicing in the same or similar locality and under the same or similar circumstances and professional license; and (2) as expeditiously as is prudent considering the ordinary professional skill and care of a competent engineer. Approval of the City shall not constitute, or be deemed, a release of the responsibility and liability of the Engineer, its employees, agents, or associates for the exercise of skill and diligence to promote the accuracy and competency of their designs, information, plans, specifications or any other document, nor shall the City's approval be deemed to be the assumption of responsibility by the City for any defect or error in the aforesaid documents prepared by the Engineer, its employees, associates, agents, or subcontractors.

B. The Engineer shall promptly correct any defective designs or specifications furnished by the Engineer at no cost to the City. The City's approval, acceptance, use of, or payment for, all or any part of the Engineer's services hereunder or of the Project itself shall in no way alter the Engineer's obligations or the City's rights hereunder.

C. In all activities or services performed hereunder, the Engineer is an independent contractor and not an agent or employee of the City. The Engineer and its employees are not the agents, servants, or employees of the City. As an independent contractor, the Engineer shall be responsible for the professional services and the final work product contemplated under this Contract. Except for materials furnished by the City, the Engineer shall supply all materials, equipment, and labor required for the professional services to be provided under this Contract. The Engineer shall have ultimate control over the execution of the professional services. The Engineer shall have the sole obligation to employ, direct, control, supervise, manage, discharge, and compensate all of its employees or subcontractors, and the City shall have no control of or supervision over the employees of the Engineer or any of the Engineer’s subcontractors.

D. The Engineer must at all times exercise reasonable precautions on behalf of, and be solely responsible for, the safety of its officers, employees, agents, subcontractors, licensees, and other persons, as well as their personal property, while in the vicinity of the Project or any of the work being done on or for the Project. It is expressly understood and agreed that the City shall not be liable or responsible for the negligence of the Engineer, its officers, employees, agents, subcontractors, invitees, licensees, and other persons.

**E. <u>Responsibility for damage claims (indemnification)</u>: Engineer shall indemnify and save harmless the City and all its officers, agents, and employees from all suits, actions, or claims of any character, name and description brought for or on account of any injuries or damages received**

**or sustained by any person or persons or property resulting from the Engineer's negligent act, intentional tort, intellectual property infringement or failure to pay a subcontractor or supplier, or by or on account of any claims or amounts recovered under the Workmen's Compensation Law or any other law, ordinance, order or decree arising therefrom, and his sureties shall be held until such suit or suits, action or actions, claim or claims for injury or damages as aforesaid shall have been settled and satisfactory evidence to the effect furnished the City. Engineer shall indemnify and save harmless the City, its officers, agents and employees in accordance with this indemnification clause only for that portion of the damage caused by Engineer's negligence, intentional tort, intellectual property infringement or failure to pay a subcontractor or supplier.**

F. **Release**. The Engineer releases, relinquishes, and discharges the City, its officers, agents, and employees from all claims, demands, and causes of action of every kind and character, including the cost of defense thereof, for any injury to, sickness or death of the Engineer or its employees and any loss of or damage to any property of the Engineer or its employees that is caused by or alleged to be caused by, arises out of, or is in connection with the Engineer's negligent performance of the work. Both the City and the Engineer expressly intend that this release shall apply regardless of whether said claims, demands, and causes of action are covered, in whole or in part, by insurance.

## 5. Engineer's Insurance

Engineer agrees to have and maintain the policies set forth in the **Attachment B**. All policies, endorsements, certificates, and/or binders shall be subject to approval by the City as to form and content. These requirements are subject to amendment or waiver only if so approved in writing by the City. A lapse in any required coverage shall be a breach of this Contract.

## 6. Termination

A. The City or Engineer may terminate this Contract at any time upon thirty (30) calendar days' written notice. Upon the receipt of such notice, the Engineer shall discuss with the City what will be accomplished within the thirty (30) calendar day timeframe and document this in an exit strategy that must be approved by the City. The Engineer shall be compensated for the services satisfactorily performed prior to the termination date.

B. If, through any cause, the Engineer fails to fulfill its obligations under this Contract, or if the Engineer violates any of the agreements of this Contract, the City has the right to terminate this Contract by giving five (5) calendar days' written notice to the Engineer. The Engineer will be compensated for the services satisfactorily performed before the termination date.

C. No term or provision of this Contract shall be construed to relieve the Engineer of liability to the City for damages sustained by the City because of any breach of

contract by the Engineer. The City may withhold payments to the Engineer for the purpose of setoff until the exact amount of damages due the City from the Engineer is determined and paid.

## 7. Governmental Contract Requirements

A. Engineer must submit a disclosure of interested parties to the City in accordance with Section 2252.908 of the Texas Government Code and rules adopted under that section. The disclosure must be submitted at the time the Engineer submits the signed contract to the City on a form prescribed by the Texas Ethics Commission.

B. Engineer verifies that it is not engaged in business with Iran, Sudan, or a foreign terrorist organization, as prohibited by Section 2252.152 of the Texas Government Code.

C. Contractor verifies, to the extent authorized by law, that it does not, and will not for the duration of this Contract, boycott Israel in accordance with Section 2271.002 of the Texas Government Code.

## 8. Miscellaneous Terms

A. This Contract has been made under and shall be governed by the laws of the State of Texas. The parties agree that performance and all matters related thereto shall be in Brazos County, Texas. Venue for any disputes arising under this Contract shall be in the court of competent jurisdiction in Brazos County, Texas.

B. Notices shall be mailed to the addresses designated herein or as may be designated in writing by the parties from time to time and shall be deemed received when sent postage prepaid U.S. Mail to the following addresses:

The City of Bryan
Attn: Paul Kaspar
P.O. Box 1000
Bryan, Texas 77805
purchasingweb@bryantx.gov

The Engineer:
Goodwin-Lasiter Inc., dba GLS
Attn: John Rusk
4077 Cross Park Drive, Suite 100
Bryan, TX 77803
jrusk@glstexas.com

C. No waiver by either party hereto of any term or condition of this Contract shall be deemed or construed to be a waiver of any other term or condition or subsequent waiver of the same term or condition.

D. This Contract represents the entire and integrated agreement between the City and the Engineer and supersedes all prior negotiations, representations, or agreements, either written or oral. This Contract may only be amended by written instrument approved and executed by the parties.

E. This Contract and all rights and obligations contained herein may not be assigned

by the Engineer without the prior written approval of the City.

F. The Engineer, its agents, employees, and subcontractors must comply with all applicable federal and state laws, the charter and ordinances of the City of Bryan, and with all applicable rules and regulations promulgated by local, state, and national boards, bureaus, and agencies. The Engineer must obtain all necessary permits and licenses required in completing the work and providing the services required by this Contract.

G. The Engineer certifies that neither he, nor any co-owner of the organization is related to a member of the City Council of the City of Bryan within the first, second, or third degree of consanguinity (blood) or affinity (marriage).

H. The Engineer shall apply basic safeguarding requirements and procedures to protect Engineer's information systems whenever the information systems store, process or transmit any information, not intended for public release, which is provided by or generated for the City. This requirement does not include information provided by the City to the public or simple transactional information, such as that necessary to process payments. These requirements and procedures shall include, at a minimum, the security control requirements "reflective of actions a prudent business person would employ" which are outlined in the Federal Acquisition Regulations FAR 52.204-21(b) and codified in the Code of Federal Regulations at 48 C.F.R. § 52.204-21(b) (2016). Engineer shall include the substance of this clause in subcontracts under this contract in which the subcontractor may have City contract information residing in or transiting through its information system.

I. The provisions of this Contract are independent and severable from each other, and no provision shall be affected or rendered invalid or unenforceable by virtue of the fact that, for any reason, any other or others of them may be invalid or unenforceable in whole or in part. Furthermore, if a court of competent jurisdiction determines that any provision of this Contract is invalid or unenforceable as written, the court may interpret, construe, rewrite, or revise such provision to the fullest extent allowed by law, so as to make it valid and enforceable, consistent it the intent of the parties hereto.

J. The attachments or exhibits attached to this Contract are incorporated herein and shall be considered part of this Contract. In the event of a conflict between this Contract and any attachments or exhibits to this Contract, the provision of this Contract shall prevail.

K. The parties acknowledge that they have read, understood, and intend to be bound by the terms and conditions of this Contract.

**[Remainder of Page Intentionally Left Blank – Signature Page Follows]**

**CITY OF BRYAN**

**APPROVED AS TO FORM:**

_____
Thomas A. Leeper, City Attorney

Date: _____

**APPROVED**

By: _____
Bobby Gutierrez, Mayor

Date: _____

**PREPARED AND RECOMMENDED:**

_____
W. Paul Kaspar, P.E., City Engineer

Date: _____

**ATTEST:**

By: _____
Mary L Stratta, City Secretary

Date: _____

**APPROVED FOR PROCESSING:**

_____
Jayson Barfknecht, P.E., Ph.D., Director of Public Works

Date: _____

_____
Kean Register, City Manager

Date: _____

**ENGINEER:** Goodwin-Lasiter Inc., dba GLS

By: _____

Printed Name: John Rusk

Title: Vice-President

Date: 03/21/2024

Firm's License No. 413

Witness: _____

# Attachment A

## Scope of Work
**For**
## Old Reliance Rd Widening and Rehabilitation
### (~Austin Colony's Parkway to City Limits)

The project is generally described as roadway reconstruction and widening of Old Reliance Road from approximately Austin's Colony Parkway, east to the City Limits. This is a distance of approximately 3,700 LF. In addition, approximately 400 LF of existing roadway west of Austin's Colony Parkway will be reconfigured through the intersection by removal of existing medians. The project also includes performing a hydrologic and hydraulic analysis for an impact assessment of culvert improvements along Upper Carters Creek and a Letter of Map Revision (LOMR) for Upper Carters Creek.

Specific improvements include reconstruction of the existing roadway from a 2-lane open ditch to a 5-lane curbed street with continuous center turn lane. The 5-lane roadway will taper to the existing pavement widths as it approached the city limits. The scope will also include removal of a portion of the existing median west of the Old Reliance/Austin's Colony Parkway. Based on our correspondence, we understand the scope of work is to include the following:

### Topographic Design and Right of Way Determination Survey

- Utilize City of Bryan horizontal and vertical control system. An NGS monument will also be verified at Coulter Field to ensure data for drainage modeling is compliant with FEMA.
- Establish horizontal control and benchmarks throughout project.
- Locate existing utilities, as marked by their respective owners/operators.
- Obtain surface elevations of area depicted on Exhibit 1. Density of elevations will be sufficient for the development of 1' contour intervals through the project area. Exhibit 1 defines the limit of the topographic survey. The limits outside the apparent right of way are to be utilized in the stream modeling.
- Establish right of way of properties within the project area.
- Contact properties owners via mail out and follow-up phone call to enter property for surveying purposes. If property owners do not respond to initial mail out and/or follow up phone call, the City will intervene and obtain the landowners' permission for GLS.

### Geotechnical and Environmental Engineering

- Perform geotechnical investigations (via Dudley Engineering) for pavement recommendations and bridge/culvert design. Reference Exhibit 2 for proposed boring locations. This includes seven (7), 10' deep samples that will be taken for pavement design and one (1) 60' deep bore will be taken for creek crossing design. Traffic control measures are included in this scope of work item. Report will be generated for the soil investigations.
- Four (4) Dynamic Cone Penetration Tests along area in front of Rudder Point Subdivision.
- NEPA Screening Assessment will include:
    - project overview, including general need for project,
    - environmental assessment overview,
    - site visit and description of field observations, including ecological setting,
    - wetlands and floodplain overview,
    - threatened and endangered species overview, and
    - cultural/historic preservation overview.

- Hazardous Material Assessment will be performed in accordance with TxDOT requirements
- Biological Evaluation will be performed in accordance with TxDOT requirements
- Nationwide Permits that could be pursued include:

- *NWP 3 Maintenance*
- *NWP 13 Bank Stabilization*
- *NWP 14 Linear Transportation Projects*
- *NWP 25 Structural Discharges*
- *NWP 43 Stormwater Management Facilities*
- *NWP 31 Maintenance of Existing Flood Control Facilities*
- *NWP 37 Emergency Watershed Protection and Rehabilitation*

Each of these permits have certain rules/limitations that are listed in the attachment, with the end goal being to minimize impacts as much as possible. The smaller the impact, the easier it will be to achieve necessary approvals. For some conditions, a pre-construction notification may not be required. For others, pre-construction notifications may be required; however, compensatory mitigation may not be required, provided thresholds are not exceeded. For some of the more complicated impacts, compensatory mitigation may be required along with some other form of restoration. I have broken down these potential paths as follows:

Task I: *Environmental evaluation of adjacent property (WOUS delineation, including wetlands, threatened and endangered species assessment, and cultural/historic resources)*

Task II: *Initial discussions regarding what would like to be done with the City and Pre-Application Meeting with the Corps of Engineers*

Task III: *Pre-Construction Notification assuming a Nationwide Permit will be pursued*

Task IV: *Discussions with Mitigation Bank and securing credits for impacts as required for compensatory mitigation*

Task V: Construction document review and oversight

This does not include the purchase of credits. Credit cost will depend on several factors but a general estimate of 300 linear feet of stream impact would likely be around $100,000.

## Stream Modeling and LOMR Preparation

- Data Collection:
  - *Data Collection and Review:* The Engineer will collect, review and organize the relevant information related to storm sewer systems connecting Old Reliance Road and Carters Creek Tributary 26. Best available existing condition hydrologic and hydraulic models will be requested from the City and/or FEMA. In the event no models are provided in a timely fashion, the Engineer will develop appropriate model detail to complete the analyses. City provided as-builts, available reports, GIS data, and existing models will be reviewed for inclusion in the analysis. Data collection will also include rainfall and stage hydrograph data for basing model calibration.
  - *Site Visits:* Site visits will be performed to visually inspect specific problem areas and drainage features identified in the initial review and data collection. Up to two (2) site visits are anticipated to field verify provided topographic and survey data and to familiarize the project team with the project area and any ongoing projects. Photographs of existing features will be completed during the field visit and organized as part of this task.

- **Rudder Pointe Storm Sewer Analyses (InfoWorks ICM):** The Engineer will evaluate the storm sewer network

for the Rudder Pointe Subdivision using InfoWorks ICM ("ICM"). The ICM model will also encompass the storm sewer network along Old Reliance and Carters Creek Tributary 26. The ICM model will be bounded to the west by Austin Colony Parkway and on the south and east by Carters Creek and will include contributing area and drainage features within the Rudder Pointe Subdivision. The tailwater boundary condition for the ICM model will be assumed to be normal depth under gravity draining conditions into Carters Creek. Output flow hydrographs from the model will be exported as boundary condition inputs into the steady-state HEC-RAS model (Task 5) as a flow change location. The following subtasks are anticipated within the storm sewer analysis.

- *Rudder Pointe – Existing Conditions:* The schematic will be based on survey data, City GIS information, field visit data, and previously provided modeling data. Inlet locations will be included, but not modeled in detail or evaluated for inlet capacity. Previously provided modeling data will be evaluated, spot checked against available information, and modified as necessary. The ground model will be built using the most recent LiDAR available, supplemented with Client provided topographic survey. It is anticipated that culvert sizes and flowlines will be estimated from topographic survey and supplemented with field visits by the Engineer. The Engineer will retrofit the ICM model to include the Rudder Pointe detention basin with appropriate outfall structure.
- *Rudder Pointe – Carters Creek, Tributary 26 Proposed Diversion:* Currently it is understood that modifications to the Existing conditions ICM model will entail rerouting or diverting the Rudder Pointe detention basin's discharge location such that it outfalls directly in to Carters Creek Tributary 26 thus providing relief to Old Reliance at the crossing with Carters Creek. However, this task will also involve an iterative analysis for evaluating the capacity of Tributary 26 to accept additional flow volume from Rudder Pointe and/or channel improvements for Tributary 26 as necessary to convey that flow.
- *Model Quality Control (InfoWorks ICM):* The ICM model will be subjected to standard practice quality control measures. QC efforts will include but not are not limited to reviewing specific to the integrity of the structural element connections, mesh cell size, appropriate use, and assignment of watershed parameters, etc.

- **Upper Carters Creek Hydrologic Analyses (HEC-HMS):** The Engineer will perform a hydrologic analysis for modeling watershed response. This involves quantifying excess runoff and producing flow hydrograph inputs for both Carters Creek and Old Reliance Storm Sewer hydraulic analyses. The modeling limits will entail the upper portions of Carters Creek that drain towards Old Reliance Road and east of Highway 6. The modeled downstream terminus will be selected just downstream of Old Reliance Road and will tie into published FEMA base flood elevations (BFE) as appropriate.

  - *Two-Dimensional (2D) Sheet Flow Analysis:* A cursory 2D Rain-of-Grid (ROG) sheet flow analysis will be conducted using 2021 LIDAR supplement topographic survey to facilitate sub-catchment boundary delineations within upper Carters Creek. Sheet flow analysis will be conducted using HEC-RAS version 6.4.1.
  - *Existing Conditions Hydrology:* The Engineer will develop an Existing Conditions hydrology model using HEC-HMS (version 4.3 or later). Subbasin catchments will be delineated based on best available LiDAR, as-built drawings, topographic survey, USGS contours, site visit validation, and 2D ROG. where peak intensity occurs near hour twelve. Losses will be factored using the NRCS Curve Number method. Runoff transformation will be conducted using the NRCS Synthetic Unit Hydrograph where sub- catchment areas are greater than 50 acres (0.08 square miles). The hydrologic model will be developed using HEC-HMS version 4.3 or newer. Baseflow will be assumed negligible. The channel routing will be conducted via unsteady HEC-RAS (Task 5).
  - *Storm Creation & Thiessen Polygon Analysis:*
    i. Historical Storms – The Engineer is aware of available and historical gauge data (e.g. rainfall and stage) from the Bryan – Flood Early Warning System ("B- FEWS"). The Engineer will collect at least two (2) historical rainfall events for basing calibration and validation. The Engineer will conduct a Thiessen Polygon analysis for spatially distributing historical rainfall and gauge weighting rainfall commensurately with areal coverage for delineated subbasins.

ii. Design Storms – AEPs will be based on precipitation-depth-duration-frequencies published by NOAA Atlas 14 for a 24-hour storm using a National Resource Conservation Service (NRCS) Type III storm distribution.

- *Proposed Conditions Hydrology:* The Engineer will update the HEC-HMS model to include increased percent imperviousness and weighted changes to composite curve number (CN) that reflect the widening of Old Reliance Road. Updated hydrographs will serve as boundary condition input for subsequent channel routing via unsteady HEC-RAS (Task 5).
- *Model Quality Control (HEC-HMS).* The HEC-HMS model will be subjected to standard practice quality control measures.

- **Upper Carters Creek Hydraulic Analyses (HEC-RAS 1D/2D Unsteady, 1D Steady):** The downstream cross-sections for the segment of Carters Creek main stem will tie into effective FEMA Floodplain maps, as appropriate. The Engineer will review all assumptions and methods with the City.
  - *Existing Conditions Model Development, Calibration, and Validation (1D/2D Unsteady).*
    i. Model Geometry – The Engineer will create a new HEC-RAS geometry model based on LIDAR and topographic survey data. Bridge and culvert data will be incorporated as appropriate. Cross-section data will be provided by the Client via topographic survey. Manning's n-value and other hydraulic detail such as blocked obstructions and ineffective flow areas will be included into the model.

    ii. Flow Distribution Development – Flow hydrographs from the HEC-HMS model representing Upper Carters Creek hydrology and the ICM model representing the Rudder Pointe subdivision hydrology will be compiled to serve as input into the unsteady HEC-RAS model. This includes historical storm data and AEPs.

    iii. Calibration & Validation – The Engineer is aware of available and historical gauge data (e.g. rainfall and stage) from B-FEWS Gauges BRYTX-001 and BRYTX-002. The Existing Conditions HEC-RAS model for Upper Carters Creek will be calibrated to at least one (1) historical storm event and validated to at least one (1) historical storm event. The suitability of model calibration will be measured based on the model's predictive ability to match historical peak water surface elevations ("stage"), stage hydrograph shape, and timing of peak stage within an acceptable measure of tolerance (usually within 1 foot). The suitability of model validation will be measured based on the model's predictive ability to match another independent historical storm event without further modifications to the model itself.

    iv. Hydraulic Analyses – The calibrated Existing Conditions hydraulic model will then be computed for six (6) AEPs, i.e. 50%, 10%, 4%, 2%, 1%, and 0.2% (or 2yr, 10yr, 25yr, 50yr, 100yr, and 500yr, respectively). The downstream boundary conditions will be placed sufficiently downstream of Old Reliance Road and will be assumed at normal with a predefined slope.

  - *Proposed Conditions, Old Reliance Road Crossing Replacement (1D/2D Unsteady).*
    i. Model Geometry – The Engineer will update the Existing Conditions model to reflect the ultimate structural buildout of Old Reliance Road. Knowledge of ultimate buildout will be done in coordination with The Client. Model changes will likely include changes to Old Reliance widths and culvert dimensions, including changes to the entrance (contraction) and exit (expansion) losses.

    ii. Hydraulic Analyses – The calibrated Existing Conditions hydraulic model will then be computed for six (6) AEP, i.e. 50%, 10%, 4%, 2%, 1%, and 0.2% AEPs (or 2yr, 10yr, 25yr, 50yr, 100yr, and 500yr, respectively). The downstream boundary conditions will be placed sufficiently downstream of Old Reliance Road and will be assumed at normal with a predefined slope.

  - *Existing Conditions (1D Steady-State).* Peak flows from routed hydrographs in the unsteady HEC-RAS

models will serve as boundary conditions in the form of flow change locations for the Carters Creek HEC-RAS model. The model will be computed for 10%, 2%, 1%, and 0.2% AEP to support the LOMR application submittal.

- *Proposed Conditions (1D Steady-State).* Peak flows from routed hydrographs in the unsteady HEC-RAS models will serve as boundary conditions in the form of flow change locations for the Carters Creek HEC-RAS model. The model will be computed for 10%, 2%, 1%, and 0.2% AEP to support the LOMR application submittal.

- *Model Quality Control (HEC-RAS)*. All HEC-RAS models created by the Engineer will be subjected to standard practice quality control measures.

- **Preliminary Impacts Assessment:** A high-level and preliminary impacts assessment will be conducted on quantifying hydrologic impacts to Carters Creek. Based on the proposed conditions unsteady HEC-RAS model, the Engineer will conduct a cursory H&H impacts assessment. Impacts will be based on a "zero rise" comparisons of water surface elevations as obtained from the computed unsteady hydraulic models (existing and proposed). Please note the Engineer will make use of existing LIDAR, models, as-builts, and survey data to develop cross-sections and hydraulic structures (i.e. bridges/culverts). Impacts assessments will be based on based on the 10%, 4%, and 1% AEPs (i.e. 10yr, 25yr, and 100yr, respectively). It is not anticipated that results from preliminary impacts assessment will be packaged as part of the LOMR submittals, but necessary for providing the City with a comprehensive assessment to inform potential permitting needs.

- **Final Deliverables & Reporting**

  - *Drainage Report (DRAFT).* The Engineer will provide the Client with a draft technical report detailing the drainage analysis. A draft report will be revised per one (1) round of comments from the Client.

  - *Drainage Report (FINAL)*. One (1) electronic copy of the Final Engineering Report will be submitted to the City and revised per one round of City comments. The Final Engineering Report will detail study background, project recommendation, results of hydrologic and hydraulic models, detention recommendations, channel alignment and ROW recommendations (if considered), and conclusions. The water surface elevations for 50% (2-year), 10% (10-year), 4% (25-year), and 1% (100-year) AEP rainfall events for the 24-hour duration will be produced based on the Unified Stormwater Design Guidelines for the City of Bryan and City of College Station. Additional water surface elevations and inundation layers for the 2% (50-year) and 0.2% (500-year) AEP will be provided in preparation for the LOMR submittal. The Final Engineering Report will include text, tables, calculations and exhibits to support an implementation plan, and the recommendations.

  - *Model Output and Exhibits.* Model output and exhibits will be created after all modeling iterations have been completed and report has reached the draft phase.

- **CLOMR Application Package Submittal.** The Engineer will prepare necessary submittal documentation for the LOMR. The Engineer can serve as the Engineer of Record in submitting a complete LOMR. The following tasks and fees are anticipated for the Engineer to complete LOMR application filing and submittal.

  - *FEMA Report:* The Engineer will prepare and submit a draft report in accordance with City of Bryan Drainage Design Guidelines and FEMA regulations. The Engineer will address one (1) round of reviews from the Client and the City (FEMA Community) review. After addressing comments, a final report will be prepared and submitted to the City.

  - *Floodplain Delineation and FEMA Shapefiles:* Hydraulic results will be exported to GIS for floodplain mapping. The 500-year and 100-year water surface elevations will be mapped with the geometry files required by FEMA, the cross-sections with base flood elevations will be packaged for submittal to FEMA. Results will be checked for accuracy to eliminate pixilated appearances and other minor discontinuities.

- *Topographic Workmap:* Certified topographic floodplain work maps will be created in GIS to illustrate contours, building footprints, and pre- and post- special flood hazard areas (SFHA) for the 1% and 0.2% AEP storm events. An Annotated FIRM panel will also be included.

- *Application Documentation:* The Engineer will prepare the LOMR application documents containing (i) signed application form, (ii) application documents, and (iii) supporting documentation and (iv) application fee. The application documents and forms include completing FEMA's MT-2 Forms, technical data and topographic survey. The Engineer can prepare and gather appropriate signatures from the City and Brazos County. The required topographic survey is to be signed & sealed by a registered professional surveyor and to be provided to the Engineer by the Client.

- *Response to FEMA Reviews:* The Engineer anticipates a minimum of 6 months for FEMA review time. Following FEMA's review completion, the Engineer will continue to serve as the Engineer of Record to address FEMA comments and arrange resubmittal of necessary documentation within FEMA's requisite resubmittal deadlines for up to two rounds of FEMA review.

- *CLOMR/LOMR Application Fee:* A fee of $6,500 for CLOMR filing or $8,000 per LOMR filing is anticipated. The $8,000 LOMR single application fee is included in this proposal. If an additional CLOMR is needed, it will be responsibility of the City.

## Detention Basin Modeling

- **Upper Carters Creek Regional Detention Basin – Feasibility Analysis.** The purpose of this analysis is to evaluate the hydraulic feasibility of a proposed regional detention basin facility for mitigating chronic flooding under extreme storm events and nuisance flooding under more frequent storms. The proposed detention basin will be likely be located adjacent to the upper portion of Carters Creek mainstem will generally be bounded by Old Reliance Road to the south and the Castle Heights residential neighbor ("Castle Heights") to the north.

    - *Project Management and Coordination.* General project management will be ongoing throughout the period of the contract and include items such as developing and updating the project schedule, preparing contract correspondence, transmitting deliverables, documenting the quality control process, routine invoicing, and other project oversight activities. Time indicate in this task also includes time necessary for participating in monthly status updates with the Client and City for a duration of three (3) months.

    - *Detention Basin Concept Formulation*. The Engineer will formulate up to two (2) preliminary regional detention basin concepts for the Client's and City's consideration. A concept will constitute defined representations to the proposed basin's footprint area, storage volume, and/or outlet structure configuration. Regional detention basin concepts will be illustrated and rendered by the Engineer via landscape architecture software to facilitate visual communication. Concept viability will be based on the proposed basin's anticipated hydraulic function and/or performance, perceived constructability, and maintenance efforts. The Engineer will gather consensus from the City will advance each concept forward into Detailed Hydraulic Analysis.

    - *Detention Basin Hydraulic Analysis*. Two (2) regional basin concepts will be evaluated for proposed conditions analysis. The upper Carters Creek Existing Conditions HEC-RAS 1D/2D unsteady model will serve as the existing conditions baseline model. This model will be modified to incorporate the selected detention basin concept. It is anticipated that the proposed basin will be represented in the 2D model via terrain modifications. For assessing the general feasibility of the proposed basin, the HEC-RAS model will only be computed for three (3) storms that can "bookend" the basin's hydraulic feasibility (e.g. 50% [2-year], 10% [10-year], and 1% AEP [100-year]).

- *Model Quality Control*. The HEC-RAS model will be subjected to standard practice quality control measures.

- *Deliverables and Report.* The Engineer will provide the Client with a technical report, including exhibits and files pertaining to the drainage analysis. The regional detention drainage report may take the form of written section excerpts or a technical memorandum for inserting or included as an appendix into the final report provided in Basic Services, respectively. This technical reporting as it pertains to the detention analysis will be revised per one (1) round of comments from the Client.

## Engineering Design

- Prepare construction documents for construction of the aforementioned improvements. Anticipated construction sheets include the following:

  - Project Notes and Information
  - Existing Conditions and Demolition
  - Stormwater Pollution Prevention Plan
  - Traffic Control Project Phasing Plan
  - Project Layout Plan
  - Roadway & Storm Sewer Plan and Profiles
  - Street Light Plan
  - Plan/profile for replacement of sanitary sewer crossing of Old Reliance
  - Project Details for Roadway, Street Drainage, Street Lighting and related items

- Prepare technical specifications and contract book.
- Plan review submittals will be provided at the 60% and 90%, & Bid Ready Documents stages. One printed copy for 60% submittal and two printed sets for the 90% and Bid Ready Documents submittals. A .pdf file will be submitted for each stage. Documentation for 60%, 90% and Final submittals to include:

  - 60% - Construction plans and profiles showing existing and proposed improvements, project specific details not included in unified standards, engineer's construction cost estimate, updated utility conflict list with proposed resolutions, and special provisions and / or special specifications to be included in project manual. Street lighting layout, cabinet location and light contactor. Attend design review meeting after comments received and reviewed. One printed copy and a .pdf file to be submitted.

  - 90% - Construction plans and profiles showing existing and proposed improvements, all necessary details - standard and project specific, project manual (include any special provisions or specifications not covered by standards), bid items schedule, engineer's construction cost estimate, and updated utility conflict list with final resolutions. Street light design will be included with associated details. Attend design review meeting after comments received and reviewed. Two printed copies and a .pdf file to be submitted.
  - 100% - Bid Ready Documents - Construction plans and profiles showing existing and proposed improvements, all necessary details - standard and project specific, project manual with RFP# and bid / construction schedule, any special provisions and specifications not covered under standards, bid items schedule in pdf and Excel, engineer's construction cost estimate, and updated utility conflict list with final resolutions. Two printed copied and a .pdf file to be submitted.

  - At all reviews plans and utility conflict list will be submitted to all franchise utility providers (Frontier, Suddenlink, Atmos, etc.) and BTU.

- Assist with Public Meetings

## Bid Phase Services

- Assist with pre-bid meeting.
- Answer prospective bidders' questions.
- Assist with addenda, if required.
- Attend bid opening.
- Review proposals from bidders and assist in ranking as part of the City's review committee.

## Construction Phase Services

- Assist with pre-construction meeting.
- Review submittals.
- Perform periodic inspection with field reports and photos.
- Review monthly pay estimates submitted by contractor.
- Assist with construction close-out.
- Prepare record drawings of "record drawings" provided by contractor for .pdf file.

Deliverables include Constructions Plans (.pdf), Contract/Technical Specifications Book (.pdf), and Engineer's Construction Cost Estimate at 60%, 90% & 100% bid ready document submittal. Record drawings will be prepared based on contractor's red lines.

We propose to provide the above described services for a lump sum fee of $648,300. The following is a breakdown of the fee:

| | |
|---|---|
| Design & ROW Surveying……..... | $ 66,000.00 |
| Geotechnical Engineering…….. | $ 20,000.00 |
| Environmental Engineering<br>- NEPA Screening | $ 6,500.00 |
| - Task I | $ 5,500.00 |
| - Task II | $ 4,500.00 |
| - Task III | $ 5,000.00 |
| - Task IV | $ 1,500.00 |
| - Task V | $ 7,500.00 |
| Stream Modeling & LOMR (w/ single application fee)…….. | $ 141,400.00 |
| Detention Basin Analysis (does not include LOMR/CLOMR)..…….. | $ 83,400.00 |
| Roadway/Street Drainage/Culvert/Street Lights/Utility Engineering……... | $ 248,000.00 |
| Detention Basin…… | $ 18,000.00 |
| Bid Phase ……..…….. | $ 6,000.00 |
| Construction Phase……..... | $ 35,000.00 |
| **TOTAL……..……..** | **$ 648,300.00** |

## Attachment B
## Insurance Requirements

Contractor agrees to procure and maintain for the duration of this contract insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, or employees.

If the Contractor fails to maintain the required insurance, the City shall have the right to withhold payment to Contractor until coverage is reinstated or to terminate the Contract.

**MINIMUM SCOPE AND LIMIT OF INSURANCE**

**Coverage shall be at least as broad as:**

1. **Commercial General Liability (CGL).** Contractor shall maintain CGL insurance with a limit of not less than **$1,000,000 each occurrence**. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or CG 25 04) or the general aggregate limit shall be twice the required occurrence limit.
   1.1 CGL insurance shall be written on ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, products-completed operations, property damage, bodily injury, and personal and advertising injury, and liability assumed under an insured's contract.
   1.2 **The City, its officers, officials, employees, and volunteers are to be covered as additional insureds** if any, with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. This can be provided in the form of an endorsement to the Contractor's insurance.

2. **Business Automobile Liability (AL)**. Contractor shall maintain automobile liability with a limit not less than **$1,000,000 each accident.**
   2.1. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos).
   2.2. Coverage shall be written on ISO form CA 00 01, CA 00 08, CA 00 09.

3. **Workers' Compensation (WC)**. Contractor shall maintain workers compensation insurance with **Texas Statutory Limits** and Employers Liability insurance with a limit of not less than **$1,000,000** per accident for bodily injury or disease.
   3.1. **This policy shall be endorsed with a waiver of subrogation in favor of the City** for all work performed by the Contractor, its employees, agents, and subcontractors.

4. **Professional Liability (Errors and Omissions).** Contractor shall maintain professional liability/error and omissions liability insurance appropriate to the Contractor's profession. Coverage shall apply to liability for a professional error, act, or omission arising out of the scope of the contractor's services as defined in this contract. Coverage shall be written subject to limits not less than **$2,000,000 per occurrence or claim, $2,000,000 aggregate**.
   4.1 If coverage is written on a claims-made basis, the Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this contract;

and that coverage will be maintained or an extended discovery period will be exercised for a period of **at least three (3) years after completion of the contract of work**.

4.2 A copy of the claims reporting requirements must be submitted to the City within 5 days of City's written request.

If the Contractor maintains broader coverage and/or higher limits than the minimums shown above, the City requires and shall be entitled to the broader coverage and/or higher limits maintained by the Contractor.

By requiring insurance herein, the City does not represent that coverage and limits will necessarily be adequate to protect Contractor, and such coverage and limits shall not be deemed as a limitation on Contractor's liability under the indemnities granted to the City in this contract.

Self-insured retentions must be declared and approved by the City. The City may require the contractor to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the name insured or the City.

**General Insurance Provisions**

**The insurance policies are to contain, or be endorsed to contain, the following provisions:**

1. ***Primary Coverage.*** For any claims related to this contract, the **Contractor's insurance coverage shall be primary** insurance coverage as respects the City, its officers, officials, employees, and volunteers. There shall be no modification to make it excess over other available insurance. Any insurance or self-insurance maintained by the City, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
2. ***Notice of Cancellation.*** Each insurance policy required above shall provide that **coverage shall not be canceled, except with notice to the City**. If City is notified a required insurance coverage will cancel or non-renew during the contract period, the Contractor shall agree to furnish prior to the expiration of such insurance, a new or revised certificate(s) as proof that equal and like coverage is in effect.
3. ***Acceptability of Insurers.*** Insurance is to be placed with insurers authorized to conduct business in the State with a current A.M. Best's rating of no less than A-:VII, unless otherwise acceptable to the City.
4. ***Waiver of Subrogation.*** Contractor hereby grants to City a waiver of any right to subrogation which any insurer of Contractor may acquire against the City by virtue of payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.
5. ***Evidence of Insurance.*** Contractor shall furnish the City with certificates of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth above, including all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause) before work begins. However, failure to obtain the required documents prior to the work beginning or failure to identify a deficiency from evidence that has been provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance, or as a waiver as to eh

enforcement of any provisions. Contractor shall provide certified copies of all required insurance policies within 10 days of City's written request of said copies.

6. ***Subcontractors.*** If the Contractor's insurance does not afford coverage on behalf of any subcontractor hired by the Contractor, the Contractor shall require and verify that all subcontractors shall maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that City is an additional insured on insurance required from subcontractors.

***Special Risks or Circumstances***

City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other circumstances.

Note: Professional liability insurance coverage is normally required if the Contractor is providing a professional service regulated by the state. Examples of service providers regulated by the state are insurance agents, professional architects and engineers, doctors, certified public accountants, lawyers, etc. However, other professional contractors, such as computer or software designers, and service providers such as claims administrators, should also have professional liability. If in doubt, consult with Risk Management.