

**AUTHORIZATION OF CHANGE IN SERVICES
CITY OF SAN MARCOS, TEXAS**

**CONTRACT: Sessom Creek Wastewater Replacement from N. LBJ to
Canyon Road**

CONSULTANT: Kimley-Horn and Associates, Inc.

AUTHORIZATION NO.: 03

ORIGINAL CONTRACT DATE: October 03, 2017

AUTHORIZATION DATE: _____

WORK TO BE ADDED TO OR DELETED FROM SCOPE OF SERVICES

In general, the additional scope will include:

- **Canyon Road Sanitary Sewer** – the replacement and upsizing of approximately 500 linear feet of 6-inch sanitary sewer line to 8-inch sanitary sewer line along Canyon Road
- **Canyon Road Water Service Line Relocation** – the lowering and relocation of three (3) water services along Canyon Road.
- **Sessom Creek Environmental Assessment** – to evaluate whether formal notification to the U.S. Army Corps of Engineers (USACE) would be required for impacts to Waters of the U.S. (WOUS) resulting from the proposed project.
- **Sessom Creek Floodplain Study** – to develop the peak flows for 2-, 10-, 25-, 50-, 100-, and 500- year events (the “design storms”)
- **Sessom Creek Bank Stabilization** – the stabilization of the Sessom Creek bank on the Canyon Road side of the creek for approximately 300 linear feet of creek with a gabion wall system.
- **Canyon Road Reconstruction** – The reconstruction of approximately 500 linear feet of roadway along Canyon Road. The project will also include the removal of approximately 275 linear feet of Loquat Street south of the existing Canyon Road intersection. Turnarounds will be placed south of the removal limits on Loquat Street and on the northern limits of Canyon Road.

Please see Attachment A for more details.

Previous contract amount:	<u>\$ 264,575.00</u>
Net increase/decrease in contract amount:	<u>\$ 232,555.00</u>
Revised contract amount:	<u>\$ 497,130.00</u>

Requested by:

By: Andrew W. Van Leeuwen
Andrew W. Van Leeuwen - Senior Vice President

Date: 3/26/2018

Approved by:

City of San Marcos:

By: _____ Date: _____

Bert Lumbreras – City Manager

ATTACHMENT A
CITY OF SAN MARCOS
CANYON ROAD BANK STABILIZATION CHANGE IN SERVICE
SCOPE OF SERVICES

Project Understanding

The work to be performed by Kimley-Horn and Associates, Inc. (KIMLEY-HORN or the Consultant) under this contract will consist of providing Design Phase (60%, 90%, 99%, 100% Documents), Bid and Construction Phase Services for the Sessom Drive Wastewater Replacement from N. LBJ to Canyon Road. The project consists of the following improvements:

- Canyon Road Sanitary Sewer – the replacement and upsizing of approximately 500 linear feet of 6-inch sanitary sewer line to 8-inch sanitary sewer line along Canyon Road to the southwest corner of the intersection of Canyon Road and Loquat.
- Canyon Road Water Service Line Relocation – the lowering and relocation of three (3) water services along Canyon Road.
- Sessom Creek Environmental Assessment – to evaluate whether formal notification to the U.S. Army Corps of Engineers (USACE) would be required for impacts to Waters of the U.S. (WOUS) resulting from the proposed project.
- Sessom Creek Floodplain Study – to develop the peak flows for 2-, 10-, 25-, 50-, 100-, and 500-year events (the “design storms”) for the subject reach as shown in Attachment C, based on hydrologic and hydraulic methodologies included in the City’s Stormwater Technical Manual.
- Sessom Creek Bank Stabilization – the stabilization of the Sessom Creek bank on the Canyon Road side of the creek for approximately 300 linear feet of creek. It is assumed that the project can be designed using a gabion wall system with either tiebacks or sail nails depending on available right-of-way and soil conditions. It is further assumed that the wall foundations will bear two or three feet below the existing creek elevations and will be supported either on natural material or straight shaft foundations. The gabion wall system is not anticipated to be taller than 15 feet (exposed height) and will have minimal slope from the top of the wall to the edge of the roadway.
- Canyon Road Reconstruction – The reconstruction of approximately 500 linear feet of roadway along Canyon Road. The project will also include the removal of approximately 275 linear feet of Loquat Street south of the existing Canyon Road intersection. Turnarounds will be placed south of the removal limits on Loquat Street and on the northern limits of Canyon Road.

Basic Scope of Services

Design Phase (Preliminary and Final)

1. Project Management and QA/QC: This task consists of effort associated with project administration, coordination with City staff, coordination and supervision of the project team, coordination with other projects specifically the Sessom Creek Restoration Project (designed by John Gleason, LLC), and quality management so that project milestones and deliverables attempt to meet schedule and budget constraints.
2. Meetings
 - a. Project Coordination Meetings: Nine (9) monthly coordination meetings between the Habitat Conservation Plan (HCP) and City of San Marcos have been budgeted for the Design Phase. It is assumed that meetings will be held prior to beginning Preliminary and Final design as well as during each design phase. Kimley-Horn will attend meetings

ATTACHMENT A
CITY OF SAN MARCOS
CANYON ROAD BANK STABILIZATION CHANGE IN SERVICE
SCOPE OF SERVICES

with City of San Marcos Staff and John Gleason, LLC Staff to determine project constraints and needs as well as discuss design considerations.

- b. Project Meetings: Two (2) project meetings have been budgeted for the Design Phase, following each milestone submittal (Preliminary and Final Design).
- c. Public Meetings: One (1) public meeting has been budgeted which consists of preparing exhibits and attending the meeting.

3. Tasks

a. Sessom Creek Environmental Assessment

- i. Perform Aquatic Resources Delineation in general accordance with the USACE 1987 Wetlands Delineation Manual and appropriate USACE Regional Supplement as detailed below.
- ii. Perform Desktop Review by locating readily available resource documents which may include aerial photographs, historic topographic maps, soil surveys, plant species data, U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps, Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), and other related data for a desktop review of site conditions. Kimley-Horn will perform a desktop review of the located information to make a preliminary determination based on Kimley-Horn's opinions and experiences of the areas that could be potentially be categorized as jurisdictional WOUS and those that may not be jurisdictional. Sections of the digital topographic maps, aerial photographs, and floodplain maps deemed appropriate by Kimley-Horn, and proposed project boundaries will be projected and converted to the appropriate Geographic Information System (GIS) format.
- iii. Perform a site visit to determine the existence and approximate locations of aquatic resources on the site generally following the USACE 1987 Wetlands Delineation Manual and the applicable USACE Regional Supplement. Kimley-Horn will identify potential WOUS, including traditional navigable waters, relatively permanent waters, non-relatively permanent waters, and wetlands that are adjacent, abutting, or isolated to these waters. The site visit will include completion of USACE wetland determination data forms with plant identification, notation of hydrologic indicators, and excavation of shallow soil profiles, as appropriate within each different vegetative community spread throughout the project site. Kimley-Horn will identify potentially jurisdictional waterbodies by delineating ordinary high water marks and map them using a GPS unit with sub-meter accuracy and the procedures required by the USACE. Following the site visit, Kimley-Horn will prepare exhibits showing the boundaries (polygons) and acreage and/or linear footage (if applicable) of aquatic resources identified onsite during the site visit. Kimley-Horn will provide a professional opinion regarding the likelihood the identified aquatic resources to be considered jurisdictional and regulated by the USACE.
- iv. Prepare a report for the project documenting the results of the Aquatic Resources Delineation performed onsite. The report will address the applicable framework, describe the assessment methodology, limitations and findings, and provide site-specific conclusions and recommendations. The Aquatic Resources Delineation report will include the following information, as applicable:

ATTACHMENT A
CITY OF SAN MARCOS
CANYON ROAD BANK STABILIZATION CHANGE IN SERVICE
SCOPE OF SERVICES

- Brief description of the project, methods/sampling procedures, and results;
- A preliminary determination and description of the potentially jurisdictional WOUS and potentially non-jurisdictional aquatic resources identified on the project site;
- Acreage of the project area evaluated with boundaries indicated;
- Location of the observation points/data points/soil sample stations;
- Wetland Determination Data Forms completed in accordance with USACE guidelines for the observation points/data points/soil sample stations;
- Acreage and linear footage (if applicable) of the aquatic resources onsite and potentially jurisdictional areas (suspect WOUS) and potentially non-jurisdictional aquatic resources including polygons of aquatic resources (mapped by GPS) shown on exhibits;
- Historical information (including topographic quadrangle maps, historic aerial photographs, FEMA maps, NWI maps, and soil surveys) to document the potential limits of USACE jurisdiction for the identified aquatic resources (if applicable);
- Professional opinions regarding the potential jurisdictional status of the identified aquatic resources with supporting documentation and rationale;
- Analysis of potential applicable USACE permitting scenarios; and
- Regulatory language for potential applicable permits with General Conditions.

b. Sessom Creek Floodplain Study

- i. Fully Developed Hydrologic Analysis – Develop 2-, 10-, 25-, 50-, 100-, and 500-year (the “design storms”) peak flows for the subject reach using the unit hydrograph method and HEC-HMS. Fully developed conditions is defined as the land uses on the City’s Comprehensive Plan Map (July 2017).
- ii. Topographic Cross Sections – Utilize topographic cross sections from previously completed survey data. No additional topographic cross sections are included in this task.
- iii. Pre-Project Hydraulic Analysis – Create one HEC-RAS model for the subject reach to establish pre-project water surface elevations and velocities for the design storms based on the provided cross sections and the fully developed hydrologic analysis.
- iv. Post-Project Hydraulic Analysis: Modify the cross sections within the pre-project HEC-RAS model to include the proposed geometries of Canyon Road and Loquat Street. The post-project model will include the Loquat Street culvert crossing. This task includes one iteration to modify the cross sections to include cut areas for the project to meet the following City requirements:
 1. Floodplain alteration may not increase mean stream velocity unless the resultant velocity remains at 6 feet per second or less.
 2. Floodplain alteration may not increase the 100-year water surface elevation by more than 1-foot.

ATTACHMENT A
CITY OF SAN MARCOS
CANYON ROAD BANK STABILIZATION CHANGE IN SERVICE
SCOPE OF SERVICES

- c. Gabion Wall System – Preliminary Design
 - i. Wall layout and profile.
 - ii. Typical section for each wall height.
 - iii. End conditions and proposed transition material.
 - iv. Proposed construction access.
 - v. List of proposed technical specifications.
- d. Gabion Wall System – Final Design
 - i. Final wall layout and profile.
 - ii. Final typical section and construction details for each wall height.
 - iii. Final end conditions and proposed transition material.
 - iv. Final site grading.
 - v. Final Miscellaneous and Standard Details.
 - vi. Final technical specifications.
 - vii. Final general notes.
 - viii. Final OPCC.
- e. Canyon Road Reconstruction – Preliminary Design
 - i. Design preliminary horizontal and vertical roadway geometrics utilizing Microstation V8 and Geopak roadway design software.
 - ii. Prepare preliminary design schematic identifying impacts associated with proposed roadway cross section and removal of Loquat Street. The preliminary design schematic will be limited to existing topography and utilities, horizontal and vertical alignment, roadway typical section, retaining wall, existing and proposed right-of-way, and existing and proposed pavement edges.
 - iii. Prepare preliminary grading cross sections at a spacing no less than 20 feet and at driveways and intersections.
 - iv. Evaluate multiple retaining wall alternatives approximately 300 linear feet along Canyon Road adjacent to Sessom Creek.
- f. Canyon Road Reconstruction – Final Design
 - i. Prepare existing and proposed typical section sheets incorporating any unresolved comments from the Preliminary Design.

ATTACHMENT A
CITY OF SAN MARCOS
CANYON ROAD BANK STABILIZATION CHANGE IN SERVICE
SCOPE OF SERVICES

- ii. Incorporate Road Reconstruction plans into the Title Sheet, Index of Sheets, and a Project Layout which references survey control benchmarks.
 - iii. Prepare Plan-Profile Sheets for Canyon Road at a scale of 1"= 40' horizontal and 1"=10' vertical.
 - iv. Prepare intersection grading and details sheets detailing the turnarounds on Loquat Street and Canyon Road.
 - v. Develop driveway modification details at 3 locations.
 - vi. Prepare final proposed grading cross sections at a spacing no less than 20 feet and at driveways, cross drainage structures, utility crossings, and intersections.
 - vii. Prepare retaining wall plan-profile sheets establishing the horizontal and vertical geometrics for approximately 300 linear feet of retaining wall along Canyon Road adjacent to Sessom Creek.
 - viii. Calculate quantities and prepare Item Summaries Sheets tabulating project quantities.
 - ix. Incorporate TxDOT and City standard details as applicable.
 - x. Prepare General Notes, and Construction Timeline Estimate.
 - xi. Prepare an opinion of probable construction costs (OPCC) at each milestone deliverable.
 - xii. Prepare project specifications.
- g. Canyon Road Sanitary Sewer – Final Design
- i. Project Layout Sheet: Kimley-Horn will provide a layout of the project with plan sheet references.
 - ii. Overall Quantity Sheet: Kimley-Horn will provide a quantity table that includes the individual sheet quantities and the overall project quantities.
 - iii. Wastewater Line Plan and Profile Sheets: Estimated Number of Sheets – two (2).
 - iv. Water Service Relocation: Estimated three (3) relocations.
 - v. Abandonment Plan Sheets
 - vi. Engineer's OPCC.
- h. Erosion/Sedimentation Control: KIMLEY-HORN will develop erosion and sedimentation control measures to be included in the plans and details. Additional coordination is included to combine the necessary erosion control measures required for the wastewater construction with any erosion control measures that overlap from the Sessom Creek Bank Stabilization Project.

ATTACHMENT A
CITY OF SAN MARCOS
CANYON ROAD BANK STABILIZATION CHANGE IN SERVICE
SCOPE OF SERVICES

- i. Traffic Control: KIMLEY-HORN will provide traffic control details for construction of the improvements.
 - j. Permitting
 - i. City of San Marcos Permits: KIMLEY-HORN will prepare the tree counts, floodplain permit, and street cut permits for contractor use during construction and submit to the City prior to construction.
 - j. Joint Project Coordination: Kimley-Horn will coordinate with John Gleason, LLC regarding the Sessom Creek Bank Stabilization Project. The coordination will consist of file and data sharing, survey review and comments, plan and specification incorporation and review, and additional coordination as required to complete the project.
4. Deliverables:
- a. The Floodplain Study will include a narrative, drainage area map, floodplain map, supporting calculations, and models used in the analysis.
 - b. Aquatic Resources Delineation report.
 - c. Preliminary Design: KIMLEY-HORN will provide two (2) hard copies of 11" x 17" plan sets and one (1) pdf electronic copy. At a minimum, the plan set will contain the following:
 - i. Cover Sheet
 - ii. General Notes
 - iii. Project Layout Sheet: KIMLEY-HORN will provide a layout of the project with plan sheet references.
 - iv. Overall Quantity Sheet: KIMLEY-HORN will provide a quantity table that includes individual sheet quantities and the overall project quantities.
 - v. Wastewater Line Plan and Profile Sheets: Estimated Number of Sheets – six (6). Five (5) main sheets and one (1) connection sheet.
 - vi. Water Line Plan and Profile Sheets: Estimated Number of Sheets – two (2).
 - vii. Gabion Wall and Canyon Road Reconstruction Plan and Profile Sheets.
 - viii. List of Standard Details: City of San Marcos details will be used where available. City of Austin details will be used otherwise.
 - ix. List of Standard Specifications: City of San Marcos Division 1 specifications will be used. City of Austin standard specifications will be used.
 - x. Project Specific/Special Specifications
 - xi. Project Specific/Special Details
 - xii. Engineer's Opinion of Probable Construction Costs (OPCC).

ATTACHMENT A
CITY OF SAN MARCOS
CANYON ROAD BANK STABILIZATION CHANGE IN SERVICE
SCOPE OF SERVICES

- xiii. Construction Project Schedule: KIMLEY-HORN will develop a Construction Schedule for the project consisting of design, bid and construction phases. The schedule will be updated during design.
- d. Preliminary Design Comment Response Letter.
- e. Final Design: KIMLEY-HORN will provide two (2) hard copies of 11" x 17" plan sets and one (1) pdf electronic copy. The plan set will also contain the following:
 - i. Cover Sheet
 - ii. General Notes
 - iii. Project Layout Sheet: KIMLEY-HORN will provide a layout of the project with plan sheet references.
 - iv. Overall Quantity Sheet: KIMLEY-HORN will provide a quantity table that includes individual sheet quantities and the overall project quantities.
 - v. Wastewater Line Plan and Profile Sheets: Estimated Number of Sheets – six (6). Five (5) main sheets and one (1) connection sheet.
 - vi. Water Line Plan and Profile Sheets: Estimated Number of Sheets – two (2).
 - vii. Gabion Wall Plan and Profile Sheets.
 - viii. Canyon Road Reconstruction Plan and Profile Sheets
 - ix. Detail Sheets
 - x. Erosion Control Plan and Details
 - xi. Traffic Control Standard Details
 - xii. Engineer's OPCC.
 - xiii. Construction Project Schedule: KIMLEY-HORN will develop a Construction Schedule for the project consisting of design, bid and construction phases. The schedule will be updated during design.
- f. Final Design Comment Response Letter.

Phase C – Bid Phase

1. Project Management: This task consists of routine communication with the City and other activities associated with managing the project.
2. Attend Pre-Bid Meeting: KIMLEY-HORN will assist the City in conducting pre-bid meeting and developing the agenda.
3. Answer Questions: KIMLEY-HORN will coordinate with the City for issuing responses for technical questions and requests for additional information from potential bidders.

ATTACHMENT A
CITY OF SAN MARCOS
CANYON ROAD BANK STABILIZATION CHANGE IN SERVICE
SCOPE OF SERVICES

4. Addenda: KIMLEY-HORN will prepare addenda required to clarify, correct or change the bid documents. Addenda will be provided in Adobe .pdf (searchable) format and sealed by responsible engineer(s). Addenda will be issued to bidders through the City's Purchasing Department.
5. Bid Tabulation and Recommendation of Award: KIMLEY-HORN will assist the City in opening of bids, review all bids and evaluate them for responsiveness and bid amount. KIMLEY-HORN will also check references, by telephone, of the low bidder and second low bidder. KIMLEY-HORN will prepare a letter summarizing the review and evaluation and include recommendations for award of the contract for construction, or other action as may be appropriate. The City will make the final decision on the award of the contract for construction and the acceptance or rejection of all bids.
6. Deliverables: KIMLEY-HORN will incorporate addenda items in the Construction Plans; include addenda in the bound Project Manual; and issue a "Conformed" set of plans for construction.
 - a. Bid Form: KIMLEY-HORN will provide the Bid Form in Word Document format.
 - b. Technical Specifications: KIMLEY-HORN will provide one (1) pdf electronic copy of the Technical Specifications.
 - c. Conformed Plans: KIMLEY-HORN will provide one (1) electronic copy of Construction Plans in pdf, one (1) CAD copy, two (2) 22" x 34" plan sets, and three (3) 11" x 17" plan sets.

Phase D – Construction Phase

1. Project Management: This task consists of routine communication with the City; managing, manpower, budgets, and schedules; invoicing; and other activities associated with managing the project.
2. Attend Pre-Construction Conference: KIMLEY-HORN will attend a Pre-Construction Conference prior to commencement of work.
3. Submittal Review: KIMLEY-HORN will review and approve or take other appropriate action in respect to Shop Drawings and Samples and other data which the Contractor is required to submit, but only for conformance with the information given in the Contract Documents. Such review and approvals or other action will not extend to means, methods, techniques, equipment choice and usage, sequences, schedules, or procedures of construction or to related safety precautions and programs. Ten (10) submittals have been assumed.
4. Response to Requests for Information/Modifications: KIMLEY-HORN will respond to reasonable and appropriate Contractor requests for information (RFI's) and issue necessary clarifications and interpretations of the Contract Documents to the City as appropriate to the orderly completion of Contractor's work. Five (5) RFI's have been assumed.
5. Construction Observation: KIMLEY-HORN will provide on-site construction observation services during the construction phase. KIMLEY-HORN will make visits at intervals as directed by Client in order to observe the progress of the Work. Such visits and observations by KIMLEY-HORN are not intended to be exhaustive or to extend to every aspect of Contractor's work in progress. Observations are to be limited to spot checking, selective measurement, and similar methods of general observation of the work based on KIMLEY-HORN's exercise of professional judgment. Based on information obtained during such visits and such observations, KIMLEY-HORN will

ATTACHMENT A
CITY OF SAN MARCOS
CANYON ROAD BANK STABILIZATION CHANGE IN SERVICE
SCOPE OF SERVICES

evaluate whether Contractor's work is generally proceeding in accordance with the Contract Documents, and KIMLEY-HORN will keep Client informed of the general progress of the Work.

The purpose of KIMLEY-HORN's site visits will be to enable KIMLEY-HORN to better carry out the duties and responsibilities specifically assigned in this Agreement to KIMLEY-HORN, and to provide Client a greater degree of confidence that the completed Work will conform in general to the Contract Documents. KIMLEY-HORN will not, during such visits or as a result of such observations of Contractor's work in progress, supervise, direct, or have control over Contractor's work, nor will KIMLEY-HORN have authority over or responsibility for the means, methods, techniques, equipment choice and usage, sequences, schedules, or procedures of construction selected by Contractor, for safety precautions and programs incident to Contractor's work, nor for any failure of Contractor to comply with laws and regulations applicable to Contractor's furnishing and performing the Work. Accordingly, KIMLEY-HORN neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform its work in accordance with the Contract Documents.

Two (2) site visits per month for a duration of two (2) months followed by one (1) site visit per month for a duration of four (4) months is assumed.

6. Pay Application Review: Based on its observations and on review of applications for payment and accompanying supporting documentation, KIMLEY-HORN will determine the amounts that KIMLEY-HORN recommends Contractor be paid. Such recommendations of payment will be in writing and will constitute KIMLEY-HORN's representation to Client, based on such observations and review, that, to the best of KIMLEY-HORN's knowledge, information and belief, Contractor's work has progressed to the point indicated and that such work-in-progress is generally in accordance with the Contract Documents subject to any qualifications stated in the recommendation. In the case of unit price work, KIMLEY-HORN's recommendations of payment will include determinations of quantities and classifications of Contractor's work, based on observations and measurements of quantities provided with pay requests. Review of six (6) Pay Applications has been assumed.
7. Review of Change Orders: KIMLEY-HORN may recommend Change Orders to Client, and will review and make recommendations related to Change Orders submitted or proposed by the Contractor.
8. Substantial Completion: KIMLEY-HORN will, promptly after notice from Contractor that it considers the entire Work ready for its intended use, in company with Client and Contractor, conduct a site visit to determine if the Work is substantially complete. Work will be considered substantially complete following satisfactory completion of all items with the exception of those identified on a final punch list. If after considering any objections of Client, KIMLEY-HORN considers the Work substantially complete, KIMLEY-HORN will notify Client and Contractor.
9. Final Notice of Acceptability of the Work: KIMLEY-HORN will conduct a final site visit to determine if the completed Work of Contractor is generally in accordance with the Contract Documents and the final punch list so that KIMLEY-HORN may recommend, in writing, final payment to Contractor. Accompanying the recommendation for final payment, KIMLEY-HORN will also provide a notice that the Work is generally in accordance with the Contract Documents to the best of KIMLEY-HORN's knowledge, information, and belief based on the extent of its services and based upon information provided to KIMLEY-HORN upon which it is entitled to rely.

ATTACHMENT A
CITY OF SAN MARCOS
CANYON ROAD BANK STABILIZATION CHANGE IN SERVICE
SCOPE OF SERVICES

10. Deliverables:

- a. Site Visit Reports: KIMLEY-HORN will submit a site visit report to the City following each visit to the site during construction.
- b. Submittal Log: KIMLEY-HORN will prepare a spreadsheet for identifying required submittals that the Contractor must provide as well as tracking to-date submittals and RFI's provided by the Contractor. An updated Submittal Log will be submitted to the City on a monthly basis.

Phase E – Record Drawings

1. Record Drawings: KIMLEY-HORN will review the Contractor's redline as-built drawings and incorporate deviations from the construction drawings as appropriate. Record drawing information will be based solely on the provided marked-up drawings and appropriate field documentation received from the City. KIMLEY-HORN will deliver one (1) set of full size bond drawings and one (1) set of half size plans for review.
2. Record Drawings Survey: KIMLEY-HORN will survey all above ground appurtenances such as manholes, manhole inverts, water meters, valves, inlets, etc. once all construction is complete. Survey of the appurtenances will be completed by a Registered Land Surveyor licensed in the State of Texas.
3. Deliverables: After review, KIMLEY-HORN will deliver two (2) sets of full size bond drawings, one (1) pdf electronic copy and one (1) CAD copy.

Supplemental Scope of Services

Option 1b: Nationwide Permit with Notification

KIMLEY-HORN will prepare the appropriate supplemental documentation and permit application form necessary to pursue formal authorization under the applicable Nationwide Permit (NWP). This will include performing and documenting limited reviews for impacts to federally-listed threatened and endangered species and documented cultural resources. KIMLEY-HORN will submit the required NWP application information to the USACE Fort Worth District and will regularly coordinate with the assigned USACE project manager to ensure timely permit application processing. We may require additional client-provided information for a complete submittal package including need and purpose, site alternatives, and avoidance and minimization measures. This task does not include the following:

- the preparation of a compensatory mitigation plan should it be required;
- formal threatened and endangered species presence/absence surveys;
- functional assessment; or
- cultural resources survey.

If the USACE requests accompaniment on a site visit to confirm results, we will perform this for an additional fee under a separate agreement. We assume that the project will not require an Individual Permit (IP). If an IP is required, we will prepare a separate proposal describing our services to assist with obtaining the IP for the project from the USACE.

**ATTACHMENT A
CITY OF SAN MARCOS
CANYON ROAD BANK STABILIZATION CHANGE IN SERVICE
SCOPE OF SERVICES**

Schedule

The following project milestones are estimated and may require modification pending preliminary engineering results and construction timeframe constraints:

- Preliminary Design Documents Submittal (90 days)
- Final Design Documents Submittal (45 days)

The estimated timeframes identified do not include time for City review of submittals.

City Responsibilities

1. The City will provide to KIMLEY-HORN all data in the City's possession relating to KIMLEY-HORN's services on the Project. KIMLEY-HORN will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by the City.
2. The City will give prompt notice to KIMLEY-HORN whenever the City observes or becomes aware of any development that affects the scope or timing of KIMLEY-HORN's services.
3. The City will examine information submitted by KIMLEY-HORN and render in writing or otherwise provide comments and decisions in a timely manner.
4. The City will obtain all necessary right-of-entries from required landowners.
5. The City will provide Title Reports for properties with proposed easements.
6. The City will obtain all permanent sanitary sewer line, access, and temporary construction easements, including services such as appraisal of properties, negotiations with the property owners, and actual purchase of the easements.
7. The City will be responsible for conveying bidding and construction contract administration questions to John Gleason, LLC for the purposes of requesting responses to contractor questions via addenda, submittal reviews, Requests for Information, Requests for Proposals, and any other items pertaining to the Sessom Creek Bank Stabilization Project which do not involve Kimley-Horn.

Additional Services

Additional Services to be performed, if authorized in writing by the City, but which are not included in the above-described Basic and Supplemental Scope of Services, and once a mutually agreed upon fee is negotiated are as follows:

1. Performing Geotechnical Investigation or Subsurface Utility Engineering.
2. Performing Environmental Investigation or Environmental permit preparation and submittal.
3. Performing title searches for easement or joint-use agreement preparation.
4. Preparation of additional easement/ boundary exhibits beyond the number identified in the Scope of Services.
5. Acting as an agent of the City in the acquisition of permanent or temporary easements.

ATTACHMENT A
CITY OF SAN MARCOS
CANYON ROAD BANK STABILIZATION CHANGE IN SERVICE
SCOPE OF SERVICES

6. Preparation of platting documents and/or real property survey for site acquisition.
7. Accompanying the City when meeting with the TCEQ, U.S. Environmental Protection Agency, or other regulatory agencies during the course of the Project, beyond those meetings identified above.
8. Preparing applications and supporting documents for government grants, loans, or planning advances.
9. Appearing before regulatory agencies or courts as an expert witness in any litigation with third parties or condemnation proceedings arising from the development or construction of the Project, including the preparation of engineering data and reports for assistance to the City.
10. Providing professional services associated with the discovery of any hazardous waste or materials in the project site.
11. Submittals to FEMA or any other agency besides the City. A Conditional Letter of Map Revision (CLOMR) or a Letter of Map Revision (LOMR) request is a service KIMLEY-HORN can provide as an additional service if requested by the City.
12. Consultation with the USACE.

Limitations

It is important for the Client to understand that the EPA and the USACE occasionally issue guidance concerning what they intend to exert jurisdiction over. Changes that impact our strategy or scope will cause additional work and will be addressed as an additional service amendment to this letter agreement. Observations will be made under the applicable regulatory guidance at the time of the observations.

Official authority to make a determination defining applicable jurisdictional limits rests solely with the Environmental Protection Agency (EPA); however, authority has been delegated to the USACE. Jurisdictional Determinations (JD) are made by the USACE, upon specific written request, on a case-by-case basis and may make use of certain information at its disposal (such as other permits in the local area) that may not be readily available to the public. The Aquatic Resources Delineation should not be considered authoritative, and it may not wholly eliminate uncertainty regarding the USACE's jurisdictional limits.

ATTACHMENT B - FEE SCHEDULE											
City of San Marcos, Texas Canyon Road Bank Stabilization											
					Kimley-Horn Staff						
		Professional Service Description	Total Task Hours	Total Task Cost	Principal	Senior Associate	Senior Project Manager	Engineer II and III	Senior RPLS	Survey Tech	Clerical Staff
					\$225.00	\$190.00	\$175.00	\$135.00	\$175.00	\$125.00	\$80.00
		Design Phase (Preliminary/Final)	1,122	\$ 195,050							
1		Project Management	26	\$ 3,530	0	2	6	12	0	0	6
		Coordination with City Staff	10	\$ 1,430	0	0	2	8	0	0	0
		Coordination with Subconsultants	9	\$ 1,335	0	0	3	6	0	0	0
		Coordination with John Gleason, LLC.	32	\$ 4,640	0	0	8	24	0	0	0
		QC Review and Address QC Comments - Final	27	\$ 4,160	0	5	6	16	0	0	0
		HCP & CoSM Monthly Meetings (9)	54	\$ 7,770	0	0	12	42	0	0	0
		Project Accounting and Administration	14	\$ 1,530	0	2	2	0	0	0	10
2		Preliminary Design Review Meeting	0	\$ -	0	0	0	0	0	0	0
		Final Design Review Meeting	0	\$ -	0	0	0	0	0	0	0
3.a		Sessom Creek Environmental Assessment									
	i.	Aquatic Resources Delineation	10	\$ 1,525	0	1	3	6	0	0	0
	ii.	Desktop Review	6	\$ 890	0	1	2	2	0	0	1
	iii.	Site Visit	8	\$ 1,240	0	0	4	4	0	0	0
	iv.	Report Preparation and Submittal	16	\$ 2,320	0	2	4	8	0	0	2
3.b	i.	Fully Developed Hydrologic Analysis									
		Review Available Record Drawings of Watershed	12	\$ 1,700	0	0	2	10	0	0	0
		Delineate Drainage Areas	22	\$ 3,050	0	0	2	20	0	0	0
		Site Visit	30	\$ 4,650	0	0	15	15	0	0	0
		Develop Fully Developed Hydrologic Parameters	22	\$ 3,050	0	0	2	20	0	0	0
		HEC-HMS Model	14	\$ 2,150	2	0	2	10	0	0	0
	iii.	Pre-Project Hydraulic Analysis									
		Cut Cross Sections	6	\$ 850	0	0	1	5	0	0	0
		Develop Hydraulic Parameters	17	\$ 2,375	0	0	2	15	0	0	0
		HEC-RAS Model	20	\$ 3,000	2	0	3	15	0	0	0
	iv.	Post-Project Hydraulic Analysis									
		Revise Cross Section Geometry based on Road Grades	6	\$ 850	0	0	1	5	0	0	0
		Proposed Culvert Crossing	6	\$ 850	0	0	1	5	0	0	0
		Iteration to Mitigate for Increases in Water Surface Elevations and / or Velocities	28	\$ 4,250	3	0	5	20	0	0	0
		Narrative	15	\$ 2,225	0	0	5	10	0	0	0
		Drainage Area Map	12	\$ 1,700	0	0	2	10	0	0	0
		Floodplain Map	12	\$ 1,700	0	0	2	10	0	0	0
		Calculation Summary Attachments	9	\$ 1,525	3	0	1	5	0	0	0
		Production Work	5	\$ 400	0	0	0	0	0	0	5
		Coordination with Gleason and CoSM	30	\$ 4,250	0	0	5	25	0	0	0
3.c		Gabion Wall System - Preliminary Design									
	i	Wall Layout and Profile	48	\$ 7,020	0	4	8	36	0	0	0
	ii	Typical Section for each wall height	34	\$ 5,050	0	4	6	24	0	0	0

ATTACHMENT B - FEE SCHEDULE											
City of San Marcos, Texas											
Canyon Road Bank Stabilization											
					Kimley-Horn Staff						
		Professional Service Description	Total Task Hours	Total Task Cost	Principal	Senior Associate	Senior Project Manager	Engineer II and III	Senior RPLS	Survey Tech	Clerical Staff
					\$225.00	\$190.00	\$175.00	\$135.00	\$175.00	\$125.00	\$80.00
	iii	End conditions and proposed transition material	25	\$ 3,700	0	3	4	18	0	0	0
	iv.	Proposed construction access	6	\$ 905	0	1	1	4	0	0	0
	v.	List of proposed technical specifications	3	\$ 445	0	0	1	2	0	0	0
3.d		Gabion Wall System - Final Design									
	i	Wall Layout and Profile	55	\$ 7,960	0	1	12	42	0	0	0
	ii	Typical Section for each wall height	45	\$ 6,450	0	1	8	36	0	0	0
	iii	End conditions and proposed transition material	27	\$ 3,940	0	1	6	20	0	0	0
	iv.	Final site grading	8	\$ 1,175	0	1	1	6	0	0	0
	v.	Final miscellaneous and standard details	12	\$ 1,795	0	1	3	8	0	0	0
	vi.	Final technical specifications	14	\$ 2,240	0	2	6	6	0	0	0
	vii.	Final general notes	3	\$ 445	0	0	1	2	0	0	0
	viii.	Final OPCC	4	\$ 635	0	1	1	2	0	0	0
3.e		Canyon Road Reconstruction - Preliminary Design (60%)									
	i	Preliminary Horizontal and Vertical Geometry	30	\$ 4,320	0	2	4	24	0	0	0
	ii	Preliminary Design Schematic	46	\$ 6,480	0	2	4	40	0	0	0
	iii	Preliminary Cross Sections	27	\$ 3,780	0	1	2	24	0	0	0
	iv	Retaining Wall Alternatives Analysis	36	\$ 5,400	0	4	8	24	0	0	0
		QCQA - Preliminary Design	6	\$ 1,080	0	2	4	0	0	0	0
		Address Preliminary Design Comments	10	\$ 1,430	0	0	2	8	0	0	0
3.f		Canyon Road Reconstruction - Final Design									
	i	Typical Sections	5	\$ 715	0	0	1	4	0	0	0
	ii	Title, Index, and Project Layout	6	\$ 890	0	0	2	4	0	0	0
	iii	Plan Profile Sheets	88	\$ 13,060	0	4	24	60	0	0	0
	iv	Intersection Layouts	52	\$ 7,560	0	4	8	40	0	0	0
	v	Driveway Details	5	\$ 715	0	0	1	4	0	0	0
	vi	Final Cross Sections	19	\$ 2,700	0	1	2	16	0	0	0
	vii	Retaining Wall Layout	30	\$ 4,320	0	2	4	24	0	0	0
	viii	Temporary Traffic Control Plan	68	\$ 10,360	0	4	24	40	0	0	0
	ix	Culvert Layout	18	\$ 2,670	0	0	6	12	0	0	0
	x	Calculate Quantities and Summary Sheets	11	\$ 1,620	0	1	2	8	0	0	0
	xi	Standards	4	\$ 635	0	1	1	2	0	0	0
	xii	General Notes and Construction Timeline	7	\$ 1,080	0	1	2	4	0	0	0
	xiii	OPCC	9	\$ 1,430	0	1	4	4	0	0	0
	xiv	Specifications	4	\$ 635	0	1	1	2	0	0	0
		QCQA	12	\$ 2,160	0	4	8	0	0	0	0
		Address Comments	18	\$ 2,510	0	0	2	16	0	0	0
3.g		Canyon Road Sanitary Sewer - Final Design									
	i.	Project Layout Sheet	4	\$ 580	0	0	1	3	0	0	0

ATTACHMENT B - FEE SCHEDULE											
City of San Marcos, Texas Canyon Road Bank Stabilization											
					Kimley-Horn Staff						
		Professional Service Description	Total Task Hours	Total Task Cost	Principal	Senior Associate	Senior Project Manager	Engineer II and III	Senior RPLS	Survey Tech	Clerical Staff
					\$225.00	\$190.00	\$175.00	\$135.00	\$175.00	\$125.00	\$80.00
	ii.	Overall Quantity Sheet	2	\$ 310	0	0	1	1	0	0	0
	iii.	Plan Profile Sheets	19	\$ 2,685	0	0	3	16	0	0	0
	iv.	Water Service Relocation Sheets	14	\$ 1,970	0	0	2	12	0	0	0
	v.	Abandonment Plans Sheets	4	\$ 580	0	0	1	3	0	0	0
	vi.	OPCC	3	\$ 445	0	0	1	2	0	0	0
		Erosion/Sedimentation Control Analysis	3	\$ 445	0	0	1	2	0	0	0
		Traffic Control Analysis including LBJ Drive and Sessom Drive Intersection Detail	12	\$ 1,780	0	0	4	8	0	0	0
		Phase C - Bid Phase	31	\$ 4,300							
1		Project Management	0	\$ -	0	0	0	0	0	0	0
2		Prepare for and Attend Pre-bid Meeting	0	\$ -	0	0	0	0	0	0	0
3		Answer Contractor Questions	7	\$ 1,025	0	1	2	3	0	0	1
4		Addenda	11	\$ 1,345	0	1	2	3	0	0	5
5		Bid Tabulation and Recommendation of Bid Award	0	\$ -	0	0	0	0	0	0	0
6		Conformed Documents	13	\$ 1,930	0	1	3	9	0	0	0
		Phase D - Construction Phase	121	\$ 18,935							
1		Project Management	1	\$ 80	0	0	0	0	0	0	1
		Coordination with City Staff	0	\$ -	0	0	0	0	0	0	0
		Project Accounting and Administration	0	\$ -	0	0	0	0	0	0	0
2		Prepare for and Attend Pre-construction Conference	6	\$ 1,095	0	3	3	0	0	0	0
3		Shop Drawings/Submittal Review	23	\$ 3,290	0	3	6	10	0	0	4
4		Requests for Information (RFIs)	33	\$ 4,910	0	4	10	16	0	0	3
5		Construction Site Visits and Progress Meetings	16	\$ 2,920	0	8	8	0	0	0	0
6		Pay Application Review	0	\$ -	0	0	0	0	0	0	0
7		Requests for Proposals (RFPS) and Change Orders (COs)	24	\$ 3,480	0	3	6	12	0	0	3
8		Attend Substantial Completion Walk-through and Prepare Punchlist	10	\$ 1,620	0	4	4	0	0	0	2
9		Attend Final Completion Walk-through and Prepare Recommendation of Final Payment Letter	9	\$ 1,540	0	4	4	0	0	0	1
		Phase E - Record Drawings	30	\$ 4,590							
1		Prepare and Submit Record Drawings	30	\$ 4,590	0	4	8	18	0	0	0
		END BASIC SERVICES									
		Total Basic Service Hours:	1,517		10	104	347	1012	0	0	44
		Total Basic Services		\$ 222,875							
		Supplemental Services		\$ 9,680							
S-1		USACE Permitting Memo for Nationwide Permit without Notification	20	\$ 3,020	0	2	8	8	0	0	2
S-2		USACE Nationwide Permit with Notification	44	\$ 6,660	0	4	18	18	0	0	4
		END									
		Total Supplemental Services		\$ 9,680							
		Total Supplemental Service Hours:	64		0	6	26	26	0	0	6
		Total Fee Basic + Supplemental Services		\$ 232,555							

ATTACHMENT B - FEE SCHEDULE											
City of San Marcos, Texas Canyon Road Bank Stabilization											
					Kimley-Horn Staff						
		Professional Service Description	Total Task Hours	Total Task Cost	Principal	Senior Associate	Senior Project Manager	Engineer II and III	Senior RPLS	Survey Tech	Clerical Staff
					\$225.00	\$190.00	\$175.00	\$135.00	\$175.00	\$125.00	\$80.00

The hours listed above are an estimate. The hours assigned to the Phase are not exclusive to the Phase which they are assigned. The total fee will not exceed the total contract amount as discussed in Article 2. The hourly rates of this