

# CITY OF KYLE

## Notice of TIRZ #2 Board Meeting



Kyle City Hall, 100 W. Center Street, Kyle, TX 78640

The public can watch remotely at: Spectrum 10;

<https://www.cityofkyle.com/communications/city-videos-kyle-10>. One or more members of the board may participate in the meeting by videoconference pursuant to Section 551.127, Texas Government Code, provided that a quorum of the board will be present at Kyle City Hall.

Notice is hereby given that the board of the City of Kyle Tax Increment Reinvestment Zone No. 2, will meet at 4:30 PM on November 29, 2023, at Kyle City Hall, 100 W. Center Street, Kyle, TX 78640, for the purpose of discussing the following agenda.

Posted this 22nd day of November, 2023, prior to 5:00 p.m.

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### **I. Call Meeting to Order**

### **II. Approval of Minutes**

1. TIRZ #2 Board Meeting Minutes - September 7, 2023.

### **III. Citizen Comment Period**

The TIRZ #2 Board welcomes comments from Citizens early in the agenda of special meetings. Those wishing to speak are encouraged to sign in before the meeting begins. Speakers may be provided with an opportunity to speak during this time period on any agenda item or any other matter concerning city business, and they must observe the three-minute time limit.

### **IV. Consider and Possible Action**

2. Award a contract to AMERICAN STRUCTUREPOINT, INC. Austin, TX in the amount of \$614,397.20 for the development of a 30% schematic design for the Kohlers Crossing Intersection Improvements. ~ *Leon Barba, P.E., City Engineer*
3. Discussion regarding scheduling the next meeting.

## **V. Executive Session**

4. Pursuant to Chapter 551, Texas Government Code, the TIRZ #2 Board reserves the right to convene into Executive Session(s) from time to time as deemed necessary during this meeting. The TIRZ #2 Board may convene into Executive Session pursuant to any lawful exception contained in Chapter 551 of the Texas Government Code including any or all of the following topics.
  1. Pending or contemplated litigation or to seek the advice of the City Attorney and Attorneys concerning legal issues pursuant to Section 551.071, Texas Government Code, and Section 1.05, Texas Disciplinary Rules of Professional Conduct.
  2. Possible purchase, exchange, lease, or value of real estate pursuant to Section 551.072.
  3. Personnel matters pursuant to Section 551.074.
  4. Convene into executive session pursuant to Section 551.087, Texas Government Code, to deliberate regarding the offer of economic incentives to one or more business prospects that the City seeks to have locate, stay, or expand in or near the City.
5. Take action on items discussed in Executive Session.

## **VI. Adjourn**

\*Per Texas Attorney General Opinion No. JC-0169; Open Meeting & Agenda Requirements, Dated January 24, 2000: The permissible responses to a general member communication at the meeting are limited by 551.042, as follows: "SEC. 551.042. Inquiry Made at Meeting. (a) If, at a meeting of a government body, a member of the public or of the governmental body inquires about a subject for which notice has not been given as required by the subchapter, the notice provisions of this subchapter, do not apply to: (1) a statement of specific factual information given in response to the inquiry; or (2) a recitation of existing policy in response to the inquiry. (b) Any deliberation of or decision about the subject of the inquiry shall be limited to a proposal to place the subject on the agenda for a subsequent meeting."



# CITY OF KYLE, TEXAS

2023 0907 Minutes

Meeting Date: 11/29/2023  
Date time:4:30 PM

**Subject/Recommendation:** TIRZ #2 Board Meeting Minutes - September 7, 2023.

**Other Information:**

**Legal Notes:**

**Budget Information:**

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**ATTACHMENTS:**

**Description**

📎 2023 0907 DRAFT

## TIRZ #2 BOARD MEETING MINUTES

The TIRZ #2 Board of the City of Kyle, Texas met on September 7, 2023 at Kyle City Hall with the following persons present:

Commissioner Debbie Ingalsbe, Chair  
Mayor Travis Mitchell, Vice Chair  
Mayor Pro Tem Michael Tobias  
Council Member Bear Heiser  
Council Member Yvonne Flores-Cale  
Council Member Miguel Zuniga  
Council Member Ashlee Bradshaw\*  
Commissioner Michelle Cohen  
Bryan Langley, City Manager  
Jerry Hendrix, Assistant City Manager  
Amber Schmeits, Assistant City Manager  
Veronica Rivera, Assistant City Attorney  
Jennifer Kirkland, City Secretary  
Grant Bowling, Video Production Specialist  
Perwez Moheet, Director of Finance  
Connie Campa, Accounting Manager  
Leon Barba, City Engineer

### **I. Call Meeting to Order**

Commissioner Ingalsbe called the meeting to order at 6:01 p.m. Commissioner Ingalsbe asked the city secretary to call roll.

Present were: Commissioner Ingalsbe, Mayor Mitchell, Mayor Pro Tem Tobias, Council Member Flores-Cale, Council Member Bradshaw, and Commissioner Cohen. A quorum was present. Council Member Heiser, Council Member Zuniga, and Council Member Parsley were absent. Council Member Heiser arrived at 6:07 p.m. during Item No. 2. Council Member Parsley arrived virtually, audibly at 6:11 p.m. during Item No. 2, but was considered absent pursuant to Section 551.127 (a-3), Texas Government Code, since she was off-camera. Council Member Zuniga arrived at 6:14 p.m. during Item No. 2.

### **II. Approval of Minutes**

1. TIRZ #2 Board Meeting Minutes - June 22, 2023.

Chairperson Ingalsbe brought forward the minutes for discussion.

Mayor Mitchell moved to approve the minutes of the June 22, 2023 TIRZ #2 Board Meeting. Mayor Pro Tem Tobias seconded the motion. Motion carried 6-0. Council Members Heiser, Parsley and Zuniga were absent for the vote.

### **III. Citizen Comment Period**

Chairperson Ingalsbe opened citizen comments at 6:02 p.m. With no one registered or wishing to speak, Chairperson Ingalsbe closed citizen comments at 6:02 p.m.

\*One or more members of the governing body may participate in the meeting by videoconference pursuant to Section 551.127, Texas Government Code, provided that a quorum of the governing body will be present at Kyle City Hall

#### **IV. Consider and Possible Action**

2. Receive a report, hold a discussion and provide staff direction regarding the selection of an engineer for Kohlers Crossing intersection improvements. ~ *Leon Barba, P.E., City Engineer*

Chairperson Ingalsbe brought forward Item No. 2 for discussion. Mr. Barba presented the item.

Council Member Bradshaw moved to approve American Structurepoint as the firm. Mayor Mitchell seconded the motion. Motion carried 8-0.

3. Award the contract to WGI, Inc. Houston, TX in the amount of \$57,400 for 30% engineering design of the La Verde parking lot. ~ *Leon Barba, P.E., City Engineer*

Chairperson Ingalsbe brought forward Item No. 3 for discussion. Mr. Barba presented the item.

Mayor Pro Tem Tobias moved to approve Agenda Item No. 3. Council Member Flores-Cale seconded the motion. No vote was taken.

Mayor Pro Tem Tobias moved to amend his motion for the southern tract. Council Member Flores-Cale seconded the motion. Motion carried 8-0.

4. Approval of a Resolution of the Board of Directors of the City of Kyle Tax Increment Reinvestment Zone No. 2 adopting the operating and capital budget for Fiscal Year 2023-2024. ~ *Perwez A. Moheet, CPA, Director of Finance*

Chairperson Ingalsbe brought forward Item No. 4 for discussion. Mr. Moheet presented the item.

Council Member Bradshaw went off-camera at 6:40 p.m. and was considered absent pursuant to Section 551.127 (a-3), Texas Government Code. She returned on-camera at 6:41 p.m. She went back off-camera at 6:42 p.m. Council Member Bradshaw returned on camera at 6:56 p.m.

Mayor Mitchell moved to approve the budget. Council Member Zuniga seconded the motion. Motion carried 8-0.

5. Discussion regarding scheduling the next meeting.

Chairperson Ingalsbe brought forward Item No. 5 for discussion. No action was taken.

#### **V. Executive Session**

6. Pursuant to Chapter 551, Texas Government Code, the TIRZ #2 Board reserves the right to convene into Executive Session(s) from time to time as deemed necessary during this meeting. The TIRZ #2 Board may convene into Executive Session pursuant to any lawful exception contained in Chapter 551 of the Texas Government Code including any or all of the following topics.
  1. Pending or contemplated litigation or to seek the advice of the City Attorney and Attorneys concerning legal issues pursuant to Section 551.071, Texas Government Code, and Section 1.05, Texas Disciplinary Rules of Professional Conduct.

2. Possible purchase, exchange, lease, or value of real estate pursuant to Section 551.072.
3. Personnel matters pursuant to Section 551.074.
4. Convene into executive session pursuant to Section 551.087, Texas Government Code, to deliberate regarding the offer of economic incentives to one or more business prospects that the City seeks to have locate, stay, or expand in or near the City.

There was no executive session.

7. Take action on items discussed in Executive Session.

## **VI. Adjourn**

Mayor Mitchell moved to adjourn. Council Member Flores-Cale seconded the motion. No vote was held.

With no further business to discuss, the TIRZ #2 Board adjourned at 6:57 p.m.

Attest:

\_\_\_\_\_  
Debbie Ingalsbe, Chair

\_\_\_\_\_  
Jennifer Kirkland, City Secretary



# CITY OF KYLE, TEXAS

## Engineer Selection - Kohlers Crossing

**Meeting Date: 11/29/2023**  
**Date time: 4:30 PM**

**Subject/Recommendation:** Award a contract to AMERICAN STRUCTUREPOINT, INC. Austin, TX in the amount of \$614,397.20 for the development of a 30% schematic design for the Kohlers Crossing Intersection Improvements. ~ *Leon Barba, P.E., City Engineer*

**Other Information:**

**Legal Notes:**

**Budget Information:**

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### **ATTACHMENTS:**

#### **Description**

- ☐ Presentation
- ☐ Department Memo
- ☐ Master Agreement
- ☐ Exhibits A & B
- ☐ Task Order No. 1
- ☐ Fee Estimate

# Kohlers Crossing Roundabout Improvements at Benner, Sanders, & Cromwell

Engineering





# Summary

- May 18, 2023 TIRZ 2 Board Meeting. Board approved issuing Request for Qualifications (RFQ) for roundabout improvements at Benner, Sanders, and Cromwell intersection.
- July 21, 2023 (5:00 pm) seven (7) submittals were received in response to the RFQ prior to the deadline.
- September 7, 2023 TIRZ 2 Board Meeting the Board approved American Structurepoint, Inc. to be awarded the contract for the design of the three intersection improvements.

# Kohlers Crossing Roundabout Improvements at Benner, Sanders, & Cromwell Intersections

Work proposed for Task Order # 1 :

Prepare a preliminary summary of information

Develop a 30% schematic design

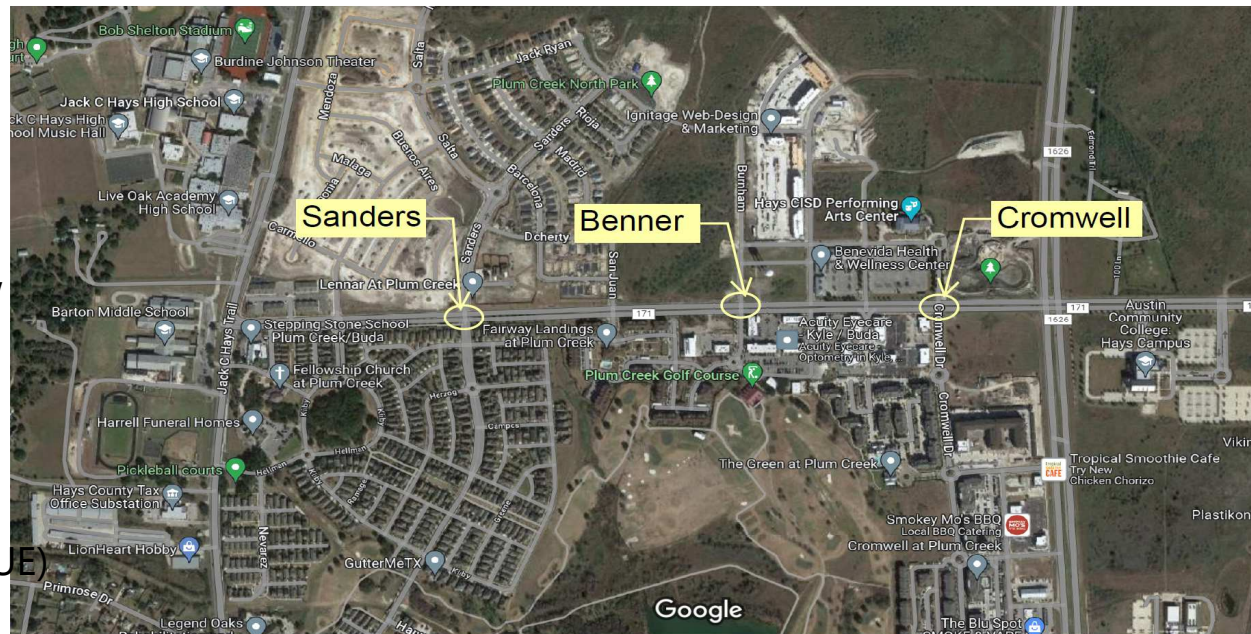
Perform environmental dashboard review

Provide public involvement support

Traffic data collection analysis

Surveying and mapping

Perform subsurface utility engineering (SUE)



# Options

## **Option 1:**

- Authorize Mayor to execute the Master Agreement and Task Order #1.

## **Option 2:**

- Do not approve the execution of the Master Agreement and Task Order #1.

# Recommendation

- TIRZ 2 Board approves the Master Agreement and Task Order #1 with American Structurepoint, Inc., Austin, Texas for the development of a 30% schematic for the proposed roundabouts at Benner, Sanders, and Cromwell intersections along Kohlers Crossing in an amount not to exceed \$614,397.20.



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**TIRZ #2 Board Meeting**

DEPARTMENT: Engineering

FROM: Jo Ann Garcia

MEETING: November 29, 2023

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**SUBJECT:**

Approve a master agreement and Task Order #1 with American Structurepoint, Inc., Austin, TX for the development of a 30% schematic for the proposed roundabouts at Benner, Sanders, and Cromwell intersections along Kohlers Crossing in an amount not to exceed \$614,397.20.

**SUMMARY:**

American Structurepoint, Inc. was directed to provide a scope for a 30% schematic for the three roundabouts at Benner, Sanders, and Cromwell intersections. The work to be performed consists of:

- a. development of a 30% schematic design
- b. performing environmental dashboard review in support of the schematic work,
- c. public involvement support,
- d. permit procurement,
- e. data collection analysis,
- f. mitigation and remediation, monitoring,
- g. preliminary drainage investigation,
- h. conceptual traffic control,
- i. 3-D modeling,
- j. surveying and mapping,
- k. subsurface utility engineering (SUE) & utility coordination for SUE

**OPTIONS:**

Option 1:

- Authorize Mayor to execute the Master Agreement and Task Order #1.

Option 2:

- Do not approve the execution of the Master Agreement and Task Order #1.

**RECOMMENDATION:**

Execute the Master Agreement to establish the terms, conditions, and manner of how the work is to be performed on Task assignments to American Structurepoint, Inc. for project development.

Approve and execute Task Order #1 for the 30% schematic design.



PRIOR ACTION/INPUT (Council, Boards, Citizens):

- May 18, 2023 TIRZ 2 Board Meeting. Board approved issuing Request for Qualifications, (RFQ) for roundabout improvements at Benner, Sanders, and Cromwell intersection.
- July 21, 2023 seven (7) submittals were received in response to the RFQ prior to the deadline.
- September 7, 2023 TIRZ 2 Board Meeting the Board approved American Structurepoint, Inc. to be awarded the contract for design of the three intersection improvements.

FISCAL IMPACT:

A 30% schematic design schedule and fee proposal are provided.

STAFF CONTACT:

Name: Jo Ann Garcia, P.E.

Title: Project Manager

[jgarcia@cityofkyle.com](mailto:jgarcia@cityofkyle.com); 512 262 3949

CONTRACT AGREEMENT FOR PROFESSIONAL SERVICES

FOR THE

KOHLERS CROSSING INTERSECTION IMPROVEMENTS

**STATE OF TEXAS           §**  
**§**  
**COUNTY OF HAYS       §**

THIS IS AN AGREEMENT by and between the CITY OF KYLE TAX INCREMENT REINVESTMENT ZONE NO. 2, a reinvestment zone created by the City of Kyle pursuant to Chapter 311, Texas Tax Code (hereinafter called the "TIRZ"), acting through its duly authorized agent, Debbie Ingalsbe, Chair of the TIRZ, and AMERICAN STRUCTUREPOINT, INC., 3711 South Mopac Expressway, Building One, Suite 350, Austin, Texas 78746 (hereinafter called "ENGINEER") for engineering design professional services (hereinafter called "the Agreement").

WHEREAS, the OWNER has determined the need to undertake projects from time to time that are approved by Task Order using the form attached hereto as Exhibit "A" (the "Task Order") approved by the OWNER from time to time in accordance with its purchasing guidelines and state law (the "PROJECT"); and

WHEREAS, the TIRZ desires to obtain ENGINEER's services for the Design, Bid, and Construction Phase for the Kohlers Crossing Intersection Improvements, hereinafter called the "PROJECT"; and

WHEREAS, the PROJECT will be performed in two phases, consisting of Phase 1 and Phase 2;

WHEREAS, Phase 1 consists of thirty (30%) design of the Kohlers Crossing Intersection Improvements as more particularly described in Exhibit "A";

WHEREAS, Phase 2 consists of completion of the design as well as Bid and Construction Phase for the Kohlers Crossing Intersection Improvements;

WHEREAS, Exhibits "A" and "B" address the scope of services, schedule, and compensation for Phase 1;

WHEREAS, the Parties intend to amend this Agreement to address the scope of services, schedule, and compensation for Phase 2 at a future date;

WHEREAS, the TIRZ desires to obtain professional engineering design services in connection with the PROJECT; and

WHEREAS, the ENGINEER, having professional and technical employees duly licensed and registered to practice engineering in the State of Texas, and employees or Subconsultants duly licensed and registered professional services; and

WHEREAS, the ENGINEER has agreed to provide professional engineering and related services for PROJECT, as is more fully set out in Exhibit "A";

NOW THEREFORE, the TIRZ and the ENGINEER, in consideration of their mutual covenants herein, agree in respect to the performance of the professional services to be furnished or rendered by the ENGINEER and to the payment for these services by the TIRZ, as set forth above and hereinafter.

## **ARTICLE 1 SERVICES TO BE PROVIDED**

- 1.1 The TIRZ agrees to retain the ENGINEER, and the ENGINEER agrees to perform professional services for the PROJECT as an independent contractor and professional consultant as set forth in the sections following: and TIRZ agrees to pay, and the ENGINEER agrees to accept fees as specified in the sections following as full and final compensation for the work accomplished.
- 1.2 ENGINEER shall provide its services in accordance with the professional skill and care ordinarily provided by competent engineers practicing under the same or similar circumstances and professional license ("Standard of Care"). No other guarantee or warranty of any kind, unless expressed or implied at common law or created by statute, is extended, made, or intended by the rendition of ENGINEER's services.

## **ARTICLE 2 SCOPE OF WORK**

- 2.1 The ENGINEER shall serve as the TIRZ'S professional consultant in those phases of the PROJECT to which this AGREEMENT applies; and will give consultation and advice to the TIRZ during the performance of its services. The ENGINEER shall, in the scope of its work, perform the services described in Exhibit "A" which shall be attached hereto and incorporated herein for all purposes as the PROJECT. ENGINEER shall only commence the work described in Exhibit "A" as authorized by the TIRZ (in subsequent written authorizations to proceed) as described hereinafter. All work performed in connection with this AGREEMENT shall be performed in accordance with professional standards, and within the time periods for the completion of the services required by this AGREEMENT. Once ENGINEER is authorized to perform services, ENGINEER shall commence the performance of the services within 10 days following authorization and shall diligently pursue the same to completion in a timely manner. If a time period for performance of the services is not set out herein, TIRZ and ENGINEER may hereafter agree upon the time period for the completion of services in writing, which shall be attached to and become a part of and incorporated to this Agreement by reference.



**ARTICLE 3**  
**PROJECT SCHEDULE**

- 3.1 The ENGINEER agrees to perform the ENGINEER's Scope of Work in accordance with the Exhibit "A" — Project Schedule attached to the Agreement, and which is wholly incorporated into the Agreement for all purposes.

**ARTICLE 4**  
**COMPENSATION**

- 4.1 DEFINITION OF COMPENSATION TERMS. The below listed terms will have the following meaning, when found on an attached exhibit identifying the method of billing and TIRZ's ability to provide compensation pursuant to this agreement.
- 4.2 Hourly Rates (HR) — Hourly rates is the cost of salaries of ENGINEER (technicians, drafters, stenographers, surveyors, clerks, laborers, etc.), fringe benefits (social security contributions, unemployment excise and payroll taxes, employment compensation insurance, medical and other insurance benefits, sick leave, vacation, holiday pay, contributions to a pension or retirement plan), overhead and profit for time directly chargeable to the PROJECT. Hourly rates for Basic and Additional Services for this PROJECT will not exceed those listed in Exhibit "B" — Summary of Compensation attached to the Agreement, and which is wholly incorporated into the Agreement for all purposes. ENGINEER shall provide documentation of said hourly rates upon written request of the TIRZ and shall be in a form and include information requested by the TIRZ. The TIRZ reserves the right and option to contest any said hourly rates not customarily or ordinarily attributable to "Hourly Rates". The ENGINEER shall not bill the TIRZ more frequently than one (1) time every thirty (30) days unless and until the TIRZ agrees in writing to a more frequent or less frequent billing cycle.
- 4.2.1 Direct Non-Labor Expenses (DNLE) Direct non-labor expenses are defined as all non-labor expenses incurred by the ENGINEER which are directly chargeable to the PROJECT, which is defined as expenses for supplies, transportation, equipment, travel, communications, subsistence and lodging, field office expenses, reproductions, and similar incidentals. ENGINEER shall provide documentation of said expenses upon written request of the TIRZ and shall be in a form and include information requested by the TIRZ. The TIRZ reserves the right and option to contest any said expenses not customarily or ordinarily attributable to DNLE or which are in excess in an amount which are not customarily or ordinarily attributable to DNLE. The ENGINEER shall not bill the TIRZ more frequently than one (1) time every thirty (30) days unless and until the TIRZ agrees in writing to a more frequent or less frequent billing cycle.

4.2.2 Lump Sum (LS) - The TIRZ shall pay the ENGINEER a Lump Sum amount for the specified category of services. The "Lump Sum" is defined as compensation for ENGINEER's services, services of Subconsultants, if any, labor, overhead, profit, and DNLE. The portion of the Lump Sum amount billed for the ENGINEER's services shall be based upon ENGINEER's estimate of the proportion of the total services actually completed during the billing period to the Lump Sum. The TIRZ has the option of agreeing to this amount before making Lump Sum payment to the ENGINEER.

4.2.3 Unit Price (UP) — The TIRZ shall pay the ENGINEER an amount equal to the Unit Price times the actual quantity of unit(s) for the specified category of services. The amount equal to the Unit Price is defined as compensation for ENGINEER's services, services of Subconsultants, if any, labor, overhead, profit, and Reimbursable Expenses. The portion of the amount billed for ENGINEER's services shall be based upon ENGINEER's estimate of the proportion of the Unit Price for services actually completed during the billing period to the Unit Price. The TIRZ has the option of agreeing to this amount before making Unit Price payments to the ENGINEER. The ENGINEER shall not bill the TIRZ more frequently than one (1) time every thirty (30) days unless and until the TIRZ agrees in writing to a more frequent or less frequent billing cycle.

#### 4.3 PAYMENT FOR SERVICES

4.3.1 Based upon applications for payment submitted by the ENGINEER and approved by the TIRZ, the TIRZ will make progress payments as scheduled hereafter for services described in Exhibit "A" — Project Work Plan attached to this Agreement and incorporated herein by reference. The application for payment will be computed on the basis of hourly rates, direct non-labor expenses, lump sum and unit price work items shown in Exhibit "B" — Summary of Compensation. Basic Services for Subconsultants may be billed by an ENGINEER a multiple of up to one and five hundredth (1.05) times the amount billed to the ENGINEER for such services. The ENGINEER will be paid a total amount not to exceed the amount set forth in Exhibit "B" for engineering services for Phase 1. Partial payments will be made upon presentation of statements to the TIRZ in the manner otherwise set forth in this Agreement.

#### 4.4 PAYMENT FOR ADDITIONAL SERVICES

- 4.4.1 As determined by the ENGINEER or the TIRZ or both parties, when the need for additional services arises, the scope of work, compensation terms and total compensation will be negotiated between the TIRZ and ENGINEER before said additional work shall begin. In the event said additional work is begun before the TIRZ gives its prior written approval, the TIRZ has the option to ratify its approval of said additional work. Payment for additional services will be computed on the basis of hourly rates, direct non-labor expenses, lump sum and/or unit prices for additional work. For the services of personnel described in this section, the ENGINEER will be compensated in accordance with the schedule for various employees of the ENGINEER as set forth in Exhibit "B" — Summary of Compensation. Additional Services for Subconsultants may be billed by an ENGINEER a multiple of up to one and five hundredth (1.05) times the amount billed to the ENGINEER for such services.
- 4.4.2 Payment for Additional Services will be made in the manner otherwise set forth in this Agreement, based upon presentation of invoices, statements and billings to the TIRZ sufficient to show the work accomplished. Under no conditions will any additional services be paid for until the ENGINEER has received written authorization from the TIRZ for such work.

#### 4.5 ADDITIONAL COPIES OF PRINTED DOCUMENTS

- 4.5.1 Additional copies, above the number due as part of the basic services outlined in Article 2, of reproduced plans, specifications, maps, and exhibits will be available to the TIRZ at actual invoice cost to the ENGINEER.

**ARTICLE 5**  
**SERVICES BY THE TIRZ**

- 5.1 In general, the TIRZ will render services as follows:
  - 5.1.1 Provide available criteria and full information as to the CITY's requirements for the PROJECT.
  - 5.1.2 Assist the ENGINEER by placing at its disposal all available written data pertinent to previous operations, reports, and any other data affecting the design and/or construction of the PROJECT.
  - 5.1.3 Assist in acquiring rights of ingress and egress on private property, if required.
  - 5.1.4 Respond in writing no later than thirty (30) days to requests by the ENGINEER for authorization to proceed with specific activities deemed desirable.
  - 5.1.5 No later than thirty (30) days from the date of submittal, examine documents submitted by the ENGINEER and render decisions pertaining thereto in order to avoid delay in the progress of the ENGINEER's services.
  - 5.1.6 Timely provide to ENGINEER information that is required or necessary for the orderly progress of the work.
  - 5.1.7 Designate the TIRZ'S REPRESENTATIVE for this PROJECT. ENGINEER understands and agrees that ENGINEER shall obtain instruction and direction of the services to be performed hereunder only from TIRZ's designated TIRZ'S REPRESENTATIVE or other representative designated by TIRZ in writing. ENGINEER shall not perform services directed or requested by any other person, unless approved by TIRZ'S REPRESENTATIVE or other designated representative in writing. In the event ENGINEER is uncertain whether it is authorized to perform services, ENGINEER shall seek confirmation from TIRZ'S REPRESENTATIVE or another designated representative.
- 5.2 The ENGINEER will be entitled to rely upon the TIRZ's Engineer regarding decisions made by the TIRZ pertaining to this PROJECT and rely upon the accuracy and completeness of all information and data provided by or through the TIRZ or its engineer; further, all notices or information will be deemed made when conveyed in writing to the ENGINEER.
- 5.3 The services, information and reports required above will be furnished at the TIRZ's expense.

**ARTICLE 6**  
**PROJECT DOCUMENTS**

- 6.1 All documents including, but not limited to, tracings, drawings, field surveys, maps, estimates, specifications, investigations, and studies completed or partially completed, with the exception of those standard details and specifications regularly used by the ENGINEER in its normal course of business, will upon payment of all amounts rightfully owed by the TIRZ to the ENGINEER herein be the property of the TIRZ. The latest version of all documents including, but not limited to, tracings, drawings, estimates, specifications, investigations, and studies completed or partially completed will be available to the TIRZ no later than thirty (30) days from the date the TIRZ makes a verbal or written request to ENGINEER. ENGINEER, its subcontractors, agents and employees will be liable to the TIRZ for any loss or damage to any such documents while they are in the possession of, or while being worked upon by the ENGINEER or anyone connected with it. All documents lost or damaged while in ENGINEER's possession will be replaced or restored by ENGINEER without cost to the TIRZ. Any reuse or modification of such documents for purposes other than those intended by the ENGINEER shall be at the TIRZ's sole risk and without liability to the ENGINEER unless said unintended reuse or modification occurs as a result of ENGINEER's negligence, malfeasance, or willful misconduct. As such, to the extent permitted by law, TIRZ shall indemnify ENGINEER for any damages resulting from any unauthorized use, reuse, or modification without the ENGINEER's involvement. Upon completion of the PROJECT, all documents shall be transferred to the TIRZ. Once ENGINEER has provided the documents to the TIRZ, ENGINEER shall not be required to maintain the records but may do so in accordance with its Document Retention Policy.

**ARTICLE 7**  
**NOTICE TO PROCEED**

- 7.1 It is understood and agreed that the ENGINEER will work as an Independent Contractor by the TIRZ and not an employee of the TIRZ. ENGINEER will have ultimate control of the services to be rendered except as otherwise provided in this Agreement or in the event said control shall be in violation of this Agreement, and that no work will be done under this Agreement until the ENGINEER is instructed in writing to proceed with the work. In the event the ENGINEER does work before it is instructed in writing to proceed, the TIRZ shall not be obligated or in any way liable for payment of compensation or other reimbursements to the ENGINEER.

**ARTICLE 8**  
**ASSIGNMENT**

- 8.1 The parties each hereby bind themselves, their successors, assigns and legal representatives to each other with respect to the terms of this Agreement. Neither party will assign, sublet nor transfer any interest in this Agreement without the written authorization of the other.

## **ARTICLE 9 TERMINATION**

- 9.1 *Termination for Convenience.* In connection with the work outlined in this contract, it is agreed and fully understood by the ENGINEER that the TIRZ may cancel or indefinitely suspend further work hereunder or terminate this Agreement upon fifteen (15) days written notice to the ENGINEER with the understanding that immediately upon receipt of said notice all work and labor being performed under this contract will cease.
- 9.2 *Termination for Cause.* As a condition precedent for termination for cause, TIRZ will provide a written notice of breach to ENGINEER. Upon receipt of the notice the ENGINEER shall cease all work and, within fifteen (15) days shall set a meeting with the TIRZ to discuss a plan to cure. If the TIRZ approves the plan to cure, ENGINEER shall have twenty (20) additional days. The TIRZ may terminate fully for breach after ENGINEER fails to present a plan to cure within fifteen (15) days of the written notice or fails to cure within twenty (20) days after the TIRZ approves the cure plan.
- 9.3 *Invoice.* Before the end of fifteen (15) days after termination ENGINEER will invoice TIRZ for all work completed satisfactorily to the TIRZ and will be compensated in accordance with the terms of this Agreement. All tracings, drawings, field surveys, maps, estimates, specifications, investigations, studies, and other data work related to the PROJECT will become the property of the TIRZ upon termination of the Agreement.
- 9.4. *Payment.* Payment to the ENGINEER of lump-sum not-to-exceed amounts shall be proportional to services performed to the date of termination. TIRZ will pay a proportionate share for the partially completed work product of any partially completed unit of work through the date of termination. The value of such a partially completed unit of work will be determined by the TIRZ based on actual costs incurred. In no case will the compensation paid to ENGINEER for partial completion of the PROJECT exceed the amount the ENGINEER would have received had the PROJECT been completed. No case will require the TIRZ to pay for any work which fails to meet the Standard of Care. The TIRZ will not be required to make any payments to the ENGINEER when the ENGINEER is in default under this Agreement. The TIRZ and the ENGINEER retain their respective rights and remedies under law and this Agreement does not, nor shall be interpreted, to waive or otherwise modify said rights.
- 9.5 *Time is of the essence.* Subject to the Standard of Care, ENGINEER understands and agrees that time is of the essence and that any failure of the ENGINEER to complete its services within the time limit established herein solely due to the fault of the ENGINEER will constitute a material breach of this Agreement. However, it is agreed that ENGINEER must use sound professional practices. The ENGINEER will be fully responsible for any delays or for failures to use its professional efforts in

developing contractual documents in accordance with the terms of this Agreement. Where damage is caused to the TIRZ due to the ENGINEER's failure to perform in this manner, as determined by the governing body of the TIRZ, the TIRZ may withhold all or any portion of the ENGINEER's payments hereunder without waiver of any of either Party's additional legal rights or remedies.

- 9.6 *Engineer Termination.* The ENGINEER will have the right to terminate this Agreement, upon thirty (30) days written notice and opportunity to cure to the TIRZ should the TIRZ fail to perform its obligation herein to the satisfaction of the ENGINEER. In the event of termination, the ENGINEER will be paid for all services rendered to the date of termination. Nothing contained herein will constitute a waiver of ENGINEER's right to bring a suit for damages or to enforce specific performances of this Agreement under these circumstances. In the event of termination hereunder, ENGINEER will invoice TIRZ for all work satisfactorily completed up to the date of this notice of termination and will be compensated in accordance with the terms of the Agreement.
- 9.7 *Appropriations.* Notwithstanding anything contained herein to the contrary, the TIRZ will have the right to withdraw from this Agreement on the last day of TIRZ's current fiscal year in the event of non-appropriation of funds by its governing body and providing ten (10) days written notice from TIRZ to ENGINEER.
- 9.8 *Force Majeure.* If the performance of any covenant or obligation to be performed hereunder by any party is delayed as a result of circumstances which are beyond the reasonable control of such party (which circumstances may include, without limitation, pending litigation, acts of God, war, acts of civil disobedience, fire or other casualty, shortage of materials, adverse weather conditions [such as, by way of illustration and not of limitation, severe rain storms or below freezing temperatures, or tornados] labor action, strikes or similar acts, moratoriums or regulations or actions by governmental authorities), the time for such performance shall be extended by the amount of time of such delay, but no longer than the amount of time reasonably occasioned by the delay. The party claiming delay of performance as a result of any of the foregoing force majeure events shall deliver written notice of the commencement of any such delay resulting from such force majeure event not later than seven (7) days after the claiming party becomes aware of a force majeure event causing such delay and the other party shall not otherwise be aware of such force majeure event, the claiming party shall not be entitled to avail itself of the provisions for the extension of performance contained in this subsection.

## **ARTICLE 10 VENUE AND GOVERNING LAW**

- 10.1 Venue and jurisdiction of any suit or right or cause of action arising under or in connection with this Agreement will lie exclusively in a court of competent jurisdiction Hays County, Texas, and such court will interpret this Agreement in accordance with the laws of the State of Texas. Nothing herein shall constitute a

waiver of TIRZ'S sovereign immunity or the constitutionally, statutory, or common law rights, privileges, immunities, or defenses of the Parties.

## **ARTICLE 11 ENTIRE AGREEMENT**

- 11.1 This instrument represents the entire understanding between the TIRZ and the ENGINEER in respect to the PROJECT and may only be modified in writing signed by both parties.

## **ARTICLE 12 SEVERABILITY**

- 12.1 In the event any provision of this Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision hereof, but rather this entire Agreement will be construed as if not containing the particular invalid or unenforceable provision or provisions, and the rights and obligations of the Parties hereto shall be construed and enforced in accordance therewith. The Parties hereto acknowledge that if any provision of this Agreement is determined to be invalid or unenforceable, it is their desire and intention that such provision be reformed and construed in such a manner that it will, to the maximum extent practicable, be deemed to be validated and enforceable.

## **ARTICLE 13 RESPONSIBILITIES FOR CLAIMS AND LIABILITIES**

- 13.1 Approval by the TIRZ will not constitute nor be deemed a release of the responsibility and liability of the ENGINEER, its employees, subcontractors, agents and consultants for the accuracy and competency of their designs, drawings, or other documents and work, nor will such approval be deemed to be an assumption of such responsibility by the TIRZ for the ENGINEER's negligent acts, errors or omissions in the performance of the professional services that are the subject of this agreement, including the preparation of the designs, drawings, or other documents and work, nor will such approval be deemed to be an assumption of such responsibility by the TIRZ for ENGINEER's negligent acts, errors or omissions in the performance of the professional services that are the subject of this agreement, including the preparation of the designs, drawings, or other documents prepared by the ENGINEER, its employees, subcontractors, agents, and Subconsultants.
- 13.2 The TIRZ agrees the ENGINEER is not responsible for damages arising from any circumstances beyond the ENGINEER's reasonable control. For purposes of this Agreement, such causes include, but are not limited to, strikes or other labor disputes; severe weather disruptions, natural disasters, fire, or other acts of God;



riots, war, or other emergencies; failure of any governmental agency to act in a timely manner; failure of performance by the TIRZ or the TIRZ's other subcontractors or consultants; or discovery of any hazardous substances or differing and unforeseeable site conditions.

#### **ARTICLE 14 INDEMNIFICATION**

- 14.1 **The ENGINEER will indemnify and hold the TIRZ and its officers, servants, and employees harmless from any loss, damage, liability or expense, including reasonable attorneys' fees, on account of damage to property and injuries, including death, to all persons, to the extent caused by ENGINEER or its officers, agents, employees, subcontractors, licensees, or invitees act of negligence or intentionally wrongful act or material breach of any obligation under this Agreement, and pay all expenses and satisfy all judgments which may be incurred by or rendered against them, or any of them in connection herewith resulting from such act of negligence or intentional act or breach for which ENGINEER is found to be legally liable.**
- 14.2 In no event shall either Party be liable, whether in contract or tort or otherwise, to the other Party for loss of profits, delay damages, or for any special incidental, liquidated or consequential loss or damage of any nature arising at any time or from any cause whatsoever.
- 14.3 The indemnity obligations herein shall survive the termination of the contract for any reason and shall survive the completion of the work on the PROJECT. It is understood and agreed that the indemnity obligations contained and described herein shall be interpreted in accordance with Texas law current as of the date of this Agreement and that any indemnity obligation, if at all, shall be claimed, interpreted, and enforced on a comparative basis of fault and responsibility. Neither Party to this Agreement will allege, claim, file suit or otherwise demand that the other Party provide any indemnity or defense as such may relate to the negligent acts, errors, or omissions of the claiming Party.

**ARTICLE 15**  
**INSURANCE REQUIREMENTS**

- 15.1 Workers Compensation Insurance: The ENGINEER shall carry and maintain during the term of this Agreement, workers compensation and employer's liability insurance meeting the requirements of the State of Texas on all the ENGINEER's employees carrying out the work involved in this Agreement.
- 15.2 Professional Liability Insurance: The ENGINEER will maintain at all times professional liability or errors and omissions insurance covering any claim hereunder occasioned by ENGINEER's negligent act, or error or omission in an amount of not less than \$1,000,000. ENGINEER agrees to maintain professional liability insurance during the term of this agreement and, if the policy is on a claim made basis, for a period of not less than five (5) years after the PROJECT is complete and provide proof of such continuing coverage providing such coverage is readily available and financially feasible. ENGINEER further agrees to provide proof of coverage as needed for prior acts back to the date of execution of this agreement if ENGINEER changes insurance carriers during this extended indemnity period.
- 15.3 General Liability Insurance: ENGINEER will further maintain general commercial liability coverage Commercial General Liability with a combined single limit of \$1,000,000 per occurrence for coverages A&B including products/completed operations, where appropriate, with a separate aggregate of \$1,000,000. The policy shall contain the following provisions:
- a. Blanket contractual liability coverage for liability assumed under the AGREEMENT and all contracts relative to the PROJECT.
  - b. Independent Contractors coverage.
  - c. TIRZ listed as an additional insured, endorsement CG 2010 or equivalent.
  - d. Thirty (30) day Notice of Cancellation in favor of the TIRZ, endorsement CG 0205 or equivalent.
  - e. Waiver of Transfer of Rights of Recovery Against Others in favor of the TIRZ, endorsement CG 2404 or equivalent.
- 15.4 Upon execution of this Agreement, ENGINEER will provide the City Secretary either their original Certificate of Insurance or their insurance policy evidencing the above limits and requirements and subject to approval by the City Attorney. Upon a request from TIRZ, ENGINEER will provide a subsequent copy of any insurance documents within 7 days.
- 15.5 The insurance requirements set out in this section are independent from all other obligations of ENGINEER under this Agreement and apply whether or not required by any other provision of this Agreement.

- 15.6 The ENGINEER shall not cause any insurance required under this AGREEMENT to be canceled nor permit any insurance to lapse during the term of this AGREEMENT. The TIRZ reserves the right to review the insurance requirements of this section during the effective period of the AGREEMENT and to make reasonable adjustments to insurance coverages and their limits when deemed necessary and prudent by the TIRZ based upon changes in statutory law, court decisions or the claims history of the industry as well as the ENGINEER (such adjustments shall be commercially available to the ENGINEER). If the implementation of such revised insurance coverages/limits would result in additional costs to the ENGINEER, the ENGINEER may request additional compensation from the TIRZ under the provisions of Section III.

## **ARTICLE 16 COMPLIANCE WITH LAWS**

- 16.1 The ENGINEER, its Subconsultants, agents, employees, and subcontractors, will comply with all applicable federal and state laws, the Charter and Code of Ordinances of the City of Kyle, and all other applicable rules and regulations promoted by all local, state, and national boards, bureaus, and agencies.

## **ARTICLE 17 NOTICES**

- 17.1 This contract will be administered on the TIRZ's behalf by the City Engineer. All notices, documentation, or questions arising under this Agreement should be addressed to the CITYT's Engineer at:

City Engineer  
Kyle City Hall  
100 W. Center Street  
Kyle, Texas 78640

All written notices from TIRZ to ENGINEER will be addressed to the ENGINEER as follows:

American Structurepoint, Inc.  
3711 South Mopac Expressway, Building One, Suite 350  
Austin, Texas 78746  
Attn: Willis R. Conner

## **ARTICLE 18 CAPTIONS**

- 18.1 The captions of this Agreement are for information purposes only and will not in any way affect the substantive terms and conditions of this Agreement.

**ARTICLE 19  
MEDIATION**

- 19.1 In the event a dispute arises between the TIRZ and the ENGINEER in the application or interpretation of this Agreement, or one or more of its provisions, the Parties may mutually agree to take such dispute to a mediator mutually agreed upon by both parties to this Agreement for resolution. Neither Party is bound to the mediator's decision.

**ARTICLE 20  
CERTIFICATION AND VERIFICATION**

- 20.1 The individual(s) signing this AGREEMENT, acting as duly authorized representative(s) of the firm of ENGINEER hereby certify that neither they nor any other members of the ENGINEER'S firm which they represent have:
- 20.2 Agreed, as an expressed or implied condition for obtaining this AGREEMENT, to employ or retain the services of (1) any firm or person in the employ of the TIRZ or, (2) a TIRZ official, in connection with carrying out the work to be performed under this AGREEMENT.
- 20.3 Paid or agreed to pay as an express or implied condition for obtaining this AGREEMENT (1) any firm or person in the employ of the TIRZ or, (2) a TIRZ official, any fee, contribution, donation, or consideration of any kind for, or in connection with procuring or carrying out the work provided under the AGREEMENT.
- 20.4. To the extent this Agreement constitutes a contract for goods or services within the meaning of Section 2271.002 of the Texas Government Code, as amended, solely for purposes of compliance with Chapter 2270 of the Texas Government Code, and subject to applicable Federal law, the ENGINEER represents, to the best of its knowledge, that neither the ENGINEER nor any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of ENGINEER (i) boycotts Israel or (ii) will boycott Israel through the term of this Agreement. The terms "boycotts Israel" and "boycott Israel" as used in this paragraph have the meanings assigned to the term "boycott Israel" in Section 808.001 of the Texas Government Code, as amended.
- 20.5. To the extent the Agreement constitutes a governmental contract within the meaning of Section 2252.151 of the Texas Governmental Code, as amended, solely for the purposes of compliance with Chapter 2252 of the Texas Governmental Code, and except to the extent otherwise required by applicable federal law, ENGINEER represents, to the best of its knowledge, that the ENGINEER nor any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of ENGINEER is a company listed by the Texas Comptroller Public Accounts under Sections 2270.0201, or 2252.153 of the Texas Government Code.

- 20.6 The ENGINEER hereby verifies that it and its parent's company, wholly or majority- owned subsidiaries, and other affiliates, if any, do not boycott energy companies and will not boycott energy companies during the term of the Agreement. The foregoing verification is made solely to comply with Section 2274.002, Texas Government Code, and to the extent such section is not inconsistent with a governmental entity's constitutional or statutory duties related to the issuance, incurrence, or management of debt obligations or the deposit, custody, management, borrowing or investment of funds. As used in the foregoing verification, "boycott energy company" means, without an ordinary business purpose, refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm, or limit commercial relations with a company because the company: (A) engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil-based energy and does not commit or pledge to meet environmental standards beyond federal and state law; or (B) does business with a company described as by the preceding statement.
- 20.7 The ENGINEER hereby verifies that it and its parent company, wholly- or majority- owned subsidiaries, and other affiliates, if any, do not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association during the term of this Agreement. The foregoing verification is made solely to comply with Section 2274.002, Texas Government Code. As used in the foregoing verification, "discriminate against a firearm entity or firearm trade association" means: (i) refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association; (ii) refrain from continuing an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; or (iii) terminate an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; but does not include (a) the established policies of a merchant, retail seller, or platform that restrict or prohibit the listing or selling of ammunition, firearms, or firearm accessories; or (b) a company's refusal to engage in the trade of any goods or services, decision to refrain from continuing an existing business relationship, or decision to terminate an existing business relationship to comply with federal, state, or local law, policy, or regulations or a directive by a regulatory agency; or for any traditional business reason that is specific to the customer or potential customer and not based solely on an entity's or association's status as a firearm entity or firearm trade association.
- 20.8 ENGINEER represents that it is in compliance with the applicable filing and disclosure requirements of Chapter 176 of the Texas Local Government Code and Chapter 2252 of the Texas Government Code.

**SECTION 21**  
**ADDITIONAL PROVISIONS**

- 21.1 During the performance of the contract, ENGINEER agrees as follows:
- 21.2 The ENGINEER will not discriminate against any employee or applicant for employment because of race, religion, color, gender, or national origin. The ENGINEER will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, gender, or national origin.
- 21.3 The ENGINEER will, in all solicitations or advertisements for employees place by or on behalf of the ENGINEER, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex, or national origin.

**ARTICLE 22**  
**EXECUTION AND EFFECTIVE DATE OF AGREEMENT**

- 22.1 The execution of this Agreement shall proceed as follows: the Agreement shall be submitted to the City Attorney for review, whereupon signature of the ENGINEER shall be affixed hereto, and then to the TIRZ for final review and approval. After such approval from the TIRZ, the Agreement shall then be signed by the Chair of the TIRZ No. 2 Board. This Agreement will become effective immediately upon the signature of both parties. An executed original of this Agreement shall be kept on file in the City Secretary's office.

*<Signatures on Subsequent Page>*

**IN WITNESS WHEREOF**, the City of Kyle Tax Increment Reinvestment Zone No. 2, Texas has caused these presents to be executed by its Chair and attested by its City Secretary and executed by \_\_\_\_\_(Representative of Engineers Design Firm) on behalf of American Structurepoint, Inc.

**CITY OF KYLE**

**TAX INCREMENT REINVESTMENT ZONE NO. 2**

**AMERICAN STRUCTUREPOINT  
INC.**

\_\_\_\_\_  
**Debbie Ingalsbe, Chair**

\_\_\_\_\_  
**Name, Engineer's  
Representative**

**ATTEST:**

\_\_\_\_\_  
**Jennifer Kirkland, City Secretary**

**STATE OF TEXAS           §**  
  **§**  
**COUNTY OF HAYS         §**

This instrument was acknowledged before me on the \_\_\_\_ day of \_\_\_, 2023, by Debbie Ingalsbe, Chair, of the City of Kyle Tax Increment Reinvestment Zone No. 2.

\_\_\_\_\_  
Notary Public, State of Texas

**CORPORATE ACKNOWLEDGEMENT**

**STATE OF TEXAS           §**  
  **§**  
**COUNTY OF HAYS         §**

This instrument was acknowledged before me on the \_\_\_\_\_ day of \_\_\_, 2023, by American Structurepoint, Inc. a corporation, on behalf of such corporation.

Notary Public, State of Texas



## **EXHIBIT A**

### **Scope of Work and Project Schedule (Phase 1)**

**EXHIBIT B**  
**Compensation (Phase 1)**

## **“EXHIBIT A”**

### **SERVICES TO BE PROVIDED BY THE ENGINEER**

American Structurepoint, Inc. (Engineer) will provide staff to support the City of KYLE (Owner) with general construction and engineering support services. Specific tasks may include, but are not limited to, the following:

The work to be performed by the Engineer shall consist of providing preliminary engineering services, development of a design schematic, environmental documents, and PS&E. These services may include, but are not limited to, preparing a Preliminary Engineering Report (summary of information, only), a design schematic to an equivalent 30% PS&E level of detail, environmental documents/studies in support of the schematic work, public involvement support, permit procurement, data collection analysis, mitigation and remediation, monitoring, drainage, conceptual traffic control, 3-D modeling, surveying and mapping, subsurface utility engineering (SUE), environmental clearance, utility coordination, storm drain design, traffic control layout and cross sections.

Additionally, the Engineer shall provide engineering services required for the preparation of plans, specifications, and estimates (PS&E) and related documents, as requested by the Owner. These services may include, but are not limited to, preparing roadway design, hydrologic and hydraulic design, survey and ROW mapping, and geotechnical data collection, and, if requested, provide design support and testify as the Engineer of Record at Right of Way hearings necessary to support the design process.

The Engineer shall complete the services to be provided by the Engineer according to the milestone work schedule established in the task orders. The Engineer shall submit a written progress report to the Owner monthly indicating the actual work accomplished during the month, scheduled work to be accomplished for the month, and the estimated work to be accomplished for the coming month. The progress report will use a bar chart diagram to indicate the percentage complete of each task shown on the previous report and the percentage complete of each task. The Engineer is required to meet with the designated Owner project manager and environmental coordinator bi-weekly for progress tracking purposes unless prior agreement is made with Owner not to hold a scheduled meeting. The Engineer shall submit minutes of the meeting, summarizing the events of the meeting within seven calendar days after each meeting.

The Engineer shall prepare a project work schedule. The work schedule must incorporate an allocation of time for stage reviews of the design schematic, survey, ROW Mapping, PS&E and the environmental documents by Owner personnel. The Engineer shall present the work schedule to the Owner for review and acceptance and provide assistance in interpreting the proposed work schedule.

### **GENERAL REQUIREMENTS**

#### **1.1. Design Criteria.**

Design Criteria. The Engineer shall prepare all work in accordance with the latest version of applicable Owner's procedures, specifications, manuals, guidelines, standard drawings, and standard specifications or previously approved special provisions and special specifications, which include:

- Kyle Connected 2040 Transportation Master Plan (2015)

- Kyle Transportation Master Plan Update (2021)
- The Vybe Kyle: Trail-Oriented Development (2021)
- Kyle Drainage Master Plan (2018)
- City of Kyle Roundabout Ordinance #1162 (2021)
- City of Kyle standard detail sheets and general construction notes
- Texas Department of Transportation (TxDOT) PS&E Preparation Manual
- TxDOT Roadway Design Manual
- TxDOT Hydraulic Design Manual
- Texas Manual on Uniform Traffic Control Devices (TMUTCD)
- Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges (latest Edition)
- Other Owner approved manuals

When design criteria are not identified in Owner's manuals or TxDOT criteria, the Engineer shall notify the Owner and refer to City of Austin policies and the American Association of State Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Street, (latest Edition). In addition, the Engineer shall follow the Owner's guidelines in developing the PS&E package. The Engineer shall prepare each PS&E package in a form suitable for letting through the Owner's construction contract bidding and awarding process.

The Engineer shall identify, prepare exhibits and complete all necessary forms for each Design Exception and Waiver required within project limits prior to the 30% project completion submittal. The Engineer shall submit each exception and waiver to the Owner for coordination and processing of approvals. If subsequent changes require additional exceptions, the Engineer shall notify the Owner in writing as soon as possible after identification of each condition that may warrant a design exception or waiver.

The Engineer shall prepare a design time schedule and an estimated construction contract time schedule, using the latest version of MS Project, Primavera, or any Owner approved programs.

**1.2. Right-of-Entry.** The Engineer shall notify the Owner and secure permission to enter private property to perform any surveying, environmental, engineering, or geotechnical activities needed off Owner right-of-way. In pursuance of the Owner's policy with the general public, the Engineer shall not commit acts which would result in damages to private property, and the Engineer shall make every effort to comply with the wishes and address the concerns of affected private property owners. The Engineer shall contact each property owner prior to any entry onto the owner's property and shall request concurrence from the Owner prior to each entry.

**1.3. Progress Reporting and Invoicing.** The Engineer shall invoice according to breakdowns shown in Exhibit "A" of the Professional Services Agreement and Attachment "B" - Fee Schedule, of each Task Order. The Engineer shall submit each invoice in a format acceptable to the Owner.

With each invoice the Engineer shall submit a monthly written progress report to the Owner's Project Manager regardless of whether the Engineer is invoicing for that month.

The Engineer's written progress report shall describe activities during the reporting period; activities planned for the following period; problems encountered and actions taken to remedy them; list of meetings attended; and overall status, including a percent complete by task.

The Engineer shall complete the services according to the milestone work schedule established in the

task order. The Engineer shall submit a monthly written progress report to the Owner indicating the actual work accomplished during the month, scheduled work to be accomplished for the month, the estimated work to be accomplished for the coming month, problems encountered, and actions taken to remedy them, list of meetings attended, and overall status. The progress report must use a bar chart diagram to indicate the percentage complete of each task shown on the previous report and the percentage complete of each task. The Engineer is required to meet with the designated Owner project manager or environmental coordinator bi-weekly for progress tracking purposes unless prior written agreement is made with Owner not to hold a meeting in any given month. The Engineer shall submit minutes of the meeting summarizing the events of the meeting within seven calendar days after each meeting.

The Engineer shall prepare a project work schedule, using the latest version of Primavera software or another scheduling program approved by the Owner in writing. The schedules shall indicate tasks, subtasks, critical dates, milestones, deliverables, and review requirements in a format that depicts the interdependence of the various items. The work schedule must incorporate an allocation of time for stage reviews of the design schematic, environmental documents, and PS&E documents by Owner personnel. The Engineer shall present the work schedule to the Owner for review and acceptance and provide assistance in interpreting the proposed work schedule. The Engineer shall provide advance written notice to the Owner if the Engineer is not able to meet the scheduled milestone review date.

Condition precedents to final payment by the Owner are the Owner's receipt of all electronic files and confirmation by the Owner's Project Manager that (1) the electronic files can be opened and are usable by the Owner utilizing the Owner-owned version of the intended software, and (2) all of the Owner's review comments have been addressed.

The Engineer shall prepare a letter of transmittal to accompany each document submittal to the Owner. At a minimum, the letter of transmittal must include the project name, project limits, Owner's contract number, and Owner's task order number.

**1.4. Traffic Control.** The Engineer shall provide all planning, labor, and equipment to develop and to execute each Traffic Control Plan (TCP) needed by the Engineer to perform services under each task order. The Engineer shall comply with the requirements of the most recent edition of the TMUTCD. The Engineer shall submit a copy of each TCP to the Owner for approval prior commencing any work on any Owner roadway. The Engineer shall provide all signs, flags, and safety equipment needed to execute the approved TCP. The Engineer shall notify the Owner in writing five (5) days (in advance of executing each TCP requiring a lane closure and shall have received written concurrence from the Owner prior to beginning the lane closure. The Engineer's field crew shall always possess a copy of the approved TCP on the job site and shall make the TCP available to the Owner for inspection upon request. The Engineer shall assign charges for any required traffic control to the applicable function code. City requires Public Notice of lane and Road closure 7 days in advance of closure through use of message boards, thus notice to Owner would need to be about 10 days prior of closure.

**1.5. State-Controlled Waters.** The placement of a new structure or modification of an existing structure(s) within State-Controlled waters will require confirmation that said structure(s) lie within the General Land Office (GLO) state owned land and whether the crossing is tidally influenced or not. Consequently, the Engineer shall request, as early in the design process as possible, that the State determine whether the proposed improvements are found within the tidal GLO, is a submerged GLO property or a non-tidal GLO property. The Owner may request assistance from the Engineer to prepare an exhibit demonstrating the location of the proposed improvements on the GLO State Owned Map for the project location.

**1.6. Coordination.** The Engineer shall coordinate issues and communications with Owner's internal departments through the Owner's Project Manager. The Owner will communicate the resolution of issues and provide the Engineer direction through the Owner's Project Manager.

Where applicable, the Engineer shall notify the Owner and coordinate with adjacent engineers and surveyors on all controls at project interfaces. The Engineer shall document the coordination effort, and each engineer must provide written concurrence regarding the agreed project controls and interfaces. In the event the Engineer and the other adjacent engineers are unable to agree, the Engineer shall meet jointly with the Owner and each adjacent engineer to resolve disagreements. If the engineers are unable to resolve an issue with the Owner as mediator, the Owner may decide the issue and the decision will be final.

The Engineer shall prepare each exhibit necessary for approval by each railroad, utility, and other governmental or regulatory agency in compliance with the applicable format and guidelines required by each entity and as approved by the Owner. The Engineer shall notify the Owner in writing prior to beginning any work on any outside agency's exhibit.

**1.7. Level of Effort.** For each task order, the Engineer shall base the level of effort at each phase on the prior work developed in earlier phases without unnecessary repetition or re-study. As directed by the Owner, the Engineer shall provide written justification regarding whether or not additional or repeated level of effort of earlier completed work is warranted, or if additional detail will be better addressed at a later stage in the project development.

**1.8. Quality Assurance (QA) and Quality Control (QC).** The Engineer shall provide peer review at all levels. For each deliverable, the Engineer shall have some evidence of their internal review and mark-up of that deliverable as preparation for submittal. A milestone submittal is not considered complete unless the required milestone documents and associated internal red-line mark-ups are submitted. The Owner's Project Manager may require the Engineer to submit the Engineer's internal mark-up (red-lines) or comments developed as part the Engineer's quality control step. When internal mark-ups are requested by the Owner in advance, the Owner, at its sole discretion, may reject the actual deliverable should the Engineer fail to provide the evidence of quality control. The Engineer shall clearly label each document submitted for quality assurance as an internal mark-up document.

The Engineer shall perform QA and QC on all survey procedures, field surveys, data, and products prior to delivery to the Owner. If, at any time, during the course of reviewing a survey submittal it becomes apparent to the Owner that the submittal contains errors, omissions, or inconsistencies, the Owner may cease its review and immediately return the submittal to the Engineer for appropriate action by the Engineer. A submittal returned to the Engineer for this reason is not a submittal for purposes of the submission schedule.

**1.9. Use of the State's Standards.** The Engineer shall identify and insert as frequently as is feasible the applicable, current City of Kyle Standard Details, TxDOT Statewide Standard Details, TxDOT Austin District Standard Details, or miscellaneous details that have been approved for use in the plan. The Engineer shall retain the responsibility for the appropriate selection of each Standard identified for use within their design.

**1.10. Organization of Plan Sheets.** The PS&E shall be complete and organized in accordance with the latest edition of the TxDOT PS&E Preparation Manual. The PS&E package shall be suitable for the bidding and awarding of a construction contract, and in accordance with the latest TxDOT policies and procedures, and the Austin District's PS&E Checklist.

**1.11. Organization of Design Project Folder and Files (Electronic Project Files).** The Engineer shall organize the electronic project files in accordance with the Owner's File Management System (FMS) format. The Engineer shall maintain the project files in the Owner's file structure.

**1.12. Personal Protective Equipment (PPE).** The Engineer shall, and shall require its subcontractors to, (1) provide personal protective equipment (PPE) to their personnel, (2) provide business vehicles for their personnel, and (3) require their personnel to use PPE and drive only business vehicles while performing work on or near roadways. The PPE must meet all (1) current standards set by the Occupational Safety and Health Administration (OSHA) and (2) TxDOT requirements (e.g., safety glasses, Type 3 (TY 3) pants for night work). Each business vehicle must be clearly marked with the Engineer's business name, or the name of the appropriate subcontractor, such that the name can be identified from a distance.

**1.13. Data Classification.** Unless otherwise clearly labeled or otherwise specifically excepted through a provision of this contract or its attachments, all data provided to or generated by the Engineer under this contract is considered public data for the purposes of applying the Owner's data security standards. The Engineer shall manage all data and work products according to the terms of the contract, including specifically Attachment I, Information Resources and Security Requirements.

**1.14. Preventative Measures to Prevent the Spread of Oak Wilt Disease Contamination.**

The Engineer shall take the following preventive measures while cutting, pruning, or removing oak trees in counties which have confirmed cases of oak wilt disease or when directed by the Owner:

- A. When possible, employ alternative methods instead of pruning or cutting oak trees.
- B. When possible, perform necessary pruning and cutting of healthy trees during January or February when sap beetles are least active.
- C. Treat wounds with pruning paint in oak wilt disease infected counties to discourage insects, especially during warm weather.
- D. Sterilize all pruning tools between each use on each tree with either Lysol spray or a 70 percent rubbing alcohol solution.
- E. Dispose of the tree cuttings by burning, burying, or another approved method.

**TASK DESCRIPTIONS AND FUNCTION CODES**

The Engineer shall categorize each task performed to correspond with the Function Codes (FC) and Task Descriptions.

**FUNCTION CODE 102(110) – FEASIBILITY STUDIES**

**ROUTE AND DESIGN STUDIES**

The Engineer shall collect, review, and evaluate data described below. The Engineer shall notify the Owner in writing whenever the Engineer finds disagreement with the information or documents provided.

The Engineer shall prepare an alignment and proposed roadway schematic layout that includes projected traffic volumes, when available, and existing and proposed typical sections. The Engineer shall furnish Microsoft Office and MicroStation, GEOPAK, and OpenRoads computer generated media containing the roadway schematic layout to the Owner. All supporting attachments and exhibits must accompany the schematic layout. All MicroStation, GEOPAK, and OpenRoads



computer generated files containing the roadway design schematic must be fully compatible with the software used by the Owner without further modification or conversion. The Engineer shall be required to convert files to AutoCAD if requested by the Owner.

The Engineer shall produce, obtain, review, and evaluate available existing and twenty-year projected traffic data for use in the preparation of the schematic design layout. The data must be utilized in accordance with the requirements for schematic development and consistent with the policies of the Owner.

The Engineer shall prepare preliminary drawings to identify any potential impacts and constraints within the project corridor, including impacts to the nature, cultural, and human environment. The potential impacts and constraints identified must include all existing and proposed utilities (both public and private), structures, burial grounds, neighborhood communities, historical landmarks, and undeveloped areas. Any potential utility conflicts and structural impediments must be identified as such. The Engineer shall propose alternative alignments that avoid or minimize displacements and damages and prepare any additional attachments or exhibits required to illustrate a preferred alternative alignment. The Engineer shall assist the Owner with agency meetings during the development of the schematic design as requested by the Owner. If requested by the Owner, the Engineer shall assist the Owner with stakeholder meetings, public meetings, and a public hearing.

An itemization of the schematic design and engineering work activity to be performed under this contract is detailed below. The Engineer shall prepare all designs in accordance with the latest version of:

- A. Kyle Connected 2040 Transportation Master Plan (2015)
- B. Kyle Transportation Master Plan Update (2021)
- C. The Vybe Kyle: Trail-Oriented Development (2021)
- D. Kyle Drainage Master Plan (2018)
- E. City of Kyle Roundabout Ordinance #1162 (2021)
- F. City of Kyle standard detail sheets and general construction notes
- G. Texas Department of Transportation (TxDOT) PS&E Preparation Manual



- H. TxDOT Roadway Design Manual
- I. TxDOT Hydraulic Design Manual
- J. Texas Manual on Uniform Traffic Control Devices (TMUTCD)
- K. Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges (latest Edition)
- L. Other Owner approved manuals and guides.

When design criteria are not identified in Owner manuals or TxDOT criteria, the Engineer shall notify the Owner and refer to City of Austin policies and the American Association of State Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Street, (latest Edition).

The design schematic horizontal layout must adhere to a design scale of 1 inch = 100 foot (or 1 inch = 200 foot, when directed by the Owner.) The Engineer shall develop the schematic layout, exhibits, and attachments in English units. All Microsoft Office, MicroStation, Keyhole Markup Language (KML), Keyhole Markup Language Zipped (KMZ), and Bentley OpenRoads computer graphic files furnished to the Owner must be uploaded to the Owner's file management system in their native format, which must be fully compatible with the programs currently used by the Owner. Schematics must follow TxDOT and Federal Highway Administration (FHWA) standards. The schematic must follow TxDOT's computer-aided design and drafting (CADD) standards. The Engineer shall submit the schematic as an original document, accompanied with an original MicroStation formatted graphics file. Final copies of the schematic design must be signed and sealed by a professional engineer licensed in the State of Texas.

#### **110.1. Schematic Design Work Outline:**

##### **A. Develop Base Maps**

The Engineer shall develop the base maps to be used for the analysis and proposed schematic layout from existing construction and right of way (ROW) plans as available. The Engineer shall re-establish the existing centerline horizontal alignments for all roadways, identify existing ROW and easements, property owners, and the approximate location of major utilities based on a Subsurface Utility Engineering (SUE) in the preparation of base maps.

##### **B. Planimetrics and Aerial Mapping**

The Engineer shall obtain planimetrics, digital terrain modeling (DTM), and aerial photographs from the Owner, if available.

##### **C. Analyze Existing Conditions**

Using collected data and base maps, the Engineer shall develop an overall analysis of the existing conditions to develop the schematic design. The written analysis must include the following:

- 2. ROW and easement determination
- 3. Horizontal alignment
- 4. Vertical alignment
- 5. Pavement cross slopes and pavement type
- 6. Soil exploration

7. Geotechnical testing
8. Highway-rail grade crossing studies, if applicable
9. Intersection design and analysis
10. Sight distance
11. Large guide signs and roadside signing
12. Level of service
13. Safety (i.e., crash data)
14. Locations of critical constraints
15. Drainage
16. Traffic control and construction phasing sequence

#### D. Schematic Alternatives

The Engineer shall identify and analyze schematic two (2) alternatives to minimize potential adverse operational impacts, crash impacts, ROW impacts, environmental impacts, major utility conflicts, structural impediments, or exceptions to the Owner, State and FHWA design criteria. Schematics will be developed to the 10% and 30% plans level of completion.

#### E. Deliverable Schematic

The Engineer shall evaluate and document the following in the analysis to optimize the design:

1. Efficient use of the allocated ROW
2. Control of access (COA) and driveway locations
3. Roadway and intersection geometry
4. Cross sections
5. Bicycle and pedestrian design
6. Drainage and hydraulic design
7. Stopping sight distance
8. Level of service
9. Safety
10. Traffic and signal operations
11. Construction, ROW, easement, and utility costs
12. Construction sequencing
13. Traffic control during construction
14. Roadside safety appurtenances
15. Large guide signage
16. Environmental mitigation (e.g., noise walls, storm water best management practices (BMPs))
17. Bridge layouts and clearance
18. Railroads (if applicable)
19. Roundabout Analysis
20. Accommodation of ultimate corridor configuration.
21. Accommodation of future cross street expansion as described in local thoroughfare plan (if applicable)
22. Avoidance of utility lines (if feasible)
23. Impact of construction delays from utility relocations

#### F. Project Management and Coordination

1. The Engineer shall direct and coordinate the various elements and activities associated with developing the design schematic.
2. The Engineer shall prepare the detailed graphic project work schedule indicating tasks, critical dates, milestones, deliverables, and Owner review requirements. The project work schedule must depict the order of the various tasks, milestones, and deliverables. The Engineer shall review the schedule monthly and provide updates regarding its progress on the schedule to the Owner.
3. The Engineer shall submit written monthly progress reports to the Owner.
4. The Engineer shall provide ongoing quality assurance and quality control to ensure completeness of product and compliance with the Owner procedures.
5. The Engineer shall conduct site visits in both the AM and PM peak hour and develop a technical report that includes photographs outlining the findings and observations.

#### G. Data Collection and Field Reconnaissance

The Engineer shall collect, review, and evaluate data described below. The Engineer shall notify the Owner in writing whenever the Engineer finds disagreement with the information or documents:

1. Data, if available, from the Owner, including “as-built plans”, existing schematics, right-of-way maps, Subsurface Utility Engineering (SUE) mapping, existing cross sections, existing planimetric mapping, environmental documents, existing channel and drainage easement data, existing traffic counts, accident data, Bridge Inspection records, identified endangered species, identified hazardous material sites, current unit bid price information, current special provisions, special specifications, and standard drawings.
2. Documents for existing and proposed development along proposed route from local municipalities and local ordinances related to project development.
3. Utility plans and documents from appropriate municipalities and agencies.
4. Flood plain information and studies from the Federal Emergency Management Agency (FEMA), the United States Army Corps of Engineers (USACE), local municipalities, and other governmental agencies.
5. Conduct field reconnaissance and collect data including a photographic record of notable existing features.

The Engineer shall conduct field reconnaissance and collect data as necessary to complete the schematic design. Data must include the following information. Items 1 through 5 must be obtained from the Owner, if available. Items 6 through 13 must be obtained from other agencies as required.

1. Local major thoroughfare plan
2. Plat research for adjacent properties (if available)
3. Available corridor major investment studies
4. Design data from record drawings of existing and proposed facilities
5. Previously prepared drainage studies
6. Public and private utility information (It is necessary for the Engineer’s Surveyor to locate public and private utilities, even if the City has permits)

7. Existing and future design year traffic data
8. Historical crash data
9. Roadway inventory information, including the number of lanes, speed limits, pavement widths and rating, bridge widths and ratings, and ROW widths
10. Aerial photos, planimetric mapping, and DTM
11. Environmental data
12. Adopted land use maps and plans (if available)
13. Federal Emergency Management Agency (FEMA) flood boundary maps and flood insurance studies and models

#### H. Roadway Design Criteria

The Engineer shall develop the roadway design criteria based on the City of Kyle Transportation Master Plan Update (2021), TxDOT Roadway Design Manual and AASHTO Policy on Geometric Design of Highways and Streets guidelines. The design criteria must include the following roadway design elements: design speed, lane and shoulder widths, pavement structure and slopes, horizontal curvatures, horizontal and vertical clearances, range of vertical profile grades, and side slopes. If there is a discrepancy between the two sources, the Roadway Design Manual will govern unless otherwise directed by the Owner.

The Engineer shall prepare and submit preliminary design criteria to the Owner for review and approval and shall attend an initial kick-off meeting to establish and agree on fundamental aspects, basic features, concepts, and design criteria. This meeting will be coordinated with any adjacent roadway projects to ensure continuity with the design of the adjacent roadway projects.

#### I. Overhead to Underground Conversion – Feasibility Analysis

The Engineer shall identify all existing overhead utilities and perform an analysis on estimated costs to relocate into the underground the entire limits of the project. Services include:

- Gather and analyze data from electronic base file provided by others.
- Coordinate and meet with Pedernales Electric Cooperative (PEC) (up to 1 meeting) and (3) telecommunication attachment companies (1 meeting with each provider) to discuss project scope.
- Create a 3D schematic design to remove all overhead utilities to underground. The design will be completed in MicroStation and be combined with the overall roll plot.
- Prepare overhead to underground utility construction cost estimates based on the schematic design.
- Attend project team meetings (up to 6 meetings)

#### Exclusions

- Electric and Telecommunication wire design
- Permitting
- Reimbursement Percentage
- Easement Research

- Landowner Coordination

## **110.2. • Profile Design Schematic Design – General Tasks**

### **A. ROW Property Base Map**

The Engineer shall obtain information on existing ROW, easements, and property information from as-built plans, ROW maps, and tax records. The Engineer shall prepare a base map depicting the information.

### **B. Typical Sections**

The Engineer shall develop both existing and proposed typical sections that depict the number and type of lanes, shoulders, median width, curb offsets, cross slope, border width, clear zone widths, and ROW limits.

### **C. Environmental Constraints**

The Engineer shall evaluate and document impacts to environmentally sensitive sites (as identified by the Engineer and verified by the Owner) during the schematic design process. Environmentally sensitive sites include natural, cultural, and the human environment. Examples are historic and archeological resources, burial grounds, neighborhood communities and residential areas, farmland, floodplains, wetlands, endangered species, rare habitats, wildlife corridors, wildlife crossings, parks and nature preserves, geologic features, undeveloped areas, and significant trees.

### **D. Drainage**

The Engineer shall use data from as-built plans and FEMA maps to locate drainage out falls and to determine existing storm sewer and culvert sizes, design flows, and water surface elevations for use in the design of roadway geometry. The Engineer shall conduct a preliminary drainage study to determine and evaluate the adequacy of the ROW needed to accommodate the proposed roadway and drainage system. The drainage study must (1) identify the impacts to abutting properties and the 100-year floodplain due to proposed highway improvements; (2) identify the water surface elevations for the 2, 10, 25, and 100-year storm events; (3) identify and locate outfalls; (4) provide drainage outfall descriptions; (5) provide overall drainage area map, sub-drainage area map, and storm water detention facilities; and provide a drainage study report identifying the results of the study. The drainage report, which must be signed and sealed by a professional engineer licensed in Texas, must include applicable hydrologic and hydraulic models (e.g., HEC-1 and HEC-2, HEC-RAS, HEC-HMS, XP- SWMM). The models must be approved by the local TxDOT district hydraulic engineer prior to generating any reports. If requested, the Engineer shall prepare a final drainage study in accordance with one or more of the following: City of Kyle Drainage Master Plan, TxDOT Hydraulic Design Manual, local TxDOT district criteria, and any other specific guidance provided by the Owner. If requested by the Owner, the Engineer shall evaluate the adequacy of the existing drainage structures; otherwise, the Engineer shall not evaluate the adequacy of the existing drainage structures.

### **E. ROW Requirements**

The Engineer shall determine the ROW requirements based on the proposed alignment, typical sections, design cross sections, access control, terrain, construction requirements, drainage, clear zone, maintenance, intelligent transportation system (ITS), and environmental constraints and mitigation requirements.

#### F. Construction Sequence

The Engineer shall evaluate and document the requirements for construction staging and traffic control throughout the development of schematic design to ensure that the proposed design can be constructed. The Engineer shall provide construction phasing assumptions to the Owner as requested and provide preliminary traffic control plan (TCP) layouts.

#### G. Design Exceptions

The Engineer shall identify design exceptions and waivers. The Engineer shall determine the necessity for each design exception or waiver for approval. If the Owner agrees that design exception or waiver is necessary, the Engineer shall prepare the Owner's required design exception or design waiver documentation. The Engineer shall document the operational and safety analysis for comparison of the no-build, build with standard design, and build with proposed design alternatives.

#### H. Traffic Data and Projections

The Engineer shall use data and projections developed in the preliminary engineering report prepared for the City by CP&Y dated January 31, 2023 for the following locations:

- Kohlers Crossing at Sanders,
- Kohlers Crossing at Benner Road, and
- Kohlers Crossing at Cromwell Drive.

#### I. Traffic and Operational Analysis

The Engineer shall review traffic data, existing roadway features (including number of lanes, ~~frontage road operations~~, and intersection operation and geometry) and traffic flow patterns. The Engineer shall conduct capacity analysis at the study intersections listed under item H and make recommendations for improving traffic flow. This includes determination of required intersection lane configuration under proposed roundabout control.

The Engineer shall use the Highway Capacity Manual methodology to analyze and make appropriate recommendations. The analysis will be done for the build condition (roundabout control) in the opening year (TBD) and design year (opening+20 year). Results of this analysis must be incorporated into the schematic design. The Engineer shall develop and submit to Owner a traffic and operational analysis report summarizing all analysis performed. The analysis must be performed using the latest versions of TxDOT-approved software (e.g., HCS, Synchro, SIDRA).

#### J. Safety Analysis

The Engineer shall review and analyze historical crash data at the three (3) study intersections for the latest 3 to 5 full calendar years (i.e., January 1 to December 31, inclusive) with respect

to crash characteristics such as severity, crash types, frequency, rates, patterns, clusters, and their relationship to crash contributing factors. Historical crash data will be obtained via TxDOT's Crash Report Information System (CRIS) portal.

The purpose of the historical crash analyses is to determine safety performance of the existing conditions to understand any safety issues within the study area.

Predictive, or quantitative safety analysis, involves using HSM-based methods that use safety performance functions (SPFs) and crash modification factors (CMFs) to estimate anticipated change in crashes from existing condition to the proposed design. A simple predictive safety analysis will be provided for the no-build and build condition using Clearinghouse Crash Modification Factors (CMFs) and/or Highway Safety Software (HSS). The purpose of the predictive safety analysis is to compare the safety performance of the no-build and build alternative. The Engineer shall develop and submit to the Owner a safety analysis report summarizing all analysis performed.

The Engineer shall attend up to two (2) coordination meetings with the Owner and/or GEC to discuss the traffic analysis including safety analysis.

#### K. Bicycle and Pedestrian Accommodations

The Engineer shall comply with City of Kyle design criteria and planned improvements for bicycle and pedestrian accommodations, including the 2015 and 2021 Transportation Master Plans and The Vybe Kyle: Trail Oriented Development, and the United States Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations. The inclusion of bicycle and pedestrian facilities must be evaluated when the project is scoped.

#### L. Preliminary Illumination Analysis

The Engineer shall perform a preliminary photometric check to determine the typical pole spacing and number of light poles anticipated within the project limits using an ATBS luminaire (approved by the Owner). Detailed photometric analysis and illumination design including lighting circuits, pull boxes, service point identification etc. will be included in the PS&E phase and hence excluded from the current scope.

An opinion of probable construction cost will be provided to compare the cost of using conventional light fixtures (e.g., buried cables and standard electric service) versus solar powered luminaires.

#### M. Exclusions:

1. Traffic data collection for additional intersections or roadway segments.
2. Traffic capacity analysis for additional intersections and scenarios other than those included in the scope above.
3. Traffic forecast of future land-use development and roadway connectivity.
4. Safety analysis for additional intersections beyond the ones identified in the scope.
5. Illumination Design for PS&E.
6. Signal Design.
7. 2D/3D micro-simulation modeling and video animation.
8. Additional meetings beyond what's included in the scope.



### **110.3. Conceptual Design Schematics**

The Engineer shall develop conceptual design schematics in MicroStation format to evaluate various methods of handling traffic while providing access in key areas. The Engineer shall develop a single recommended design alternative that optimizes traffic flow and access. The conceptual schematics are to be plan view only. Profile work must be done only to the extent necessary to lay out the proper horizontal geometry.

The schematics must contain the following design elements:

- A. Arterial roadway alignment
- B. Pavement edges, and face of curbs, of arterials, intersections, and connecting streets
- C. Typical sections of existing and proposed roadways
- D. Anticipated structure locations (including wildlife crossings and fencing structures)
- E. Anticipated retaining wall locations
- F. Anticipated conveyance of major drainage elements
- G. Preliminary ROW and easement requirements and control-of-access locations
- H. Direction of traffic flow and the number of lanes on all roadways
- I. Existing and projected traffic volumes
- J. Existing utilities
- K. Waters of the United States (WOTUS)

### **110.4. Geometric Design Schematics**

The Engineer shall develop geometric design schematics based on the conceptual schematics after the basic layout, lane arrangement, and anticipated ROW and easement impacts depicted on the conceptual schematics are approved. The Engineer shall use Bentley OpenRoads tools in performing this task. The geometric design schematics must include both a plan view and profile view.

- A. The geometric schematic plan view must contain the following design elements:
  - 1. Bentley OpenRoads calculated roadway alignments for arterials and cross streets at intersections
  - 2. Horizontal curve data shown in tabular format
  - 3. Pavement edges, curb lines, sidewalks for all roadway improvements
  - 4. Typical sections of existing and proposed roadways
  - 5. N/A
  - 6. Proposed retaining walls
  - 7. Proposed cross-drainage structures with outfall flow arrows and significant drainage features or waterways identified
  - 8. Existing utilities and proposed utilities
  - 9. Existing property lines and respective property ownership information
  - 10. Existing ROW and easements
  - 11. Proposed ROW and easements adequate for preparation of ROW maps
  - 12. Waters of the US (WOTUS)
  - 13. Control-of-access limits
  - 14. Existing and projected traffic volumes
  - 15. Location and text of the existing and proposed guide signs



16. Lane lines, and direction of traffic flow arrows indicating the number of lanes on all roadways

#### **110.5. Cross-Sections**

N/A

#### **110.6. Retaining Walls**

The Engineer shall prepare preliminary retaining wall concepts to be shown on schematics, typical sections, and cross sections.

- A. The Engineer shall determine if any additional walls are required and verify the need for and length of the retaining wall as shown on the ultimate schematic.
- B. The Engineer shall compute and tabulate retaining wall quantities for preliminary design milestone plans submittal.

#### **110.7. Renderings and Traffic Simulation**

N/A

#### **110.8. Preliminary Construction Sequence**

The Engineer shall prepare preliminary construction sequence layouts in conjunction with the geometric design schematic depicting the phasing and traffic detours anticipated to safely convey traffic. The layouts must demonstrate that adequate horizontal and vertical alignments are maintained, sufficient lane widths and shoulder widths or barrier offsets are feasible, and construction zones are adequate for constructability of all proposed features. Proposed construction detours must ensure that adequate superelevation is provided. The layouts must indicate how existing pedestrian and bicycle facilities are accommodated for each phase.

#### **110.9. Preliminary Cost Estimate**

The Engineer shall prepare a preliminary cost estimate for the project, including the costs of construction, required ROW and associated improvements, and eligible utility adjustments. Current TxDOT Austin District and Statewide unit bid prices must be used in preparation of the estimate.

#### **110.10. Preliminary Engineering Report**

The Engineer shall prepare an engineering summary report to summarize the design criteria, traffic analysis, preliminary cost estimate and basis of estimate, construction sequence description, and utility conflict issues.

Deliverables for the Preliminary Engineering Report will include:

- Refined project description
- Preliminary analysis of project challenges and opportunities
- Preliminary schedule for project development
- Identification of utility relocations and which of them are in conflict with the project
- Refined cost estimate (including estimate for city driven utility relocations and future engineering costs)
- Preliminary roll plot depicting horizontal and vertical alignment

#### **110.12. Agency Coordination and Public Involvement**

- A. The Engineer shall assist the Owner in conducting meetings with property owners, stakeholders, and various agencies to discuss and review the schematic design. The Engineer shall document and respond to issues related to the schematic design.
- B. The Engineer shall prepare necessary exhibits and meeting materials to support stakeholder coordination and public outreach efforts.

#### **110.13. Schematic Design Project Deliverables**

In conjunction with the performance of the services included under Function Code 110 of this exhibit, the Engineer shall provide the following draft and final documents and associated electronic files as applicable:

- A. Draft and final copies of the agreed upon design criteria
- B. Draft and final copies of the traffic and operational analysis report and safety analysis report
- C. Draft copies of the preliminary drainage study
- D. Draft and final copies of the geometric schematic layouts on 11inch x 17- inch cut sheets or rolls, as requested by the Owner
- E. Draft and final copies of the conceptual design schematics roll plots
- F. Draft and final copies of the geometric schematic layouts (1 inch = 100 feet)
- G. N/A
- H. Draft and final copies of the design schematic cross-sections on 11-inch x 17-inch cut sheets or roll plot format, as requested by the Owner
- I. Copy of the preliminary cross-sections in a roll plot format or 11-inch x 17-inch format, as requested by the Owner
- J. N/A
- K. Six final copies of the preliminary drainage study
- L. Electronic submittal of the hydrologic and hydraulic model digital files from the drainage study
- M. Copies of the preliminary construction sequence layouts in a roll plot or 11-inch x 17-inch format, as requested by the Owner
- N. Copies of the preliminary construction sequence typical sections in 11-inch x 17-inch format
- O. Electronic files shall be uploaded to the Owner's Procore file management system
- P. Traffic data schematics
- Q. Traffic projections methodology memo
- R. Average daily corridor traffic projections report
- S. N/A
- T. N/A
- U. N/A
- V. Line schematics with traffic data shown
- W. Documentation of public involvement activities
- X. Utility plan – electronic file in latest version of MicroStation fully compatible with OpenRoads civil design system
- Y. Design exception and design waiver documents
- Z. Hard copy of a draft hydraulic report for review and comment
- AA. Culvert hydraulic data sheets and preliminary culvert layouts
- BB. Drainage report – one hard copy of final drainage report, one electronic copy of the entire drainage report in PDF format, and computer files of hydrologic and hydraulic modeling with

- appropriate labeling of location, and submittal date
- CC. Retaining wall layouts
- DD. Geotechnical report
- EE Cost estimates for each milestone submittal
- FF. KMZ or KML file of conceptual design schematic created from applicable DGN files for reviewing in Google Earth
- GG. Final schematic 3D model created using OpenRoads software
- HH. Draft and final copies of traffic analysis report

**110.14. Preliminary Cost Estimates.** The Engineer shall develop a preliminary cost estimate using the Average Low Bid Unit Price. The Engineer shall estimate the total project cost including preliminary engineering, final engineering, right-of-way (ROW) acquisition, environmental compliance and mitigation, construction, utility relocation, and construction engineering inspection (CEI).

**110.16. Geotechnical Borings and Investigations:** The Engineer shall determine the location of proposed soil borings for pavement design, embankment settlement analysis, slope stability and along storm drain alignment in accordance with the latest edition of TxDOT's Geotechnical Manual. The Owner will review and provide comments for a boring layout submitted by the Engineer showing the general location and depths of the proposed borings. Once the Engineer receives the Owner review comments they shall perform soil borings (field work), soil testing and prepare the boring logs in accordance with the latest edition of the State's Geotechnical Manual and State District's procedures and design guidelines.

- A. The Engineer shall perform all geotechnical work in accordance with the latest version of TxDOT's Geotechnical Manual. All testing shall be performed in accordance with the latest version of TxDOT's Manual of Test Procedures. American Society for Testing Materials (ASTM) test procedures can be used only in the absence of Owner and TxDOT procedures. All soil classification shall be done in accordance with the Unified Soil Classification System.
- B. N/A
- C. If applicable, the Engineer shall perform soil borings, rock coring, coring for pavement removal items, piezometric readings, testing and analysis to include slope stability analysis, and settlement analysis, along proposed storm sewer alignments, and embankments.
- D. The Engineer shall provide a signed, sealed and dated geotechnical report which contains, but is not limited to, soil boring locations, boring logs, laboratory test results, generalized subsurface conditions, ground water conditions, piezometer data, analyses and recommendations for settlement and slope stability of the earthen embankments.
- E. N/A
- F. The Engineer shall sign, seal and date soil boring sheets to be used in the PS&E package. The preparation of soil boring sheets must be in accordance with Owner and TxDOT standards.
- G. N/A
 

Spacing of soil borings shall not exceed 500 feet. The Engineer shall provide a boring layout for the Owner's review and comment.
- H. The Engineer shall incorporate soil boring data sheets prepared, signed, sealed, and dated by the Geotechnical Engineer. The soil boring sheets shall be in accordance with WINCORE software as can be found on the Texas Department of Transportation (TxDOT) website.

## SOCIAL, ECONOMIC AND ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT

### 120.1. Environmental Documentation Standards

Each environmental service provided by the Engineer must have a deliverable. Deliverables must summarize the methods used for the environmental services and the results achieved. The summary of results must be sufficiently detailed to provide satisfactory basis for thorough review by the Owner and (where applicable) other agencies with regulatory oversight. All deliverables must meet regulatory requirements for legal sufficiency and adhere to the requirements for reports enumerated in the State's National Environmental Policy Act of 1969 (NEPA) Memorandum of Understanding (MOU).

#### A. Quality Assurance/Quality Control Review

For each deliverable, the Engineer shall perform quality assurance quality control (QA/QC) reviews of environmental documents and on all supporting environmental documentation to determine whether documents conform with:

1. Current Environmental Compliance Toolkit guidance, documentation requirements, and templates published by TxDOT's Environmental Affairs Division (ENV) and in effect as of the date of receipt of the documents or documentation to be reviewed.
2. Current state and federal laws, regulations, policies, guidance, agreements, and memoranda of understanding between the Owner and applicable state or federal agencies; and
3. Guidelines contained in Improving the Quality of Environmental Documents, A Report of the Joint AASHTO/ACEC Committee in Cooperation with the Federal Highway Administration (May 2006) for:
  - a. Readability, and
  - b. Use of evidence and data in documents to support conclusions.

Upon request by the Owner, the Engineer shall provide documentation that the QA/QC reviews were performed by qualified staff.

#### B. N/A

C. Deliverables must contain all data acquired during the environmental service and be written to be understood by the public in accordance with TxDOT's Environmental Toolkit guidance, documentation standards, and current guidelines, policies, and procedures.

D. Electronic versions of each deliverable must be written in software that is fully compatible with the software currently used by the Owner and provided in the native format of the document for future use by the Owner. The Engineer shall supplement all hard copy deliverables with electronic copies in searchable Adobe Acrobat™ (.pdf) format unless another format is specified. Each deliverable must be a single, searchable \*.pdf file that mirrors the layout and appearance of the physical deliverable. The Engineer shall upload the electronic files to the Owner's Procore file management system in both the document's native format and the PDF format.

E. When the environmental service is to apply for a permit (e.g., USCG permit or USACE permit), the Engineer shall provide the permit and all supporting documentation to the Owner as the deliverable.

#### F. Submission of Deliverables

1. Deliverables must consist of documentation to support the environmental permitting needed to complete the project, as applicable. Technical reports and documentation must be prepared to support any needed environmental permit applications.
  2. All deliverables must comply with all applicable state and federal environmental laws, regulations, and procedures, affecting the project.
- G. The Owner will provide the Owner's and other agency comments on draft deliverables to the Engineer. The Engineer shall revise the deliverable:
1. To include any Owner commitments, findings, agreements, or determinations (e.g., wetlands, endangered species consultation, Section 106, or Section 4(f)), required for the transportation activity.
  2. To incorporate the results of public involvement and agency coordination.
  3. To reflect mitigation measures resulting from comments received or changes in the transportation activity; and
  4. To include with the revised document a comment response form (matrix) in the format requested by the Owner.

The Engineer shall provide photographs and graphics that clearly depict details relevant to an evaluation of the project area. Comparable quality electronic photograph presentations must be at least 1200 x 1600-pixel resolution. The Owner can request images/graphics be provided in another format or quality.

#### **120.2. Environmental Assessment (EA) Content and Format**

- A. The Engineer shall provide an EA and ensure that:
1. The EA meets the requirements of 23 CFR §771.119 and TAC, Title 43, Part 1, Chapter 2 and the EA content is sufficiently detailed to meet regulatory requirements for legal sufficiency and current (at the time of creation) TxDOT ENV guidance and Environmental Compliance Toolkits.
  2. Exhibits to be included in reports or EAs must not exceed 11 inches x 17 inches and must be in color. Text pages must be 8.5-inch x 11 inch. Exhibits and text in reports or EAs must be reproducible via photocopying without loss of legibility. The EA documents must be reproduced on plain white paper unless otherwise approved in advance in writing by the Owner.
  3. The EA must use quality maps and exhibits and must incorporate by reference and summarized background data and technical analyses to support the concise discussions of the alternatives and their impacts.
- B. Minimum Deliverables: (Additional deliverables to be identified in a task order based on work assigned.)
1. Draft EA
  2. Revised Draft EA
  3. Draft EA for Public Hearing
  4. Final EA with FONSI

#### **120.3. Environmental Impact Statement (EIS) Content and Format – N/A**

#### **120.4. Environmental Re-evaluation Form**

- A. The Engineer shall provide an environmental re-evaluation form.
- B. Minimum Deliverables:
  - 1. Draft environmental re-evaluation form
  - 2. Final environmental re-evaluation form

#### **120.5. Environmental Technical Analyses and Documentation**

- A. Definition of technical analyses and documentation for environmental services

In general, technical analyses and documentation for environmental services might include a report, checklist, form, or analysis detailing resource-specific studies identified during the process of gathering data to make an environmental decision.

The Owner may determine what technical reports and documentation are necessary for any given project. The Engineer shall prepare all technical reports and documentation for the Owner with sufficient detail and clarity to support environmental determinations. The environmental document must reference the technical reports.

Environmental technical reports and documentation must include appropriate NEPA or federal regulatory language in addition to the purpose and methodology used in delivering the service. Technical reports and forms must use templates and documentation standards as applicable and include sufficient information to determine the significance of impacts.

- B. Minimum Deliverables:
  - 1. Draft technical analyses and documentation
  - 2. Final technical analyses documentation
- C. Evaluate and document the current environmental constraints on the project and their potential impacts to environmentally sensitive sites (as identified by the consultant) during the design phase. This includes natural resources (Threatened and Endangered Species), historical and cultural resources (protected by the SHPPO and THC), potential contamination issues identified as Recognized Environmental Conditions (Phase I ESA), Waters of the U.S. (wetlands and other features within USACE jurisdiction), floodplains, geological features, soils, parks, aquifer protection, and any other local, state or federal regulatory constraints on the project.

**120.6. Informal Meetings.** N/A

**120.7. Public Involvement.** N/A

**120.8. Environmental Permits Issues and Commitments (EPIC) Sheets.** N/A

**120.9. Cut and Fill Exhibits.** N/A

#### **FUNCTION CODE 130(130) – RIGHT-OF-WAY (ROW) DATA**

For Function Codes 130 and 150, the term Surveyor means the firm (prime provider or



subprovider) that is providing the surveying services shown in this scope.

The Engineer shall ensure that the following general standards for survey work are followed for Function Codes 130 and 150:

Unless otherwise indicated, any reference in this attachment to a manual, specification, policy, rule or regulation, or law means the version in effect at the time the work is performed. TxDOT manuals are available at: <http://onlinemanuals.txdot.gov/manuals/>. All surveys must meet or exceed all applicable requirements and standards provided by: (1) Professional Land Surveying Practices Act, (2) General Rules of Procedures and Practices promulgated by the Texas Board of Professional Engineers and Land Surveyors (TBPELS), and (3) the TxDOT Survey Manual. The Surveyor shall perform all work in an organized and professional manner. All surveys are subject to the approval of the Owner.

The Surveyor shall use TxDOT's ROW Preliminary Procedures for Authority to Proceed Manual and TxDOT Survey Manual as the basis for the format and preparation of all right of way (ROW) documents produced, including ROW maps, written parcel descriptions, parcel plats, and other ROW work products, unless otherwise specified by the Owner. Unless otherwise directed by the Owner, the Surveyor shall use (1) the North American Datum of 1983 (NAD83), Texas Coordinate System of 1983 (State Plane Coordinates) applicable to the zone or zones in which the work is performed, with values in U.S. survey feet, as the basis for all horizontal coordinates derived and (2) the datum adjustment currently in use by TxDOT.

Project or surface coordinates must be calculated by applying a combined adjustment factor (CAF) to State Plane Coordinate values. If provided by the Owner, the Surveyor shall use a project specific CAF.

Elevations must be based on the North American Vertical Datum 88 (NAVD88), unless otherwise specified by the Owner.

All work using the Global Positioning System (GPS), whether primary control surveys or other, must meet or exceed the requirements provided by the TxDOT Survey Manual to the order of accuracy specified in the categories listed below or in a task order. If the order of accuracy is not specified in this attachment or in a task order, the work must meet or exceed the order of accuracy specified in the publication listed in this paragraph.

All conventional horizontal and vertical control surveys must meet or exceed the order of accuracy specified in the TxDOT Survey Manual unless specified otherwise in the contract.

All boundary determination surveys, whether for ROW acquisition, ROW re-establishment, or other boundary needs, must meet or exceed the accuracy specified in the TxDOT Survey Manual unless specified otherwise in the contract.

The survey data must be fully compatible with the Owner's computer system and with programs in use by the Owner at the time of the submission, without further modification or conversion. The current programs used by TxDOT are Microsoft Word, Bentley MicroStation, Bentley OpenRoads civil design system, Bentley GEOPAK Survey, Excel, and ESRI ArcGIS. Data collection programs must be compatible with the current import formats allowed by GEOPAK Survey and be attributed with current feature codes. These programs may be replaced at the discretion of the Owner.

Drawing sizes are defined, based on American National Standards Institute (ANSI) standard paper sizes, as follows: A-size means 8.5 inches by 11.0 inches, B-size means 11.0 inches by 17.0 inches, C-

size means 17.0 inches by 22.0 inches, and D-size means 22 inches by 34.0 inches.

Variations from these software applications or other requirements listed above shall only be allowed if requested in writing by the Surveyor and approved by the Owner.

The Surveyor shall perform quality control/quality assurance on all procedures, field surveys, data, and products prior to delivery to the Owner. The Owner may also require the Surveyor to review the survey work performed by others. If, at any time, during the course of reviewing a submittal of any item it becomes apparent to the Owner that the submittal contains a substantial number of errors, omissions, and inconsistencies, the Owner may cease its review and return the submittal to the Surveyor immediately for appropriate corrective action. A submittal returned to the Surveyor for this reason is not a submittal for purposes of the submission schedule.

The standards for services that are not boundary-related but that relate to surveying for engineering projects may be determined by the construction specifications, design specifications, or as specified by the Owner.

### **130.1. RIGHT-OF-WAY SURVEYS (15.1.1)**

#### **ROW Delineation Survey**

Upon notice to proceed, the Surveyor will conduct research at the Hays County Appraisal District/County Clerk's Office in order to obtain the most recent plat & right-of-way information. The Surveyor will recover monuments/front property corners marking the existing ROW lines (if any). Utilizing the records research and data collected from the field survey, the Surveyor shall determine locations of the existing ROW lines.

- ROW Survey Deliverables
- 2D DGN of Existing ROW Basemap
- PDF field book copies
- ASCII point file
- Photos

### **130.2 RIGHT OF WAY MAPPING – TRADITIONAL ROW MAP N/A**

### **130.4. ROW Hearing Services N/A**

### **130.5. Utility Engineering Investigation**

Utility engineering investigation includes utility investigations subsurface and above ground prepared in accordance with ASCE/CI Standard 38-02 [(<http://www.fhwa.dot.gov/programadmin/asce.cfm>)] and Utility Quality Levels.

#### **A. Utility Quality Levels (QL)**

Utility Quality Levels are defined in cumulative order (least to greatest) as follows:

1. Quality Level D - Quality level value assigned to a utility segment or utility feature after a review and compilation of data sources such as existing records, oral recollections, One-



- Call markings, and data repositories.
2. Quality Level C - Quality level value assigned to a utility segment or utility feature after surveying aboveground (i.e., visible) utility features and using professional judgement to correlate the surveyed locations of these features with those from existing utility records.
  3. Quality Level B - Designate: Quality level value assigned to a utility segment or subsurface utility feature whose existence and position is based upon appropriate surface geophysical methods combined with professional judgment and whose location is tied to the project survey datum. Horizontal accuracy of Designated Utilities is 18" (including survey tolerances) unless otherwise indicated for a specific segment of the deliverable. Quality Level B incorporates quality levels C and D information. A composite plot is created.
  4. Quality Level A – Quality level value assigned to a portion (x, y, and z geometry) of a point of a subsurface utility feature that is directly exposed, measured, and whose location and dimensions are tied to the project survey datum. Other measurable, observable, and judged utility attributes are also recorded (per District Best Practices). The utility location must be tied to the project survey datum with an accuracy of 0.1 feet (30-mm) vertical and to 0.2 feet (60-mm) horizontal. As test holes may be requested up front or during the project, test holes done prior to completion of QL D, C, or B deliverables must be symbolized on the QL B deliverable with a call out indicating test holes number. This is in addition to and not in lieu of the test hole.

#### B. Utility Investigations Methodology

1. Utility Investigation Quality Level D The Engineer shall:
  - a. Perform records research from all available resources. Sources include, but are not limited to: Texas811, Railroad Commission of Texas (Texas RRC), verbal recollection, as-built information from plans, plats, permits and any other applicable information provided by the utility owners or other stakeholders.
  - b. Document utility owners and contact information.
  - c. Create a utility drawing of information gathered.
2. Designate (Quality Level B)

The Engineer shall designate underground utilities within the project corridor (assuming up to 6 longitudinal utilities the entire project limits, plus crossings).

3. Subsurface Utility Locate (Test Hole) Service (Quality Level A)
  - a. The Engineer perform up to twenty (20) test holes from 0 to 10 foot in depth and prepare signed/sealed Test Hole Data Sheets.

#### **130.6. Utility Adjustment Coordination. (18.3.1)**

Utility Adjustment Coordination shall include utility coordination meetings with individual utility companies, communication and coordination with utilities, and preparation of utility agreement assemblies including utility agreements, joint use agreements, and advanced funding agreements.

The Engineer is responsible for designating and providing the services of the following individuals or entities:

1. Utility Coordinator: individual or entity performing Utility-related Services that are not required to be performed by a licensed engineer under Texas law.

2. Utility Engineer: individual or entity performing Utility-related Services that are required to be performed by a licensed engineer under Texas law.

A. Utility Coordination

The Utility Coordinator shall perform utility coordination and liaison activities with involved utility owners, their consultants, and the Owner to achieve timely project notifications, formal coordination meetings, conflict analysis and resolution.

- a. The Utility Coordinator shall coordinate all activities with the Owner, or their designee, to facilitate the orderly progress and timely completion of the project design phase. The Utility Coordinator shall be responsible for the following:
  - i. Work Plan. Coordinate a work plan including a list of the proposed meetings and coordination activities, and related tasks to be performed, a schedule and an estimate. The work plan must satisfy the requirements of the project and must be approved by the Owner prior to commencing work.
  - ii. Orientation. Prepare and present, in collaboration with Owner staff, instruction and orientation sessions as required by the Owner. The instruction shall introduce the subsurface utility engineering process, demonstrate the technology, and facilitate the preparation of work orders, billings, and contract related documentation.
  - iii. Initial Project Meeting. Attend an initial meeting and an on-site inspection (when appropriate) to ensure familiarity with existing conditions, project requirements and prepare a written report of the meeting.
  - iv. External Communications. The Utility Coordinator shall coordinate all activities with the Owner and its consultants or other contractors or representatives, as authorized by the Owner. Also, the Utility Coordinator shall provide the Owner copies of diaries, correspondence, and other documentation of work- related communications between the Utility Coordinator, utility owners and other outside entities when requested by the Owner.
  - v. Permits and rights of entry. Obtain all necessary permits from city, county, municipality, railroad, or other jurisdiction to allow the Engineer to work within existing streets, roads or private property for additional designating and/or subsurface utility locating.
  - vi. Progress Meetings. The Utility Coordinator shall implement a schedule of periodic meetings with each utility company and owner or owner's representatives for coordination purposes. Such meetings shall commence as early as possible in the design process and shall continue until completion of the project. The Utility Coordinator shall notify the Owner at least two (2) business days in advance of each meeting to allow the Owner the opportunity to participate in the meeting. The Utility Coordinator shall provide and produce meeting minutes of all meetings with said utility companies, owners or owners' representatives within seven (7) business days. The frequency of such meetings shall be appropriate to the matters under discussion with each utility owner.

- b. As required by the Owner the Utility Coordinator shall coordinate with the local utilities committees to present a footprint of the Owner's projects with represented utility companies and owners. The Utility Coordinator shall also coordinate with any other utility committees which may include county, city, or other officials, if needed.
- c. The Utility Coordinator shall provide initial project notification letters to all affected utility companies, owners, and other concerned parties.
- d. The Utility Coordinator shall provide the Owner and all affected utility companies and owners a Utility Contact List for each project with the following information: (i) Owner's Name; (ii) Contact Person; (iii) Telephone Numbers; (iv) Emergency Contact Number; (v) E-mail addresses; (vi) as well as all pertinent information concerning their respective affected utilities and facilities, including but not limited to: size, number of poles, material, and other information which readily identifies the utilities companies' facilities.
- e. The Utility Coordinator shall advise utility companies and owners of the general characteristics of the Project and provide an illustration of the project footprint for mark-up of the utility facility locations that occupy the project area.

#### **130.7. Access Management.**

The Engineer shall coordinate and evaluate access management within the project limits in accordance with the latest State Access Management Manual or as directed by the Owner.

### **FUNCTION CODE 145(145, 164) – MANAGING CONTRACTED/DONATED PE**

#### **CONTRACT MANAGEMENT AND ADMINISTRATION**

#### **145.1. Contract Management and Administration**

The Engineer shall:

- A. Act as an agent for the Owner when specified in a task order.
- B. Produce a complete and acceptable deliverable for each environmental service performed for environmental documentation.
- C. Incorporate environmental data into identification of alternatives.
- D. Notify the Owner of its schedule, in advance, for all field activities.
- E. Notify the Owner as soon as practical, by phone and in writing, if performance of environmental services discloses the presence or likely presence of significant impacts (in accordance with 40 Code of Federal Regulations (CFR) 1500-1508). Inform the Owner of the basis for concluding there are significant impacts and the basis for concluding that the impacts might require mitigation.
- F. Notify the Owner as soon as practical, by phone and in writing, if performance of environmental services results in identification of impacts or a level of controversy that might elevate the transportation activity's status from a categorical exclusion or environmental assessment. The Owner will reassess the appropriate level of documentation.

#### **145.2. Project Management and Administration**

The Engineer, in association with the Owner's Project Manager shall be responsible for directing

and coordinating all activities associated with the project to comply with Owner policies and procedures, and to deliver that work on time.

Project Management and Coordination. The Engineer shall coordinate all subconsultant activity to include quality of and consistency of plans and administration of the invoices and monthly progress reports. The Engineer shall coordinate with necessary local entities.

The Engineer shall:

- Prepare monthly written progress reports for each project.
- Develop and maintain a detailed project schedule to track project conformance to Exhibit C, Work Schedule, for each task order. The schedule submittals shall be hard copy and electronic format.
- Meet on a scheduled basis with the Owner to review project progress. Prepare, distribute, and file both written and electronic correspondence.
- Prepare and distribute meeting minutes.
- Document phone calls and conference calls as required during the project to coordinate the work for various team members.
- Provide QC/QA documentation for all submittals, including the sub consultants.

## **FUNCTION CODE 160(150) – ROADWAY DESIGN**

### **150.1. DESIGN SURVEY**

#### **A. DEFINITIONS**

##### **1. Design Survey (15.2.1)**

A design survey gathers data in support of transportation systems design. A design survey includes the research, field work, analysis, computation, and documentation necessary to provide detailed topographic (3- dimensional) mapping of a project site (e.g., locating existing ROW, surveying cross-sections or developing data to create cross-sections and digital terrain models, horizontal and vertical location of utilities and improvements, collecting details of bridges and other structures, review of ROW maps, establishing control points).

#### **B. TECHNICAL REQUIREMENTS FOR DESIGN SURVEYS**

1. Design surveys must be performed under the supervision of a RPLS currently registered with the TBPELS.
2. All control must meet the of accuracy requirements of TxDOT.

The Surveyor shall comply with the standards of accuracy for control traverses provided in the TxDOT Survey Manual or the TSPS Manual of Practice for Land Surveying in the State of Texas, as may be applicable.

3. Short traverse procedures used to determine horizontal and vertical locations must meet the following criteria:
  - a. Short traverses must begin and end on horizontal and vertical ground control as

described above.

- b. Required horizontal accuracy (unless otherwise stated):
  - i. Bridges and other roadway structures: less than 0.1 feet.
  - ii. Utilities and improvements: less than 0.2 feet.
  - iii. Cross-sections and profiles: less than 1 foot.
  - iv. Bore holes: less than 3 feet.
- c. Required vertical accuracy:
  - i. Bridges and other roadway structures: less than 0.02 feet.
  - ii. Utilities and improvements: less than 0.1 feet.
  - iii. Cross-sections and profiles: less than 0.2 feet.
  - iv. Bore holes: less than 0.5 feet.

#### C. DATA REQUIREMENTS FOR DESIGN SURVEYS

1. Planimetric DGN files must be fully compatible with the version of the MicroStation graphics program currently used by TxDOT without further modification or conversion.
2. Electronically collected and processed field survey data files must be fully compatible with TxDOT's computer systems without further modification or conversion. All files must incorporate only those feature codes currently being used by TxDOT.
3. Digital terrain models (DTMs) must be fully compatible with the version of the Bentley OpenRoads civil design system currently used by TxDOT without further modification or conversion. All DTM must be fully edited to provide a complete digital terrain model with all necessary break lines.

#### **150.2. DESIGN SURVEY (15.2.1)**

##### **Project Control**

The Surveyor shall establish horizontal & vertical control including a minimum of three (3) points within the survey project limits along Kohlers Crossing. The survey control points (5/8" iron rods with aluminum caps set in concrete) will be set in locations that will likely be undisturbed by construction or maintenance. The project control will be placed on horizontal & vertical datum's [NAD83/2011/NAVD88 values (Texas Coordinate System, South Central Zone)] with a scale factor of 1.00013 or as provided by the county. Elevations will be derived from GPS observations using Geoid 2018 model. Secondary control points will be set throughout the project corridors as needed to complete the scope of work.

Surveyor shall collect PID points to be utilized for the aerial mapping; up to seven (7) PID points for the purposes of completing the scope of services. Surveyor shall collect ground-truthing points within the project limits to be utilized as verification of the aerial LiDAR and orthophoto accuracy.

##### **Project Limits**

Approximate project limits are depicted in green below in Exhibit A.





**EXHIBIT A:** The survey limits shall be within the existing ROW of Kohlers Crossing from FM 2770 to FM 1626, approximately 1.00 miles.

### **Right-of-Entry Coordination**

Surveyor assumes that for the design survey, no right-of-entry coordination will be needed as part of the design survey scope of services. Surveyor shall obtain ROE for 11 affected properties pertaining to the ROW Survey portion of the scope of services.

### **Topographic Survey**

Surveyor shall acquire aerial LIDAR and orthophotography within the project limits described above. The aerial mapping shall meet the requirements for ASPRS Class 1 standard for 1" = 50' scale mapping with a one-foot contour interval. The absolute accuracy of the mapping for well-defined features will be 0.17 feet for both Horizontal and Vertical. The relative accuracy of the data will be within 0.1 feet. The stated absolute accuracy will be tested utilizing a Root Mean Square Error (RMSE) method with a limiting RMSEz of 0.33 feet on open ground and non-vegetated surface. Areas with tall grass, crops or dense vegetation may not meet the planned map accuracies. Orthophotos will be processed to have 3-inch GSD for the entire project area along the corridor. The digital orthophotos will be mosaicked and checked to insure color, tone, and contrast is optimized across the project area. Mosaic lines will be manually placed and hidden along linear features to avoid cutting through buildings and other above ground structures, and tiled. The Aerial Imagery will be used for interpretation and extraction of detailed planimetric features.

Surveyor shall collect conventional on-the-ground surveying within the project limits as described above to supplement the aerial LiDAR. In such areas, surveyor shall collect drainage structures (noting size, material, and flow line elevation), visible utilities and visible evidence of underground utilities only, any manhole invert elevations within the existing ROW, and any areas that were obscured from the aerial LiDAR's sensor field of view.

Surveyor shall merge and append the conventional design survey to the aerial LiDAR mapping data to create a seamless 2D planimetric and 3D DTM file.

### **Deliverables**

- 2D Planimetrics & 3D DTM (ORD)
- GPK & TIN file
- 1-Foot Contour map (ORD)
- Survey Control Sheets/Data Sheets
- PDF field book copies
- ASCII point file

- Photos
- Ortho Photo's

**150.3. CONSTRUCTION SURVEY (15.2.2) N/A**

**150.4. DELIVERABLES FOR DESIGN SURVEYS – N/A**

**150.5. MAPPING (15.3) – N/A**

**150.6. AERIAL MAPPING USING A METRIC CAMERA AND MANNED AIRCRAFT – N/A**

**150.7. AERIAL MAPPING USING A NON-METRIC CAMERA AND UNMANNED AIRCRAFT SYSTEM (UAS) – N/A**

**150.8. FIELD CHECK SURVEY FOR AERIAL MAPPING USING MANNED AIRCRAFT OR UAS – N/A**

**150.9. HORIZONTAL AND VERTICAL CONTROL FOR AERIAL MAPPING – N/A**

**150.10. MAPPING SERVICES TO BE PROVIDED – N/A**

**150.11. HORIZONTAL AND VERTICAL CONTROL (15.3.5)**

This includes the establishment of horizontal and vertical control for survey projects.

**A. OVERVIEW OF HORIZONTAL AND VERTICAL CONTROL**

A horizontal control survey is performed for the purpose of placing geographic coordinates of latitude and longitude on permanent monuments for referencing lower levels of surveys. A projection is used to place the coordinates on a plane of northing and easting values for simplified measurements. Scale and elevation factors are applied to make the distance measurements applicable to the exact location on the working surface and the type of projection chosen is an "equal angle" type.

A vertical control survey is performed for accurately determining the orthometric height (elevation) of permanent monuments to be used as benchmarks for lower quality leveling. Spirit leveling is the usual method of carrying elevations across country from "sea level" tidal gauges. However, Global Positioning System (GPS) can be used indirectly but with less accuracy. Height measurements from the ellipsoid (as opposed to the "sea level" geoid) can be determined very accurately with GPS and only GPS. Trigonometric leveling, with a total station, is not acceptable for vertical control work.

**B. DEFINITIONS**

1. BM means benchmark, which is a relatively permanent object whose elevation above or below an adopted datum is known.
2. CORS means continuously operating reference station, which is a network of the highest quality horizontal stations, forming the National Spatial Reference System (NSRS).
3. Control Survey means a survey providing positions (horizontal or vertical) of points to

which supplemental surveys are adjusted.

4. Datum means a mathematical model of the earth designed to fit part or all of the geoid.
5. Datum Point Rod or Deep Rod Monument means a monument driven to refusal by a power driver, used for major project control.
6. GPS means the Global Positioning System, which is based on a constellation of 24 satellites orbiting the earth at a very high altitude.
7. Horizontal Control Survey means placing geographic coordinates of latitude and longitude on permanent monuments.
8. Level 1 survey means RFP, CORS or major control densification.
9. Level 2 Survey means primary project control.
10. Level 3 Survey means secondary project control.
11. NGS – National Geodetic Survey
12. Type II Monument means a disk driven onto a length of 5/8-inch rebar with the hole filled flush with concrete.
13. Vertical Control Surveys means a survey performed for accurately determining the orthometric height (elevation) of permanent monuments to be used as benchmarks for lower quality leveling.

#### C. PROCEDURE FOR HORIZONTAL AND VERTICAL CONTROL

1. The Surveyor shall establish horizontal and vertical control points, including offsite points. The Surveyor shall prepare signed survey control data sheets, a survey control index sheet, and a composite layout of the horizontal and vertical controls, and as directed by the Owner.
2. The Surveyor shall update existing control information and prepare new survey control data sheets, as directed by the Owner, to be included in the construction plan set as described in Item 150.11, D.

#### D. TECHNICAL REQUIREMENTS FOR HORIZONTAL AND VERTICAL CONTROL

The Surveyor shall adhere to the following technical requirements.

1. Horizontal and vertical controls must be performed under the supervision of a RPLS currently registered with the TBPELS.
2. Horizontal ground control used for design surveys and construction surveys, furnished to the Surveyor by the Owner, or based on acceptable methods conducted by the Surveyor, must meet the standards of accuracy required by the Owner.  
The Surveyor shall comply with the standards of accuracy for horizontal control traverses, as described in the TxDOT Survey Manual or the TSPS Manual of Practice for Land Surveying in the State of Texas, as may be applicable.
3. Vertical ground control used for design surveys and construction surveys, furnished to the Surveyor by the Owner or based on acceptable methods conducted by the Surveyor, must meet the standards of accuracy required by the Owner.  
The Surveyor shall comply with the standards of accuracy for vertical control traverses, as described in the TxDOT Survey Manual or the TSPS Manual of Practice for Land Surveying in the State of Texas, as may be applicable.
4. Monuments

The Surveyor shall install survey monuments for a horizontal and vertical control survey



that are reasonably permanent and substantial. The monuments shall be easily identified and afforded reasonable protection against damage and or destruction.

- a. Offsite primary control points whether set by GPS or conventional survey methods must be set in pairs approximately 2000 feet apart outside of the project on side roads. Offsite points must be constructed approximately every 2 miles and set approximately 6 inches below natural ground and must be inter-visible between each pair of points.
    - b. Secondary control points must be set approximately 6 inches below ground at a maximum distance of 1,500 feet apart.
  5. Side shots or short traverse procedures for total stations used to determine horizontal and vertical locations must meet the following criteria:
    - a. Short traverses and instrument setups for side shots must begin and end on horizontal and vertical ground control as described above.
    - b. Standards, procedures, and equipment (e.g., GPS Equipment, LiDAR, Total Stations) used must be such that horizontal locations relative to the control can be reported within the specification to allow the engineer to accurately create the design to the following limits:
      - i. Bridges and other roadway structures: less than 0.02 feet.
      - ii. Utilities and improvements: less than 0.2 feet.
      - iii. Cross-sections and profiles: less than 0.2 feet.
      - iv. Bore holes: less than 0.5 feet.
    - c. Standards, procedures, and equipment (e.g., GPS Equipment, LiDAR, Total Stations) used must be such that vertical locations relative to the control may be reported to within 0.02 feet.
  6. The Surveyor shall update existing control information and prepare new survey control data sheets, as directed by the Owner, to be included in the construction plan set as described below:
    - a. The Surveyor shall prepare, sign, seal, and date a survey control index sheet and horizontal and vertical control sheets to be inserted into the plan set.
    - b. The Surveyor shall prepare a survey control index sheet that provides an overview of the primary project control and must include:
      - i. An unscaled vicinity map showing the general location of the project in relation to nearby towns or other significant cultural features.
      - ii. A scaled project map showing the extents of the project and the location of the primary control points. The map must show street networks, selected street names, control point identification, and significant culture features necessary to provide a general location of the primary control.
      - iii. A table containing the primary control point values including the point number, northing, easting, elevation, stationing, and stationing offset values.
      - iv. Map annotation including a graphic scale bar, north arrow, and standard TxDOT title block. The title block must contain a section for the district name, city, and highway name. The title block must also contain a section for a Texas registered engineer to sign, seal, and date the sheet to include the following statement, "The survey control information has been accepted and incorporated into this PS&E".
- The Surveyor shall download the required format of the survey control

index sheet from the TxDOT website.

- v. In the title block under the heading "Notes", identification of the horizontal and vertical datum on which the primary control is based with the date of the current adjustment, the surface adjustment factor used, and unit of measure. The surveyor shall include a note stating that the coordinates are State Plane and a notation specifying either grid or surface adjusted coordinates.

#### E. DATA REQUIREMENTS

The Surveyor shall perform post processing of field data, which will be reviewed by the Owner. Data processed by standard calculators, computers, and other business hardware and software normally maintained and used by the Surveyor will be considered acceptable.

#### F. TASKS TO BE COMPLETED

The Surveyor shall perform the following tasks:

1. The Surveyor shall establish horizontal and vertical control points, including offsite points. The Surveyor shall prepare signed survey control data sheets, a survey control index sheet, and a composite layout of the horizontal and vertical controls, or as directed by the Owner.
2. The Surveyor shall set primary offsite control points in pairs, approximately 4,000 feet apart outside of the project area.
3. The Surveyor shall set secondary control points approximately 6 inches below ground at a maximum distance of 1,500 feet apart.
4. The Surveyor shall establish horizontal and vertical control from the TxDOT Virtual Reference Station (VRS) Network, or as directed by the Owner.
5. The Surveyor shall tie and tabulate horizontal and vertical control to other control points and datums in the vicinity established by other sources such as the National Geodetic Survey (NGS), the Federal Emergency Management Agency (FEMA), TxDOT VRS Network, or as directed by the Owner.

#### G. DELIVERABLES

The Surveyor shall provide the following:

1. A B-size plot and MicroStation graphics files of the index map showing an overall view of the project and the relationship of the primary monuments and control points established for the project, signed and sealed by a registered professional land surveyor (RPLS), or as directed by the Owner.
2. One A-size data sheet for each control point which shall include, but need not be limited to, a location sketch, a physical description of the point, surface coordinates, the elevation, and the datum used.
3. Graphics files and scanned images of the control data sheets uploaded to Owner's file management system.
4. A written statement describing the datum used, signed and sealed by a RPLS, along with copies of all relevant NGS and TxDOT data sheets.

## **FUNCTION CODE 160(160) - ROADWAY DESIGN**

### **ROADWAY DESIGN CONTROLS**

The Engineer shall inform the Owner of changes made from previous initial meetings regarding each exception, waiver, and variance that may affect the design. The Engineer shall cease all work under this task until the exceptions, waivers, and variances have been resolved between the Engineer and the Owner unless otherwise directed by the Owner to proceed. The Engineer shall identify, prepare exhibits, and complete all necessary forms for Design Exceptions and Waivers within project limits prior to the 30% Submittal. These exceptions shall be provided to the Owner for coordination and processing of approvals.

#### **160.1. Geometric Design.**

The Engineer shall:

##### **A. Preliminary Geometric Project Layout.**

The Engineer shall develop a preliminary geometric project layout (Layout) and a preliminary 3D corridor model for the full length of the project to be reviewed and approved by the Owner prior to the Engineer proceeding with the 30% milestone submittal package.

The Layout must consist of a planimetric file of existing features and the proposed improvements within the existing and any proposed ROW. The Layout must also include the following features: existing and proposed ROW, existing and proposed horizontal and vertical alignment and profile grade line, cross culverts, lane widths, cross slopes, ditch slopes, pavement structure, clear zone, dedicated right turn lanes, corner clips, retaining walls (if applicable) guard rail (if applicable), and water surface elevations for various rainfall frequencies, etc. Existing major subsurface and surface utilities must be shown on the Layout.

The Engineer shall develop the proposed alignment to avoid the relocation of existing utilities as much as possible. The Engineer shall consider Americans with Disabilities Act (ADA) requirements when developing the Layout. The Layout must be prepared in accordance with the current Roadway Design Manual. The Engineer shall provide horizontal and vertical alignment of the project layout in English units for main lanes and cross streets. Minor alignment alternatives must be considered to provide for an optimal design. The project layout must be coordinated with the Owner and adjacent Engineers, if any. The Engineer shall also provide proposed and existing typical sections with the profile grade line (PGL), lane widths, cross slopes, ROW lines, ditch shapes, pavement structures and clear zones depicted, etc.

The 3D corridor model must be created using Bentley's OpenRoads and GEOPAK tools. The 3D corridor model must have enough details to verify the feasibility of the proposed design.

Prior to proceeding with the final preliminary geometric layout, the Engineer shall also present to the Owner for review and approval, alternatives for the design (e.g., flush or raised curb median) with recommendations and cost estimates for each alternative. The Engineer shall also attend all necessary meetings to discuss the outcome of the evaluations of the study.

#### **160.2. Roadway Design. – N/A**

**160.3. Typical Sections: N/A**

**160.6. Cross Streets. N/A**

**160.7. Cut and Fill Quantities. N/A**

**160.8. Plan Preparation. N/A**

**160.9. Wetlands Information. N/A**

**160.10. Pavement Design.**

The Engineer shall prepare pavement designs for this project in accordance with the Capital Area Pavement Engineers Council (CAPEC); Phase 3 Report – Pavement Design Manual, and the latest edition of TxDOT's Pavement Manual. Proposed pavement designs to include a typical pavement section, full-depth pavement option, and one additional option as determined by the design team. The latest edition of TxDOT's Pavement Manual may be accessed at <http://www.txdot.gov/business/resources.html>.

The Engineer shall perform a subsurface exploration program consisting of 9 soil borings (3 borings at each roundabout). The Engineer shall coordinate with the Owner to determine the location of soil borings to be drilled along the roadway alignments. One boring at each round about shall extend 15 feet below the existing pavement surface elevation, unless practical refusal in intact rock is encountered shallower but shall not be less than 7 ft below the existing pavement surface, and all other borings shall extend to 3 ft below existing pavement surface elevation. The subsurface exploration program shall also include dynamic cone penetration (DCP) testing of the subgrade strata to depths of at least 24 inches below the existing ground surface. The Engineers shall call 811 and the City of Kyle Public Works Department (512-262-3024) for utility information prior to digging. Traffic control is required for any work that is performed for geotechnical borings and investigations within the right-of-way limits.

All soil testing must be performed in accordance with TxDOT's Test Procedures, which are available at <https://www.txdot.gov/business/resources/testing.html>. American Society for Testing Materials (ASTM) test procedures may be used only in the absence of the TxDOT procedures. All soil classification must be done in accordance with the Unified Soil Classification System.

The Engineer shall submit a signed and sealed pavement design report to the Owner. The pavement design report must be reviewed and approved by the Owner prior to its implementation. The pavement design report must document assumptions and design considerations. The pavement design report must include the following:

- Cover sheet with roadway name, geographical limits, and signatures of persons involved in the preparation and approval
- Soils map of the project area with a brief description of each type of soil located within the project area
- Design input values and output
- Conclusion consisting of recommended pavement design or designs based on the data, analyses, and procedures included in the report.

- Pavement design details specified for each location that includes structural layer materials, general specifications, and layer thicknesses
- Site conditions that might influence the design and performance of pavements
- Relevant geotechnical data and drainage requirements including boring logs, laboratory soil test results, active or passive drainage system design, dynamic cone penetrometer (DCP) data, and report log (up to 15-foot depth), and soil classifications with Atterberg limits
- Results of the field explorations and testing of pavement sections
- Recommended pavement designs
- Design criteria used in determining pavement designs, including traffic loads, pavement material characterization, environmental conditions, and pavement design life
- Design summary from the program used to design (e.g., FPS 21, DARWin, TxCRCP - ME, MODULUS 6.1)
- Other considerations used in developing the pavement designs, including subgrade preparations and stabilization procedures.

**160.11. Pedestrian and Bicycle Facilities. N/A**

**FUNCTION CODE 160(161) - ROADWAY DESIGN**

**DRAINAGE**

**161.1. Data Collection.**

The Engineer shall provide the following data collection services:

1. Conduct field inspections to observe current conditions and the outfall channels, the cross-drainage structures, drainage easements, the tributary channel, and land development projects that contribute flow to the tributary. Document field inspections with digital photos.
2. Collect available applicable data including GIS data and maps, site survey data, construction plans, previous reports and studies, and readily available rainfall history for the area. Sources of data collected must include, but are not limited to, the City, State, County, and Federal Emergency Management Agency (FEMA).
3. Collect available Flood Insurance Rate Maps (FIRMs), Flood Insurance Study (FIS) study data, and models.
4. Review survey data and coordinate any additional surveying needs with Owner.
5. Submit a letter report to the Owner Project Manager detailing completion of data collection.

**161.2. Hydrologic Studies.**

The Engineer shall provide the following services:

1. Incorporate in the hydrologic study a thorough evaluation of the methodology available, comparison of the results of two or more methods, and calibration of results against measured data, if available.
2. Calculate discharges using appropriate hydrologic methods and as approved by the

Owner.

3. Consider the pre-construction and post-construction conditions in the hydrologic study, as required in the individual task order.
4. Obtain the drainage area boundaries and hydrologic parameters such as impervious covered areas, and overland flow paths and slopes from appropriate sources including, but are not limited to, topographic maps, GIS modeling, construction plans, and existing hydrologic studies. The Engineer shall not use existing hydrologic studies without assessing of their validity. If necessary, obtain additional information such as local rainfall from official sites such as airports.
5. Include, at a minimum, the “design” frequency to be specified in the task order and the 1% Annual Exceedance Probability (AEP) storm frequency. The report must include the full range of frequencies (50%, 10%, 4%, and 1% AEP).
6. Compare calculated discharges to the effective FEMA flows. If calculated discharges are to be used in the model instead of the effective FEMA flows, full justification must be documented.

**161.3. Complex Hydraulic Design and Documentation. – N/A**

**161.4. Storm Drains. – N/A**

**161.5. Cross-Drainage Structures. – N/A**

**161.6. Temporary Drainage Facilities. – N/A**

**161.7. Scour Analysis. – N/A**

**161.8. Environmental Permits.**

The Engineer shall notify the Owner project manager when site conditions may require environmental permits such as Nationwide Permit, §404 Individual Permits (including mitigation and monitoring) and U. S. Coast Guard and U.S. Army Corps of Engineers §10 Permits.

**161.9. Plans, Specifications and Estimates (PS&E) Development for Hydraulics.**

N/A

**FUNCTION CODE 160(162) - ROADWAY DESIGN – N/A**

**FUNCTION CODE 160(163) - ROADWAY DESIGN**

**MISCELLANEOUS (ROADWAY)**

The Engineer shall provide the following services:

**163.1. Utility Engineering**

The Engineer shall create a color-coded Existing Utility Layout, overlaying existing utility data secured during SUE investigations and overlay with existing/proposed roadway and right-of-way features (1”=100’). The Engineer shall develop a utility conflict matrix, itemizing each utility within the project corridor by utility owner, type of utility, size, station and offset, conflict limits, and conflict description.

**CITY OF KYLE, TEXAS**

**CONTRACT NO. \_\_\_\_\_**









**"EXHIBIT B"**

**TASK ORDER NO.   000**

This Task Order is issued pursuant to that Professional Services Agreement (Agreement) between the City of KYLE, Texas (Owner) and American Structurepoint, Inc. (Professional) effective \_\_\_\_\_, 2022 and constitutes authorization by Owner for Professional to proceed with the following described construction and engineering design services.

**Construction and Engineering Design Services**

---

**A.     PROJECT DESCRIPTION**

The scope of the Agreement is to provide professional construction and engineering design services (Services) for the Owner based on the scope of services listed below in Item B. Professional services may include performing preliminary engineering and planning; generating plans, specifications and estimates; researching, analyzing, and providing technical recommendations; providing construction phase services; and providing general consulting services in the areas identified herein.

**B.     SCOPE OF SERVICES AND DELIVERABLES**

Pursuant to the Agreement, this Task Order authorizes Professional to perform the Services shown in Attachment A.

**C.     BASIS OF COMPENSATION**

The total compensation for the Services shall be based on the hourly rates as defined in Compensation Table provided on page 3 of this document, and on the corresponding rates and hours in the Fee Estimate attached as Attachment B. Attachment B shall use the template provided by the Owner. Owner will make payments to Professional for performing the Services described on a monthly billing basis in accordance with monthly statements submitted by the Professional and approved by Owner. Final payment shall be due upon completion of the Services described.

**D.     TIME FOR COMPLETION**

Professional will work expeditiously to complete the Services described herein by \_\_\_\_\_, 202\_.

American Structurepoint, Inc. shall begin work as soon as authorized in this Task Order No. \_\_\_\_\_.

**APPROVED:**

**CITY OF KYLE, TEXAS**

By \_\_\_\_\_

Title: Mayor

Attest \_\_\_\_\_

Date \_\_\_\_\_

**ACCEPTED:**

**AMERICAN STRUCTUREPOINT, INC.**

By \_\_\_\_\_

Title \_\_\_\_\_

Attest \_\_\_\_\_

Date \_\_\_\_\_

## COMPENSATION

Compensation for the services provided pursuant to the Professional Services Agreement between the City of Kyle and American Structurepoint, Inc. executed the \_\_\_\_\_ day of \_\_\_\_\_, 2022 will be paid on a lump sum basis and calculated based on the amounts reflected below.

Professional Staff	Hourly Bill Rate	Example Staff
Construction Technician		
Sr. Construction Technician		
ENG I (EIT I)		
ENG II (EIT II)		
ENG III (EIT III)		
ENG IV (Project Engineer I)		
ENG V (Project Engineer II)		
ENG VI (Sr. Engineer I)		
ENG VI (Sr. Engineer II, PM)		
ENG VII (Sr. Engineer III, Sr. PM)		
ENG VIII (Principal / Director)		

**"EXHIBIT B"**

**TASK ORDER NO. 001**

This Task Order is issued pursuant to that Professional Services Agreement (Agreement) between the City of KYLE, Texas (Owner) and American Structurepoint, Inc. (Professional) effective \_\_\_\_\_, 2023 and constitutes authorization by Owner for Professional to proceed with the following described construction and engineering design services.

**Construction and Engineering Design Services**

---

**A. PROJECT DESCRIPTION**

The scope of the Agreement is to provide professional construction and engineering design services (Services) for the Owner for the proposed improvements associated with Kohlers Crossing from FM 2770 to FM 1626. Professional services include preparing 30% schematic design of roundabouts at the Sanders, Benner and Cromwell intersections and other improvements within the described limits including sidewalks and utility adjustments, as well as performing preliminary engineering and planning; generating estimates; researching, analyzing, and providing technical recommendations; and providing general consulting services in the areas identified herein.

**B. SCOPE OF SERVICES AND DELIVERABLES**

Pursuant to the Agreement, this Task Order authorizes Professional to perform the Services shown in Attachment A.

**C. BASIS OF COMPENSATION**

The total compensation for the Services shall be \$614,397.20 (see fee spreadsheet). Owner will make payments to Professional for performing the Services described on a monthly billing basis in accordance with monthly statements submitted by the Professional and approved by Owner. Final payment shall be due upon completion of the Services described.

**D. TIME FOR COMPLETION**

Professional will work expeditiously to complete the Services described herein by May 31, 2024.

American Structurepoint, Inc. shall begin work as soon as authorized in this Task Order No. 001.

**APPROVED:**

**CITY OF KYLE, TEXAS**

By \_\_\_\_\_

Title: City Manager

Attest \_\_\_\_\_

Date \_\_\_\_\_

**ACCEPTED:**

**AMERICAN STRUCTUREPOINT, INC.**

By DocuSigned by:  
*Cash C. Confield*  
F19A20CCE23A42D...

Title Chief operating officer

Attest DocuSigned by:  
*Paula Marques Merlin*  
0A2B540AE681445...

Date 11/21/2023

PROJECT NAME: KOHLERS CROSSING ROUNDABOUTS (SANDERS/BENNER/CROMWELL)/SIDEWALKS/UTILITY IMPROVEMENTS

PROJECT LIMITS: FM 2770 TO FM 1626

TASK DESCRIPTION	American Structurepoint Inc.	Cobb Fendley	Doucet	Raba Kistner	SAM, LLC	TOTAL COSTS BY FC
FEASIBILITY STUDIES (FC 102 (110))	\$ 244,045.00	\$ 28,790.00		\$ -	\$ -	\$ 272,835.00
SOCIAL, ECONOMIC AND ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT (FC 120 (120))	\$ 9,450.00		\$ 5,520.00	\$ -	\$ -	\$ 14,970.00
RIGHT-OF-WAY DATA (FC 130 (130))	\$ 1,990.00	\$ 112,509.00		\$ -	\$ 27,035.00	\$ 141,534.00
MANAGING CONTRACTED/DONATED PE (FC 145 (145,164))	\$ 53,090.00	\$ 1,107.00		\$ -	\$ -	\$ 54,197.00
SURVEYS 160 (150)	\$ -	\$ -	\$ -	\$ -	\$ 57,370.00	\$ 57,370.00
ROADWAY DESIGN CONTROLS (FC 160 (160))	\$ -	\$ -	\$ -	\$ 14,125.00	\$ -	\$ 14,125.00
DRAINAGE (FC 160 (161))	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION (PERMANENT) (FC 160 (162))	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
MISCELLANEOUS (ROADWAY) (FC 160 (163))	\$ -	\$ 11,988.00	\$ -	\$ -	\$ -	\$ 11,988.00
TRAFFIC MANAGEMENT SYSTEMS (PERMANENT) (FC 160 (165))	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
BRIDGE DESIGN (FC 160 (170))	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTAL LABOR EXPENSES	\$ 308,575.00	\$ 154,394.00	\$ 5,520.00	\$ 14,125.00	\$ 84,405.00	\$ 567,019.00
DIRECT EXPENSES (FC 164)	\$ 1,932.50	\$ 437.00		\$ 4,000.00	\$ 20,599.70	\$ 26,969.20
UNIT COST EXPENSES (FC 164)	\$ -	\$ 9,600.00	\$ -	\$ 10,809.00	\$ -	\$ 20,409.00
TOTAL	\$ 310,507.50	\$ 164,431.00	\$ 5,520.00	\$ 28,934.00	\$ 105,004.70	\$ 614,397.20
	50.5%	26.8%	0.9%	4.7%	17.1%	100%
SUMMARY						
TOTAL LABOR COSTS FOR PRIME PROVIDER						\$ 308,575.00
NON-SALARY (OTHER DIRECT EXPENSES) FOR PRIME PROVIDER						\$ 1,932.50
SUBCONTRACTS (includes labor costs, direct expenses and unit cost)						\$ 303,889.70
GRAND TOTAL						\$ 614,397.20

American Structurepoint Inc.

PROJECT NAME: KOHLERS CROSSING ROUNDABOUTS/SIDEWALKS/UTILITY IMPROVEMENTS  
PROJECT LIMITS: FM 2770 TO FM 1626

TASKS		SHTS	Principal	QAQC Manager	Project Manager	Senior Engineer	Project Engineer	Senior Technician	Staff Engineer/EIT	Landscape Architect	TOTAL HOURS	TOTAL COST
			\$395.00	\$305.00	\$305.00	\$230.00	\$190.00	\$180.00	\$135.00	\$160.00		
FC 102 (110) 30% Schematic - Feasibility Study												
1 Schematic Design Work Outline												\$ -
A	Develop Base Map	1			2	4	12		16		34	\$ 5,970.00
B	Planimetrics and Aerial Mapping					1	2		4		7	\$ 1,150.00
C	Analyze Existing Conditions				2	4	8		12		26	\$ 4,670.00
D	Data Collection and Field Reconnaissance (2 site visits - incl. verify survey)					8			12		20	\$ 3,460.00
E	Roadway Design Criteria				1	2			4		7	\$ 1,305.00
2 Schematic Design - General Tasks												\$ -
A	ROW Property Base Map	1				1	2		4		7	\$ 1,150.00
B	Typical Sections (est. 18 sections)	6		1	4	8	32		36		81	\$ 14,305.00
C	Environmental Constraints (by Doucet)											\$ -
D	Drainage											\$ -
i	Preliminary Drainage Study			2	6	12	20		24		64	\$ 12,240.00
ii	Drainage area map				1	2	16		12		31	\$ 5,425.00
E	ROW Requirements				1	2	8		12		23	\$ 3,905.00
F	Design Exceptions		2		4	8			4		18	\$ 4,390.00
G	Traffic Data and Projections (use projections from CPY report)										0	\$ -
H	Traffic and Operational Analysis				4	12	25		28		69	\$ 12,510.00
I	Safety Analysis				6	8	22		12		48	\$ 9,470.00
J	Illumination Analysis/Layout				2	4	18		10		34	\$ 6,300.00
K	Bicycle and Pedestrian Accommodations				2	8	8		8		26	\$ 5,050.00
L	Landscape Assessment				12					32	44	\$ 8,780.00
3 Conceptual Design Schematics		1										\$ -
A	Conceptual Design Schematic (1 )			2	8	12	16		32		70	\$ 13,170.00
B	Roundabout Intersection layout (3)	3	2	4	24	32	72		36		170	\$ 35,230.00
C	Roundabout Calculations & Exhibits	12	2	6	24	48	96		48		224	\$ 45,700.00
4 Cross-Sections											0	\$ -
A	Earthwork				1	4	8		12		25	\$ 4,365.00
5 Retaining Walls					4	12			4		20	\$ 4,520.00
6	Preliminary Construction Sequence	4		4	12	24	40		24		104	\$ 21,240.00
7	Preliminary Quantities & Cost Estimate	1		1	2	6	12		16		37	\$ 6,735.00
8	Preliminary Engineering Report (summary of information, only)		1	1	4	8	16		14		44	\$ 8,690.00
9	Schematic Design Project Deliverables			1	2	2	6	4	8		23	\$ 4,315.00
SUBTOTAL		29	7	22	128	232	439	4	392	32	1,256	\$ 244,045.00
FC 120 (120) Social, Economic and Environmental Studies and Public Involvement												
Attend Meetings (1 meeting in-person)			0		6	1			2		9	\$ 2,330.00
Prepare Exhibits (4: 1 roll plot; 3 RAB enlargements)					4	8	10		16		38	\$ 7,120.00
SUBTOTAL		0	0	0	10	9	10	0	18	0	47	\$ 9,450.00
FC 130 (130) Survey/Right-of-Way Data												
Review Survey						1	2		4		7	\$ 1,150.00
Coordination of survey data					2	1					3	\$ 840.00
SUBTOTAL		0	0	0	2	2	2	0	4	0	10	\$ 1,990.00



FC 145 (145,164)    Project Management												
1	Contract Management and Administration		1		8	2	1				12	\$ 3,485.00
2	Project Management and Administration											\$ -
A	Project Management and Coordination ( 5 MONTHS)		2		36	16	8				62	\$ 16,970.00
B	Prepare monthly invoice and written progress reports				10		4				14	\$ 3,810.00
C	Develop and maintain project schedule (monthly)				5	2					7	\$ 1,985.00
D	TIRZ Board Meetings (assume 3 in-person)				9	3			3		15	\$ 3,840.00
E	QC/QA documentation			8	1	1			1		11	\$ 3,110.00
F	Bi-Weekly Mtgs. w/ Owner (assume 5 - virtual)				8	8	5		5		26	\$ 5,905.00
G	Submittal Review Meeting (virtual/in-person)				6	6	2		2		16	\$ 3,860.00
H	Weekly Project Team Mtgs. (assume 18)				15	10	10		10		45	\$ 10,125.00
SUBTOTAL		0	3	8	98	48	30	0	21	0	208	\$ 53,090.00
LABOR TOTALS		29	10	30	238	291	481	4	435	32	1,521	\$ 308,575.00

0.7%

2.0%

15.6%

19.1%

31.6%

0.3%

28.6%

2.1%

OTHER DIRECT EXPENSES		# OF UNITS	COST/UNIT	UNIT		
	Mileage	500	0.585	Miles		\$ 292.50
	Printing (Roll Plot)	400	\$1.100	SF		\$ 440.00
	Presentation Boards (24" x 36")	6	\$200.00	EA		\$ 1,200.00
SUBTOTAL DIRECT EXPENSES						\$ 1,932.50

UNIT COST EXPENSES		# OF UNITS	COST/UNIT	UNIT		
						\$ -
SUBTOTAL UNIT COST EXPENSES						\$ -

SUMMARY

TOTAL COSTS FOR PRIME PROVIDER	\$ 308,575.00
NON-SALARY (OTHER DIRECT EXPENSES) FOR PRIME PROVIDER	\$ 1,932.50
NON-SALARY (UNIT COST EXPENSES) FOR PRIME PROVIDER	\$ -
SUBCONTRACTS (includes labor costs, direct expenses, and unit costs)	
GRAND TOTAL	\$ 310,507.50

CobbFendley

PROJECT NAME: KOHLERS CROSSING ROUNDABOUTS/SIDEWALKS/UTILITY IMPROVEMENTS  
PROJECT LIMITS: FM 2770 to 1626

		SHTS	Principal	Project Manager	Senior Engineer	Project Engineer II	Graduate Engineer II	Utilities Coordinator	Senior Tech I	Senior Project Coordinator	Two Man Designating	Two Man Survey	RPLS	Admin	Vac Truck & crew	TOTAL HOURS	TOTAL COST	
			\$330.00	\$250.00	\$275.00	\$172.00	\$131.00	\$121.00	\$142.00	\$158.00	\$194.00	\$164.00	\$199.00	\$119.00	\$335.00			
FC 102 (110)	Feasibility Studies															\$0.00/Hr.		
	OH to UG Relocation Feasibility Analysis															0		
	Site Visit				2	2										4	\$ 894.00	
	Project Team Meetings - OH to UG effort - up to 6 meetings				6	6										12	\$ 2,682.00	
	Coordination with PEC - up to 1 meeting				1	2										3	\$ 619.00	
	Coordination with 3 Telecom Attachers - up to 3 meetings				3	6										9	\$ 1,857.00	
	Electric Schematic Layout (5 sheets at 1"=100')		1		6	24			70							100	\$ 15,718.00	
	Revisions (up to 2)				2	4			16							22	\$ 3,510.00	
	Quantities and Estimates (OPCC) - OH to UG conv. (brkdwn. by entity resp. for reloc. cost)		1		2	4			16							22	\$ 3,510.00	
																0	\$ -	
SUBTOTAL		0	2	0	22	48	0	0	102	0	0	0	0	0	0	172	\$ 28,790.00	
FC 135 (135)	Right-of-Way Data															0		
	Utility Engineering Investigation (SUE)																\$ -	
	Prepare Utility Contact List							4								4	\$ 484.00	
	SUE Quality Level D (records research)		2	6	4				30	24				2		68	\$ 11,550.00	
	SUE Quality Level B (assuming 6 longitudinal utilities entire project limits, plus crossings)		4	12	16				42	38	95	50	4			261	\$ 48,114.00	
	SUE Quality Level A (20 test holes from 0-10 ft)		2	8	12				24	12	20	20	1	2	100	201	\$ 52,361.00	
SUBTOTAL		0	8	26	32	0	0	4	96	74	115	70	5	4	100	534	\$ 112,509.00	
FC 145 (145,164)	Managing Contracted/Donated PE															0		
																0	\$ -	
	Prepare Summary Reports & Invoicing (up to 3 months)			3										3		6	\$ 1,107.00	
SUBTOTAL		0		3	0	0		0	0	0	0	0	0	3	0	6	\$ 1,107.00	
FC 160 (163)	Miscellaneous (Roadway)															0		
	Utility Engineering															0	\$ -	
	Create Existing Utility Layout (existing utilities overlaid on existing/proposed roadway features)		1	2		4			20							26	\$ 4,028.00	
	Develop Utility Conflict Matrix (30% Design)		1	4		10	40									54	\$ 7,960.00	
																0		
SUBTOTAL		0	2	6	0	14	40	0	20	0	0	0	0	0	0	80	\$ 11,988.00	
LABOR TOTALS																	784	\$ 154,394.00

1.5%4.5%6.9%7.9%5.1%0.5%27.8%9.4%14.7%8.9%0.6%0.9%12.8%

OTHER DIRECT EXPENSES		# OF UNITS	COST/UNIT	COST/UNIT		UNIT	UNIT	
	MILEAGE	400	\$0.655	\$0.655		mile	mile	\$ 262.00
	RENTAL CAR (Includes taxes and fees; Insurance costs will notbe reimbursed)		\$65.000	\$65.000		day	day	\$ -
	RENTAL CAR FUEL		\$100.00	\$100.00		day	day	\$ -
	Air Travel - In State - Short Notice (Coach)		\$420.00	\$420.00		Rd/Trip/perso	Rd/Trip/perso	\$ -
	Lodging/Hotel (Taxes/fees not included)		\$96.000	\$96.000		day/person	day/person	\$ -
	Lodging/Hotel (Taxes/fees)		\$30.00	\$30.00		day/person	day/person	\$ -
	Meals (Excluding alcohol & tips) (Overnight stay required)		\$50.00	\$50.00		day/person	day/person	\$ -
	OVERNIGHT MAIL - OVERSIZED BOX		\$40.00	\$40.00		each	each	\$ -
	PHOTOCOPIES B/W (11" X 17")	150	\$0.20	\$0.20		each	each	\$ 30.00
	PHOTOCOPIES B/W (8 1/2" X 11")	200	\$0.10	\$0.10		each	each	\$ 20.00
	PHOTOCOPIES COLOR (11" X 17")	100	\$1.25	\$1.25		each	each	\$ 125.00
	PHOTOCOPIES COLOR (8 1/2" X 11")		\$0.75	\$0.75		each	each	\$ -
	PLOTS (COLOR ON BOND)		1	1		per sq. ft.	per sq. ft.	\$ -
SUBTOTAL DIRECT EXPENSES (FC 130)								\$ 437.00

UNIT COST EXPENSES		# OF UNITS	COST/UNIT	COST/UNIT		UNIT	UNIT	
	Traffic control set ups small	5	\$700.000	\$700.000		day	day	\$ 3,500.00
	Traffic control set up medium	2	\$1,800.00	\$1,800.00		day	day	\$ 3,600.00
	Traffic control set up large	1	\$2,500.00	\$2,500.00		day	day	\$ 2,500.00
SUBTOTAL UNIT COST EXPENSES (FC 130)								\$ 9,600.00

SUMMARY

TOTAL COSTS FOR SUBCONSULTANT 1	\$ 154,394.00
NON-SALARY (OTHER DIRECT EXPENSES) FOR SUBCONSULTANT 1	\$ 437.00
NON-SALARY (UNIT COST EXPENSES) FOR SUBCONSULTANT 1	\$ 9,600.00
GRAND TOTAL	\$ 164,431.00

Doucet

PROJECT NAME: KOHLERS CROSSING ROUNDABOUTS/SIDEWALKS/UTILITY IMPROVEMENTS

PROJECT LIMITS: FM 2770 TO FM 1626

TASKS	SHTS	Environmental Manager	Environmental Specialist	Environmental Technician	TOTAL HOURS	TOTAL COST
		\$180.00	\$140.00	\$115.00		
FC 120 (120) Social, Economic and Environmental Studies and Public Involvement					0	
120.2 Environmental Dashboard Investigation (From Desk Top Review)					0	\$ -
Wetland Mitigation and Permitting		8	16	16	40	\$ 5,520.00
					0	
SUBTOTAL	0	8	16	16	40	\$ 5,520.00
LABOR TOTALS	0	8	16	16	40	\$ 5,520.00

20.0%40.0%40.0%

OTHER DIRECT EXPENSES		# OF UNITS	COST/UNIT	UNIT		
						\$ -
SUBTOTAL DIRECT EXPENSES (FC 164)						\$ -

UNIT COST EXPENSES		# OF UNITS	COST/UNIT	UNIT		
						\$ -
SUBTOTAL UNIT COST EXPENSES (FC 164)						\$ -

SUMMARY

TOTAL COSTS FOR SUBCONSULTANT 1	\$ 5,520.00
NON-SALARY (OTHER DIRECT EXPENSES) FOR SUBCONSULTANT 1	\$ -
NON-SALARY (UNIT COST EXPENSES) FOR SUBCONSULTANT 1	\$ -
GRAND TOTAL	\$ 5,520.00

Raba Kistner

PROJECT NAME: KOHLERS CROSSING ROUNDABOUTS/SIDEWALKS/UTILITY IMPROVEMENTS  
PROJECT LIMITS: FM 2770 TO FM 1626

TASKS	SHTS									TOTAL HOURS	TOTAL COST
		PRINCIPAL	PROJECT MANAGER	SENIOR ENGINEER	ENGINEER	EIT	SR. ENGR. TECH.	ENGR. TECH.	ADMIN		
		\$ 220.00	\$195.00	\$185.00	\$165.00	\$135.00	\$110.00	\$100.00	\$70.00		
Roadway Design Controls											
160.10 Pavement Design											
PROJECT KICK OFF		1	1		1	1	1		1	6	\$ 895.00
BORING LAYOUT & DRILLING INSTRUCTION			1			1	4			6	\$ 770.00
STAKE BORINGS							6			6	\$ 660.00
UTILITIES CLEARANCE							4			4	\$ 440.00
FIELD LOGGING								14		14	\$ 1,400.00
DYNAMIC CONE PENETROMETER (DCP) TESTING						0		4		4	\$ 400.00
LABORATORY ASSIGNMENT					1	2				3	\$ 435.00
SOIL BORING LOGS					1	4				5	\$ 705.00
SITE PLAN						1	2	0		3	\$ 355.00
PAVEMENT DESIGN ANALYSIS			2		4	12				18	\$ 2,670.00
DRAFT GEOTECHNICAL REPORT PREPARATION		2	4		6	12			2	26	\$ 3,970.00
GEOTECHNICAL REPORT REVIEW & FINALIZATION		1	1		2	4			2	10	\$ 1,425.00
SUBTOTAL	0	4	9	0	15	37	17	18	5	105	\$ 14,125.00
LABOR TOTALS	0	4	9	0	15	37	17	18	5	105	\$ 14,125.00

3.8%8.6%0.0%14.3%35.2%16.2%17.1%4.8%

OTHER DIRECT EXPENSES		# OF UNITS	COST/UNIT	UNIT	
	Traffic Control Services and Arrow Boards (Medium Project)	2	\$ 2,000.00	DAY	\$ 4,000.00
					\$ -
SUBTOTAL DIRECT EXPENSES (FC 164)					\$ 4,000.00

UNIT COST EXPENSES		# OF UNITS	COST/UNIT	UNIT	
	SUBSURFACE EXPLORATION PROGRAM (3 BORINGS TO 15 FT EACH & 6 BORINGS TO 3 FT EACH)				\$ -
	Mobilization of Drill Rig	2	\$ 500.00	DAY	\$ 1,000.00
	3" Thin-Wall Continuous Sampling or Intermittent Sampling in Granular Soils	63	\$ 28.00	FT	\$ 1,764.00
	In-Place Pavement Core (6-in. diameter)	9	\$ 100.00	EACH	\$ 900.00
	Bentonite Backfill	63	\$ 5.00	FT	\$ 315.00
	Driller Cleanup & Standby (includes patching)	6	\$ 250.00	HR	\$ 1,500.00
					\$ -
	LABORATORY TESTING PROGRAM				\$ -
	Atterberg Limits	12	\$ 125.00	EACH	\$ 1,500.00
	Moisture Content	30	\$ 25.00	EACH	\$ 750.00
	Sieve Analysis (passing No. 4, 40, 200)	12	\$ 120.00	EACH	\$ 1,440.00
	Sulfate Testing	6	\$ 100.00	EACH	\$ 600.00
	Organics	6	\$ 105.00	EACH	\$ 630.00
	Lime Series (Tex-121-E Part III)	1	\$ 410.00	EACH	\$ 410.00
					\$ -
SUBTOTAL UNIT COST EXPENSES (FC 164)					\$ 10,809.00

SUMMARY

TOTAL COSTS FOR SUBCONSULTANT 1	\$ 14,125.00
NON-SALARY (OTHER DIRECT EXPENSES) FOR SUBCONSULTANT 1	\$ 4,000.00
NON-SALARY (UNIT COST EXPENSES) FOR SUBCONSULTANT 1	\$ 10,809.00
GRAND TOTAL	\$ 28,934.00

SAM

PROJECT NAME: Kohlers Crossing  
PROJECT LIMITS: FM 2770 to FM 1626

TASKS	SHTS	SENIOR PROJECT MANAGER	PROJECT MANAGER	PROJECT COORDINATOR	SENIOR SURVEY TECHNICIAN	SURVEY TECHNICIAN	2-PERSON SURVEY CREW	3-PERSON SURVEY CREW	FIELD COORDINATOR	GEOSPATIAL SENIOR PM	GEOSPATIAL PM	PROJECT LEAN/SENIOR TECH	Calibration/AT/LIDAR/IMAGERY	LIDAR EXTRACTION/ORTHO IMAGERY	TOTAL HOURS	TOTAL COST
		\$250.00	\$175.00	\$145.00	\$120.00	\$110.00	\$180.00	\$260.00	\$135.00	\$265.00	\$205.00	\$130.00	\$115.00	\$100.00		
FC 130 (130) Right-of-Way Data																
Records Research and Deed Study for Existing ROW		1	6		16	24									47	\$ 5,860.00
Right of Entry Coordination (Up to 11 properties)			1		4	8									13	\$ 1,535.00
Field Surveys		1	2		8	12	60		4						87	\$ 14,220.00
Boundary Analysis/ROW Delineation		4	12		12	8									36	\$ 5,420.00
SUBTOTAL	0	6	21	0	40	52	60	0	4	0	0	0	0	0	183	\$ 27,035.00
FC 160 (150) Surveys																
Establish Project Control (3 Primary, 7 Aerial PIDS, ground truthing)		1	2		16	20	30								69	\$ 10,120.00
Locate details of existing drainage features			2		4	8	40								54	\$ 8,910.00
Locate existing utilities			2		8	16	40								66	\$ 10,270.00
Locate Manhole Inverts					2	6	20								28	\$ 4,500.00
Aerial Flight/Extraction		2	2							8	12	25	40	75	164	\$ 20,780.00
QA/QC Prepare Final Deliverables		1	4		8	8									21	\$ 2,790.00
SUBTOTAL	0	4	12	0	38	58	130	0	0	8	12	25	40	75	402	\$ 57,370.00
LABOR TOTALS	0	10	33	0	78	110	190	0	4	8	12	25	40	75	585	\$ 84,405.00

1.7%5.6%0.0%13.3%18.8%32.5%0.0%0.7%1.4%2.1%4.3%12.8%

OTHER DIRECT EXPENSES		# OF UNITS	COST/UNIT	UNIT	
					\$ -
	Mileage (number x current state rate)	1140	\$0.655	mile	\$ 746.70
	GPS RTK	180	\$25.00	hr	\$ 4,500.00
	Primary Control Monuments	3	\$90.00	each	\$ 270.00
	Deed Copies	200	\$1.00	per page	\$ 200.00
	GPS/IMU (Aerial)	1	\$750.00	per project	\$ 750.00
	Aerial Images	36	\$28.00	per image	\$ 1,008.00
	Aerial Flight Miles	25	\$65.00	per mile	\$ 1,625.00
	Aerial Acquisistion/Mobilization	1	\$4,000.00	per project	\$ 4,000.00
	Traffic Control	1	\$7,500.00	per day	\$ 7,500.00
					\$ -
SUBTOTAL DIRECT EXPENSES (FC 145, FC164)					\$ 20,599.70

UNIT COST EXPENSES		# OF UNITS	COST/UNIT	UNIT	
					\$ -
SUBTOTAL UNIT COST EXPENSES (FC 164)					\$ -

SUMMARY

TOTAL COSTS FOR SUBCONSULTANT 1	\$ 84,405.00
NON-SALARY (OTHER DIRECT EXPENSES) FOR SUBCONSULTANT 1	\$ 20,599.70
NON-SALARY (UNIT COST EXPENSES) FOR SUBCONSULTANT 1	\$ -
GRAND TOTAL	\$ 105,004.70



# CITY OF KYLE, TEXAS

## Next Meeting

**Meeting Date: 11/29/2023**  
**Date time: 4:30 PM**

**Subject/Recommendation:** Discussion regarding scheduling the next meeting.

**Other Information:**

**Legal Notes:**

**Budget Information:**

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### **ATTACHMENTS:**

#### **Description**

No Attachments Available



# CITY OF KYLE, TEXAS

## Executive Session - Convene

**Meeting Date: 11/29/2023**

**Date time: 4:30 PM**

**Subject/Recommendation:** Pursuant to Chapter 551, Texas Government Code, the TIRZ #2 Board reserves the right to convene into Executive Session(s) from time to time as deemed necessary during this meeting. The TIRZ #2 Board may convene into Executive Session pursuant to any lawful exception contained in Chapter 551 of the Texas Government Code including any or all of the following topics.

1. Pending or contemplated litigation or to seek the advice of the City Attorney and Attorneys concerning legal issues pursuant to Section 551.071, Texas Government Code, and Section 1.05, Texas Disciplinary Rules of Professional Conduct.
2. Possible purchase, exchange, lease, or value of real estate pursuant to Section 551.072.
3. Personnel matters pursuant to Section 551.074.
4. Convene into executive session pursuant to Section 551.087, Texas Government Code, to deliberate regarding the offer of economic incentives to one or more business prospects that the City seeks to have locate, stay, or expand in or near the City.

### **Other Information:**

### **Legal Notes:**

### **Budget Information:**

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### **ATTACHMENTS:**

#### **Description**

No Attachments Available



# CITY OF KYLE, TEXAS

## Reconvene

**Meeting Date: 11/29/2023**  
**Date time:4:30 PM**

**Subject/Recommendation:** Take action on items discussed in Executive Session.

**Other Information:**

**Legal Notes:**

**Budget Information:**

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### **ATTACHMENTS:**

#### **Description**

No Attachments Available