

PROFESSIONAL SERVICES AGREEMENT
FIRM:
PAPE-DAWSON CONSULTING ENGINEERS, LLC
PROJECT-SERVICES:
CIVIL, ENVIRONMENTAL, AND TRANSPORTATION ENGINEERING
AND SURVEYING (TR2904)

This Agreement is entered into the _____, day of _____, 2026 (“Effective Date”), by and between the City of Pflugerville, a Texas Municipal Corporation (“City”), acting by and through its City Manager; and Pape-Dawson Consulting Engineers, LLC (“Consultant”), both of which may be referred to herein singularly as “Party” or collectively as the “Parties.” The Parties severally and collectively agree, and by the execution hereof are bound, to the obligations, performances, and accomplishment of the tasks described.

I. DEFINITIONS

As used in this Agreement, the following terms shall have the following meanings:

“City” is defined in the preamble of this Agreement and includes its successors and assigns.

“Consultant” is defined in the preamble of this Agreement and includes its successors.

“City Manager” shall mean the City Manager and/or designee.

II. TERM

2.1 This Agreement shall become effective upon the Effective Date and shall remain in effect until 10th day of August, 2027, the day that the Scope of Services is anticipated to be complete. The Agreement may also be terminated as provided for in this Agreement.

2.2 This Agreement is subject to City’s appropriation of funds within the budget year for which they are paid. Any payment made by City to Consultant must be made solely from the annual budgeting and appropriations of City. Should City not appropriate funds in any fiscal year for the purposes of this Agreement, City will have the right to terminate this Agreement, to be effective at the end of City’s then existing fiscal year (September 30). City shall provide notice of its decision to Consultant on or before August 1 of any year.

III. SCOPE OF SERVICES

3.1 Consultant agrees to provide the services described in this Article III in exchange for the compensation described in Article IV. "Scope of Services" are detailed in **Exhibit A**, which is incorporated by reference. All work performed by Consultant hereunder shall be performed to the satisfaction of the City Manager pursuant to the terms of this Agreement. The determination made by City Manager shall be final, binding, and conclusive on the Parties. City shall be under no obligation to pay for any work performed by Consultant, which is not satisfactory to City Manager. City shall have the right to terminate this Agreement, in accordance with Article VII, in whole or in part, should Consultant's work not be satisfactory to City Manager; however, City shall have no obligation to terminate and may withhold payment for any unsatisfactory work, as stated herein, should City elect not to terminate.

3.2 Consultant shall perform and pay for all labor, tools, materials, equipment, supplies, transportation, and management necessary to perform all services set forth in **Exhibit A** and all other professional services reasonably inferable from **Exhibit A** and necessary for complete performance of Consultant's obligations under this Agreement, collectively referred to herein as "Services." City may, at any time, stop Consultant from performing the Services upon giving Consultant written notice. To the extent of any conflict between the terms of this Agreement and **Exhibit A**, the terms of this Agreement will prevail. Consultant shall diligently pursue completion of its Services, provide City with periodic updates as to its review of each assignment, and promptly inform City of any anticipated delay.

3.3 The Parties acknowledge and agree that timeliness of performance is of critical importance with respect to all dates, deadlines, and milestones set forth in this Agreement. Consultant shall commence the Services on the date specified within the Project Schedule, which is included as part of **Exhibit A**, and shall prosecute the work diligently and continuously to achieve Substantial Completion and Final Completion for the Scope of Services by the dates set forth in the Project Schedule. Any modification to the Project Schedule must be made by written amendment executed by both Parties. In the event Consultant fails to achieve any milestone or completion date set forth in the Project Schedule, and such failure is not excused pursuant to the occurrence of an extraordinary event beyond the Consultant's control that prevents performance, Consultant shall be in default under this Agreement, and City shall be entitled to exercise any and all remedies available at law or in equity, including termination of this Agreement for cause.

3.4 Consultant shall use its best efforts, skill, judgment, and abilities in performing the Services in an expeditious and timely manner consistent with the applicable professional standards of care and the orderly progress of the Services. Consultant shall provide sufficient personnel to accomplish the Services in a timely

manner. Consultant shall manage the Services and coordinate other professional services as necessary for the complete performance of Consultant's obligations under this Agreement. Consultant shall periodically report the status of the Services to City as appropriate to keep City informed as to the status of the work.

3.5 Consultant shall perform the Services in compliance with all applicable federal, state, and municipal laws and any other entity having jurisdiction over the Services. In addition, Consultant shall perform the Services in a manner consistent with generally accepted standards for its profession.

3.6 Plans, drawings, specifications, and/or other reports produced by Consultant (collectively referred to herein as "Design Documents") pursuant to the Services must be reasonably accurate and free from material errors or omissions. Consultant shall promptly correct any known or discovered error, omission, or other defect in the Design Documents without any additional cost or expense to City and notify City of same.

3.7 Consultant shall designate a representative primarily responsible for its performance of the Services and provide the name of this person to City. The designated representative shall act on behalf of Consultant with respect to all phases of the Services and shall be available as required for the benefit of the City. Consultant shall not change the designated representative without prior written approval of City, which approval may not be unreasonably withheld.

IV. COMPENSATION TO CONSULTANT

4.1 In consideration of Consultant's performance in a satisfactory and efficient manner, as determined solely by City Manager, City shall pay Consultant an amount not to exceed Three million two hundred nineteen thousand four hundred seventy-three dollars and thirty-five cents (\$3,219,473.35) as total compensation, to be paid to Consultant as further detailed in **Exhibit B**.

4.2 The Parties agree that all compensable expenses of Consultant have been provided for in the total payment to Consultant as specified in Section 4.1. No additional fees or expenses of Consultant shall be charged by Consultant nor be payable by City without prior approval and agreement of the Parties, as evidenced in writing and approved by City.

4.3 Final acceptance of work products and Services require written approval by City. The approval official shall be the City Manager. Payment will be made to Consultant following written approval of the final work products and Services by the City Manager. City shall not be obligated or liable under this Agreement to any party, other than Consultant, for the payment of any monies or the provision of any Services.

V. OWNERSHIP OF DOCUMENTS

5.1 Consultant shall submit all Design Documents to City for approval. All Design Documents must be professionally sealed as required by law or by City.

5.2 Consultant shall deliver the Design Documents, together with any necessary supporting documents, to City, and City has unlimited rights, for the benefit of City, in all Design Documents, including the right to use same on any other work of City without additional cost to City. The City's use of the Design Documents and information on extensions of this project or on any other project without specific adaptation by Consultant shall be at the City's sole risk and without liability to the Consultant.

5.3 Consultant grants City a royalty-free, perpetual license and right, to survive the termination of this Agreement, to all Design Documents that Consultant may cover by copyright and to all designs as to which Consultant may assert any rights or establish any claim under the design patent or copyright laws. This license includes City's right to use and reproduce the Design Documents as necessary. Further, Consultant acknowledges that City is subject to Chapter 552, Texas Government Code, commonly known as the "Texas Public Information Act," and hereby waives and releases the City from any claims against City for providing copies of the Design Documents in compliance with that Act.

VI. RECORDS RETENTION

6.1 Consultant and its subcontractors, if any, shall properly, accurately and completely maintain all documents, papers, and records, and other evidence pertaining to the Services, and shall make such materials available to the City at their respective offices, at all reasonable times and as often as City may deem necessary during the Agreement period, including any extension or renewal hereof, and the record retention period established herein, for purposes of audit, inspection, examination, and making excerpts or copies of same by City and any of its authorized representatives.

6.2 Consultant shall retain all documents produced because of the Services for a period of four (4) years (hereafter referred to as "retention period") from the date of termination of the Agreement. If, at the end of the retention period, there is litigation or other questions arising from, involving, or concerning this documentation or the Services, Consultant shall retain the records until the resolution of such litigation or other such questions. Consultant acknowledges and agrees that City shall have access to all such documents at all times, as deemed necessary by City, during said retention period. City may, at its election, require Consultant to return said documents to City prior to or at the conclusion of said retention.

6.3 Consultant shall immediately notify City in the event Consultant receives any requests for information from a third party, which pertain to the Design Documents. Consultant understands and agrees that City will process and handle all such requests.

VII. TERMINATION AND OTHER REMEDIES

7.1 For purposes of this Agreement, "termination" of this Agreement shall mean termination by expiration of the Agreement term as stated in Article II, or earlier termination pursuant to any of the provisions hereof.

7.2 City or Consultant may suspend or terminate this Agreement for cause or without cause at any time upon 15 days' written notice to the other Party. Notice shall be provided in accordance with Article VIII. Upon the effective date of expiration or termination of this Agreement, Consultant shall cease all operations of work being performed by Consultant or any of its subcontractors pursuant to this Agreement. In the event suspension or termination is without cause, City's payment to Consultant, in accordance with this Agreement, will be made based on the Services reasonably determined by City to be satisfactorily performed as of the date of suspension or termination. In addition, City's payment is subject to the Consultant's delivery of all documents and reports reasonably required by City, to include Design Documents, invoices, statements, and accounts.

7.3 Should City require a modification to this Agreement, and in the event City and Consultant fail to agree upon such modification, either City or Consultant have the option of terminating this Agreement. Thereafter, City shall pay Consultant in accordance with this Agreement for the Services mutually agreed upon by City and Consultant to be properly performed by the Consultant prior to such termination date.

7.4 Should Consultant default in the performance of this Agreement in a manner stated in this section 7.4, same shall be considered an event of default. City shall deliver written notice of said default specifying such matter(s) in default. Consultant shall have 15 days after receipt of the written notice, in accordance with Article VIII, to cure such default. If Consultant fails to cure the default within such fifteen-day cure period, City shall have the right, without further notice, to terminate this Agreement in whole or in part as City deems appropriate, and to contract with another consultant to complete the work required in this Agreement. City shall also have the right to offset the cost of said new Agreement with a new consultant against Consultant's future or unpaid invoice(s), subject to the duty on the part of City to mitigate its losses to the extent required by law.

7.5 If any state or federal law or regulation is enacted or promulgated which prohibits the performance of any of the duties herein, or, if any law is interpreted to prohibit such performance, this Agreement shall automatically terminate as of the effective date of such prohibition.

7.6 Regardless of how this Agreement is terminated, Consultant shall affect an orderly transfer to City or to such person(s) or firm(s) as the City may designate, at no additional cost to City, all completed or partially completed documents, papers, records, charts, reports, and any other materials or information produced as a result of or pertaining to the Services or provided to Consultant, hereunder, regardless of storage medium, if so requested by City, or shall otherwise be retained by Consultant in accordance with Article VI. Any record transfer shall be completed within thirty (30) days of a written request by City and shall be completed at Consultant's sole cost and expense. Payment of compensation due or to become due to Consultant is conditioned upon delivery of all such documents, if requested.

7.7 Within forty-five (45) days of the effective date of completion, termination, or expiration of this Agreement, Consultant shall submit to City its claims, in detail, for the monies owed by City for Services performed under this Agreement through the effective date of termination. Failure by Consultant to submit its claims within said forty-five (45) days shall negate any liability on the part of City and constitute a Waiver by Consultant of all rights or claims to collect monies that Consultant may rightfully be otherwise entitled to for the Services performed pursuant to this Agreement.

7.8 In no event shall City's action of terminating this Agreement, whether for cause or otherwise, be deemed an election of City's remedies, nor shall such termination limit, in any way, at law or at equity, City's right to seek damages from or otherwise pursue Consultant for any default hereunder or other action.

VIII. NOTICE

Except where the terms of this Agreement expressly provide otherwise, any election, notice, or communication required or permitted to be given under this Agreement shall be in writing and deemed to have been duly given if and when delivered personally (with receipt acknowledged), or 3 days after depositing same in the U.S. mail, first class, with proper postage prepaid, or upon receipt if sending the same by certified mail, return receipt requested, or upon receipt when sent by a commercial courier service (e.g., Federal Express) for expedited delivery to be confirmed in writing by such courier, at the addresses set forth below or to such other address as either Party may from time to time designate in writing.

If intended for City, to:

City of Pflugerville
Attn: Matt Rector
Public Utility and Engineering Director
P.O. Box 589
Pflugerville, Texas 78691

If intended for Consultant, to:

Pape-Dawson Consulting Engineers, LLC
Attn: Brian Allen, P.E.
Vice President
10801 N Mopac Expressway
Building 3, Suite 200
Austin, Texas 78759

IX. INSURANCE

9.1 Prior to the commencement of any work under this Agreement, Consultant shall furnish copies of all required endorsements and an original completed Certificate(s) of Insurance to the City, which shall be clearly labeled "TR2904 OLD Austin Hutto Road And Pfennig Lane To East Pecan Street Extensions" ("Project Name") in the Description of Operations block of the Certificate. The original Certificate(s) shall be completed by an agent and signed by a person authorized by that insurer to bind coverage on its behalf. The City will not accept Memorandum of Insurance or Binders as proof of insurance. The original certificate(s) or form must have the agent's original signature, including the signer's company affiliation, title, and phone number, and mailed, with copies of all applicable endorsements, directly from the insurer's authorized representative to the City. The City shall have no duty to pay or perform under this Agreement until such certificate and endorsements have been received and approved by the City.

9.2 The City reserves the right to review the insurance requirements of this Article during the effective period of this Agreement and any extension or renewal hereof and to modify insurance coverages and their limits when deemed necessary and prudent based upon changes in statutory law, court decisions, or circumstances surrounding this Agreement. In no instance will City allow modification whereupon City may incur increased risk.

9.3 A Consultant's financial integrity is of interest to the City; therefore, subject to Consultant's right to maintain reasonable deductibles in such amounts as are approved by the City, Consultant shall obtain and maintain in full force and effect for the duration of this Agreement, and any extension hereof, at Consultant's sole expense, insurance coverage written on an occurrence basis, by companies authorized and admitted to do business in the State of Texas and with an AM Best's rating of no less than A- (VII), in the following types and for an amount not less than the amounts listed below:

Insurance Requirements

Consultant performing work on the City's property or its public right-of-way shall provide the City with a certificate of insurance evidencing the coverage provisions identified herein. Consultant shall provide the City with evidence that all subcontractors performing work on the project have the same types and amounts of coverage as required herein or that the subcontractors are included under the contractor's policy. The City, at its own discretion, may require a certified copy of the policy. All insurance companies and coverage must be authorized by the Texas Department of Insurance to transact business in the State of Texas and must be acceptable to the City. Listed below are the types and amounts of insurance required. The City reserves the right to amend or require additional types and amounts of coverage or provisions depending on the nature of the work.

Type of Insurance	Amount of Insurance		Provisions
Commercial General Liability to include coverage for: Premises/Operations	1,000,000 per occurrence, 2,000,000 general aggregate		City to be listed as additional insured and provide 30 days' notice of cancellation or material change in coverage
	Or		
Products/ Completed Operations	2,000,000 combined single coverage limit		City to be provided a waiver of subrogation
Independent Contractors			City prefers that insurer be rated B+V1 or higher by A.M. Best or A or higher by Standard & Poors
Personal Injury			
Contractual Liability			
Business Auto Liability	1,000,000 single limit	combined	City to be provided a waiver of subrogation
Workers' Compensation & Employers Liability	Statutory Limits 1,000,000 each accident		City to be provided a waiver of subrogation
Professional Liability	1,000,000		

Questions regarding insurance requirements should be directed to the City's Purchasing Division [(512) 990-6100]. A contract will not be issued without evidence of Insurance. City will only accept the ACORD 25 or ISO certificate of insurance forms.

9.4 The City shall be entitled, upon request and without expense, to receive copies of the policies, declaration page, and all endorsements thereto as they apply to the limits required by the City, and may require the deletion, revision, or modification of particular policy terms, conditions, limitations or exclusions (except where policy provisions are established by law or regulation binding upon either of the Parties hereto or the underwriter of any such policies). Consultant shall be required to comply with any such requests and shall submit a copy of the replacement certificate of insurance to City at the address provided below within 10 days of the requested change. Consultant shall pay any costs incurred resulting from said changes.

City of Pflugerville
Capital Improvement Program
P.O. Box 589
Pflugerville, Texas 78691-0589

9.5 Consultant agrees that with respect to the above required insurance, all insurance policies are to contain or be endorsed to contain the following provisions:

- a. Name the City, its officers, officials, employees, and agents as additional insured by endorsement under terms satisfactory to the City, as respects operations and activities of, or on behalf of, the named insured performed under contract with the City, with the exception of the workers' compensation and professional liability policies;
- b. Provide for an endorsement that the "other insurance" clause shall not apply to the City where the City is an additional insured shown on the policy;
- c. Workers' compensation and employers' liability policies will provide a waiver of subrogation in favor of the City;
- d. Provide thirty (30) days advance written notice directly to City of any suspension, cancellation, non-renewal or material change in coverage, and not less than ten (10) days advance notice for nonpayment of premium.

9.6 Within five (5) days of a suspension, cancellation, or non-renewal of coverage, Consultant shall provide a replacement Certificate of Insurance and applicable endorsements to City. City shall have the option to suspend Consultant's performance should there be a lapse in coverage at any time during this Agreement. Failure to provide and to maintain the required insurance shall constitute a material breach of this Agreement.

9.7 In addition to any other remedies the City may have upon Consultant's failure to provide and maintain any insurance or policy endorsements to the extent and within the time herein required, the City shall have the right to order Consultant to stop work hereunder, and/or withhold any payment(s) which become due to Consultant hereunder until Consultant demonstrates compliance with the requirements hereof.

9.8 Nothing herein contained shall be construed as limiting in any way the extent to which Consultant may be held responsible for payments of damages to persons or property resulting from Consultant's or its subcontractors' performance of the work covered under this Agreement.

9.9 It is agreed that, excepting Professional Liability, Consultant's insurance shall be deemed primary and non-contributory with respect to any insurance or self-insurance carried by the City for liability arising out of operations under this Agreement.

9.10 It is understood and agreed that the insurance required is in addition to and separate from any other obligation contained in this Agreement.

9.11 Consultant and any of its subcontractors are responsible for all damage to their own equipment and/or property.

X. INDEMNIFICATION

10.1 CONSULTANT COVENANTS AND AGREES TO INDEMNIFY AND HOLD HARMLESS, THE CITY AND ITS ELECTED OFFICIALS, EMPLOYEES, OFFICERS, DIRECTORS, AND AGENTS, INDIVIDUALLY AND COLLECTIVELY, FROM AND AGAINST ANY AND ALL DAMAGES CAUSED BY OR RESULTING FROM AN ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER COMMITTED BY THE CONSULTANT OR THE CONSULTANT'S AGENT, CONSULTANT UNDER CONTRACT, OR ANOTHER ENTITY OVER WHICH THE CONSULTANT EXERCISES CONTROL. THE INDEMNITY PROVIDED FOR IN THIS PARAGRAPH SHALL NOT APPLY TO ANY LIABILITY RESULTING FROM THE NEGLIGENCE OF CITY, ITS ELECTED OFFICIALS, EMPLOYEES, OFFICERS, DIRECTORS, OR AGENTS, IN INSTANCES WHERE SUCH NEGLIGENCE CAUSES PERSONAL INJURY, DEATH, OR PROPERTY DAMAGE.

10.2 The provisions of this indemnity are solely for the benefit of the Parties and not intended to create or grant any rights, contractual or otherwise, to any other person or entity. Consultant shall advise the City in writing within 24 hours of any

claim or demand against the City or Consultant known to Consultant related to or arising out of Consultant's activities under this Agreement.

10.3 Consultant covenants and agrees to hold a DUTY TO DEFEND the City and the elected officials, employees, officers, directors, volunteers and representatives of the City, individually and collectively, from and against any and all claims, liens, proceedings, actions or causes of action, other than claims based wholly or partly on the negligence of, fault of, or breach of contract by the City, the City's agent, the City's employee or other entity, excluding the Consultant or the Consultant's agent, employee or sub-consultant, over which the City exercises control. Consultant is required under this provision and fully satisfies this provision by naming the City and those representatives listed above as additional insured under the Consultant's general liability insurance policy and providing any defense provided by the policy upon demand by City.

10.4 Consultant is required to perform Services to the City under the standard of care provided for in Section 271.904(d)(1-2), Texas Local Government Code.

10.5 In any and all claims against any Party indemnified hereunder by any employee of Consultant, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation herein provided shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Consultant or any subcontractor under worker's compensation or other employee benefit acts.

10.6 City agrees that the Consultant is not responsible for damages arising from any circumstances such as strikes or other labor disputes; severe weather disruptions, natural disasters, fire or other acts of God; riots, war or other emergencies; or failure of any third-party governmental agency to act in timely manner not caused or contributed to by Consultant.

XI. ASSIGNMENT AND SUBCONTRACTING

11.1 Consultant shall supply qualified personnel as may be necessary to complete the work to be performed under this Agreement. Persons retained to perform work pursuant to this Agreement shall be the employees or subcontractors of Consultant. Consultant, its employees, or its subcontractors shall perform all necessary work.

11.2 It is City's understanding and this Agreement is made in reliance thereon, that Consultant intends to use the following subcontractors in the performance of this Agreement: Raba Kistner, Inc., The Rios Group, Inc., and Structural Engineering Associates, Inc. A JMT Division. Any deviation from this

subcontractor list, whether in the form of deletions, additions or substitutions shall be approved by City prior to the provision of any services by said subcontractor.

11.3 Any work or services approved for subcontracting hereunder shall be subcontracted only by written contract and, unless specific waiver is granted in writing by the City, shall be subject by its terms to every provision of this Agreement. Compliance by subcontractors with this Agreement shall be the responsibility of Consultant. City shall in no event be obligated to any third party, including any subcontractor of Consultant, for performance of services or payment of fees. Any references in this Agreement to an assignee, transferee, or subcontractor, indicate only such an entity as has been approved by the City.

11.4 Except as otherwise stated herein, Consultant may not sell, assign, pledge, transfer, or convey any interest in this Agreement, nor delegate the performance of any duties hereunder, by transfer, by subcontracting or any other means, without the consent of the City Manager. As a condition of such consent, if such consent is granted, Consultant shall remain liable for completion of the Services in the event of default by the successor Consultant, assignee, transferee, or subcontractor.

11.5 Any attempt to transfer, pledge or otherwise assign this Agreement without said written approval, shall be void ab initio and shall confer no rights upon any third person. Should Consultant assign, transfer, convey, delegate, or otherwise dispose of any part of all or any part of its right, title or interest in this Agreement, City may, at its option, cancel this Agreement and all rights, titles and interest of Consultant shall thereupon cease and terminate, in accordance with Article VII. Termination, notwithstanding any other remedy available to City under this Agreement. The violation of this provision by Consultant shall in no event release Consultant from any obligation under the terms of this Agreement, nor shall it relieve or release Consultant from the payment of any damages to City, which City sustains because of such violation.

XII. INDEPENDENT CONTRACTOR

Consultant covenants and agrees that he or she is an independent contractor and not an officer, agent, servant or employee of City; that Consultant shall have exclusive control of and exclusive right to control the details of the work performed hereunder and all persons performing same, and shall be responsible for the acts and omissions of its officers, agents, employees, contractors, subcontractors and consultants; that the doctrine of respondent superior shall not apply as between City and Consultant, its officers, agents, employees, contractors, subcontractors and consultants, and nothing herein shall be construed as creating the relationship of employer-employee, principal-agent, partners or joint ventures between City and Consultant. The Parties hereto understand and agree that the City shall not be liable for any claims which may be asserted by any third party occurring in connection

with the Services and that the Consultant has no authority to bind the City.

XIII. CONFLICT OF INTEREST

13.1 Consultant acknowledges that it is informed that the Charter of the City of Pflugerville and its Ethics Code prohibit a City officer or employee, as those terms are defined in Section 11.06 of the Ethics Code, from having a financial interest in any contract with the City or any City agency such as city owned utilities. An officer or employee has a “prohibited financial interest” in a contract with the City or in the sale to the City of land, materials, supplies or service, if any of the following individual(s) or entities is a Party to the contract or sale: a City officer or employee; his parent, child or spouse; a business entity in which the officer or employee, or his parent, child or spouse owns ten (10) percent or more of the voting stock or shares of the business entity, or ten (10) percent or more of the fair market value of the business entity; a business entity in which any individual or entity above listed is a subcontractor on a City contract, a partner or a parent or subsidiary business entity.

13.2 Pursuant to the subsection above, Consultant warrants and certifies, and this Agreement is made in reliance thereon, that it, its officers, employees and agents are neither officers nor employees of the City. Consultant further warrants and certifies that it will comply with the City’s Ethics Code.

13.3 For contracts needing City Council approval, or any subsequent changes thereto requiring City Council approval, the City may not accept or enter into a contract until it has received from the Consultant a completed, signed, and notarized TEC Form 1295 complete with a certificate number assigned by the Texas Ethics Commission (“TEC”), pursuant to Texas Government Code § 2252.908 and the rules promulgated thereunder by the TEC. The Consultant understands that failure to provide said form complete with a certificate number assigned by the TEC may prohibit the City from entering into this Agreement. Pursuant to the rules prescribed by the TEC, the TEC Form 1295 must be completed online through the TEC’s website, assigned a certificate number, printed, signed and notarized, and provided to the City. The TEC Form 1295 must be provided to the City prior to the award of the contract. The City does not have the ability to verify the information included in TEC Form 1295 and does not have an obligation or undertake responsibility for advising Consultant with respect to the proper completion of the TEC Form 1295.

XIV. AMENDMENTS

Except where the terms of this Agreement expressly provide otherwise, any alterations, additions, or deletions to the terms hereof, shall be effected by amendment, in writing, executed by both City and Consultant, and, if applicable, subject to formal approval by the City Council.

XV. SEVERABILITY

If any clause or provision of this Agreement is held invalid, illegal or unenforceable under present or future federal, state or local laws, including but not limited to the City Charter, City Code, or ordinances of the City of Pflugerville, Texas, then and in that event it is the intention of the Parties hereto that such invalidity, illegality or unenforceability shall not affect any other clause or provision hereof and that the remainder of this Agreement shall be construed as if such invalid, illegal or unenforceable clause or provision was never contained herein; it is also the intention of the Parties hereto that in lieu of each clause or provision of this Agreement that is invalid, illegal, or unenforceable, there be added as a part of the Agreement a clause or provision as similar in terms to such invalid, illegal or unenforceable clause or provision as may be possible, legal, valid and enforceable.

XVI. LICENSES/CERTIFICATIONS

Consultant warrants and certifies that Consultant and any other person designated to provide Services hereunder has the requisite training, license and/or certification to provide the Services, and meets all competence standards promulgated by all other authoritative bodies, as applicable to the Services provided herein.

XVII. COMPLIANCE

Consultant shall provide and perform all Services in compliance with all applicable federal, state, and local laws.

XVIII. NONWAIVER OF PERFORMANCE

Unless otherwise specifically provided for in this Agreement, a waiver by either Party of a breach of any of the terms, conditions, covenants, or guarantees of this Agreement shall not be construed or held to be a waiver of any succeeding or preceding breach of the same or any other term, condition, covenant or guarantee herein contained. Further, any failure of either Party to insist in any one or more cases upon the strict performance of any of the covenants of this Agreement, or to exercise any option herein contained, shall in no event be construed as a waiver or relinquishment for the future of such covenant or option. In fact, no waiver, change, modification, or discharge by either Party of any provision of this Agreement shall be deemed to have been made or shall be effective unless expressed in writing and signed by the Party to be charged. No act or omission by a Party shall in any manner impair or prejudice any right, power, privilege, or remedy available to that Party or by law or in equity, such rights, powers, privileges, or remedies to be always specifically preserved hereby.

XIX. LAW APPLICABLE

19.1 This Agreement shall be construed in accordance with the laws of the State of Texas.

19.2 Venue for any legal action or proceeding brought or maintained, directly or indirectly, because of this Agreement shall be heard and determined in a court of competent jurisdiction in Travis County, Texas.

XX. LEGAL AUTHORITY

The signer of this Agreement for Consultant represents, warrants, assures, and guarantees that he or she has full legal authority to execute this Agreement on behalf of Consultant and to bind Consultant to all the terms, conditions, provisions, and obligations herein contained.

XXI. PARTIES BOUND

This Agreement shall be binding on and inure to the benefit of the Parties and their respective heirs, executors, administrators, legal representatives, and successors and assigns, except as otherwise expressly provided for herein.

XXII. CAPTIONS

The captions contained in this Agreement are for convenience of reference only, and in no way limit or enlarge the terms and/or conditions of this Agreement.

XXIII. INCORPORATION OF EXHIBITS

Each of the Exhibits listed below is an essential part of the Agreement, which governs the rights and duties of the Parties, and shall be incorporated herein for all purposes:

Exhibit A – Scope of Services, including the following Project Description/Scope of Services, Design Schedule, and Preferred Project Layout

Exhibit B – Compensation Schedule

XXIV. ENTIRE AGREEMENT

This Agreement and its exhibits, if any, constitute the final and entire agreement between the Parties and contain all terms and conditions agreed upon. No other agreements, oral or otherwise, regarding the subject matter of this Agreement shall be deemed to exist or to bind the Parties, unless same be in writing, dated after the date hereto, and duly executed by the Parties, in accordance with Article XIV. Amendments.

XXV. MISCELLANEOUS CITY CODE PROVISIONS

25.1 Representations and Warranties by Consultant. If Consultant is a corporation, partnership, or a limited liability company, Consultant warrants, represents, covenants, and agrees that it is duly organized, validly existing, and in good standing under the laws of the state of its incorporation or organization and is duly authorized and in good standing to conduct business in the State of Texas.

25.2 Franchise Tax Certification. A corporate or limited liability company Consultant certifies that it is not currently delinquent in the payment of any Franchise Taxes due under Chapter 171 of the Texas Tax Code, or that the corporation or limited liability company is exempt from the payment of such taxes, or that the corporation or limited liability company is an out-of-state corporation or limited liability company that is not subject to the Texas Franchise Tax, whichever is applicable.

25.3 Eligibility Certification. Consultant certifies that the individual or business entity named in the Agreement is not ineligible to receive payments under the Agreement and acknowledges that the Agreement may be terminated and payment withheld if this certification is inaccurate.

25.4 Payment of Debt or Delinquency to the State or Political Subdivision of the State. Pursuant to Chapter 38, *City of Pflugerville Code of Ordinances*, Consultant agrees that any payments owing to Consultant under the Agreement may be applied directly toward any debt or delinquency that Consultant owes the City of Pflugerville, State of Texas, or any political subdivision of the State of Texas regardless of when it arises, until such debt or delinquency is paid in full.

25.5 Texas Family Code Child Support Certification. Consultant certifies that they are not delinquent in child support obligations and therefore is not ineligible to receive payments under the Agreement and acknowledges that the Agreement may be terminated and payment may be withheld if this certification is inaccurate.

25.6 Prohibition on Contracts with Companies that Boycott Israel. Where this provision is applicable, Consultant verifies the following per Section 2271.002, Texas Government Code:

- a. Consultant does not boycott Israel; and
- b. Consultant will not boycott Israel during the term of the Agreement.

25.7 Prohibition Against Business with Iran, Sudan, or Foreign Terrorist Organization. Consultant verifies that Consultant is not engaged in business with Iran, Sudan, or any company identified on the list referenced in Section 2252.152, Texas Government Code.

25.8 Prohibition on Contracts with Companies Boycotting Energy Companies. Where applicable, Consultant verifies the following per Section 2276.002, Texas Government Code:

- a. Vendor does not boycott energy companies; and
- b. Vendor will not boycott energy companies during the term of the Agreement.

25.9 Written Verification as to Firearm Entities. Where applicable, Consultant verifies the following per Section 2274.002, Texas Government Code:

- a. Consultant does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association; and
- b. Consultant will not discriminate against a firearm entity or firearm trade association during the term of the Agreement.

25.10 Prohibition on Contracts with Companies Related to Certain Countries. Where this Agreement pertains to “critical infrastructure,” as defined by Section 2275.0101, Texas Government Code, Consultant verifies (1) that it is not owned by or the majority of stock or other ownership interest of the company is not held or controlled by: (a) individuals who are citizens of China, Iran, North Korea, Russia, or other designated countries; or (b) a company or other entity, including a governmental entity, that is owned or controlled by citizens of or is directly controlled by the government of China, Iran, North Korea, Russia, or other designated countries; or (2) headquartered in China, Iran, North Korea, Russia, or other designated countries.

25.11 Certificate of Interested Parties (TEC Form 1295). For contracts needing City Council approval, the City may not accept or enter into a contract until it has received from the Consultant a completed, signed, and notarized TEC Form 1295 complete with a certificate number assigned by the Texas Ethics Commission (“TEC”), pursuant to Section 2252.908, Texas Government Code and the rules promulgated thereunder by the TEC. Consultant understands that failure to provide said form complete with a certificate number assigned by the TEC may prohibit the City from entering the Agreement. Pursuant to the rules prescribed by the TEC, the TEC Form 1295 must be completed online through the TEC’s website, assigned a certificate number, printed, signed and notarized, and provided to the City. The TEC Form 1295 may accompany the bid, or may be submitted separately, but must be provided to the City prior to the award of the Agreement. Neither the City nor its consultants have the ability to verify the information included in a TEC Form 1295, and neither have an obligation nor undertake responsibility for advising any offeror with respect to the proper completion of the TEC Form 1295.

25.12 Notice of Cybersecurity Incident. Consultant shall promptly notify City in writing, but in no event later than 48 hours, after discovering any actual or suspected cybersecurity incident, data breach, or unauthorized access that may compromise the confidentiality, integrity, or availability of City's private, confidential, or sensitive information. The notice shall include, to the extent known at the time: (a) a summary of the nature and scope of the incident; (b) the types of data affected; (c) any remedial actions taken or planned; and (d) any recommendations for City to mitigate potential harm. Consultant shall cooperate fully with City in investigating and responding to such incidents, including providing reasonable assistance in complying with any legal or regulatory obligations arising from the breach.

(signatures begin on following page)

EXECUTED and **AGREED** to as of the dates indicated below.

**CITY OF
PFLUGERVILLE**

CONSULTANT
Pape-Dawson Consulting Engineers LLC

(Signature)


(Signature)

Printed
Name: James Hartshorn

Printed
Name: John Tyler, P.E., RAS

Title: City Manager

Title: Managing Principal, Transportation

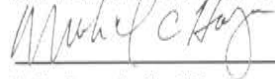
Date: _____

Date: May 28, 2026

ATTEST:

Trista Evans, City Secretary

APPROVED AS TO FORM:



Michael C. Hayes, City Attorney

EXHIBIT A
Scope of Services, Design
Schedule and Preferred
Project Layout

May 28, 2026

Mr. Matt Rector, P.E.
City of Pflugerville
P.O. Box 589
Pflugerville, TX 78691

Re: TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions
Proposal for Civil Engineering, Surveying, Environmental, Transportation Services
City of Pflugerville, Texas

Dear Mr. Rector:

We are pleased to present this proposal for providing engineering services in connection with the above-referenced project for the City of Pflugerville.

Upon Client's signing of this Proposal, this Proposal and the PSA become the Agreement between the Client and Pape-Dawson.

We appreciate the opportunity to work with you on this project. If this proposal meets with your approval, please acknowledge such by signing this proposal letter and the attached Professional Services Agreement, and returning them to our office via email, fax, or US Mail for our records. Receipt of the executed documents serves as authorization for us to proceed with the work.

If you have any questions or comments regarding the proposed services, please let me know.

Sincerely,
Pape-Dawson Consulting Engineers, LLC


John Tyler, P.E., RAS
Managing Principal, Transportation

Attachments:

- Exhibit A – Scope of Services:
 - Attachment A – Services to be Provided by the City of Pflugerville
 - Attachment B – Services to be Provided by the Engineer
 - Attachment C – Design Schedule
 - Attachment D – Preferred Project Layout
- Exhibit B – Compensation Schedule
 - Compensation Schedule for Professional Services

H:\Projects\516\50\01\Project Management\Contracts\Attachment C - 5165001_Pfennig_Lane_Scope_DESIGN.docx

ATTACHMENT A

Services to be provided by the City of Pflugerville

The City of Pflugerville will perform the following tasks and furnish the Engineer with the following items/information for the project:

- 1) Data Collection
 - a. As built plans for adjacent projects
 - b. Soil boring logs and geotechnical reports for nearby projects
- 2) Preliminary Hydraulics/Hydrology
 - a. Existing hydraulic and hydrologic studies associated with the project and project area if available.
 - b. Areas of wetlands delineation to be surveyed by the Engineer.
 - c. Data, if available, including “as-built plans”, existing cross sections, existing channel, and drainage easement data.
- 3) Preliminary Environmental
 - a. Available environmental documentation
- 4) Traffic Study
 - a. Available traffic counts, projections, and accident data
 - b. Available traffic reports
- 5) Preliminary Utility Research
 - a. Utility ownership/facility data
 - b. GIS information for utilities
- 6) Design Preferences
 - a. Preferred road sections
 - b. Preliminary Design Criteria
- 7) PS&E Plans
 - a. Go-bys showing desired formatting of PS&E Plans
- 8) ROW Acquisition
 - a. The City of Pflugerville will facilitate ROW donation and acquisition needed for the project
 - i. Pape-Dawson will provide metes and bounds needed
 - b. The City of Pflugerville will facilitate required utility easement agreements needed for the project
 - c. The City of Pflugerville will help obtain Right of Entry for Design Team
- 9) Utility Relocation
 - a. City of Pflugerville will confirm that overhead utilities will be paid by the utility company and not the city, since overhead lines are within the City ROW. City to confirm there is no separate agreement that would require the city to pay for a relocation
- 10) QAQC
 - a. City will provide comments on the schematic, preliminary PS&E, and final PS&E plans within no more than two weeks after submittal of deliverables
- 11) Public Involvement
 - a. Public outreach and public involvement meetings will be facilitated by the City of Pflugerville. Pape-Dawson will support the City in public involvement.

ATTACHMENT B

Services to be provided by the Engineer

Project Limits:

Existing Old Austin Hutto Road to Proposed Pfennig Lane, Pfennig Lane to East Pflugerville Parkway (2.3 miles)

Proposed Facility:

The proposed N/S Pfennig Lane extension will be a 4 lane divided road with a raised median, sidewalk on portions of one side and an SUP on the other side. Proposed E/W Pfennig Lane will be a 4 lane divided road with a surfaced median and an SUP on one side. featuring a 5-lane roadway with a sidewalk on both sides. E/W Pfennig Road will match the same section as N/S Pfennig Road. Old Austin Hutto Road will feature a proposed 3-lane roadway with an SUP on one side. The project will feature proposed storm drains, proposed illumination, bridges, a roundabout (pending the results of traffic analysis), water line relocations, retaining walls, and drainage detention.

Design Criteria:

The proposed design criteria for this project are the City of Pflugerville Engineering Design Manual and other relevant design criteria documents utilized by the City of Pflugerville. If the City does not have criteria for a design item, an alternative criteria, such as the TXDOT Highway Illumination Manual, will be used.

- | | | |
|---|--|---------------------|
| I. | MANAGING CONTRACTED/DONATED PE (FC 100 (100)) | \$294,580.00 |
| A. Project Management and Administration | | |
| <ul style="list-style-type: none">• Communication<ul style="list-style-type: none">○ Designate one Licensed Professional Engineer (Texas) to be responsible for the project management and all communications with the City and its representatives.• Monthly Progress Report, Invoices, and Billings (14 months assumed)<ul style="list-style-type: none">○ Submit monthly progress status reports to the City. Progress reports will include a deliverable table, tasks completed, tasks/objectives that are planned for the upcoming periods, lists or descriptions of items or decisions needed from the City and its representatives. Subconsultant progress will be incorporated into the monthly progress report. A copy of the monthly progress report will be submitted to the City.○ Prepare correspondence, invoices, and progress reports on a monthly basis in accordance with current City requirements.• Quality Assurance and Quality Control (QA/QC) Plan<ul style="list-style-type: none">○ For each deliverable submittal, provide evidence of their internal review and mark-up of that deliverable as preparation for submittal and in accordance with the submitted project QA/QC plan.○ Provide continuous QA/QC throughout the duration of the scheduled services included herein to appraise both technical and business performance and provide direction for project activities. | | |

- Project Schedule
 - Prepare initial project baseline design schedule indicating tasks, subtasks, critical dates, milestones, and deliverables.
 - Update schedule monthly, address monthly schedule comments, and provide schedule update at the end of the month
- Project Coordination & Administration
 - Prepare and maintain routine project record-keeping, including records of meetings and minutes.
 - Correspondence and coordination will be handled through & with the concurrence of the City.
 - Manage project activities (including documenting emails, phone and conference calls, maintain project files for the length of the project, meeting agendas, meeting minutes, and schedule meetings), direct Engineer's team/staff, coordinate and review sub-consultant work, correspond with the City and its representatives, and assist the City and its representatives in preparing responses to project-related inquiries.
- Coordination with Developers
 - Coordinate with developers and developers' engineers for projects designed to tie into the proposed Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions work.
- Meet bi-weekly with City and provide meeting minutes (22 virtual meetings with City staff)
 - Attend up to 22 virtual biweekly meetings. Updates shall include activities completed, upcoming action items, activities required by the next meeting, issues encountered, information or items required from other agencies/consultants, late activities, solutions for unresolved and/or anticipated problems with resolution timeframes, and any outstanding items needed to complete required deliverables. Additional meetings beyond the 22 biweekly meetings assumed may be added with a supplemental work authorization.
 - Prepare agenda and sign-in sheets for external coordination/progress meetings. Additional meetings may be added with a supplemental work authorization.
 - Prepare meeting minutes for review via email within after the meeting.
- Conduct weekly internal design meetings (22 virtual meetings with design team)
 - Assume 22 virtual biweekly meetings with the internal design team
- Kickoff, Schematic, and Preliminary PS&E Design Review Meetings (3 external in-person meetings assumed)
 - Attend a kickoff meeting and coordination/progress meeting with the City and its representatives and stakeholders, as necessary to communicate development of the project and design issues.
 - Prepare agenda and sign-in sheets for external coordination/progress meetings.
 - Drive to and from in person meeting
 - Prepare meeting minutes for review via email after the external coordination/progress meeting.

- Public involvement (1 meeting assumed)
 - Prepare materials including exhibits, handouts, etc to support City with a public meeting
 - Attend public meeting in person

Deliverables

- Monthly Invoices and Progress Reports including Deliverable Table
- Project QA/QC Plan
- Meeting Minutes, Sign-In Sheets, and Agendas
- Project Schedule and Updates
- QA/QC Documentation with Deliverable
- Public Workshop materials

II. SCHEMATIC DEVELOPMENT (FC 110 (110)) \$384,940.00

A. Constraints Map

- Prepare exhibit showing Pfennig Lane and Old Austin Hutto Road extensions to facilitate meeting with developer for ROW donation and acquisition
- Support City with documents and attendance if needed for meeting with Developer for ROW donation and acquisition
- Prepare final constraints maps based on feedback from the City and developer

B. Data Collection

- The Engineer shall perform records research and obtain relevant existing information, including but not limited to: GIS data and maps, site survey data, as-built plans, construction plans for both proposed roadway improvements and site development, studies, future land use maps, floodplain data, official copies of FEMA floodplain and drainage models and analyses. Obtain construction plans for projects within the project limits and abutting roadways. Obtain drainage studies, reports, readily available rainfall history, and mapping for the project area, including reports for development affecting the drainage area.
- Conduct a field investigation of the proposed alignment and the surrounding area to determine field conditions including photographic record of notable existing features.
- Conduct field visits 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 (1 in person field visits assumed).
- Review survey data and coordinate any additional surveying needs with Owner.
- Organize data collected and present in a Bentley OpenRoads file.

C. Schematic (Roadway)

- The Engineer shall develop schematic roll plot at for the selected design alternative and design criteria using Bentley OpenRoads Designer. The schematic roll plot shall include the following items:
 - Project location and design criteria
 - Traffic line diagrams
 - Proposed typical sections, including preliminary pavement structure
 - Proposed roadway centerline, including horizontal alignment data
 - Proposed drainage structures and ditches
 - Proposed pavement edges for main facilities and driveways
 - Preliminary retaining wall and bridge limits
 - Bike and pedestrian accommodations
 - Existing and proposed right-of-way and easement information
 - Property boundaries and owner data
 - Utility information
 - Profile data, including cross structure bridges and water surface elevations
- The Engineer shall develop a corridor 3D model using OpenRoads Designer for the selected alternative and design criteria.
- The Engineer shall develop Cross Sections created from the 3D corridor model and must be delivered on 11"x17" sheets or roll plots and electronic files. The Engineer shall provide all templates and corridors used to generate the design cross sections. Cross sections and quantities must include existing pavement removals. Annotation shall include at a minimum existing and proposed ROW, side slopes (front & back), profiles, etc.
- The Engineer shall develop a cost estimate for the associated schematic deliverable.

D. Schematic (Drainage)

- Prior to detailed design, engineer shall develop a schematic-level assessment of the critical hydrologic and hydraulic components of the project. As part of the schematic study we shall:
 - Detail the criteria, methods, results and recommendations of the analysis.
 - Provide a comparison of existing vs. proposed condition runoff patterns at each outfall from the project area.
 - Prepare and modify existing Rational Method hydrologic models to reflect the current existing conditions & proposed schematic conditions for each sub-drainage area within the project area.
 - Delineate overall and internal drainage areas for the project, including identifying locations for cross-culverts along the proposed new roadway.
 - Determine 2-, 25-, and 100-year peak flows (existing/ultimate) at the proposed crossing locations per City of Pflugerville Engineering Design Manual standards.
 - Determine preliminary ditch sizing based on internal drainage areas.

- Design and analyze storm drains and drainage ditches using software as approved by the Owner.
- Size inlets, laterals, trunk line, and outfall. Develop designs that minimize the interference with the passage of traffic or incur damage to the highway and local property in accordance with the City of Pflugerville Engineering Design Manual and specific guidance provided by the Owner. The design team will provide complete drainage models with the schematic deliverable.
- Determine the hydraulic grade line starting at the outfall channel for each storm drain design. Use the design event water surface elevation of the outfall as the starting basis (tailwater) for the design of the proposed storm sewer system.
- Calculate manhole head-losses. Compute manhole head losses as per FHWA's HEC-22
- Provide existing and proposed conditions, drainage area, and land use maps for each outfall from the project area and/or each cross-drainage structure location.
- Compare and document the study results with existing studies or models from the County, FEMA, cities, etc., if available.
- Identify and document the need for stakeholder coordination or permitting.
- Recommend minimum pavement elevations based on preliminary design event water surface elevations (WSEL) for cross-drainage flood elevations and document WSEL on schematic profiles.
- Add proposed drainage inlet, manhole, storm drain, and ditch flowline linework to the schematic rollplot
- Prepare a schematic drainage report discussing overall project hydrology, methodologies employed, culvert recommendations, and general drainage system layout based on preliminary analysis and inlet spacing assumptions.
- Update schematic drainage report and calculations based on City comments for final schematic drainage report submittal.
- Develop quantities and cost estimates for proposed drainage structures.

Deliverables

- Data Collection Records
- Digital Drainage Models
- Public Workshop Material
- Schematic Roll Plot
- Schematic Cross Sections
- Schematic Cost Estimate
- Schematic Drainage Report

THIS TASK ASSUMES AND/OR EXCLUDES THE FOLLOWING:

- ◆ *The roadway design presumes that the traffic study for the proposed N/S Pfennig - E/W Pfennig and N/S Pfennig – Old Austin Hutto Road intersections will find that roundabouts are the most desirable intersection design. If the traffic study finds otherwise, the roadway design and modelling will change accordingly.*
- ◆ *Sub-drainage areas are assumed to be smaller than 100 acres, therefore Rational Method will be used to analyze internal hydrology. Atlas 14 impacts will be reviewed and incorporated. Should any internal watershed be large enough to require analysis using NRCS method, an ASR will be needed.*
- ◆ *Water quality treatment is not required by the City of Pflugerville Engineering Design Manual. Since the project is over the Transition Zone of the Edwards Aquifer, water quality treatment is not required by TCEQ. Should water quality treatment design be requested by Owner, an ASR will be needed.*
- ◆ *Schematic drainage study does not include storm drain profiles on sheets.*

III. ENVIRONMENTAL COMPLIANCE (FC 120 (120)) \$60,160.00

A. Environmental Design Coordination / Meetings

- Environmental staff attendance at the project kickoff and bi-weekly project coordination meetings during the design phase. (Assumes 13-month design duration)
- Environmental staff attendance at up to two (2) meetings with affected property owners. (Assumes 6 additional hours of Environmental Project Manager time per MAPO and does not include preparation of exhibits or additional information)

B. Endangered Species Act Compliance

- A US Fish and Wildlife Service (USFWS) permitted biologist familiar with the habitat requirements for species listed by the USFWS as having the potential to occur on the subject property to conduct a reconnaissance site visit. Based on the site visit and aerial photography, the likelihood of species occurrence on the property is to be assessed.
- An Endangered Species Habitat Assessment report to be prepared, describing endangered species assessment methodology and characteristics of the property that support the conclusions of habitat potential. The report would include a map delineating the area that may be suitable for the listed species.
- FEMA requires documentation of compliance with the minimum Endangered Species Act requirements before it processes a CLOMR. In collaboration with the civil engineering team, an Endangered Species Act Compliance Letter / "Take" Assessment to be prepared, describing endangered species assessment methodology and characteristics of the property that support the conclusions of habitat potential.

C. Section 404 Clean Water Act Compliance

- Conduct a jurisdictional waters delineation on the subject property, following guidelines from the US Army Corps of Engineers (USACE), including the 1987 Wetland Delineation Manual.
- Prepare a Jurisdictional Waters Delineation Report including a map of areas that would potentially be under the jurisdiction of the USACE (Waters of the U.S. or WOTUS) according to the most recent guidance, data forms, soils, vegetation, and hydrology analysis. A summary of jurisdictional waters as defined in the Federal Wetland Regulations 33 Code of Federal Regulations (CFR) Part 328 and the Clean Water Act as was done prior to the 2015 rule and incorporating the Sackett Case Supreme Court decision is also to be provided.
- Prepare a Waters of the US Impact Analysis memo identifying specific impacts of the project on the Waters of the U.S. (including special aquatic sites), proposed measures to minimize the impacts, and discuss applicable Section 404 permitting options in accordance with current USACE regulations and NWP conditions.

D. Cultural Resources Regulatory Compliance

- For projects located on land owned by a political subdivision or agency of the state, compliance with the Antiquities Code of Texas (Texas Natural Resource Code, Title 9, Chapter 191) and accompanying Rules of Practice and Procedure (Texas Administrative Code, Title 13, Chapter 26) as implemented by the Texas Historical Commission is required.
- For projects anticipating federal funding, permitting, and/or licensing, compliance with Section 106 of the National Historic Preservation Act (16 United States Code 470) and its implementing regulations (36 Code of Federal Regulations [CFR] 800) as overseen by the THC and lead federal agency is required. This includes coordination with the State Historic Preservation Officer (SHPO) and any affiliated or consulting Tribal Nations as part of the federal agency's responsibilities.
- In addition, projects with the potential to impact human remains and/or graves, must comply with the Texas Health and Safety Code (Chapters 711 to 715) and Texas Code of Criminal Procedure ([TCCP] Chapter 49 Subchapter A Article 49).

As the proposed project area is to be utilized as public ROW and may require permitting through the USACE, the following scope of work is intended to provide compliance with the ACT and Section 106 of the NHPA.

E. Agency Consultation Letter

- As part of the project planning process prior to project construction, Pape-Dawson cultural resources staff to prepare a consultation letter for the lead regulatory agency summarizing the existing conditions OR verifying the project meets the requirements of Antiquities Code of Texas (Subchapter A, Sec. 191.0525[d]) and to provide concurrence with recommendations that no cultural resources survey is needed.

F. Phase I Environmental Site Assessment

- Phase I Environmental Site Assessment to be conducted in general accordance with ASTM E1527-21. The objective of the assessment is to identify Recognized Environmental Conditions (RECs), which are defined as the presence or likely presence of hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. The presence of controlled RECs (CRECs) and historical RECs (HRECs) will also be identified per the ASTM E1527-21 standard requirements. This task includes the following:
 - Research and review regulatory database records.
 - Review historical Fire Rate Insurance Maps, if available.
 - Review historical aerial photographs.
 - Conduct site reconnaissance.
 - Interview current owners and past owners if available, occupants and local government officials.
 - Provide client with property questionnaire.
 - Review title commitment for environmental liens. Pape-Dawson needs a current copy of a title commitment, provided by the client, as part of this task.
 - Prepare and deliver a written report of findings in electronic (PDF) format. Up to three (3) hard copies of the report are available upon request.

Deliverables

- Endangered Species Habitat Assessment
- ESA Compliance Letter / "Take" Assessment
- Jurisdictional Waters Delineation Report
- Waters of the US Impact Analysis Memo
- Cultural Resources Agency Consultation Letter
- Phase I Environmental Site Assessment

THIS TASK ASSUMES AND/OR EXCLUDES THE FOLLOWING:

- ◆ *Endangered Species Presence / Absence Surveys*
 - *Direct impacts to perennial streams could require coordination with the Texas Parks and Wildlife Department to address potential impacts to State aquatic resources. Additional scope related to aquatic resources, if required, would be performed under an ASR.*
- ◆ *USFWS Section 7 Consultation*
- ◆ *USACE Section 404 Permitting*
 - *If the project impacts necessitate a Pre-Construction Notification (PCN) to USACE, additional scope otherwise excluded from this task may be required, including additional cultural resources or endangered species investigations and consultations. These services, if necessary, would be performed under an ASR.*
- ◆ *USACE Section 106 Consultation*

- ◆ *Cultural Resources Investigation/Survey*
- ◆ *Phase II Environmental Site Assessment or Remediation*
 - *The Phase I ESA report is not intended to be a definitive investigation of possible contamination at the property. No exploratory borings, soil or groundwater sampling, or laboratory analyses to be performed at the property.*

IV. DESIGN SURVEY & SUPPLEMENTAL TOPOGRAPHIC (FC 150 (150)) \$110,295.00

- Prepare and mail via certified mail Right-of-Entry (ROE) letters to affected landowners (4 separate landowners estimated)
- Perform boundary research and field survey sufficient to prepare acquisition parcels for proposed acquisition. Prepare metes and bound description and sketch for proposed ROW acquisition. It is assumed that only one (1) landowner will be affected and one (1) parcel package prepared.
- Establish sixteen (16) aerial targets and thirty eight (38) ground truthing points for Lidar acquisition.
- Establish six (6) primary control points, three (3) pairs of intervisible points, two (2) on the north end of the project, two (2) on the south and two (2) in the middle of the project.
- Perform supplemental improvement, and topographic survey 150 feet each side of the proposed centerline of Pfennig Lane being approximately 2 miles (10,560 LF) long, additionally survey approximately 200 LF along existing Pfennig Lane and 500 feet west and 850 feet east of Pflugerville Parkway at each proposed tie-in locations. Locate additional existing features and obtain supplemental topographic data obscured and/or not discernable from aerial LiDAR survey 1) Measuring sag heights for overhead crossings 2) obtain wastewater info - MH elevations and Sanitary Sewer inverts
- Combine supplemental data into LiDAR topographic surface file.

Deliverables

- Updated CAD file in DGN format of supplemental features not obtained or discernable in the Lidar data.
- Preliminary Parcel document for review (PDF format).
- Final Parcel documents (PDF format).

V. GEOSPATIAL MAPPING (FC 151 (151)) \$67,305.00

A. Project Control and Ground Truthing

- Pape-Dawson's geospatial team will establish control targets on site. The control targets will consist of chevrons set on hard surfaces, bare ground, or consist of photo identifiable features within or adjacent to the site.
- Survey crews will mobilize to set and survey necessary targets and ground truthing points after receipt of written notice to proceed, access and approval of control target layout by the Client.

B. Aerial Lidar Survey

- **Aerial Acquisition and Processing**
 - Upon completion of the primary control and ground truthing survey, the Pape-Dawson Geospatial team will mobilize to the project site to acquire Aerial Lidar and supporting imagery covering the project limits. The crew will review the acquired data for completeness prior to demobilization.
 - The lidar data collected will be post-processed and calibrated to the control targets set and surveyed for the project. The calibrated data will be tested against the ground truthing points collected on site and a final calibration and ground truthing statistical accuracy report will be produced. This report will identify the achieved data accuracy.
- **Digital Terrain Model and Deliverables**
 - Following calibration, Pape-Dawson will generate a final Digital Terrain Model (DTM). This final DTM will consist of breaklines and major grade breaks identifiable within the project limits, together with a model keypoint surface representing the bare earth. A final TIN and 1-foot contour map will be generated. The resulting TIN will be tested against the ground truthing points to ensure the resulting surface accuracy matches the calibrated point cloud accuracy.
- **Planimetrics**

Pape-Dawson to extract planimetric features that are visible, identifiable, and unobstructed in the lidar and aerial imagery. Features to be extracted include:

 - Edge of pavement
 - Edge of dirt roads
 - Curbs (gutter line, top face, and top back)
 - Concrete slabs
 - Walls (retaining or free-standing concrete)
 - Sidewalks
 - Power poles with overhead lines of connectivity
 - Guy anchors
 - Fences and gates
 - Assumed fence where obscured
 - Building structures (rooflines unless otherwise noted)
 - Parking surfaces
 - Driveways
 - Above-ground utilities (light posts, traffic signals, signs, posts)
 - Miscellaneous utilities (water valves, valve vaults, fire hydrants, electric boxes, pedestals, meter boxes, gas marker posts, utility covers, communication cabinets)
 - Water features (ponds, lakes, rivers/creeks)
 - Drainage structures (culverts, headwalls, curb inlets)
 - Manholes (generic)

Note: Planimetric features will be extracted only within unobscured areas where identifiable from the aerial data. Field verification of features is not included unless authorized as an Additional Service.

Deliverables

- Accuracy Report
- 3D DTM and 1-foot contour drawing in DWG format
- 2D Planimetrics in DWG format
- Surface in LandXML format

Note: Aerial imagery collected during acquisition is used solely for internal production purposes and is not included as a deliverable unless contracted separately.

THIS TASK ASSUMES AND/OR EXCLUDES THE FOLLOWING:

- ◆ *The project units will be US Survey Feet.*
- ◆ *Horizontal and vertical datum will be defined by the Client or Licensed Surveyor responsible for project control.*
- ◆ *Orthometric elevations will be calculated using the Geoid defined by the Client or Licensed Surveyor responsible for project control.*
- ◆ *Aerial Imagery will be collected to produce 3" or less ground sample distance orthophotography, but will be solely for Pape-Dawson's internal use during the production of deliverables.*
- ◆ *Ground control points will be set and surveyed as needed to calibrate the lidar data.*
- ◆ *Ground truthing points or check points will be collected to verify that the calibration of the LiDAR is within a vertical RMSE of 0.16 feet or better. Data is produced to meet ASPRS Accuracy Standards for a 5 cm accuracy class defined in ASPRS Accuracy Standards Edition 2, Version 2 (2024)*
- ◆ *Bare-earth penetration and planimetric visibility are subject to vegetation and surface conditions.*
- ◆ *Planimetric mapping is limited to features visible in the aerial LiDAR and imagery.*
- ◆ *All areas to be surveyed are owned and operated by the Client. Access coordination to privately owned lands will be coordinated by the Client prior to mobilizing to the site.*
- ◆ *Pape-Dawson reserves the right to revise the project fees if, at any point during the project, there is a change in the project limits or scope of work.*

Notes:

- If any of the assumptions above prove to be incorrect, additional scope and fee may be required.*
- At the written request of the Client and after approval of a subsequent written Additional Service Request for the supplemental scope of work, Pape-Dawson can, if authorized, provide the Client with services additional to those scoped herein.*
These services can include, but are not limited to the following:

- *Planimetric Mapping – field verification*
- *Aerial Orthophotography*
- *Mobile LiDAR Acquisition and Processing*
- *Aerial LiDAR and Imagery Acquisition and processing additional areas to the one outlined above.*

VI. ROADWAY DESIGN - ROADWAY (FC 160 (160)) **\$374,100.00**

- The Engineer shall use the current versions of Bentley OpenRoads Designer at the time the task order is executed. However, the Owner may approve the use of other versions.
- The Engineer shall provide roadway plan and profile drawings. The drawings must consist of a planimetric file of existing features and files of the proposed improvements. The roadway base map must contain line work that depicts existing surface features. Existing and proposed right-of-way lines must be shown. Plan and Profile must be shown on separate or the same sheets (this depends upon the width of the pavement).
- The plan view must contain the following design elements:
 - Calculated roadway centerlines for mainlanes and cross streets. Horizontal control points must be shown. The alignments must be calculated using OpenRoads horizontal geometry tools.
 - Pavement edges for all improvements
 - Lane and pavement width dimensions.
 - Proposed structure locations, lengths, and widths.
 - Direction of traffic flow on all roadways. Lane lines and arrows indicating the number of lanes must also be shown.
 - Drawing scale shall be 1" = 50'
 - Control of access line, ROW lines, and easements.
 - Begin and end superelevation transitions and cross slope changes.
 - Limits of riprap.
 - Benchmark information.
 - Metal beam guard fence locations.
 - Radii call outs, curb location, Concrete Traffic Barrier (CTB), crash safety items, and American with Disabilities Act Accessibility Guidelines (ADAAG) compliance items.
 - Proposed ditch flowlines
- The profile view must contain the following design elements
 - Calculated profile grade for proposed roadway (cite direction). Vertical curve data, including "K" values, must be shown. The profiles must be calculated using OpenRoads vertical geometry tools.
 - Existing and proposed profiles along the proposed centerline of the mainlanes.
 - Drawing vertical scale to be 1" = 10'.
- The Engineer shall provide an intersection layout detailing the pavement grading design at the intersection of each cross street. The layout must include the horizontal and vertical alignments, curb returns, geometrics, transition length, stationing, pavement, and Americans with Disabilities Act Accessibility Guidelines (ADAAG) compliance items. The Engineer shall design for full

pavement width to the ROW and provide a transition to the existing roadway. The Engineer shall follow the Owner's Roundabout Policy, documenting and requesting Owner approval when roundabouts are not applicable.

- The Engineer shall prepare retaining wall plan and profile drawings. The drawings must consist of a planimetric file of existing features and files of the proposed improvements. Plan and Profile must be shown on the same sheet, at a horizontal scale of 1" = 20' and vertical scale of 1" = 10'. Retaining walls are assumed to be or Cast-In-Place (CIP) or Mechanically Stabilized Earth (MSE) walls.
- The Engineer shall prepare typical sections for all proposed and existing roadways and structures. Typical sections must include width of travel lanes, shoulders, outer separations, border widths, curb offsets, managed lanes, and ROW. The typical section must also include Proposed Profile Grade Line (PGL), centerline, pavement design, longitudinal joints, side slopes, sodding or seeding limits, concrete traffic barriers and sidewalks, if required, station limits, common proposed and existing structures including retaining walls, existing pavement removal, riprap, limits of embankment and excavation, etc.
- The Engineer shall develop an earthwork analysis to determine cut and fill quantities and provide final design cross sections at 100 feet intervals. Cross sections must be created from the 3D corridor model and must be delivered on 11"x17" sheets or roll plots and electronic files. The Engineer shall provide all templates and corridors used to generate the design cross sections. Cross sections and quantities must include existing pavement removals. Annotation shall include at a minimum existing and proposed ROW, side slopes (front & back), profiles, etc.
- The Engineer will develop fastest path analysis and sight distance analysis for the roundabout, including display on plan sheet.
- Profile will contain proposed ditch flowlines where required.

Deliverables

- The Engineer shall submit electronic files for each submittal at the Schematic, Preliminary PS&E, and Final PS&E.
- The Engineer shall also submit the current OpenRoads generated 3D corridor model for each submittal. The full list of deliverables is summarized here:
 - Plans – The Engineer shall provide the following items with the following submittals
 - Preliminary PS&E Submittal
 - Preliminary PS&E plan set
 - Includes plans for roadways, retaining walls, bridges, storm drains, signing, pavement markings, traffic control, illumination, SW3P, and utility layout.
 - Proposed cross sections
 - Electronic set for review
 - Estimate of construction cost
 - Marked up general notes
 - Construction Schedule

- List of governing Specifications and Special Provisions in addition to those required.
- Triple Zero Special Provisions.
- Temporary road closure letters.
- Engineer's internal QA and QC marked-up set.
- Other supporting documents.
- A detailed 3D corridor model, in the most current format, created using Bentley's OpenRoads tools, and with detail to verify the design of the preliminary PS&E plan sheets.
- Updated drainage report
- Utility conflict matrix
- Final PS&E Submittal
 - Final signed and sealed plan set
 - Includes plans for roadway, retaining wall, bridge, storm drain, signing, pavement markings, traffic control, illumination, SW3P, and utility layout.
 - Final proposed cross sections
 - Revised supporting documents from Preliminary PS&E review comments.
 - The final 3D corridor model, in its current format, was created using Bentley's OpenRoads tools.
 - A final 3D earthwork model in either XML or ICM format (as directed by the Owner) created using Bentley's OpenRoads tools.
 - A detailed 3D corridor model, in the most current format, created using Bentley's OpenRoads tools, and with detail to verify the design of the final plan sheets.
 - Final drainage report
 - Final utility conflict matrix

THIS TASK ASSUMES AND/OR EXCLUDES THE FOLLOWING:

- ◆ *Retaining wall design is included at the two (2) creek crossings*

VII. ROADWAY DESIGN – STORM DRAIN (FC 160 (161)) **\$353,340.00**

A. Storm Drain Sheet Development

For the Preliminary PS&E and Final PS&E submittals, the engineer will provide the following services:

- Prepare the PS&E package in accordance with the applicable requirements of the City of Pflugerville. Include the following sheets and documents:
 - Internal Drainage Area Data Sheets
 - Inlet Hydraulic Data Sheets
 - Conduit Hydraulic Data Sheets
 - Internal Drainage Area Sheets
 - Storm Drain Plan/Profile Sheets
 - Storm Drain Lateral Sheets
 - Detention Pond Layouts
 - Detention Pond Details
 - Drainage Standards and Details

- Identify areas requiring trench protection, excavation, shoring and dewatering.
- Prepare drainage area maps.
- Select any necessary standard details from the TxDOT or City of Pflugerville lists of standards for items such as inlets, manholes, junction boxes and end treatments.
- Prepare details for non-standard inlets, manholes and junction boxes.
- Prepare drainage details for outlet protection, outlet structures and utility accommodation structures.
- Identify pipe strength requirements.
- Prepare drainage facility quantity summaries.
- Identify potential utility conflicts and, if feasible, design to mitigate or avoid those identified conflicts.
- Consider pedestrian facilities, utility impacts, driveway grades, retaining wall and concrete traffic barrier drainage impacts.
- Identify existing ground elevation profiles at the ROW lines on storm sewer plan and profile sheets.
- Prepare Hydraulic Data Sheets for any bridge or cross drainage structures at the outfall channel and indicate site location (e.g., station and name of creek or bayou), if applicable.
- Develop layouts for the following:
 - Outfall channels within existing ROW.
 - Detention pond(s), associated outlet structures, and details

B. Storm Drain Modeling

The Engineer shall provide the following services:

- Design and analyze storm drains and drainage ditches using software as approved by the Owner.
- Size inlets, laterals, trunk line, and outfall. Develop designs that minimize the interference with the passage of traffic or incur damage to the highway and local property in accordance with the City of Pflugerville Engineering Design Manual and specific guidance provided by the Owner. Storm drain design software shall be selected as approved by the Owner
- Determine hydraulic grade line starting at the outfall channel for each storm drain design. Use the design event water surface elevation of the outfall as the starting basis (tailwater) for the design of the proposed storm sewer system.
- Calculate manhole head-losses. Compute manhole head losses as per FHWA's HEC-22.
- Limit discharge into existing storm drains and existing outfalls to the capacity of the existing system, which will be determined by the Engineer. Evaluate alternate flow routes or detention, if necessary, to relieve system overload.
- Determine the amount of the total detention storage to control storm drain runoff for the design frequency based on hydrograph routing for the 2-, 25-, and 100-year storm events, per City of Pflugerville Engineering Design Manual.

C. Detention Basin Modeling and Design

The Engineer shall provide the following services:

- Updated detention analysis based on preliminary study. Design max 2 detention ponds to reduce post-project flows for 2/25/100-year storm events (ponds and outlet controls).
- Design detention facilities and outlet control structures using PondPak or HEC-HMS model developed in schematic phase.
- Develop detailed detention basin layout design, and detailed design of outfall structures, berms, spillways, etc.

D. PS&E Drainage Report

The engineer shall include the following in the Preliminary PS&E and Final PS&E Drainage Report submittals:

- Detail the criteria, methods, data, and results of the analysis.
- Provide comparison of peak flows and runoff patterns (existing/proposed) 2-, 25-, and 100-year storm events at the proposed outfalls and crossing locations per City of Pflugerville Engineering Design Manual standards.
- Detail methods and data used for impact analysis to determine increases in peak flow rates for the 2-, 25-, and 100-year storm including: existing and proposed peak flow rates, mitigation analysis and routing of storm hydrographs through basins as needed.
- Provide existing and proposed conditions drainage area maps for each outfall from the project area and/or each cross-drainage structure location.
- Update preliminary drainage report and calculations based on City comments for final PS&E drainage report submittal.
- Detention basin calculations and sizing, if needed.

Deliverables

- Drainage Construction Plan Set
- Drainage Cost Estimate
- Drainage Report
- Electronic files including storm drain, cross-culvert, drainage ditch and basin models and associated data and calculations

THIS TASK ASSUMES AND/OR EXCLUDES THE FOLLOWING:

- ◆ *Sub-drainage areas are assumed to be smaller than 100 acres, therefore Rational Method will be used to analyze internal hydrology. Atlas 14 impacts will be reviewed and incorporated. Should any internal watershed be large enough to require analysis using NRCS method, an ASR will be needed.*
- ◆ *Water quality treatment is not required by the City of Pflugerville Engineering Design Manual. Since the project is over the Transition Zone of the Edwards Aquifer, water quality treatment is not required by TCEQ. Should water quality treatment design be requested by Owner, an ASR will be needed.*
- ◆ *TCEQ dam permitting for proposed detention ponds is not included. If site constraints and pond design result in requiring TCEQ permitting, additional services may be requested.*

VIII. ROADWAY DESIGN – SIGNING AND PAVEMENT MARKINGS FC 160 (162) \$78,610.00

A. Signing and Pavement Marking Design

- The Engineer shall prepare drawings, specifications, and details for all signs. The Engineer shall coordinate with the Owner (and other Engineers as required) for overall temporary, interim and final signing strategies and placement of signs outside contract limits. The Engineer shall:
 - Prepare sign detail sheets for large guide signs showing dimensions, lettering, shields, borders, corner radii, etc., and shall provide a summary of large and small signs to be removed, relocated, or replaced.
 - Designate the shields to be attached to guide signs.
 - Illustrate and number the proposed signs on plan sheets.
 - Select each sign foundation from State Standards.
- The Engineer shall detail both permanent and temporary pavement markings and channelization devices on plan sheets. The Engineer shall coordinate with the Owner (and other Engineers as required) for overall temporary, interim, and final pavement marking strategies. The Engineer shall select Pavement markings from the latest City or owner standards.
- The Engineer shall provide the following information on sign and pavement marking layouts:
 - Roadway layout.
 - Center line with station numbering.
 - Designation of arrow used on exit direction signs
 - Culverts and other structures that present a hazard to traffic.
 - Location of utilities.
 - Existing signs to remain, to be removed, to be relocated or replaced.
 - Proposed signs (illustrated, numbered and size).
 - Proposed markings (illustrated and quantified) which include pavement markings, object markings and delineation.
 - Quantities of existing pavement markings to be removed.
 - Proposed delineators, object markers, and mailboxes.
 - The number of lanes in each section of proposed roadway and the location of changes in numbers of lanes.
 - Right-of-way limits.
 - Direction of traffic flow on all roadways.

IX. ROADWAY DESIGN – MISCELLANEOUS (ROADWAY) FC 160 (163) \$235,800.00

A. Traffic Control Plan

- The Engineer shall prepare Traffic Control Plans (TCP) including TCP typical sections, for the project. A detailed TCP must be developed in accordance with the latest edition of the TMUTCD. The Engineer shall implement the current TXDOT Barricade and Construction (BC) standards and TCP standards as applicable. The Engineer shall interface and coordinate phases of work, including the TCP, with adjacent Engineers. The Engineer shall:

- Provide a written narrative of the construction sequencing and work activities per phase and determine the existing and proposed traffic control devices (regulatory signs, warning signs, guide signs, route markers, construction pavement markings, barricades, flag personnel, temporary traffic signals, etc.) to be used to handle traffic during each construction sequence. The Engineer shall show proposed traffic control devices at grade intersections during each construction phase (stop signs, flag person, signals, etc.). The Engineer shall show temporary roadways, ramps, structures, and detours required to maintain lane continuity throughout the construction phasing. If temporary shoring is required, prepare layouts, and show the limits on the applicable TCP.
- The Engineer shall assist the Owner in coordinating mitigation of impacts to adjacent schools, emergency vehicles, pedestrians, bicyclists, and neighborhoods.
- Develop each TCP to provide continuous, safe access to each adjacent property during all phases of construction and to preserve existing access. The Engineer shall notify the Owner in the event existing access must be eliminated and must receive approval from the Owner prior to any elimination of existing access.
- Design temporary drainage to replace existing drainage disturbed by construction activities or to drain detour pavement. The Engineer shall show horizontal and vertical location of culverts and required cross sectional area of culverts.
- Prepare each TCP in coordination with the Owner. The TCP must include interim signing for every phase of construction. Interim signing must include regulatory, warning, construction, route, and guide signs. The Engineer shall interface and coordinate phases of work, including the TCP, with adjacent Engineers, which are responsible for the preparation of the PS&E for adjacent projects.
- Maintain continuous access to abutting properties during all phases of the TCP. The Engineer shall develop a list of each abutting property along its alignment. The Engineer shall prepare exhibits for and attend meetings with the public, as requested by the Owner.
- Make every effort to prevent detours and utility relocations from extending beyond the proposed Right-of-way lines. If it is necessary to obtain additional permanent or temporary easements and Right-of-Entry, the Engineer shall notify the Owner in writing of the need and justification for such action. The Engineer shall identify and coordinate with all utility companies for relocations required.
- Describe the type of work to be performed for each phase of sequence of construction and any special instructions (e.g., storm drain, culverts, bridges, railing, illumination, signals, retaining walls, signing, paving surface sequencing or concrete placement, ROW restrictions, utilities, etc.) that the contractor should be made aware to include limits of construction, obliteration, and shifting or detouring of traffic prior to the proceeding phase.

- Include the work limits, the location of channelizing devices, positive barrier, location and direction of traffic, work area, stations, pavement markings, and other information deemed necessary for each phase of construction.
- Identify and delineate any outstanding ROW parcels.
- Delineate areas of wetlands on traffic control plans.
- Design the TCP phasing by creating a phased 3D corridor model.
- Road closures should be avoided. If a road closure is determined to be necessary a Detour Layout and estimated closure duration shall be provided to the Owner for approval.

B. Illumination

- The Engineer shall refer to TxDOT's Highway Illumination Manual and other deemed necessary Owner approved manuals for design of continuous lighting and safety lighting for all conventional, high-mast, and underpass lighting. The Engineer shall include safety lighting as part of each design on each flashing beacon and traffic signal. The Engineer shall provide a preliminary layout for initial review and approval by the Owner. The Engineer shall prepare circuit wiring diagrams showing the number of luminaries on each circuit, electrical conductors, length of runs, service pole assemblies. Underpass lighting must be used on all structures within each project. The Engineer shall integrate existing illumination within the project limits into the proposed design. The Engineer shall coordinate with the Owner to determine the location of proposed high-mast, conventional, and underpass lighting.
- Routes selected by Owner will install City approved, Dark Sky-compliant lighting with aesthetically pleasing poles per City code.

C. Storm Water Pollution Prevention Plans (SWP3)

- The Engineer shall develop SWP3, on separate sheets from (but in conformance with) the TCP, to minimize potential impact to receiving waterways. The SWP3 must include text describing the plan, quantities, type, phase and locations of erosion control devices and any required permanent erosion control. The SW3P sheets must also include blanks to indicate placement and removal dates of all BMPs within the plan.

D. Specifications and General Notes

- The Engineer shall identify necessary standard specifications, special specifications, special provisions, and the appropriate reference items. The Engineer shall prepare General Notes originating from the TxDOT Master List of General Notes, Special Specifications and Special Provisions for inclusion in the plans and bidding documents. In addition, the Engineer shall include applicable Owner general notes. The Engineer shall provide General Notes, Special Specifications and Special Provisions in native Microsoft Word format.

E. QAQC and Constructability Review

- The Engineer shall provide Independent Quality Review of the constructability of the Schematic and PS&E sets.
- The Engineer shall perform an internal QA/QC review to ensure deliverables meet company standards after each internal submittal in preparation for submittal of deliverables to the City
- The Engineer shall perform constructability reviews at major project design milestones (Schematic, Preliminary PS&E, and Final Schematic) to identify potential constructability issues and options that would provide substantial time savings during construction. The constructability review must be performed for all roadway and structural elements such as Sequence of Work and Traffic Control, Drainage (Temporary and Permanent), Storm Water Pollution Prevention Plan (SWP3), Environmental Permits, Issues and Commitments (EPIC) addressed, identify Utility conflicts; ensuring accuracy and appropriate use of Items, Quantities, General Notes, Standard and Special Specifications, Special Provisions, Contract Time/Schedule, Standards; and providing detailed comments in an approved format. The Engineer shall provide the results of all Constructability reviews and recommendations to the Owner at major project design milestone submittals.

X. DRAINAGE STUDY (FC 170 (170))

\$246,760.00

A. Bridge Hydrologic & Hydraulic Modeling – Design Flood Study

- Data Collection and Coordination
 - Perform one (1) site visit to observe field conditions.
 - Coordinate with City of Pflugerville floodplain administrator on drainage analysis solution.
 - Utilize data collected during schematic H&H analysis.
- Hydrologic and Hydraulic Analysis
 - Modify the best available HEC-RAS model for Unknown Tributary 1 of Wilbarger Creek (assumes 2023 LOMR) with updated topographic and hydrologic data. Model extents are assumed to be from Heritage Loop Trail to the confluence with Wilbarger Creek.
 - Perform detailed existing and ultimate hydraulic analysis and design for 100-year event for bridge and channel. Also include (2/5/10/25/50/500-year runs in accordance with FEMA CLOMR requirements). Assumes max 2 bridge/bridge class culvert options.
 - Perform non-rise/compensatory excavation analysis for the 100-year storm assuming Atlas 14 precipitation.
 - Perform cross-culvert design calculations using HY-8 and design energy dissipators if needed.
 - Updated schematic H&H/drainage report, including exhibits, to reflect proposed design.
 - Revise models and reports based on client review comments.

B. Conditional Letter of Map Revision (CLOMR)

- Data Collection and Coordination
 - Use the effective FEMA model for Wilbarger Creek develop duplicate effective, corrective effective, and proposed conditions models using HEC-HMS and HEC-RAS.
 - Prepare hydrologic information concerning storm water runoff rates in Wilbarger Creek in this area for the 2/5/10/25/50/100/500-year storm events.
 - Use HEC-RAS to perform hydraulic calculations for the various runoff rates for existing and proposed conditions.
 - Prepare forms required by FEMA.
 - Prepare the documents consisting of calculations, forms, and drawings, and submit to City of Pflugerville and FEMA for review.
 - Provide official notification of proposed floodplain changes in local newspaper or through individual notification letter.
 - FEMA CLOMR submittal fees and newspaper publication fees will be billed as a direct expense to the City.

C. CLOMR Review Coordination

- Monitor the CLOMR review by the City and FEMA, including response to comments.
- Assumes two (2) comment letters for each of the City and FEMA reviews.

D. Impact and Mitigation Analysis

- Perform existing and proposed hydrologic analysis for the 2-, 25-, and 100-year storm events for the drainage outfalls. This will be done by modifying the HMS model associated with the watershed if available, including updating precipitation data to Atlas 14, and updating land use data if needed, or preparing a new HMS model for the existing and proposed impacts.
- Prepare an impact analysis to determine increases in peak flow rates for the 100-year storm including: existing and proposed peak flow rates, mitigation analysis and routing of storm hydrographs through basins as needed.
- Engineer to evaluate existing HEC-HMS detention basin models within the watershed and incorporate existing models into design model.
- If needed, use HEC-HMS or PondPak to determine preliminary pond sizes, based on 100-year peak flows, with the intent of reducing post-project flows such that peak flows in Wilbarger Creek are at or below existing conditions.
- Engineer to develop conceptual detention basin layout and preliminary design of control structures. Conceptual layout is intended for sizing estimate and ROW acquisition determination; detailed basin design is not included in this scope.

E. Bridge Hydraulic and Channel Sheet Development

For the Preliminary PS&E and Final PS&E submittals the engineer will provide the following services:

- Perform channel and pier scour calculations

- Prepare the PS&E package in accordance with the applicable requirements of the City of Pflugerville. Include the following sheets and documents:
 - Bridge Hydraulic Data Sheets
 - Scour Sheets
 - Channel Grading Sheets

THIS TASK ASSUMES AND/OR EXCLUDES THE FOLLOWING:

- ◆ *LOMR are not included and would require an ASR if needed. ASR Fee is estimated around \$70,000*
- ◆ *As built (post project) survey of the project is not included*

XI. UTILITY COORDINATION (FC 180 (180)) \$44,460.00

A. Utility Relocation Coordination

Pape-Dawson shall provide utility coordination services in support of construction. Services shall include communication with utility providers, attendance at coordination meetings, and review of utility relocation information, as outlined below.

1. – Pre-Construction Utility Meetings

Attend up to four (4) pre-construction coordination meetings with utility providers. Each meeting is assumed to be approximately 0.5 hours in duration. The purpose of these meetings is to discuss existing site conditions and coordinate relocation construction activities.

2.– Monthly Utility Coordination During Construction

Attend utility coordination meetings during construction for a period of up to six (6) months to monitor utility construction progress. Meetings are assumed to occur monthly and last approximately 0.5 hours each.

3. – Utility Relocation Plan Review

Review up to four (4) utility relocation plans submitted by utility providers for general conformance with the project design, TAC, OSHA, and TCP concerns. Review comments will be provided to the City.

B. Utility Engineering

- Utility Base Map 2D
 - The Engineer shall obtain information on existing utilities from utility owners and shall conduct investigations to identify and evaluate all known existing and proposed public and private utilities. 2D utility base map to indicate SUE quality level of information.
- Utility Layout
- The Utility Engineer must maintain a sign and sealed utility layout in the current approved version of OpenRoads Civil Design system used by the City. This layout must include all existing utilities. The Utility Engineer must provide the City a Utility Conflict Matrix (UCM) with project information such as:
 - Identified conflicts
 - Pertinent information concerning their respective affected utilities and facilities, including but not limited to: size, number of poles, material,

and other information that readily identifies the utilities companies' facilities.

XII. WATER UTILITY REDESIGN (FC 180 (181)) **\$153,110.00**

Four (4) relocation areas for water have been identified in the following locations:

- One (1) location approximately 1,600 feet south of the intersection with E Pflugerville Parkway where the waterline crosses the proposed roadway extension north of the intersection with Pfennig Lane.
- Two (2) locations at the intersection of the roadway extension east of Pfennig Lane to relocate the connection point of four existing water mains. This is located approximately 700 feet east of the intersection with the existing Pfennig Lane.
- One (1) location at the proposed detention pond.
- Other locations where the existing waterline crosses the proposed roadway have explicitly been removed from the project per discussions with the Client.
- Design Services to include:
 - Coordination with the City of Pflugerville Project Manager, includes two (2) virtual meetings to discuss the preliminary and final PS&E design layouts and confirm the extent of utility conflicts.
 - Collect and review existing data and record drawings for the existing waterlines.
 - Preparation of engineering drawings for locations listed above.
 - Preparation of engineering specifications
 - Preparation of quantity estimates and engineer's cost estimation.
 - Submit notification and project details to the TCEQ
 - Submit permit application to the City of Pflugerville
 - Design will be to the Texas Commission on Environmental Quality (TCEQ) and the City of Pflugerville standards and details.

Deliverables:

- Engineering drawings of plan and profile of water line relocations, assumed drawings will consist of the relocations described above and does not include the installation of fire hydrants.
- Standard construction details based on City of Pflugerville requirements.
- Technical Specifications for water line relocation.
- Bid Item Quantities
- Engineer's Opinion of Probable Construction Cost.

THIS TASK ASSUMES AND/OR EXCLUDES THE FOLLOWING:

- ◆ *Assumes the water line relocations will not require a geotechnical report.*
- ◆ *Excludes environmental or cultural resource investigations*
- ◆ *Assumes no detailed flood studies are required*
- ◆ *Proposal excludes travel expenses*
- ◆ *Assumes design to be based strictly on TCEQ and the City of Pflugerville requirements.*
- ◆ *Excludes system modeling to determine systems capacity and pressure for the water lines.*

- ◆ *Excludes construction phase services.*
- ◆ *Assumes no wastewater redesign or relocation will be required*
- ◆ *Assumes that the diameter of the waterlines will be 16-inches in diameter or less*
- ◆ *Assumes that diameter of waterline will match the existing waterline diameter where the connection points are located.*

XIII. TRAFFIC DESIGN (FC 190 (190)) \$91,430.00

- A traffic signal warrant study will be performed in accordance with City of Pflugerville requirements for the following intersections. As part of the warrant study, 12-hour turning movement counts (TMC) or tube counts will be obtained at the intersections as noted below:
 - Proposed N/S Roadway at Pflugerville Parkway
 - Pfennig Lane at FM 685
 - E Pecan St at Pfennig Lane
- Perform an Origin-Destination (OD) analysis to evaluate existing travel patterns and redistribute existing traffic to proposed Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions based on the existing and future land use assumptions in the area.

Traffic data collection will be subcontracted and billed as a Direct Expense. An estimated budget of \$15,000.00 is anticipated and is not included in the lump sum fee.

- Conduct the traffic signal warrant analysis in accordance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD), based on existing and projected traffic volumes, crash history, field observations, and engineering judgment at the intersection of Pflugerville Parkway and Proposed N/S Roadway.
- Coordinate with the City's engineer for the FM 685 project to obtain relevant design information and confirm key assumptions for use in the traffic analysis. This scope includes up to two (2) coordination meetings and one (1) round of follow-up review based on information received.
- Recommend installation of a traffic signal if one or more TMUTCD warrant conditions are satisfied and, in the opinion of the engineer, signalization will improve intersection operations and/or safety. Final approval of signal installation remains at the discretion of the City of Pflugerville.
- Based on TxDOT's latest guidelines, a Stage 1 ICE (Intersection Control Evaluation) must be completed if signal warrants are met and signals are proposed. The Stage 1 ICE evaluation includes the following tasks:
 - Perform CAP-X analysis for AM and PM peak hours using CAP-X spreadsheets.
 - Perform safety evaluation using SPICE spreadsheet.
 - Update Traffic Signal Warrant study report with ICE results.
 - Address comments and submit Final report (One meeting with TxDOT is included to discuss our findings and expedite the review process).
- Additionally, the operational analysis of the proposed roundabout will be conducted using SIDRA. SIDRA analysis will be used for evaluating the

performance of the roundabout by estimating measures such as delay, queue lengths, capacity, and level of service. The analysis will help determine the most appropriate form of intersection control for future conditions and identify whether alternative intersection control, such as a roundabout, may provide improved operational performance.

- The traffic signal warrant, SIDRA, and ICE analysis, and the traffic counts and field data, along with our recommendations, will be summarized in a study report that documents our findings and recommendations. The report will be submitted to the City of Pflugerville.
- The design-phase effort for the above-mentioned intersections will depend on the City's approval of the preferred intersection control type. Therefore, this scope only includes costs for the conduit and ground box portions of traffic signal design work for the intersection of the new N/S road and Pflugerville Parkway.. Should the City decide to proceed with traffic signal(s) design, an Additional Services Request (ASR) will be submitted.
- This scope does not include analysis of intersections in the vicinity of the project location that are not specifically identified herein.

Deliverables:

- Traffic Study Report

THIS TASK ASSUMES AND/OR EXCLUDES THE FOLLOWING:

- ◆ *This scope accounts for only the traffic study of the following intersections.*
 - *Proposed Pfennig Lane at Future Urban Road*
 - *Proposed Split Oak Drive at Future Urban Road*
 - *Proposed Pfennig Lane at Pflugerville*
- ◆ *This scope does not include analysis of a roundabout at the N/S Roadway and Pflugerville Parkway.*
- ◆ *This scope does not include any coordination, approval, or review of analysis by TxDOT.*

XIV. GEOTECHNICAL SERVICES (FC 200 (200)) \$79,592.89

To be performed by Raba Kistner, Inc.

Geotechnical services for the proposed new roadway. RKI will perform the drilling, sampling, and develop pavement design recommendations and construction guidelines. Our scope of work includes the following:

- Drill 9 pavement borings spaced approximately 750~1,000 ft apart along the proposed project alignment to a target depth of 15 ft below the existing ground surface.
- Drill five (5) bridge borings to a target depth of 60 ft below the existing ground surface.

A. Field Sampling and Laboratory Testing

- Develop soil-boring layout for approval prior to mobilization. Dynamic Cone Penetrometer (DCP) testing will be conducted near the pavement the pavement borings. DCP testing will be performed to depths of up to 24 inches below existing ground surface.

- RK will stake the borings in the field utilizing tape and right angle measurements from existing benchmarks, or using a commercial-grade GPS device (does not include surveying of boring locations and assumes surveyor will stake roadway alignment);
- RK anticipates the need for limited brush clearing to access some boring locations prior to drilling operations. We assume up to 1 day of brush clearing to be necessary for site access.
- As part of our standard operating procedures, we will perform One Call (Texas811) utility locate requests. We will also call a private Site Utility Locator to confirm the absence of utilities at select locations.
- RK will perform appropriate laboratory tests on soil samples recovered from the geotechnical borings. Laboratory testing will include but not limited to moisture content, liquid limit, plastic limit, particle size analysis tests, visual classification, dry density, sulfate concentration, organic testing, Moisture Density Relationship (Tex-114-E), Triaxial Compression of Disturbed Soil (Tex-117-E), and Lime Series (Tex-121-E Part III). See attached estimate sheet for quantities.

B. Geotechnical Engineering Report

RK will prepare a Geotechnical Engineering Report for the project reviewed and sealed by a professional geotechnical engineer licensed in the State of Texas. The following items will be included in the report:

- A summary of the field and laboratory sampling and testing program;
- Boring logs and laboratory testing results;
- A review of general site conditions including descriptions of the site, the subsurface stratigraphy, groundwater conditions, and the presence and condition of fill materials, if encountered;
- Estimated Potential Vertical Rise (PVR) using an empirical method developed by the Texas Department of Transportation;
- Drilled pier capacity curves and lateral earth pressures for the bridge structures;
- Flexible pavement design recommendations (3 options) and construction guidelines, to include: subgrade stabilization utilizing lime and flexible base layer; full depth asphalt section; driveway section; temporary full depth asphalt pavement section. Pavement design will be provided using TxDOT FPS 21 software; and
- Rigid pavement design recommendations (1 option) and construction guidelines utilizing approved TxDOT approved Pavement Designer software.

A draft report will be provided for comment. Once comments are received and addressed, the final report will be produced as a PDF and will be provided electronically via email.

Tentative Project Schedule

Raba Kistner anticipates that we could begin the field exploration phase of this study within 12 to 15 working days of receiving your written authorization, provided

the site is accessible to our truck-mounted drill rigs. The field exploration and laboratory-testing phase of the study is generally expected to take approximately 20 to 35 working days to complete, depending on weather and site access. Engineering analyses and preparation of the draft engineering report is expected to take an additional four to five weeks to complete. We will be pleased to provide the design team with verbal design information as the data becomes available.

XV. STRUCTURAL ENGINEERING SERVICES (FC 300 (300)) **\$352,196.00**

To be performed by Structural Engineering Associates, Inc. A JMT Division

SEA's scope includes two (2) bridges:

- The north bridge is approximately 97' wide x 590' long with six spans, a median, shared use path, and sidewalk.
- The south bridge is approximately 97' wide x 330' long with three spans, a median, shared use path, and sidewalk.
- TxGirders will be used for both bridges.
- Phasing for bridge construction is not required.

A. Schematic Phase

- Provide preliminary bridge span arrangement and preliminary bridge design for two (2) proposed bridges. Construction cost estimate will be provided.

B. PS&E Design Phase

- Calculations and construction plans signed and sealed by a state of Texas registered engineer will be provided for both bridges. Estimated quantities and construction cost estimates will be provided.

THIS TASK ASSUMES AND/OR EXCLUDES THE FOLLOWING:

- ◆ *Once the bridge layouts are approved, the bridge configuration will not change significantly.*
- ◆ *The design will be in accordance with TxDOT Methodology. TxDOT standards will be utilized to the fullest extent possible, including the use of standard TxDOT rails.*
- ◆ *The proposed north bridge will be on a horizontal curve and will have no flared spans.*
- ◆ *The proposed south bridge will be on a horizontal curve and will have no flared spans.*
- ◆ *The bridge will be constructed using drilled shaft foundations and will not require aesthetic treatment.*
- ◆ *All bid documents other than structural plans and associated technical specs will be by others.*
- ◆ *No utilities will be supported by the bridge. Any conflicting utilities will be relocated.*
- ◆ *SEA will be provided:*
 - *Obstruction locations and details*
 - *Base map file with survey data*
 - *Horizontal and vertical alignment data for the bridge*
 - *All base files and reference files in MicroStation format*

- *Scour analysis results, any bridge, and any scour protection design and details*
- *Riprap limits, design, and details*
- *Bridge hydraulic design data (HWL, Q and V)*
- *Termination details of the bridge railing*
- ◆ *Design and detailing of lighting, light poles and conduit is not included. TxDOT standard concrete light pole support bracket will be used (if needed).*
- ◆ *Others to make all required submittals including TDLR and pay required fees. Application for and acquisition of permits by others.*
- ◆ *Water on the bridge deck may drain directly to the creek.*
- ◆ *Design of temporary structures (such as formwork, falsework, special shoring, and walls) is not included.*
- ◆ *Materials specifications will be TxDOT's Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges.*
- ◆ *Contractor to provide marked-up plans, upon which record plans will be based.*
- ◆ *Observation of the fabrication of structural items at fabrication plant is not included.*
- ◆ *Geotechnical engineer will provide necessary drilled shaft design criteria and observe construction of the first drilled shaft.*
- ◆ *Materials testing firm to review/approve concrete mix designs/provide all material testing.*
- ◆ *Review or preparation of repair details for construction errors is not included.*
- ◆ *3D bridge models are not required.*
- ◆ *Retaining wall design is not included*

XVI. SUBSURFACE UTILITY ENGINEERING (FC 400 (400))

\$63,215.96

To be performed by The Rios Group, Inc.

TRG will perform SUE services for this project in general accordance with the recommended practices and procedures described in ASCE publication ASCE/UESI/CI 38-22 "Standard Guideline for Investigating and Documenting Existing Utilities".

The scope of this proposal includes QLB and QLA SUE services. To Include:

In general, QLB SUE services are requested within the limits of the Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions. QLB SUE services provided will be inclusive of QLC and QLD.

A. QLB SUE Services

- Any necessary Right-Of-Entry (ROE) permits and access to the site will be provided by the Client prior to the start of field work.
- TRG will perform records research and acquire available existing utility records within the project limits. This will include contacting the applicable One Call agency and associated utility owners/municipalities to request records and reviewing available utility record information obtained.
- TRG will attempt to designate the following utilities within this area: potable water, reclaimed water, chilled water, traffic signal cables, street lighting,

TxDOT CTMS cables, natural gas/crude oil/refined product pipelines, communication duct banks, fiber optic, cable television, telephone, and electric.

- Wastewater and storm drain facilities will be inverted at manholes, and will be depicted as QLC information.
- TRG will attempt to designate utility service lines, however, because these lines are often non-conductive and not shown on records TRG cannot guarantee all service lines will be included in the final deliverables.
- TRG will prepare an overhead utility inventory and survey utility poles associated with connection points.
- The following facilities/items are specifically excluded from the scope of work of this proposal: private service lines, irrigation lines, detailed vault investigations.
- TRG will attempt to provide Electronic Depth readings calculated by TRG's geophysical equipment. If Electronic Depth readings can be obtained, they will be provided every 50 feet. However, due to the inconsistency with Electronic Depth readings, TRG cannot guarantee the accuracy of the information. Data will be provided for informational purposes only.

B. QLA SUE Services

This proposal also includes up to eighteen (18) QLA SUE test holes at locations that will be provided by the Client following a review of the QLB SUE information. TRG has made the following assumptions related to test hole excavations on this project:

- Test holes will be excavated using vacuum excavation equipment.
All test holes will be accessible to truck/trailer-mounted vacuum excavation equipment. Any improvements required to access test hole locations (clearing, grading, mat installation, etc.) will be provided by others at no cost to TRG).
- Right-Of-Way (ROW) permits from the City of Pflugerville (City) will be required. TRG will obtain all required City permits and ensure that coordination and compliance with the City is provided.
- Designed traffic control plans will not be required.
- Traffic control measures will not be required.
- Pavement coring/repair will not be required.
- The following items are specifically excluded from this scope of work: flowable fill for backfill of test holes, full-section pavement repair (including sidewalks)
- Due to the risk of damage, TRG will not attempt to probe or excavate test holes on AC water lines unless approval is obtained from the owner in advance.
- Excavation in rock, or to a depth greater than 18 feet, is considered beyond the scope of this proposal.

The survey of SUE field markings and test hole locations is also included in this scope of work. Client will provide the necessary survey control information in close proximity to the work area.

Deliverables

TRG will provide the following as a final deliverable to the Client:

- A utility file in CAD format depicting all SUE data documented on the project. The Client will provide TRG with any necessary background files for use in completing the final deliverables.
- A summary sheet of all test hole coordinate data and depth information.
- 8.5" x 11" Test Hole Data Forms for all test hole locations completed. These forms will be signed and sealed by a Professional Engineer and delivered to the Client in electronic PDF form.
- 11" x 17" SUE Plan Sheets depicting all SUE data documented on the project. These plans will be signed and sealed by a Professional Engineer and delivered to the Client in electronic PDF form.
- A Utility Report containing metadata (e.g. scope of work, work limits, dates of performance, survey control, etc.), information about the Utility Investigation not otherwise conveyed in other project deliverables, and recommendations to address data deficiencies.

XVII. BID PHASE SERVICES (FC 800 (800)) \$63,184.00

- Prepare agenda and lead pre bid meeting. Provide pre-bid meeting minutes
- Respond to contractor's questions during bidding process
- Prepare and issue addendums to address contractor questions
- Facilitate bid opening
- Prepare bid tab and check calculations
- Check contractor references
- Prepare recommendation of award
- Attend stakeholder meetings (3 in person meetings assumed)

A. Bid Phase – Structural Engineering Services

To be performed by Structural Engineering Associates, Inc. A JMT Division

Participation in pre-bid and pre-construction meetings will be provided. Responses to contractor questions will be provided.

XVIII. CONSTRUCTION PHASE SERVICES (FC 900 (900)) \$138,952.00

A. Construction Phase – Structural Engineering Services

To be performed by Structural Engineering Associates, Inc. A JMT Division

Observation of major construction activities, review of structural shop plans, and response to structural RFIs will be provided. A substantial and final punch list will be provided as well as structural record plans.

B. Construction Phase Engineering Services

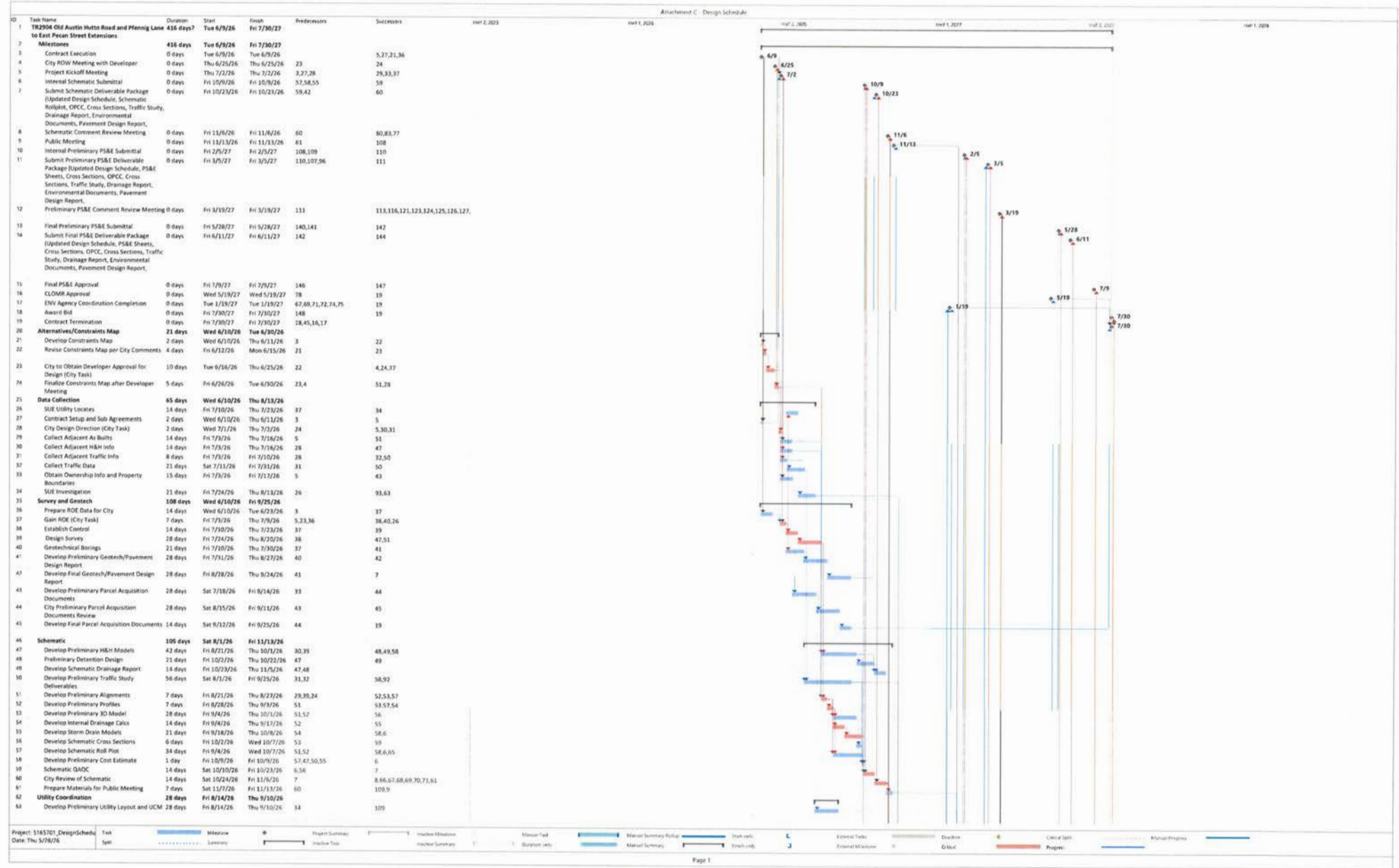
The Engineer shall provide Construction Phase Services at the written request of the Owner's Project Manager. The written request must include a description of the work requested, a mutually agreed upon time limit, and any special instructions for coordination and submittal. These services shall include the following:

1. Prepare monthly invoices and monthly progress reports during the construction phase. The scope of work in this supplemental work authorization for this task is for an anticipated roadway construction duration of 16 months.
2. Attend preconstruction meeting.
3. Attend bi-weekly construction progress meetings (assumed virtual one hour meetings, not to exceed 32 meetings). Agenda and meeting minutes are included in this scope of work.
4. Attend field meetings and make visits to site. (10 site visits assumed, additional site visits may be considered an additional expense)
5. Calculate quantities and assist the Owner in preparing change orders.
6. Review and approval of shop drawings.
7. Responding to requests for information (RFIs). Assume approximately six (6) hours per RFI.
8. Providing minor redesign (major redesign should be handled with a contract supplement), which will include changes to the affected plan sheets.
9. Answering general questions
10. Providing clarification.
11. Construction phase services outside of those listed can be provided by supplemental agreement.

C. Construction Phase – Structural Engineering Services

To be performed by Structural Engineering Associates, Inc. A JMT Division

Observation of major construction activities, review of structural shop plans, and response to structural RFIs will be provided. A substantial and final punch list will be provided as well as structural record plans.



[illegible]

Attachment C: Design Schedule

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	10/1/2025	10/1/2026	10/1/2027	10/1/2028
141	Prepare Internal QA/QC Deliverable	7 days	Sat 5/22/27	Fri 5/28/27	128,129,130,131,132,133,137,13					
142	QA/QC Final PS&E Deliverables	14 days	Sat 5/29/27	Fri 6/11/27	13	14				
143	Bid Phase Services	49 days	Sat 6/12/27	Fri 7/30/27						
144	City Final Deliverable Package Review	14 days	Sat 6/12/27	Fri 6/25/27	14	145				
145	Final Design Comment Review Coordination	7 days	Sat 6/26/27	Fri 7/2/27	144	146				
146	Address Final PS&E Comments	7 days	Sat 7/3/27	Fri 7/9/27	145	15				
147	Bid Phase	14 days	Sat 7/10/27	Fri 7/23/27	15	148				
148	Project Award and NTP	7 days	Sat 7/24/27	Fri 7/30/27	147	18				



Project: 5165701_DesignSchedule
Date: Thu 5/8/26

Task	Milestone	Project Summary	Manual Task	Manual Summary Rolling	Start only	End only	External Task	External Milestone	Baseline	Critical Path	Manual Progress
Split	Summary	Inactive Task	Duration only	Manual Summary	Start only	End only	Baseline	Critical	Project	Manual Progress	



PAPE-DAWSON

ATTACHMENT D PREFERRED PROJECT LAYOUT

EXHIBIT B

Compensation Schedule

EXHIBIT B

Compensation Schedule

We will perform the services described in Attachment B for the following fees:

I.	Managing Contracted/Donated PE	FC 100 (100)	\$294,580.00
II.	Schematic Development	FC 110 (110)	\$384,940.00
III.	Environmental Compliance	FC 120 (120)	\$60,160.00
IV.	Design Survey & Supplemental Topographic	FC 150 (150)	\$110,295.00
V.	Geospatial Mapping	FC 151 (151)	\$67,305.00
VI.	Roadway Design - Roadway	FC 160 (160)	\$374,100.00
VII.	Roadway Design – Storm Drain	FC 160 (161)	\$353,340.00
VIII.	Roadway Design – Signing, Pavement Markings, and Signalization	FC 160 (162)	\$78,610.00
IX.	Roadway Design – Miscellaneous (Roadway)	FC 160 (163)	\$235,800.00
X.	Drainage Study	FC 170 (170)	\$246,760.00
XI.	Utility Coordination	FC 180 (180)	\$44,460.00
XII.	Water Utility Redesign	FC 180 (181)	\$153,110.00
XIII.	Traffic Design	FC 190 (190)	\$91,430.00
XIV.	Geotechnical Services (Raba Kistner, Inc.)	FC 200 (200)	\$79,592.89
XV.	Structural Design Services (JMT)	FC 300 (300)	\$352,196.00
XVI.	Subsurface Utility Engineering (The Rios Group, Inc.)	FC 400 (400)	\$63,215.96
XVII.	Bid Phase Services	FC 800 (800)	\$63,184.00
XVIII.	Construction Phase Services (5% of Standard Design Fee)	FC 900 (900)	\$138,952.00
XIX.	Other Direct Expenses		\$27,442.50
Project Total:			\$3,219,473.35

See attached fee schedule for a detailed breakdown of costs for each Task. This project will be billed on lump sum percent complete basis. A progress report will be submitted with each invoice.

City of Pflugerville
TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions
Compensation Schedule for Professional Services

PRIME PROVIDER: Pape-Dawson Consulting Engineers, LLC

PROJECT NAME: TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions

PROJECT LIMITS: East of FM 685 to East Pecan Street

TASK DESCRIPTION	Pape-Dawson Consulting Engineers, LLC	Raba Kistner, Inc.	Structural Engineering Associates, Inc. A JMT Division	The Rios Group, Inc.	TOTAL COSTS BY FC
MANAGING CONTRACTED/DONATED PE (FC 100 (100))	\$ 294,580.00				\$ 294,580.00
SCHEMATIC DEVELOPMENT (FC 110 (110))	\$ 384,940.00				\$ 384,940.00
ENVIRONMENTAL COMPLIANCE (FC 120 (120))	\$ 60,160.00				\$ 60,160.00
DESIGN SURVEY & SUPPLEMENTAL TOPOGRAPHIC (FC 150 (150))	\$ 110,295.00				\$ 110,295.00
GEOSPATIAL MAPPING (FC 151 (151))	\$ 67,305.00				\$ 67,305.00
ROADWAY DESIGN - ROADWAY (FC 160 (160))	\$ 374,100.00				\$ 374,100.00
ROADWAY DESIGN - STORM DRAIN (FC 160 (161))	\$ 353,340.00				\$ 353,340.00
ROADWAY DESIGN - SIGNING AND PAVEMENT MARKINGS (FC 160 (162))	\$ 78,610.00				\$ 78,610.00
ROADWAY DESIGN - MISCELLANEOUS (ROADWAY) (FC 160 (163))	\$ 235,800.00				\$ 235,800.00
DRAINAGE STUDY (FC 170 (170))	\$ 246,760.00				\$ 246,760.00
UTILITY COORDINATION (FC 180 (180))	\$ 44,460.00				\$ 44,460.00
WATER UTILITY REDESIGN (FC 180 (181))	\$ 153,110.00				\$ 153,110.00
TRAFFIC DESIGN (FC 190 (190))	\$ 91,430.00				\$ 91,430.00
GEOTECHNICAL SERVICES (FC 200 (200))		\$ 40,091.94			\$ 40,091.94
STRUCTURAL ENGINEERING SERVICES (FC 300 (300))			\$ 352,196.00		\$ 352,196.00
SUBSURFACE UTILITY ENGINEERING (FC 400 (400))				\$ 11,095.96	\$ 11,095.96
BID PHASE SERVICES	\$ 56,140.00		\$ 7,044.00		\$ 63,184.00
CONSTRUCTION PHASE SERVICES	\$ 99,440.00		\$ 39,512.00		\$ 138,952.00
SUBTOTAL LABOR EXPENSES	\$ 2,650,470.00	\$ 40,091.94	\$ 398,752.00	\$ 11,095.96	\$ 3,100,409.90
DIRECT EXPENSES	\$ 27,442.50	\$ 2,400.00	\$ -	\$ 10,400.00	\$ 40,242.50
UNIT COST EXPENSES	\$ -	\$ 37,100.95	\$ -	\$ 41,720.00	\$ 78,820.95
TOTAL	\$ 2,677,912.50	\$ 79,592.89	\$ 398,752.00	\$ 63,215.96	\$ 3,219,473.35
SUMMARY					
TOTAL LABOR COSTS FOR PRIME PROVIDER	\$2,650,470.00	\$2,650,470.00			
NON-SALARY (OTHER DIRECT EXPENSES) FOR PRIME PROVIDER	\$27,442.50	\$27,442.50			
SUBCONTRACTS (includes labor costs, direct expenses and unit cost)	\$541,560.85	\$541,560.85			
GRAND TOTAL: \$	3,219,473.35				

ME PROVIDER: Pape-Dawson Consulting Engineers, LLC

City of Pflugerville
TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions
Compensation Schedule for Professional Services

JECT NAME: TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions

JECT LIMITS: East of FM 685 to East Pecan Street

TASKS	Vice President	Associate Vice President	Senior Project Manager	Project Manager	Senior Project Engineer	Project Engineer	EIT	Technician	Client Services Manager	Admin / Clerical	Survey Manager	Project Surveyor	S.I.T. / Survey Technician	Survey Crew (2 person)	Sr. Env Scientist / Biologist / Archeologist	Project Env Scientist / Biologist / Archeologist	Staff Env Scientist / Biologist / Archeologist	TOTAL HOURS	TOTAL COST
100 (100) Managing Contract/Donated PE	\$390.00	\$380.00	\$315.00	\$240.00	\$230.00	\$200.00	\$160.00	\$135.00	\$350.00	\$140.00	\$290.00	\$275.00	\$160.00	\$230.00	\$250.00	\$160.00	\$120.00		
ject Management and Administration																			
Develop contract documents	4			24						8								36	\$ 8,440.
Support City with Developer ROW Meeting				16		16	40											72	\$ 13,440.
Prepare monthly progress reports (14 months)				13						10								23	\$ 4,520.
Prepare monthly invoices				13						14								27	\$ 5,080.
Develop project baseline schedule (14 months)	4			16														20	\$ 5,400.
Update monthly schedule and address monthly schedule comments (12 months)				28														28	\$ 6,720.
Project coordination and administration (Schematic Phase, 5 months)	8			92														100	\$ 25,200.
Project coordination and administration (PS&E Phase, 7 months)	24			160														164	\$ 47,760.
Coordination with developers	24			104														128	\$ 34,320.
Meet bi-weekly with City and provide meeting minutes (12 months)	22			22														44	\$ 13,860.
Subconsultant Coordination	10			72														82	\$ 21,180.
Weekly Design Review Coordination	10			108														118	\$ 29,820.
Conduct weekly internal design meetings (Schematic Phase, 5 months)	10			56		22	10											98	\$ 23,340.
Conduct weekly internal design meetings (PS&E Phase, 7 months)	16			98		22	10											144	\$ 35,280.
Kickoff, Preliminary Schematic, and Preliminary PS&E Design Review Meetings	9			9	9													27	\$ 7,740.
Prepare materials for public meeting (1 meeting assumed)				40														40	\$ 9,600.
Attend Public meeting (1 meeting assumed)				12														12	\$ 2,880.
BTOTAL	141			881	9	60	60			32								1,183	\$ 294,580.
110 (110) Schematic Development																			
straints Map																			
Prepare Constraints Map				4		22	28											55	\$ 10,000.
Finalize Constraints Map				4		22	28											54	\$ 9,840.
																			\$ -
a Collection																			\$ -
Perform Records Research to Obtain Necessary Existing Information				4		8												12	\$ 2,560.
Conduct Field Investigation of Proposed Alignment and Surrounding Areas to Determine Field Conditions Including Photographic Record of Notable Existing Features				4		4												8	\$ 1,760.
Conduct Field Investigation of Existing Drainage Facilities Within Project Drainage Basin (2 visits assumed)				4		4	4											12	\$ 2,400.
Review Data Collected and Organize the Information				2		4	8											14	\$ 2,560.
																			\$ -
ematic (Roadway)																			\$ -
Develop Typical Sections				4		12	12											28	\$ 5,280.
Develop Proposed Schematic Plan View				10		24	40	40										114	\$ 19,000.
Develop Proposed Schematic Profile View				8		24	40	20										92	\$ 15,820.
Develop Horizontal and Vertical Geometry for Old Austin Hutto Rd				8		24	12											44	\$ 8,840.
Develop Horizontal and Vertical Geometry for Pfennig Ln (N-S)				24		24	24											72	\$ 14,400.
Develop Horizontal and Vertical Geometry for Pfennig Ln (E-W)				8		24	12											44	\$ 8,840.
Develop 3D Corridor Model for Old Austin Hutto Rd				4		32	40											76	\$ 13,760.
Develop 3D Corridor Model for Pfennig Ln (N-S)				12		32	48											92	\$ 16,960.
Develop 3D Corridor Model for Pfennig Ln (E-W)				4		32	40											76	\$ 13,760.
Intersection 3D Modeling				10		24	40	32										108	\$ 17,920.
Roundabout 3D Modeling				4		12	40	40										96	\$ 15,160.
Develop Horizontal and Vertical Geometry for Sidestreets and Driveways				4		12	12											28	\$ 5,280.
Develop Corridor 3D Model for Sidestreets and Driveways				4		12	20											36	\$ 6,560.
Develop Cross Sections				8		24	48	64										144	\$ 23,040.
Develop Quantities for Schematic Cost Estimate (Roadway)				8		24	40											72	\$ 13,120.
																			\$ -
ematic (Roadway - Drainage)																			\$ -
Develop Internal Hydrologic Analysis - Rational Method				16		24	40											80	\$ 15,040.
Develop Ditch Calculations and Models for Schematic				16		40	40											96	\$ 18,240.
Develop estimated internal inlet spacing for proposed roadway conditions in Schematic				16		40	40											96	\$ 18,240.
Develop estimated storm drain conduits for Schematic				12		40	40											92	\$ 17,280.
Develop Existing Storm Drain Models for Infrastructure Tying into Project				4		24	40											68	\$ 12,160.
Adjust Internal Hydrologic Analysis after coordination with Roadway Team				12		32	32											76	\$ 14,400.
Adjust Ditch Calculations and Models after Coordination with Roadway Team				8		20	20											48	\$ 9,120.
Adjust Inlet Design after Coordination with Roadway Team				12		24	40											76	\$ 14,080.
Adjust Storm Drain Conduits after Coordination with Roadway Team				6		20	20											46	\$ 8,640.
Develop Schematic Drainage Report				8		40	24											72	\$ 13,760.
Add Culverts and Preliminary Storm Drains to Schematic				4		24	24											52	\$ 9,600.
Add Detention Pond Plans and Details to Schematic				1		8	8											17	\$ 3,120.
Develop Quantities for Schematic Cost Estimate (Drainage)				8		8	8											24	\$ 4,800.
BTOTAL				265		744	913	196										2,118	\$ 384,940.

City of Pflugerville
TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions
Compensation Schedule for Professional Services

OBJECT NAME: TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions
OBJECT LIMITS: East of FM 985 to East Pecan Street

TASKS		Vice President	Associate Vice President	Senior Project Manager	Senior Project Engineer	Project Engineer	EIT	Technician	Client Services Manager	Admin / Clerical	Survey Manager	Project Surveyor	S.I.T. / Survey Technician	Survey Crew (2 person)	Sr. Env Scientist / Biologist / Archeologist	Project Env Scientist / Biologist / Archeologist	Staff Env Scientist / Biologist / Archeologist	TOTAL HOURS	TOTAL COST	
		\$390.00	\$380.00	\$315.00	\$240.00	\$230.00	\$200.00	\$160.00	\$135.00	\$350.00	\$140.00	\$290.00	\$275.00	\$160.00	\$230.00	\$250.00	\$160.00	\$120.00		
120 (120)	Environmental Compliance																			
Environmental Compliance																				
Environmental Design Coordination / Meetings		8			34											8			50	\$ 12,560.
Endangered Species Act Compliance																				\$ -
Endangered Species Habitat Assessment		4			4					1						20	20	49	\$ 8,260.	
Endangered Species Act Compliance Letter / "Take" Assessment		4			4					1						14	20	43	\$ 7,300.	
Section 404 Clean Water Act Compliance																				\$ -
Jurisdictional Waters Delineation Report		4			8					1						40	40	93	\$ 14,820.	
Waters of the US Impact Analysis Memo		4			4					1							8	17	\$ 3,620.	
Cultural Resource Regulatory Compliance																				\$ -
Agency Consultation Letter		2			2					1					8	12	12	37	\$ 6,760.	
Phase I Environmental Site Assessment		2			8					1						10	20	41	\$ 8,840.	
BTOTAL		28			64					6					8	104	120	330	\$ 60,160.	
150 (150)	Design Survey & Supplemental Topographic																			
ht of Way Data																				
Perform field survey to recover boundary and Right-of-Way monumentation												1	2	40				43	\$ 9,795.	
Resolve adjoining Rights-of-Way and affected boundary											1	5	3					9	\$ 2,145.	
																				\$ -
sign Survey																				\$ -
Prepare Right-of-Entry (ROE) Letters (4 assumed)											1	4	8					13	\$ 2,670.	
Establish aerial control panels (16 aerial targets and 38 ground truthing points)											2	8	16	70				96	\$ 21,440.	
Design survey and supplemental topo											10	30	50	70				160	\$ 35,250.	
Primary Control (6 estimated)											2	4	10	30				46	\$ 10,180.	
Prepare ROW Parcels (1 affected landowner estimated)						80					4	4	15	10				113	\$ 22,960.	
Prepare control point sheets											2	5	10	10				27	\$ 5,855.	
BTOTAL						80					22	61	114	230				507	\$ 110,295.	
151 (151)	Geospatial Mapping																			
LIDAR Prep and Planning		1		1									16					18	\$ 3,180.	
LIDAR Acquisition													24					24	\$ 3,840.	
LIDAR Processing and Calibration		2		2									14					18	\$ 3,400.	
LIDAR Post Processing		1		1									47					49	\$ 8,140.	
LIDAR Feature Extraction		1		1									24					26	\$ 4,460.	
Deliverable		1		1									36					38	\$ 6,380.	
QA/QC		4		15									5					24	\$ 5,920.	
Admin and coordination		3		5									7					15	\$ 3,460.	
Ortho Production				2									8					10	\$ 1,760.	
Supplemental topo											8	15	30	70				121	\$ 26,765.	
BTOTAL		13		28							6	15	211	70				343	\$ 67,305.	
160 (160)	Roadway Design - Roadway																			
rdway Sheet Development																				
Title Sheet					2	4	12	6										24	\$ 4,010.	
Index Sheet					2	4	24	24										54	\$ 8,360.	
General Notes					2	12	12	4										30	\$ 5,340.	
Typical Section Sheets					8	24	40	24										96	\$ 16,360.	
Horizontal Alignment Data Sheets					2	4	12	12										30	\$ 4,820.	
Removal Sheets					4	12	40	40										96	\$ 15,160.	
Develop Pfennig Ln (N-S) P&P Sheets for Preliminary PS&E					8	24	40	40										112	\$ 18,520.	
Update Pfennig Ln (N-S) P&P Sheets for Final PS&E					4	24	40	40										108	\$ 17,560.	
Develop Pfennig Ln (E-W) P&P Sheets for Preliminary PS&E					8	24	40	40										112	\$ 18,520.	
Update Pfennig Ln (E-W) P&P Sheets for Final PS&E					4	16	24	24										68	\$ 11,240.	
Develop Old Austin Hutto Rd P&P Sheets for Preliminary PS&E					8	24	40	40										112	\$ 18,520.	
Update Old Austin Hutto Rd P&P Sheets for Final PS&E					4	16	24	24										68	\$ 11,240.	
Develop Roundabout Grading Sheets For Preliminary PS&E					4	16	30	30										80	\$ 13,010.	
Update Roundabout Grading Sheets for Final PS&E					2	4	12	12										30	\$ 4,820.	
Develop and Update Grading Sheets for Pfennig Ln (E-W) Intersection Upgrades					4	16	24	16										60	\$ 10,160.	
Develop and Update E Pflugerville Parkway Intersection Grading Sheets					4	16	24	16										60	\$ 10,160.	
Develop and Update Retaining Wall Plan and Profile Sheets					4	32	40	64										140	\$ 22,400.	
Misc Roadway Detail Sheets					4	16	24	24										68	\$ 11,240.	
Standards (Roadway)					4	12	12	12										40	\$ 6,900.	
Update Cross Sections for Preliminary PS&E					4	20	40	40										104	\$ 16,760.	
Update Cross Sections for Final PS&E					4	12	20	20										56	\$ 9,260.	
Develop Quantities and Summaries for Preliminary PS&E (Roadway)					8	24	40	20										92	\$ 15,820.	
Update Quantities and Summaries for Final PS&E (Roadway)					4	12	20	8										44	\$ 7,640.	
																				\$ -

ME PROVIDER: Pape-Dawson Consulting Engineers, LLC

City of Pflugerville
TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions
Compensation Schedule for Professional Services

OBJECT NAME: TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions
OBJECT LIMITS: East of FM 685 to East Pecan Street

TASKS	Vice President	Associate Vice President	Senior Project Manager	Project Manager	Senior Project Engineer	Project Engineer	EIT	Technician	Client Services Manager	Admin / Clerical	Survey Manager	Project Surveyor	S.I.T. / Survey Technician	Survey Crew (2 person)	Sr. Env Scientist / Biologist / Archeologist	Project Env Scientist / Biologist / Archeologist	Staff Env Scientist / Biologist / Archeologist	TOTAL HOURS	TOTAL COST
	\$390.00	\$380.00	\$315.00	\$240.00	\$230.00	\$200.00	\$160.00	\$135.00	\$350.00	\$140.00	\$290.00	\$275.00	\$160.00	\$230.00	\$250.00	\$160.00	\$120.00		
rdway Model Development																			\$ -
Update 3D Corridor Model for Mainlanes for Preliminary PS&E				12		24	40											76	\$ 14,080
Update 3D Corridor Model for Mainlanes for Final PS&E				6		24	24											54	\$ 10,080
Update 3D Corridor Model for Sidestreets and Driveway				8		24	24											56	\$ 10,560
Update 3D Corridor Model for Connections to Existing Roads				4		16	8											28	\$ 5,440
Roundabout: Develop Geometric Modeling for Preliminary PS&E				2	12	24	16											54	\$ 10,600
Roundabout: Develop Geometric Modeling for Final PS&E				2	4	8	8											22	\$ 4,280
Roundabouts: Develop 3D Grading Models for Roundabout for Preliminary PS&E				4	8	40	20											72	\$ 14,000
Roundabouts: Develop 3D Grading Models for Roundabout for Final PS&E				2	4	20	10											36	\$ 7,000
Roundabouts: Develop Fastest Path/Sight Distance Analysis				2	8	16	32											56	\$ 10,640
Develop Earthwork Quantities				4		24	24											52	\$ 9,600
BTOTAL				148	36	588	840	580										2,192	\$ 374,100
160 (161) Roadway Design - Storm Drain																			
rm Drain Sheet Development																			
Internal Drainage Area Maps				12		32	32	32										108	\$ 18,720
Create Storm Drain Data Sheets for Preliminary PS&E				2		16	16	4										38	\$ 6,780
Update Storm Drain Data Sheets for Final PS&E				2		16	16											34	\$ 6,240
Create Culvert Data Sheets for Preliminary PS&E				4		24	24	16										68	\$ 11,760
Update Culvert Data Sheets for Final PS&E				2		24	16	4										46	\$ 8,360
Create Storm Drain P&P Sheets for Preliminary PS&E				8		24	40	24										96	\$ 18,360
Update Storm Drain P&P Sheets for Final PS&E				4		24	40	24										92	\$ 15,400
Create Storm Lateral Sheets for Final PS&E				2		24	40	24										90	\$ 14,920
Develop Headwall and Inlet Elevation Details				2		24	24	16										66	\$ 11,280
Create Detention Pond Plan Sheets for Preliminary PS&E				8		24	24	4										60	\$ 11,100
Update Detention Pond Plan Sheets for Final PS&E				2		12	12	4										30	\$ 5,340
Create Ditch P&P Sheets for Preliminary PS&E				8		32	40											80	\$ 14,720
Update Ditch P&P Sheets for Final PS&E				4		24	40	16										84	\$ 14,320
Create Detention Pond Detail Sheets				8		16	24	4										52	\$ 9,500
Standards (Drainage)				4		8	12	16										40	\$ 6,640
Update Quantities for Preliminary PS&E (Drainage)				2		16	16											34	\$ 6,240
Update Quantities for Final PS&E (Drainage)				2		16	16											34	\$ 6,240
rm Drain Modeling																			\$ -
Update Hydrologic Analysis for Preliminary PS&E				2		32	40											74	\$ 13,260
Update Hydrologic Analysis for Final PS&E				2		32	40											74	\$ 13,260
Design internal inlet hydraulics for Preliminary PS&E				4		32	40											76	\$ 13,760
Update internal inlet hydraulics for Final PS&E				2		24	40											66	\$ 11,680
Design storm drain conduits for Preliminary PS&E				4		24	40											68	\$ 12,160
Update storm drain conduits for Final PS&E				2		24	24											50	\$ 9,120
Develop culvert design for roadway crossings				8		24	24											56	\$ 10,560
Update ditch calcs and models for Preliminary PS&E				2		32	32											66	\$ 12,000
Update ditch calcs and models for Final PS&E				2		16	16											34	\$ 6,240
Design detention basin and outlet controls				8		32	8	16										64	\$ 11,760
ention Design Modeling																			\$ -
Updated detention analysis based on preliminary study. Design max 2 detention ponds to reduce post-project flows for 2/25/100 year storm events (ponds and outlet controls)				4	8	20	32											64	\$ 11,920
Prepare Detention Pond Plan Sheets for Preliminary PS&E (Plan, sections, details)				4	4	20	32	16										76	\$ 13,160
Update Detention Pond Plan Sheets for Final PS&E (plans, sections, details)				4	6	20	32	20										82	\$ 14,160
SE Drainage Report																			\$ -
Drainage Report for Preliminary PS&E				4		24	24											52	\$ 9,600
Drainage Report for Final PS&E				4		16	16											36	\$ 6,720
BTOTAL				132	16	728	872	240										1,990	\$ 353,340

City of Pflugerville
 TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions
 Compensation Schedule for Professional Services

OBJECT NAME: TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions
 OBJECT LIMITS: East of FM 685 to East Pecan Street

TASKS	Vice President	Associate Vice President	Senior Project Manager	Project Manager	Senior Project Engineer	Project Engineer	EIT	Technician	Client Services Manager	Admin / Clerical	Survey Manager	Project Surveyor	S.I.T. / Survey Technician	Survey Crew (2 person)	Sr. Env Scientist / Biologist / Archeologist	Project Env Scientist / Biologist / Archeologist	Staff Env Scientist / Biologist / Archeologist	TOTAL HOURS	TOTAL COST
	\$390.00	\$380.00	\$315.00	\$240.00	\$230.00	\$200.00	\$180.00	\$135.00	\$350.00	\$140.00	\$290.00	\$275.00	\$160.00	\$230.00	\$250.00	\$160.00	\$120.00		
160 (162) Roadway Design - SIGNING AND PAVEMENT MARKINGS																			
ning and Pavement Marking Design																			
Develop Small Signs Summary Sheets for Preliminary PS&E				2		8	20	20										50	\$ 7,980
Update Small Signs Summary Sheets for Final PS&E				2		4	10	10										26	\$ 4,230
Develop SPM Layout Sheets for Preliminary PS&E				12		24	64	80										180	\$ 28,720
Update SPM Layout Sheets for Final PS&E				12		24	40	40										116	\$ 19,480
Develop Quantities for Preliminary PS&E (SPM)				12		20	20	12										64	\$ 11,700
Update Quantities for Final PS&E (SPM)				4		10	12	12										38	\$ 6,500
BTOTAL				44		90	166	174										474	\$ 78,810
160 (163) Roadway Design - MISCELLANEOUS (ROADWAY)																			
ffic Control Plan																			
TCP Narrative				8		20	20											48	\$ 9,120
Construction Schedule				20		20												40	\$ 8,800
TCP Typicals				2		8	12											22	\$ 4,000
Overall Phasing Layout				1		4	12											18	\$ 3,200
Advanced Warning Signs Layout				1		2	4	8										15	\$ 2,960
Temp Drainage Design and Comps				2		4	4	8										18	\$ 3,000
Develop TCP Plan Sheets for Preliminary PS&E				4		12	12	12										40	\$ 6,900
Update TCP Plan Sheets for Final PS&E				4		8	8	8										28	\$ 4,920
Standards and Quantities (TCP)				2		12	20											34	\$ 6,080
mination																			
Develop Illumination Plan Sheets for Preliminary PS&E				24		40	80											144	\$ 26,560
Update Illumination Plan Sheets for Final PS&E				8		24	40											72	\$ 13,120
Electrical Service Details				2		8	16											26	\$ 4,640
Standards and Quantities (Illumination)				2		12	20											34	\$ 6,080
3P																			
Develop SW3P Plan Sheets for Preliminary PS&E				6		20	40	24										90	\$ 15,080
Update SW3P Plan Sheets for Final PS&E				4		12	20	20										56	\$ 9,280
Standards and Quantities (SW3P)				4		12	20											36	\$ 6,560
ifications and General Notes																			
Develop Spec Book	8			32		32	32											104	\$ 22,320
Develop General Notes	4			8		24	16											52	\$ 10,840
tructability Review																			
Schematic QA/QC and Constructability Review	24			80														104	\$ 26,560
Preliminary PS&E QA/QC and Constructability Review	24			80														104	\$ 28,560
Final PS&E QA/QC and Constructability Review	16			40														56	\$ 15,840
BTOTAL	76			335		274	376	80										1,141	\$ 235,800
170 (170) Drainage Study																			
dge H&H Modeling (Design Flood Study)																			
Additional field observations				4		8												12	\$ 2,560
Meet/coordinate with local Floodplain Administrator	1					4				1								6	\$ 1,330
Download effective models and run on local computers, debug				4		12												16	\$ 3,360
Update project hydrology (HMS model) based on direction following schematic submittal (existing and ultimate conditions hydrology)	1		1	2	1	8	32	4										49	\$ 8,875
Modify best available HEC-RAS model with updated topographic and hydrologic data. Model extents include Wilbarger Creek in the project area, as well as Unknown Tributary 1 from approx. Heritage Loop Trail to confluence with Wilbarger Creek			1	4		12	60	4										81	\$ 13,815
Perform exist/ult hydraulic analysis and design for 100-year event of bridge (or bridge class culvert) and channel to support preliminary design. Assumes max 2 options for each floodplain (4 total)	1	1	1	4	2	12	60	4										85	\$ 15,045
Update exist/ult hydraulic analysis and design for 100-year event of bridge/BBC, plus smaller storm events (10/25 year)	1	1	1	4	2	12	60	4										85	\$ 15,045
Perform 100-year no-rise/compensatory excavation analysis	1	1	1	4	2	12	32	4										57	\$ 10,585
Perform cross-culvert design calculations using HY-8 for minor crossings (max 6 culverts)			1	2	2	8	32											45	\$ 7,975
Prepare H&H drainage summary report for schematic submittal	1	1	1	2	2	8	32	8										55	\$ 9,825
Updated H&H drainage summary report, including exhibits for subsequent submittals (limited to planned # of scoped project submittals)	1	1		2	2	8	32	8										50	\$ 8,840
Revise models and reports based on client review comments	1	1		2	2	8	32	8										50	\$ 8,840

City of Pflugerville
TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions
Compensation Schedule for Professional Services

OBJECT NAME: TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions**OBJECT LIMITS:** East of FM 685 to East Pecan Street

TASKS	Vice President	Associate Vice President	Senior Project Manager	Project Manager	Senior Project Engineer	Project Engineer	EIT	Technician	Client Services Manager	Admin / Clerical	Survey Manager	Project Surveyor	S.I.T. / Survey Technician	Survey Crew (2 person)	Sr. Env Scientist / Biologist / Archeologist	Project Env Scientist / Biologist / Archeologist	Staff Env Scientist / Biologist / Archeologist	TOTAL HOURS	TOTAL COST
Preliminary Detention Model	\$390.00	\$380.00	\$315.00	\$240.00	\$230.00	\$200.00	\$160.00	\$135.00	\$350.00	\$140.00	\$290.00	\$275.00	\$160.00	\$230.00	\$250.00	\$160.00	\$120.00		
Use delineated drainage areas to determine existing and proposed flows at potential pond locations (max 2 ponds)				1		2	8	4										15	\$ 2,460
Use HEC-HMS or PondPak to determine preliminary pond sizes, based on 100-year peak flows, with the intent of reducing post-project flows such that peak flows in Wilbarger Creek are at or below existing conditions	1			2	2	16	40			1								62	\$ 11,070
Incorporate detention recommendations into H&H summary report, including narratives and exhibits.				2	2	12	24	8										48	\$ 8,260
Additional Letter of Map Revision (CLOMR)																			
Use the effective FEMA model for Wilbarger Creek and unknown Trib 1 develop duplicate effective, corrected effective, and proposed conditions models.		1	1	2	2	6	32	4										48	\$ 8,495
Prepare hydrology information concerning storm water runoff rates in Wilbarger Creek and Unknown Trib 1 in this area (2/5/10/25/50/100/500 yr).		1	1	2	2	8	56	4										74	\$ 12,735
Use HEC-RAS to perform hydraulic calculations for the various runoff rates for existing and proposed conditions		1	1	2	2	8	56	8										78	\$ 13,275
Prepare forms required by FEMA.				1	2	4	8			2								17	\$ 3,060
Prepare the documents consisting of calculations, forms, and drawings and submit to City of Pflugerville and FEMA for review.		2		2		6	32	16		4								62	\$ 10,280
Provide official notification of proposed floodplain changes in local newspaper or through individual notification letters.	1			1		2	12	4										20	\$ 3,490
Additional Letter of Map Revision (CLOMR) Review Coordination																			
Monitor the CLOMR review by the City and FEMA and respond to comments. (Assumes 2 comment letters for each).	2	2		4	4	16	48	4		4								84	\$ 15,400
Bridge Hydraulic and Channel Sheet Development																			
Create Bridge Hydraulic Data Sheets for Preliminary PS&E			1	2	2	4	16	4										28	\$ 5,155
Update Bridge Hydraulic Data Sheets for Final PS&E			1	2	2	4	16	4										29	\$ 5,155
Perform channel and pier scour calculations for Preliminary PS&E			1	2	2	8	20											37	\$ 6,655
Update channel and pier scour calculations for Final PS&E			1	2	2	8	24											29	\$ 5,155
Prepare Scour Sheet(s) for Preliminary PS&E			1	2	2	4	16	4										29	\$ 5,155
Update Scour Sheet(s) for Final PS&E			1	2	2	4	16	4										51	\$ 8,655
Prepare Channel Grading sheet(s) for Preliminary PS&E			1	2	2	8	32	8										61	\$ 10,335
Prepare Channel Grading sheet(s) for Final PS&E			1	2	2	8	40	8											\$ -
TOTAL	12	13	18	69	47	234	868	124		12								1,397	\$ 246,760
180 (180) Utility Coordination																			
180.1 Utility Relocation Coordination																			
External Communication (4 Utility Companies x 5 Months)		1		6		12	6		12	4								25	\$ 5,180
Utility Pre-Construction Meeting (4 Utilities x 0.5HR EA)		2		2		2	4			4								26	\$ 7,040
Utility Monthly Construction Meetings (6months x 0.5 HR)		2		2		2	4											14	\$ 2,840
Utility Relocations Permit Review (4 Relocation Plans)		2		4		8	8											22	\$ 4,600
180.2 Utility Engineering																			
2D Base map		1		1		2	6	8										18	\$ 3,060
Utility Conflict Layout plan (11 shfs)		1		2		4	24	24										55	\$ 8,740
Utility Conflict Matrix						8	24											38	\$ 7,160
Develop and Maintain UCM		2		4		8	8											26	\$ 5,840
QA/QC (3 Submittals)		4		8		8	8												\$ -
TOTAL	15			27		48	84	32	12	8								224	\$ 44,480
180 (181) Water Utility Redesign																			
Water Utility Relocation Design																			
Record Drawing Research		8		8			8											24	\$ 6,240
Coordination with City of Pflugerville Utility Department/PM		4	8															12	\$ 4,940
Coordination with Roadway Design Team for Preliminary Utility Conflict Matrix		2	16	10			8											36	\$ 9,480
General Notes				1			1											2	\$ 400
Horizontal Alignment Data Sheets		1		1			1											3	\$ 780
Waterline Realignment Plan Sheets - Preliminary		8	16	24			80	40										168	\$ 32,040
Waterline Connection Plan Sheets - Preliminary		8	16	24			80	40										168	\$ 32,040
Coordination with Roadway Design Team for Final Utility Conflict Matrix		2	8	8			8											26	\$ 6,480
Waterline Realignment Plan Sheets - Final		4	16	24			60											104	\$ 21,920
Waterline Connection Plan Sheets - Final		4	16	24			60											104	\$ 21,920
Misc Waterline Detail Sheets				24			8											8	\$ 1,280
Standard Details (Waterline)							8											8	\$ 1,280
Develop Quantities and Summaries for Preliminary PS&E (Waterline)				10														10	\$ 2,400
Update Quantities and Summaries for Final PS&E (Waterline)				4														4	\$ 960
Technical Specifications (Waterline)			20															20	\$ 6,300
TCEQ Permit - Waterline Construction			2															2	\$ 630
City of Pflugerville Permit - Waterline Construction			8				15											23	\$ 4,920
TOTAL	41	126	138				337	80										722	\$ 153,110

ME PROVIDER: Pape-Dawson Consulting Engineers, LLC

City of Pflugerville
TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions
Compensation Schedule for Professional Services

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OBJECT LIMITS: East of FM 685 to East Pecan Street

TASKS	Vice President	Associate Vice President	Senior Project Manager	Project Manager	Senior Project Engineer	Project Engineer	EIT	Technician	Client Services Manager	Admin / Clerical	Survey Manager	Project Surveyor	S.I.T. / Survey Technician	Survey Crew (2 person)	Sr. Env Scientist / Biologist / Archeologist	Project Env Scientist / Biologist / Archeologist	Staff Env Scientist / Biologist / Archeologist	TOTAL HOURS	TOTAL COST
	\$390.00	\$380.00	\$315.00	\$240.00	\$230.00	\$200.00	\$160.00	\$135.00	\$350.00	\$140.00	\$290.00	\$275.00	\$160.00	\$230.00	\$250.00	\$160.00	\$120.00		
190 (190) Traffic Design																			
fftc Study																			
Origin Destination Analysis			6			16	24	4										50	\$ 9,470
Signal Warrant Study	1		4			30	36	16										87	\$ 15,570
ICE Analysis	1		5			4	6											19	\$ 4,360
Roundabout SIDRA Analysis	1		6			24	60											91	\$ 16,580
Report			12			16	16	16										60	\$ 11,700
Traffic Counts Processing						2	2	2										6	\$ 990
Exhibits/Figures			4			16	40	40										100	\$ 18,260
FM 685 Coordination	1		6			6	12											25	\$ 5,400
Preliminary Signal Design (Conduits and Ground boxes)			6			12	20	26										64	\$ 11,000
TOTAL	4		50			128	218	104										502	\$ 91,438
800 (800) Bid Phase Services																			
Attend Prebid meeting	4			4		4												12	\$ 3,320
Respond to RFIs	8			24		24												56	\$ 13,680
Answering General Questions	8			24		24												56	\$ 13,680
Project Related Tasks in Support of Owner (assume 2 months)	8			40		40												88	\$ 20,720
Stakeholder Meetings (assume 3 meetings)	6			6			6											18	\$ 4,740
TOTAL	34			98		92	6											230	\$ 56,140
900 (900) Construction Phase Services																			
900.1 Construction Phase Engineering Services																			
Prepare monthly progress reports (additional 16 months)	8			16														24	\$ 6,960
Attend pre-construction meeting				4		4												8	\$ 1,760
Attend bi-weekly construction progress meetings, agenda and minutes included (assumed 1-hr virtual, not to exceed 32 meetings)						64												64	\$ 12,800
Attend field meetings and make site visits (not to exceed 10)				16		20												36	\$ 7,840
Calculate quantities and assist the Owner in preparing change orders				16		20	20											56	\$ 11,040
Review shop drawings				12		20	20											52	\$ 10,080
Respond to RFIs	16			10		20	20											68	\$ 16,320
Provide minor redesign				10		20	20											50	\$ 9,600
Answer general questions to provide clarification				10		20	20											50	\$ 9,600
Provide project related tasks in support of the Owner during construction				10		20	20											50	\$ 9,600
TOTAL	24			122		208	120											474	\$ 99,440
SUB TOTALS	319	82	194	2,351	110	3,270	4,880	1,610	12	58	28	76	325	300	8	104	120	13,827	\$ 2,650,478
	2.3%	0.6%	1.4%	17.0%	0.8%	23.7%	35.1%	11.6%	0.1%	0.4%	0.2%	0.5%	2.3%	2.2%	0.1%	0.8%	0.9%	100.0%	

HER DIRECT EXPENSES	# OF UNITS	COST/UNIT	UNIT	
Mileage (10 miles round trip, 17 in person meetings, 1 hearing, and field surveys)	1,300	\$0.725	mile	\$ 942.50
TOLR Review	1	\$5,000.00	each	\$ 5,000.00
Traffic Data Collection (TMCs, OD data, 12/24 hr counts)	1	\$15,000.00	each	\$ 15,000.00
CDMR Fee	1	\$6,500.00	each	\$ 6,500.00
TOTAL DIRECT EXPENSES (FC 164)				\$ 27,442.50

SUMMARY	
TOTAL COSTS FOR PAPE-DAWSON	\$ 2,650,470.00
N-SALARY (OTHER DIRECT EXPENSES) FOR PAPE-DAWSON	\$ 27,442.50
3CONTRACTS (includes labor costs, direct expenses, and unit costs)	\$ 541,560.85
AND TOTAL	\$ 3,219,473.35

Subprovider: Raba Kistner, Inc.

City of Pflugerville
TR2904 Old Austin Hutto Road and Pfennig Lane to East Pecan Street Extensions
Compensation Schedule for Professional Services

TASK	Hourly Rate:	Senior Engineer \$233.58	Project Manager \$204.10	Project Engineer \$159.12	EIT \$146.07	Field Coordinator /Logger \$110.16	Engineering Technician \$91.80	Senior Engineering Technician \$110.16	Admin \$71.40	Sub Total	RKCI Labor
		Hours								Hours	Cost
GEOTECHNICAL ENGINEERING SERVICES- LABOR											
GEOTECHNICAL INVESTIGATION AND RECOMMENDATIONS											
PROJECT KICKOFF		1	1	1	1	1	1		1	7	\$ 1,016.23
RIGHT-OF-WAY DRILLING PERMIT						16				16	\$ 1,762.56
FIELD COORDINATION (STAKE BORINGS AND UTILITY LOCATE)				1	1	16				18	\$ 2,067.75
FIELD EXPLORATION			2	2	8		65			77	\$ 7,862.00
LABORATORY ASSIGNMENT				2	8					10	\$ 1,486.80
SOIL BORING LOGS				2	8					10	\$ 1,486.80
SITE PLAN				2	4			16		22	\$ 2,665.08
DRILLED SHAFT CAPACITIES (including Capacity charts and Lpile parameters)		2	8	8	16					34	\$ 5,710.04
PAVEMENT DESIGN ANALYSES (PROVIDE FLEXIBLE AND RIGID PAVEMENT OPTION)		1	3	6	10					20	\$ 3,261.30
DRAFT GEOTECHNICAL REPORT PREPARATION		2	4	9	16				4	35	\$ 5,338.36
GEOTECHNICAL REPORT REVIEW & FINALIZATION		1	3	4	10				4	22	\$ 3,228.66
INVOICE PROJECT CLOSE OUT		1	1						10	12	\$ 1,151.68
PROJECT UPDATE MEETINGS		2	8	6						16	\$ 3,054.68

Compensation Schedule

	Senior Project Manager \$304.00	Structural Engineer \$208.00	EIT/Junior Engineer \$134.00	CAD Tech \$126.00		
TASK CODE AND DESCRIPTION	HOURS	HOURS	HOURS	HOURS	TASK HOURS	TASK / PHASE FEE
Design Phase	32	959	518	584	2093	\$352,196.00
01. Schematic Phase						
Coordination/Management	12	32			44	\$10,304.00
Invoicing & Progress Reports (4 months)		4			4	\$832.00
Coordination with Geotech		12			12	\$2,496.00
Meetings (4)		10			10	\$2,080.00
Preliminary Span Arrangement and Preliminary Bridge Design		20	24	20	64	\$9,896.00
Bridge Cost Estimate		1	2		3	\$476.00
02. PS&E Design Phase						
Coordination/Management	20	40			60	\$14,400.00
Invoicing & Progress Reports (8 months)		8			8	\$1,664.00
Meetings (8)		20			20	\$4,160.00
Structural Cost Estimate		6	8		14	\$2,320.00
Assemble TxDOT Bridge Standards		2	2	2	6	\$936.00
North Bridge - 97' x 590', TxGirder, 6 spans, curved						
Bridge Layout (2 sheets)		42	16	32	90	\$14,912.00
Est Quantities & Bearing Seat Elevations (1 sheet)		12	12	12	36	\$5,616.00
Abutment No. 1 Plan, Elevation & Details (3 sheets)		46	26	30	102	\$16,832.00
Abutment No. 7 Plan and Elevation (3 sheets)		46	26	30	102	\$16,832.00
Bent No. 2 Plan, Elevation and Details (3 sheets)		48	28	30	106	\$17,516.00
Bent No. 3 Plan, Elevation and Details (3 sheets)		48	28	30	106	\$17,516.00
Bent No. 4 Plan, Elevation and Details (3 sheets)		48	28	30	106	\$17,516.00
Bent No. 5 Plan, Elevation and Details (3 sheets)		48	28	30	106	\$17,516.00
Bent No. 6 Plan, Elevation and Details (3 sheets)		48	28	30	106	\$17,516.00
Girder Framing Plan Unit 1 (1 sheet)		14	12	14	40	\$6,284.00
Girder Framing Plan Unit 2 (1 sheet)		14	12	14	40	\$6,284.00
Prestressed Conc Girder Unit 1 (1 sheet)		16	10	12	38	\$6,180.00
Prestressed Conc Girder Unit 1 Misc Details (1 sheet)		16	10	12	38	\$6,180.00
Prestressed Conc Girder Unit 2 (1 sheet)		16	10	12	38	\$6,180.00
Prestressed Conc Girder Unit 2 Misc Details (1 sheet)		16	10	12	38	\$6,180.00
Bridge Sidewalk & Median Details (1 sheet)		14	10	14	38	\$6,016.00
Prestressed Concrete Girder Designs (1 sheet)		18	10	10	38	\$6,344.00
South Bridge - 97' x 330', TxGirder, 3 spans, curved						
Bridge Layout (1 sheet)		16	10	14	40	\$6,432.00
Est Quantities & Bearing Seat Elevations (1 sheet)		12	12	12	36	\$5,616.00
Abutment No. 1 Plan, Elevation & Details (3 sheets)		46	26	30	102	\$16,832.00
Abutment No. 4 Plan, Elevation & Details (3 sheets)		46	26	30	102	\$16,832.00
Bent No. 2 Plan, Elevation and Details (3 sheets)		48	26	30	104	\$17,248.00
Bent No. 3 Plan, Elevation and Details (3 sheets)		48	26	30	104	\$17,248.00
Girder Framing Plan Unit 1 (1 sheet)		14	12	14	40	\$6,284.00
Prestressed Conc Girder Unit 1 (1 sheet)		16	10	12	38	\$6,180.00
Prestressed Conc Girder Unit Misc Details (1 sheet)		16	10	12	38	\$6,180.00
Bridge Sidewalk & Median Details (1 sheet)		14	10	14	38	\$6,016.00
Prestressed Concrete Girder Designs (1 sheet)		18	10	10	38	\$6,344.00

Compensation Schedule

	Senior Project Manager \$304.00	Structural Engineer \$208.00	EIT/Junior Engineer \$134.00	CAD Tech \$126.00		
TASK CODE AND DESCRIPTION	HOURS	HOURS	HOURS	HOURS	TASK HOURS	TASK / PHASE FEE
Bid Phase	0	30	6	0	36	\$7,044.00
03. Bid Phase Services						
Invoicing & Progress Reports (2 months)		4			4	\$832.00
Participate in Pre-Bid Meeting		9			9	\$1,872.00
Respond to Contractor Questions		8	6		14	\$2,468.00
Participate in Pre-Construction Meeting		9			9	\$1,872.00
Construction Phase	0	90	142	14	246	\$39,512.00
03. Construction Phase Services						
Visit construction site		40	52		92	\$15,288.00
Review shop drawings (6)		16	32		48	\$7,616.00
Respond to RFIs (4)		16	30		46	\$7,348.00
Prepare punch lists (substantial and final for 2 bridges)		10	14		24	\$3,956.00
Prepare record plans (2 bridges)		8	14	14	36	\$5,304.00
TOTAL BASE FEE WITH HOUR BREAKDOWN	32	1079	666	598	2375	\$398,752.00

The proposed fees are based on the information provided, our understanding of the scope, and the scope definition listed below:

1. The proposed north bridge is approximately 97' wide and 590' long with six spans, median, SUP and sidewalk. Phasing is not required.
2. The proposed south bridge is approximately 97' wide and 330' long with three spans, median, SUP and sidewalk. Phasing is not required.
3. Once the bridge layouts are approved, the bridge configuration will not change significantly.
4. The design will be in accordance with TxDOT Methodology. TxDOT standards will be utilized to the fullest extent possible, including the use of standard TxDOT rails.
5. The proposed north bridge will be on a horizontal curve and will have no flared spans.
6. The proposed south bridge will not be on a horizontal curve and will have no flared spans.
7. The bridge will be constructed using prestressed concrete Tx Girders, will have drilled shaft foundations and will not require aesthetic treatment.
8. All bid documents other than structural plans and associated technical specs will be by others.
9. No utilities will be supported by the bridge. Any conflicting utilities will be relocated.
10. SEA will be provided:
 - a. Obstruction locations and details
 - b. Base map file with survey data
 - c. Horizontal and vertical alignment data for bridge
 - d. All base files and reference files in Microstation format
 - e. Scour analysis results and any bridge and any scour protection design and details
 - f. Riprap limits, design and details
 - g. Bridge hydraulic design data (HWL, Q and V)
 - h. Termination details of bridge railing
11. Design and detailing of lighting, light poles and conduit is not included. TxDOT standard concrete light pole support bracket will be used (if needed).
12. Others to make all required submittals including TDLR and pay required fees. Application for and acquisition of permits by others.
13. Water on the bridge deck may drain directly to the creek.
14. Design of temporary structures (such as formwork, falsework, special shoring, and walls) is not included.
15. Materials specifications will be TxDOT's Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges.
16. Contractor to provide marked-up plans, upon which record plans will be based.
17. Observation of the fabrication of structural items at fabrication plant is not included.
18. Geotechnical engineer will provide necessary drilled shaft design criteria and observe construction of the first drilled shaft.
19. Materials testing firm to review/approve concrete mix designs/provide all material testing.
20. Review or preparation of repair details for construction errors is not included.
21. 3D bridge models are not required.



Estimate for Subsurface Utility Engineering City of Pflugerville - Pfenning Lane and Old Hutto Rd

Hourly Office Labor	<i>Rate</i>	<i>Assumed Quantity</i>	<i>Unit of Measure</i>	<i>Sub-Total</i>
Supervisory Engineer	\$ 208.60	4	HR	\$ 834.40
Senior SUE Project Manager	\$ 202.92	4	HR	\$ 811.68
SUE Project Manager	\$ 166.97	10	HR	\$ 1,669.70
Professional Engineer	\$ 179.49		HR	\$ -
Assistant Project Manager	\$ 117.06	16	HR	\$ 1,872.96
Engineer in Training	\$ 119.94		HR	\$ -
CADD Technician	\$ 84.44	48	HR	\$ 4,053.12
Senior CADD Technician	\$ 106.98		HR	\$ -
Engineering Technician	\$ 67.50	8	HR	\$ 540.00
Field Manager	\$ 131.41	10	HR	\$ 1,314.10
Administrative Specialist	\$ 77.30		HR	\$ -
Sub-Total				\$ 11,095.96
Direct Expenses	<i>Rate</i>	<i>Assumed Quantity</i>	<i>Unit of Measure</i>	<i>Sub-Total</i>
Survey (RPLS)	\$ 2,600.00	4	DAY	\$ 10,400.00
Sub-Total				\$ 10,400.00
QL"B" SUE Designating	<i>Rate</i>	<i>Assumed Quantity</i>	<i>Unit of Measure</i>	<i>Sub-Total</i>
One Designating Person	\$ 168.00	50	HR	\$ 8,400.00
Two Person Designating Crew	\$ 262.00	20	HR	\$ 5,240.00
Sub-Total				\$ 13,640.00
QL"A" SUE Test Holes				
Unit Rate - Depth	<i>Outside Pavement Rate</i>	<i>Assumed Quantity</i>	<i>Unit Of Measure</i>	<i>Sub-Total</i>
0 - 5 feet	\$ 1,380.00	10	EA	\$ 13,800.00
5 - 8 feet	\$ 1,680.00	6	EA	\$ 10,080.00
8 - 13 feet	\$ 2,100.00	2	EA	\$ 4,200.00
13 - 20 feet	\$ 2,700.00	0	EA	\$ -
Over 20 feet	\$ 3,200.00	0	EA	\$ -
Pavement Coring	\$ 390.00	0	EA	\$ -
Test Hole Total		18		
Sub-Total				\$ 28,080.00
Total Estimated Cost				\$ 63,215.96