

**PROFESSIONAL SERVICES
SUPPLEMENTAL AGREEMENT # 1
FOR
CARMEL/SORENTO LIFT STATION AND FORCE MAIN PROJECT**

STATE OF TEXAS §
 §
COUNTY OF TRAVIS §

FIRM: K Friese and Associates, Inc. ("Consultant")

ADDRESS: 1120 S. Capital of Texas Highway
 CityView 2, Suite 100
 Austin, TX, 78746

This Supplemental Agreement No. 1 to a contract for Professional Services is made by and between the City of Pflugerville, Texas, hereinafter called the "City" and K Friese & Associates, Inc., hereinafter called the "Consultant".

WHEREAS, the City and Consultant executed an Agreement for Professional Services, hereinafter called the "Agreement", on the 25 day of September, 2013 for the Carmel/Sorrento Lift Station Project in the amount of \$ 414,505; and

WHEREAS, it has become necessary to amend the Agreement to modify the provisions for the CARMEL/SORRENTO LIFT STATION AND FORCE MAIN PROJECT, and add the CARMEL INTERCEPTOR PHASE 1 PROJECT as detailed in Exhibits A, B and C

NOW THEREFORE, premises considered, the City and the Consultant agree that said Agreement is amended as follows:

I.

Article II. Term shall be amended by changing the term of the Agreement to terminate on December 30th, 2017.

Article III. Scope of Services and Exhibit A, shall be amended as set forth in the attached addendum to Exhibit A.


Article III. Work Schedule and Exhibit B, shall be amended as set forth in the attached addendum to Exhibit B.

Article IV. Compensation to Consultant and Exhibit C (Fee Schedule), shall be amended by by increasing by \$299,430 the amount payable under the Agreement for a total of \$713,935, as shown by the attached Addendum to Exhibit C (Fee Schedule).

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

**CITY OF
PFLUGERVILLE**

K FRIESE & ASSOCIATES, INC.

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(Signature)	(Signature)
Printed Name: <u>Brandon E. Wade</u>	Printed Name: <u>Thomas M. Owens, P.E.</u>
Title: <u>City Manager</u>	Title: <u>Executive Vice President</u>
Date: _____	Date: <u>1 APR 15</u>

APPROVED AS TO FORM:

George Hyde
City Attorney
Denton Navarro Rocha Bernal Hyde & Zech, P.C.

ADDENDUM TO EXHIBIT A
SCOPE OF SERVICES
CARMEL INTERCEPTOR PHASE 1

Project Understanding

The work to be performed by K Friese & Associates, Inc. (KFA) under this contract shall consist of providing Preliminary Engineering, Final Design, Bid and Construction Phase Services for the Carmel Interceptor Phase 1 Project. The Carmel Interceptor Phase 1 project will convey wastewater flows to the new Carmel/Sorrento Lift Station that will in turn convey the wastewater flows to the Central WWTP for treatment. The objective of the Carmel Interceptor Phase 1 Project is to convey wastewater flows from the new High school that is being constructed and will need to be in service by Mid - 2017 to meet testing requirements for the new construction.

Lockwood, Andrews & Newnam, Inc. (LAN) has completed an update to the City of Pflugerville's Wastewater Master Plan, which identifies the project and provides flow projections and gravity sewer sizing. The gravity sewer is planned to run along Wilbarger Creek and has been preliminarily sized by to be 18-inches in diameter. The depth is unknown at this time, but connections to the interceptor will need to be accessible from either side of the creek.

Scope of Services

Task 1 – Preliminary (30%) Design Phase

1. Project Management and QA/QC – This task includes routine communication with the City; managing subconsultants, manpower, budgets, and schedules; invoicing; implementing and monitoring of QA/QC efforts; and other activities associated with managing the project.
2. Project Meetings
 - a. Kick-off Meeting – Meet with City Staff to discuss/review project details, work plan, and schedule.
 - b. One project status meeting with the City has been budgeted for the Preliminary Design Phase.
 - c. PER review meeting.
3. Data Gathering and Base Mapping – KFA will work with the City, other entities, and their subcontractors to obtain information necessary for the Preliminary Design Phase. Specific information gathered may include as-built information, related reports and mapping, design criteria, and other necessary data. A base map of the project area will be developed using base mapping created for the Carmel/Sorrento Lift station and adding other available information. The base map will include aerial photography, topography, parcels, right-of-way, FEMA floodplain, and other appropriate data. The base map will be utilized by the project team during Preliminary Engineering for the project.
4. Line Sizing Confirmation – KFA will independently size the proposed gravity line and compare it to the sizing in the City's Wastewater Master Plan Update. KFA will coordinate with the City and LAN for any questions or additional information needs. The proposed gravity interceptor will be sized in accordance with TCEQ and City design criteria.

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5. Gravity Sewer Route Analysis and Evaluation:
- a. Identify Candidate Alignments using the base map considering the following issues
 - Service
 - Flood Plain
 - Existing Residences
 - Property Impacts
 - Vegetation
 - Topography
 - b. Preliminary Environmental Survey: Cox|McLain will utilize data gathered from the Carmel/Sorrento Lift Station Project and conduct additional required literature searches for sensitive natural and cultural resources that could pose constraints to the proposed gravity sewer. Additional sources of information that will be utilized include published reports, aerial photographs, maps, and records at the Texas Natural Resources Information Systems archives. The information obtained from these efforts will be used to help identify potential permitting and alignment constraints. The results of the literature search and permitting identification will be documented in an environmental constraints memo and map.
 - c. Preliminary Geologic Assessment: Raba-Kistner, Inc. performed a geologic assessment for the Carmel/Sorrento Lift Station and Force Main project. The area analyzed for that study is generally the same alignment as the proposed Carmel Gravity Line and as such a new Geologic Assessment will not be performed.
 - d. Construction methods and materials evaluation: Identify alternate construction methods and materials and associated impact on construction costs, and operations and maintenance.
 - e. Workspace, Access and Easement Evaluation: Identify and map necessary workspace and easements required for construction, maintenance, and operation for each proposed route. Evaluate and identify access for design investigations, construction and maintenance
6. Develop Class C ($\pm 25\%$) estimates of probable construction cost based on the information gathered above.
7. Preliminary Engineering Report (PER): KFA will prepare a PER summarizing the investigation and recommendations. Five (5) copies of the draft report will be submitted to the City for review and distribution. Following a meeting with the City to discuss review comments, KFA will incorporate the comments into the Final PER and submit five (5) copies to the City and an electronic copy in portable document format (pdf). At a minimum the PER will include:
- a. Recommended route (corridor) for the pipeline;
 - b. Interceptor sizing recommendation;
 - c. Identification of environmental constraints;
 - d. Permitting requirements and associated timeframes;

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- e. Identification of temporary and permanent easements, including name and contact information of landowner and area of easement per parcel;
- f. Evaluation of and recommendations for construction methods and materials;
- g. 30% gravity interceptor plan sheet of preferred route, showing property ownership, existing right-of-way, interceptor location, and proposed permanent and temporary construction easements. Sheets shall be aerial based and be at a minimum scale of 1" = 100' on 11-inch by 17-inch sheets.
- h. Class C opinion of probable cost for the preferred route;
- i. A schedule for final design and construction.

Task 2 – Survey, Easements, and Potholing

- 1. Perform a design survey consisting of trees 8-inches and larger, surface features, property lines and 1-foot topographic lines. Walker Partners, LLC will provide surveying support for the project. For the purposes of this proposal it has been assumed that the gravity line will be approximately 8,660 feet in length and no more than 40% of the area surveyed is in heavy vegetative cover.
- 2. Prepare field notes and descriptions for easement documents in accordance with City standards. For estimating purposes temporary and permanent easements on eleven (11) parcels have been assumed with the temporary and permanent easement metes and bounds one document per parcel. Obtain "title abstracts" for each easement parcel and analyze the effect of the instruments listed in the associated Schedule B.
- 3. Cobb-Fendley will pothole the two gas lines by vacuum excavation methods to determine exact horizontal and vertical location for design of the gravity interceptor.

Task 3 – Final Design

- 1. Project Management and QA/QC – This task includes routine communication with the City; managing subconsultants, manpower, budgets, and schedules; invoicing; implementing and monitoring of QA/QC efforts; and other activities associated with managing the project.
- 2. Project Meetings – Four (4) project meetings have been budgeted for the Design Phase.
- 3. Right of Entry – KFA will coordinate with LAN to request right of entry from land owners along the pipeline route and through LAN, meet with property owners about the route to discuss alignment, easement, and access.

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4. Environmental and Archaeology – Cox|McLain will provide environmental support for the project, including:
 - a. Water Resources: Delineation of waters of the U.S. and wetlands falling within the jurisdiction of the U.S. Corps of Engineers (does not including preparation of a Pre-construction Notification or Individual Permit to USACE);
 - b. Cultural resources investigations and permitting - Cox|McLain will prepare a Texas Antiquities Permit to be signed by the City and submit the permit to THC. After obtaining the permit a field survey will be carried out and documented as required. It is anticipated that shovel testing and backhoe testing will be required but that collection of artifacts will not be required.
5. Geotechnical Investigation – Raba-Kistner will perform twelve (12), geotechnical borings along the interceptor route with average depth of 20 feet, conduct appropriate laboratory testing; and summarize the field investigation results and recommendations in a geotechnical report as appropriate.
6. Property Owner Coordination: Through LAN, meet with property owners about the route to discuss alignment, easement, and access
7. Plan Preparation – KFA shall prepare construction plans suitable for public bidding to include notes, plan and profile sheets, mechanical plans and sections, details, environmental protection, traffic control, and work and storage locations. Plan and profile sheets shall be at 1"=40' horizontal and 1"=4' vertical scale. The following sheets have been assumed in developing this proposal:
 - a. Cover, Notes, General Sheets (4)
 - b. Interceptor Plan & Profile w/E&S Controls (17)
 - c. Traffic Control (1)
 - d. Civil and Miscellaneous Details (6)
8. Contract Documents and Technical Specifications – KFA will develop a Project Manual consisting of the City's Standard Construction Contract Bid Documents and Technical Specifications. Special Provisions to the Standard Technical Specifications and Special Specifications will be developed if required for the project.
9. Engineer's Opinion of Probable Construction Cost – Class B estimates ($\pm 10\%$) will be provided at the 60% and 100% design stages, and a Class A estimate ($\pm 5\%$) will be provided with the Final Submittal.
10. Submittals - Progress submittals will be provided at the 60%, 100% and Final design phases. 60% and 100% submittals will consist of the following:

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- 3 full size plan sets
- 3 sets of the Project Manual
- Engineer's Opinion of Probable Construction Cost
- Project Schedule
- Response to written review comments from previous submittal

The Final Submittal will include:

- One full size set of Construction Plans
- One Original Project Manual
- Electronic copy of Construction Plans and Project Manual in Portable Document Format
- Engineer's Opinion of Probable Construction Cost
- Project Schedule

11. Final Engineering Report – KFA will update the PER with final design information and include the data necessary to satisfy the Final Design Report requirements of TCEQ Chapter 217.

Task 4 - Permitting

1. Travis County – KFA will coordinate with Travis County to permit the project.
2. TCEQ Storm Water Permit – KFA will prepare and submit a TCEQ Stormwater Pollution Prevention Plan.
3. TCEQ Chapter 217 Review – KFA will submit an Engineer's Summary Letter to TCEQ describing the project and requesting any variances to Chapter 217 as appropriate. KFA will provide follow-up submittals and coordination with TCEQ as requested.
4. LCRA Power Line Crossing – KFA will coordinate with LCRA to obtain concurrence for the proposed pipeline crossing of LCRA's power transmission easement crossing.
5. Atmos Gas Line Crossing – KFA will coordinate with Atmos to obtain concurrence for the proposed pipeline crossing of Atmos's gas line easement. It is anticipated that this task will include potholing and survey of the existing gas lines to obtain exact location and elevation.

Task 5 - Bid-Award-Execution Phase

1. Project Management – This task includes routine communication with the City; managing manpower, budgets, and schedules; invoicing; and other activities associated with managing the project.
2. Pre-Bid Conference - KFA will assist the City in conducting a pre-bid conference and developing the agenda. KFA will take minutes or make other provision for documenting the results of the pre-bid conference. KFA will also record all questions and requests for additional information, and coordinate with the City for issuing responses and additional information.

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3. Questions/Addenda - KFA will assist the City in issuing all Addenda to the Bid Documents and distribute Addenda to the bidders. All Addenda shall be approved by the City. KFA will respond to Bidder's questions through the use of the Civcast system.
4. Bid Opening and Evaluation – KFA will assist the City in opening of bids, review all bids and evaluate them for responsiveness and bid amount. KFA will also check references, by telephone, of the low bidder and second low bidder. KFA will prepare a letter summarizing the review and evaluation and include recommendations for award of the contract for construction, or other action as may be appropriate. The City shall make the final decision on the award of the contract for construction and the acceptance or rejection of all bids.
5. Conformed Documents – KFA will incorporate addenda items in the Construction Plans, include addenda in the bound Project Manual, and issue a “Conformed” set of plans for construction.

Task 6 – Construction Phase

1. Project Management – This task includes routine communication with the City; managing manpower, budgets, and schedules; invoicing; and other activities associated with managing the project.
2. Attend pre-construction conference - KFA will attend a pre-construction conference for the project with the City, Contractor, and other parties as appropriate.
3. Attend regular construction meetings and conduct site visits- KFA will attend regular construction meetings with the City, Contractor, and other parties as appropriate. KFA will visit the site to check the progress of the work and verify general conformance with the project plans and technical specifications. For budgeting purposes we have assumed ten (10) combined site visits/meetings.
4. Submittal Review - KFA will maintain a log of all Contractor submittals, track review progress, review and approve submittals, and distribute submittals to the appropriate parties. For budgeting purposes we have assumed twenty (20) submittals.
5. Preparation of Change Orders - KFA will provide review of all Contractor's requests for Change Orders and coordinate Change Orders with the City as appropriate. For budgeting purposes we have assumed two (2) change orders.
6. RFI's - KFA will log and respond to all requests for information (RFI's) from the Contractor related to possible clarifications of plans and technical specifications. Five (5) RFI's have been assumed.
7. Pay Application Review – KFA will review Contractor's Pay Applications after quantity concurrence by the City's Construction Inspector. Review of 9 Pay Applications has been assumed.
8. Contract Closeout - KFA will participate in one site visit to determine outstanding items and document “punch list items”. KFA will issue a Certificate of

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Completion when the contract requirements have been met. KFA will also notify TCEQ and other jurisdictional agencies of completion.

9. Record Drawings - KFA will review the Contractor's redline as-built drawings and incorporate deviations from the construction drawings as appropriate. KFA will deliver one set of full size bond drawings and one pdf electronic copy.

Task 7 – Materials Testing

1. Raba Kistner Consultants, Inc. have provided an estimated materials testing budget based on the current project understanding to include density testing of the backfill at 300 foot intervals on an average pipe depth of 15'

Schedule

The following project milestones are estimated and may require modification pending preliminary engineering results and construction timeframe constraints assuming an April 15th, 2015 NTP.

• Preliminary Route Analysis Results	May 15, 2015
• Draft PER	June 26, 2015
• Final PER	July 24, 2015
• 60% Design Documents Submittal	September 25, 2015
• 100% Design Documents Submittal	December 4, 2015
• Final Design Documents Submittal	January 15, 2016
• Construction Substantially Complete	March 2017

City Responsibilities

1. The City will provide to KFA all data in the City's possession relating to KFA's services on the Project. KFA will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by the City.
2. The City will give prompt notice to KFA whenever the City observes or becomes aware of any development that affects the scope or timing of KFA's services.
3. The City shall examine information submitted by KFA and render in writing or otherwise provide comments and decisions in a timely manner.
4. The City will facilitate communications with Travis County in the event KFA is unable to facilitate communication independently.
5. The City will facilitate communications with Land Owners in the event KFA is unable to facilitate communication independently.
6. The City will facilitate communications with utility providers in the event they are non-responsive to KFA.

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7. The City will obtain easements or purchase land for all properties as necessary to complete construction of the project.
8. The City will pay for all permit and license fees.
9. The City will pay fees and directly administer public bid advertisement.
10. Provide Construction Inspection Services

ADDENDUM TO EXHIBIT B WORK SCHEDULE

Schedule

The following project milestones are estimated and may require modification pending preliminary engineering results and construction timeframe constraints assuming an April 15th, 2015 NTP.

- | | |
|---------------------------------------|--------------------|
| • Preliminary Route Analysis Results | May 15, 2015 |
| • Draft PER | June 26, 2015 |
| • Final PER | July 24, 2015 |
| • 60% Design Documents Submittal | September 25, 2015 |
| • 100% Design Documents Submittal | December 4, 2015 |
| • Final Design Documents Submittal | January 15, 2016 |
| • Construction Substantially Complete | March 2017 |

**CITY OF PFLUGERVILLE
CARMEL INTERCEPTOR PHASE 1**

**ADDENDUM TO EXHIBIT C
FEE SCHEDULE**

Task	Principal/ QA/QC Hrs	Project Manager Hrs	Project Engineer Hrs	Senior Technician Hrs	Admin Hrs	Total Hrs	Labor Cost \$	C-M \$	Walker \$	RKI \$	C-F \$	Total Subconsultants \$	Expenses \$	Total Cost \$
Task 1 - Preliminary (30%) Design Phase														
1 Project Management & QA/QC	8	12			8	28	\$3,800					\$0	\$100	\$3,900
2 Project Meetings (3)	6	9	9			24	\$3,345					\$0	\$150	\$3,495
3 Data Gathering & Base Mapping		2	4	8		14	\$1,340					\$0		\$1,340
4 Line Sizing Confirmation	4	8	20	4		36	\$4,080					\$0		\$4,080
5 Route Analysis & Location Eval														
a Identify Candidate Alignments	2	4	8	4		18	\$2,040					\$0		\$2,040
b Preliminary Environmental		1	1			2	\$245	\$3,000				\$3,000		\$3,245
c Geologic Assessment						0	\$0					\$0		\$0
d Const Methods & Materials		2	4			6	\$660					\$0		\$660
e Easement/Access Evaluation	2	2	8	4		16	\$1,720					\$0		\$1,720
6 Cost Estimate	1	4	8			13	\$1,510					\$0		\$1,510
7 PER & 30% plans	8	20	48	32	8	116	\$11,880					\$0	\$200	\$12,080
Subtotal Task 1	31	64	110	52	16	273	\$30,620	\$3,000	\$0	\$0	\$0	\$3,000	\$450	\$34,070
Task 2 - Survey & Easements														
1 Design Survey									\$41,000			\$41,000		\$41,000
2 Easements								\$38,500				\$38,500		\$38,500
3 Potholing											\$2,400	\$2,400		\$2,400
Subtotal Task 2	0	0	0	0	0	0	\$0	\$0	\$79,500	\$0	\$2,400	\$81,900	\$0	\$81,900
Task 3 - Final Design														
1 Project Management & QA/QC	40	32			12	84	\$13,260					\$0	\$200	\$13,460
2 Project Meetings (4)	8	16	16			40	\$5,440					\$0	\$400	\$5,840
3 Right-of-Entry & Property Coordination		4	8	8		20	\$2,000					\$0	\$100	\$2,100
4 Environmental & Archaeology														
a Water Resources		2				2	\$320					\$0		\$320
b Cultural Resources		2				2	\$320	\$8,145				\$8,145		\$8,465
5 Geotechnical Investigation		2	4	4		10	\$1,000			\$10,900		\$10,900		\$11,900
6 Plan Preparation		104	220	260		584	\$57,440					\$0		\$57,440
7 Contract Docs & Tech Specs		20	40			60	\$6,600					\$0		\$6,600
8 Cost Estimates		8	16			24	\$2,640					\$0		\$2,640
9 Submittal Prep		12	12	12	8	44	\$4,320					\$0	\$2,000	\$6,320
10 Final Engineering Report		4	8	8		20	\$2,000					\$0	\$100	\$2,100
Subtotal Task 3	48	206	324	292	20	890	\$95,340	\$8,145	\$0	\$10,900	\$0	\$19,045	\$2,800	\$117,185
Task 4 - Permitting														
1 Travis County	1	4	8			13	\$1,510					\$0	\$25	\$1,535
2 TCEQ SWPPP		8	12			20	\$2,300					\$0		\$2,300
3 TCEQ Ch 217		4	8			12	\$1,320					\$0		\$1,320
4 LCRA (Power Line Crossing)	1	4	8	2		15	\$1,680					\$0		\$1,680
5 Atmos (Gas Line Crossing)	1	10	12	4		27	\$3,150					\$0	\$50	\$3,200
Subtotal Task 4	3	30	48	6	0	87	\$9,960	\$0	\$0	\$0	\$0	\$0	\$75	\$10,035
Task 5 - Bid-Award-Execution Phase														
1 Project Management		4			2	6	\$730					\$0		\$730
2 Pre-Bid Conference		4	4			8	\$980					\$0	\$50	\$1,030
4 Questions/Addenda	4	8	16	4		32	\$3,740					\$0		\$3,740
5 Bid Opening & Evaluation	1	4	8			13	\$1,510					\$0	\$50	\$1,560
6 Conformed Documents		2	4	4		10	\$1,000					\$0	\$50	\$1,050
Subtotal Task 5	5	22	32	8	2	69	\$7,960	\$0	\$0	\$0	\$0	\$0	\$150	\$8,110
Task 6 - Construction Phase														
1 Project Management		12			12	24	\$2,460					\$0	\$100	\$2,560
2 Pre-Construction Conference		8	8			16	\$1,960					\$0	\$100	\$2,060
3 Construction Mtgs & Site Visits (10)		20	40			60	\$6,600					\$0	\$1,000	\$7,600
4 Submittal Review (20)	4	10	20			34	\$4,060					\$0	\$500	\$4,560
5 Change Orders (2)	4	12	16	8		40	\$4,720					\$0	\$100	\$4,820
6 RFIs (5)	4	5	10	8		27	\$3,090					\$0		\$3,090
7 Pay Application Review (9)		6	12			18	\$1,980					\$0		\$1,980
9 Contract Close-out	2	8	8			18	\$2,340					\$0	\$100	\$2,440
10 Record Drawings		2	8	12		22	\$2,020					\$0	\$500	\$2,520
Subtotal Task 6	14	83	122	28	12	259	\$29,230	\$0	\$0	\$0	\$0	\$0	\$2,400	\$31,630
Task 7 - Materials Testing														
1 Materials Testing						0	\$0			\$16,500		\$16,500		\$16,500
Subtotal Task 7	0	0	0	0	0	0	\$0	\$0	\$0	\$16,500	\$0	\$16,500	\$0	\$16,500
Total	101	405	636	386	50	1578	\$173,110	\$11,145	\$79,500	\$27,400	\$2,400	\$120,445	\$5,875	\$299,430