HALFF

April 18, 2017

City of Boerne
402 E. Blanco
Boerne, Texas 78006

Attention: Mr. Michael Mann, P.E., Public Works Director
Email: mmann@cit.boerne.tx.us

RE: Interstate Highway 10 Water and Wastewater Relocations
(Texas Dept. of Transportation - CSJ 0072-06-075, 076)

Dear Mr. Mann:

Halff Associates, Inc. (Halff) is pleased to present our proposal for professional services required for the above referenced project. This proposal is prepared for an approximate 3.1 mile reach of Interstate Highway 10 located in Boerne County, Texas.

The scope of services includes necessary civil engineering, subsurface utility exploration, and construction phase services necessary for completion of the water and wastewater utility relocations affiliated with the IH-10 roadway project being conducted by the Texas Department of Transportation (TxDOT). We have developed the attached scope of work and fee schedule for the proposed project. The following attachments are included with the Proposal:

Exhibit "A" Proposed Scope of Services
- Attachment "A" Preliminary Conflict Analysis
- Attachment "B" Schedule of Fees

Exhibit "B" Standard Agreement

The scope of services for this utility relocation project was developed off a request provided to Halff on March 24, 2017 as part of utility coordination meeting for the IH-10 highway project. That request specified certain measures that were to be included within the scope of services, specifically a time and materials proposal.

We trust this proposal meets your requirements for this project. We appreciate the opportunity to be of service and trust that our association on this project will be mutually beneficial. We are available to meet with you to discuss this scope and answer any questions you may have. Feel free to contact me at 512-942-6219.

It is the intent of the Parties to this Agreement that Engineer's services under this Agreement shall not subject Engineer's individual employees, officers or directors to any personal legal exposure for claims and risks associated with the services performed or performable under this Agreement.

HALFF ASSOCIATES, INC.
9500 AMBERGLEN BLVD., BUILDING F, SUITE 125
AUSTIN, TX 78729
TEL (512) 777-4600
FAX (512) 252-8141
WWW.HALFF.COM

APPROVED:
Engineer: **HALFF ASSOCIATES, INC.**

Signature: 

Name: Shawn Bertram, P.E.

Title: Public Infrastructure Manager

Date: 4/18/2017

APPROVED: CITY OF BOERNE, TEXAS
Client: _____

Signature: _____

Name: _____

Title: _____

Date: _____

Cc: Ryan Lewis, PE – SUE/Utility Team Leader, Halff Associates, Inc.
Dan Franz, PE, CFM – Senior Project Manager, Halff Associates, Inc

Exhibit "A"
Scope of Services
For
IH-10 Utility Relocates
City of Boerne

PROJECT DESCRIPTION

The Texas Department of Transportation (TxDOT) currently is contracted with Halff Associates (Halff) for design services associated with IH-10 roadway improvements from SH46 to Scenic Loop Drive (CSJ 0072-06-075, 076). This project includes frontage road additions, driveway and access point adjustments, as well as interchange and ramp modifications. The City of Boerne (City) requested a proposal from Halff for the design of all water and wastewater utilities in conflict with the proposed IH-10 roadway improvements. Halff is also contracted with TxDOT to perform subsurface utility exploration (SUE) for the I-10 roadway project and has preliminary identified all City of Boerne utilities which are in conflict.

PROJECT ASSUMPTIONS

- Contract for utility relocations will be between Halff and the City of Boerne
- The IH-10 roadway project is interstate, therefore the City will be reimbursed 100% by TxDOT for costs associated with the required utility relocations
- The roadway improvements are planned to be let for bidding in December 2017
- Utility conflict mitigation limits for the City of Boerne are SH46 to Scenic Loop Drive (CSJ 0072-06-075,076)
- Utility relocation PS&E will be prepared and included as part of the TxDOT IH-10 project. TxDOT online utility review of the relocation plans is not included with this scope of services. If online submittal and review of the plans will be required by TxDOT, a supplemental service agreement will be executed

PHASE 1 – Project Management and Coordination

a) Engineer will manage the design team schedule and budgets, including sub-consultants, and maintain project records contracts in accordance with the agreement.
b) Engineer will prepare monthly invoices in a format acceptable to the city along with a progress report of activities accomplished during the period.
c) Attend up to three (3) coordination meetings at the city offices with city staff

Deliverables – Monthly Progress Reports, Meeting Minutes

PHASE 2 – Data Collection and Review

Task 1 – Data Acquisition

Halff will review existing record drawing and existing easement information obtained from the City including but not limited to:

a) As-built records for all available City water, wastewater and gas utilities within the area of study.
b) Existing plat and separate instrument easement documents recorded with the Boerne and Kendall Counties.
c) Pending development plans with anticipated connections or easement dedications to the City of Boerne.

Task 2 – Subsurface Utility Engineering and Utility Coordination

a) Provide up to ten (10) SUE quality level 'A' test holes at locations of potential conflict as identified through the preliminary conflict analysis process for IH-10. A copy of these identified locations is included as Attachment "A" to this proposal.
b) Perform conflict analysis with proposed improvements.
c) Attend up to two (2) utility coordination meetings on behalf of the City as part of the associated TxDOT IH-10 roadway improvement project.

Deliverables –SUE test hole data sheets, conflict analysis spreadsheet, meeting minutes

PHASE 3 – Preliminary Design

a) Based upon the information from Phase 2, Tasks 1 & 2, Halff will investigate possible design alternatives for each identified conflict.
b) Halff will include a preliminary Engineer's Opinion of Probable Construction cost for the identified conflicts and mitigation.
c) Halff will present the mitigation alternatives to the City of Boerne for review and direction on how to proceed with formal utility relocation design.

PHASE 4 – Utility Design – Based on direction from City as a result of Task 3, Halff shall develop plans, specifications, and estimate (PS&E) to be incorporated into construction documents for use in bidding and constructing of the TxDOT initiated IH-10 project. Plans will be prepared and submitted to the City of Boerne and TxDOT to coincide with the 60%, 95%, and Bid phase submittals. The final design will consist of the following tasks and is based on the assumptions below:

- Utility design will in accordance with the following manuals and standards:
  - City of Boerne Utility requirements, Codes and Ordinances, and Standard Construction Details
  - Texas Commission on Environmental Quality (TCEQ)
- Utility relocation design will be submitted for review and approval by TxDOT
- TxDOT approved utility relocation design will be incorporated into the IH-10 construction drawings

Task 1 - 60% PS&E Documents

1. The 60% PS&E construction plan set shall consist of the following:
   a) Utility general notes
   b) Demo and Removal plan
   c) Construction traffic control plan
   d) Water and Wastewater plan/profile sheets
   e) Erosion control plans
   f) Standard and project specific details
   g) Detail Sheets

2. Prepare draft technical specifications for the water and wastewater utility relocations for the IH-10 project. City of Boerne specifications to supplement TxDOT general conditions.
3. Prepare a 60% opinion of probable construction costs (OPCC)

Task 2 - 95% and Bid Set PS&E Documents

1. The 95% PS&E construction plan shall consist of the following:
   a) Incorporate City of Boerne and TxDOT review comments on the 60% submittal.
   b) Prepare any additional sheets required that were not included in the 60% submittal phase.
   c) Revise technical specifications for the water and wastewater utility relocations associated with the IH-10 project. City of Boerne specifications to supplement TxDOT general conditions.
   d) Prepare a 95% opinion of probable construction costs (OPCC)

Task 3- Bid Construction Documents

   a) Incorporate City of Boerne and TxDOT review comments on the 95% submittal.
   b) Finalize, seal, and incorporate the utility relocation plans into the IH-10 project bid construction document package.

Deliverables –60%, 95%, and bid construction submittals of plans, specifications and opinion of probable construction cost

PHASE 5 – Construction Phase Services

These services are intended to assist the City in administering the contract for construction, monitoring the performance of the construction Contractor, verifying that Contractor's work is in substantial compliance with the contract documents, and assisting the City in responding to the events that occur during construction. Administration Services as defined below.

Task 1 – Submittals

Review of Shop Drawings, Samples and Submittals - Halff review and approve all submittals for utility relocation of the Contractor's shop drawings, samples and other submittals for conformance with the design concept and general agreement of the contract .

Halff will log and track all shop drawings, samples and submittals. Halff shall coordinate with City of Boerne for quality control.

Task 2 - Requests for Information (RFI)

Halff will review the Contractor's requests for information or clarification of the contract for construction. Halff will coordinate and issue responses to requests to Contractor. Halff will log and track the Contractor's requests. Five (5) RFI's are assumed as part of this proposal.

Task 3- Review of Contractor's Requested Changes

Halff shall review all Contractor-requested changes to the contract for construction. Halff will make recommendations to City regarding the acceptability of the Contractor's request and, upon approval of the City, assist in negotiations of the requested change. Upon agreement and approval, Halff shall prepare and submit supporting change order documents and plan revisions.

Task 4- Status Meetings and Site Visits

Halff shall assume three (3) construction status meetings and visit site to observe progress. Site visits will be performed on the same day that status meeting is attended.

Task 5 -Completion of Record Documents

Halff shall prepare construction Record Documents based on information received from the Construction Contractor within thirty (30) days of substantial completion of construction and provide one (1) set of paper hard copy reproducible and one (1) electronic set of record drawings and documents to the City of Boerne. These record documents are a compilation of the sealed engineering drawings for the IH-10 utility relocation project, modified by addenda and change orders, and information furnished by the contractor. Information shown in the record documents provided by the contractor, or others not associated with the design engineer, cannot be verified for accuracy or completeness..

ITEMS EXCLUDED FROM SCOPE OF SERVICES

1. Archeological survey and/or historic structure survey, including application for an Antiquities Permit, preparation of a historic research design, performing cultural resources reconnaissance or intensive surveys, evaluation of any resources for eligibility for listing in the NRHP, evaluation of effects on NRHP-eligible or NRHP-listed sites, or development of mitigation plans
2. USFWS and TPWD coordination/consultation
3. Field surveys for federal and state-listed threatened and endangered species.
4. Phase I Environmental Site Assessment
5. Design of public and franchised utility adjustments that are not noted in the above scope
6. Analyzing or simulating water supply networks
7. Storm Water Pollution Prevention Plan (SWPPP)
8. Property acquisition or negotiations, including easements
9. Filing fees, permit fees, and license fees
10. Coordination with individual property owners
11. Contractor Pay Application Review
12. Drafting any City Council agenda items, exhibits, ordinances, resolutions or attendance of council meetings
13. Engineers certificates. The Engineer shall not be required to execute any documents subsequent to the signing of this Agreement that in any way might, in the judgment of the Engineer, increase the Engineer's risk or the availability or cost of his professional or general liability insurance

Any additional services required beyond those specifically identified in this proposal are beyond the scope of services to be provided. Additional services, if requested, will be separately identified and negotiated and such additional scope and commensurate fee will be authorized under a supplemental agreement to this proposal/contract.

Payment Terms

Payment for services is on a time and materials basis, not to exceed the total amount listed below. This amount shall be payable by the City pursuant to the rate schedule listed below. Reimbursable expenses will be billed at cost plus 10%.

Job Title	Hourly Rate
Project Manager/Sr QC	$216.78
Senior Project Engineer (PE)	$177.35
Project Engineer (PE)	$145.78
Design Engineer (PE)	$123.24
Sr. Engineer Tech.	$111.22
Engineer in Training I	$96.19
Sr. CADD/GIS Tech	$93.18
CADD/GIS Tech	$75.15
Survey Manager (RPLS)	$159.54
Surveyor (RPLS)	$150.29
SUE Manager	$159.31
Survey/SUE Tech	$84.16
Sr. Survey Tech	$105.30
SUE Test Hole (each)	$1,300
Landscape Architect I	$102.20
Administrative Assistant	$66.13

Schedule of Payment for each phase (Breakdown of estimated hours is included in Attachment B to this proposal):

PHASE 1 – Project Management and Coordination

Task 1 – Project Management…….	$8,268.06

PHASE 2 – Data

Task 1 – Data Collection and Review……..…….	$4,088.00
Task 2 – Subsurface Utility Engineering and Utility Coordination…	$14,377.00
SUB-TOTAL PHASE 2 FEE (including direct expenses)…….……..	$18,464.80

PHASE 3 – Preliminary Design

Task 1 – Preliminary Design……..……..…….	$16,023.86

PHASE 4 –Design

Task 1 - 60% Construction Documents..……..…..…….	$19,828.00
Task 2 - 95% Construction Documents..……..……..….	$17,604.00
Task 3 – Bid Construction Documents…… ….….	$15,199.00
SUB-TOTAL PHASE 4 FEE (including direct expenses)…….……	$52,631.42

PHASE 5 – Construction Phase Services

Task 1 – Submittals.……..….	$3,998.00
Task 2 - Requests for Information (RFI)……..……..….	$3,998.00
Task 3 – Review of Contractors Requested Changes…..……..….	$3,108.00
Task 4 – Status Meetings and Site Visits…….…..……..….	$5,573.00
Task 5 – Record Drawings…….……..…..….	$2,664.00
SUB-TOTAL PHASE 5 FEE (including direct expenses)…….……	$19,340.56

FEE SUMMARY

SUB-TOTAL PHASE 1 ……...……	$8,268.06
SUB-TOTAL PHASE 2 ……...……	$18,464.80
SUB-TOTAL PHASE 3 ……...……	$16,023.86
SUB-TOTAL PHASE 4 ……	$52,631.42
SUB-TOTAL PHASE 5 ……	$19,340.56

TOTAL FOR PHASES 1-5 (including direct expenses)…… $114,728.70

TxDOT-SAT Utility Conflict Matrix
(Rev: 8/9/16)

CCSJ/RCSJ: *C-0072-06-075,076/ R-0072-06-080,078*
Highway: *IH 10*
Limits: *from SH 46 to Scenic Loop Rd.*
Current Design Phase: *30%*

Utility Conflict Matrix Developed/Revised By: Terry Walker
Date: 3/23/2017
Reviewed By: Ryan Lewis, P.E.
Date: 3/23/2017

Utility Owner and/or Contact Name	U-Number or Status	Conflict ID	Drawing or Sheet No.	Existing Utility Description- Utility Size, Type, Material	Conflict Location: (Start-End STA with Offsets)	Conflict Description [Type of structure (drainage, drill shaft, under pavement, clearance information, etc.)	Utility Investigation Level Obtained	Test Hole #	Recommended Action or Resolution	Proposed Solution Meets UAR Standards (Y/N) --> if "No", need status of Utility Exception)	Estimated Construction Start Date	Estimated Construction Completion Date	Resolution Status (Responsible Party, Action Item)
City of Boerne (Water) W	U# TBD (Submitted to TxDOT 2/22/17)	4	5	16" PVC Water	783+30 -783+95, 362' RT	Existing 16" W crossing proposed Upper Balcones Rd. Ensure adequate depth below proposed grade (30" min per UAR) (line is 4' min. below grade per as-built) (XX' cut/fill per cross-section)	QL-D	N/A	Option 1: Confirm cut/fill. Option 2: Relocate if necessary. (No conflict anticipated)				*Halff (Option 1) City of Boerne (Option 2)*
		5	5	16" PVC Water	783+96, 419' LT	Existing 16" W crossing proposed drainage. Ensure adequate vertical clearance below proposed drainage (1' min, 2' desirable per UAR) (line is 4' min. below grade per as-built) (Prop bottom of inlet = XXX.XX)	QL-D	1	Option 1: Analyze shifting inlet to avoid crossing. Option 2: Confirm prop. FL/TH to confirm depth. Option 3: Relocate if necessary.				*Halff (Option 1/2) City of Boerne (Option 3)*
		6	5	16" PVC Water	784+45, 339' RT	Existing 16" W crossing proposed drainage. Ensure adequate vertical clearance below proposed drainage (1' min, 2' desirable per UAR) (line is 4' min. below grade per as-built) (Prop drainage = XXX.XX)	QL-D	2	Option 1: Confirm prop. FL/TH to confirm depth. Option 2: Relocate if necessary.				*Halff (Option 1) City of Boerne (Option 2)*
		7	5	16" PVC Water (2 Valves)	785+85, 291' RT, 787+64 224' RT	Existing WV's adjacent to ROW. (Top of 785+85 WV = 1458.65) (Top of 787+64 WV = 1452.68) (XX' cut/fill per cross-section)	QL-C	N/A	Option 1: Confirm cut/fill. Option 2: Adjust to grade if necessary.				*Halff (Option 1) City of Boerne (Option 2)*
		8	7	16" PVC Water	790+38, 163' RT	Existing 16" W crossing proposed drainage. Ensure adequate vertical clearance below proposed drainage (1' min, 2' desirable per UAR) (line is 4' min. below grade per as-built) (Prop bottom of inlet = 1441.57')	QL-D	3	Option 1: Confirm prop. FL/TH to confirm depth. Option 2: Relocate if necessary.				*Halff (Option 1) City of Boerne (Option 2)*
			7	16" PVC Water	790+90, 156' RT	Existing 16" W crossing proposed drainage. Ensure adequate vertical clearance below proposed drainage (1' min, 2' desirable per UAR) (line is 4' min. below grade per as-built) (Prop drainage = XXX.XX)	QLD		Option 1: Confirm prop. FL/TH to confirm depth. Option 2: Relocate if necessary.				
		9	8	16" PVC Water (Valve)	801+20, 153' RT	Existing WV in proposed driveway. (Top of WV = 1436.71) (1.1' fill per cross-section)	QL-C	N/A	Adjust existing valve to finished grade.	Y	Joint Bid	Joint Bid	*City of Boerne*
		10	9	16" PVC Water	812+36, 174' LT, 184' RT IH 10 EBFR Crossing	Existing 16" W crossing proposed EBFR pavement/pond/headwall Ensure adequate depth below proposed grade (30" min per UAR) (5' cut for pond)	QL-B	4	Option 1: TH to confirm depth. Option 2: Relocate if necessary.				*Halff (Option 1) City of Boerne (Option 2)*
		11	9	12" PVC Water (2 Valves/FH)	816+28, 181' RT	Existing WVs/FH adjacent to ROW. (Top of WVs = 1416.54, 1417.09) (No cut/fill per cross-section)	QL-C	N/A	No conflict/adjustment as no cut/fill.	N/A	N/A	N/A	*N/A*
		12	12, 13	12" DI Water	852+69, 310' LT - 854+76, 507' LT Bus 87 Crossing	Existing 12" W crossing proposed Bus. 87 pavement. Ensure adequate depth below proposed grade (30" min per UAR) (line is 4' min. below grade per as-built) (XX' cut/fill per cross-section)	QL-B	N/A	Option 1: Confirm cut/fill. Option 2: Relocate if necessary.				*Halff (Option 1) City of Boerne (Option 2)*
		13	14	12" DI Water	858+79, 340'LT - 859+59, 315' LT	Existing 12" W crossing proposed driveway/adjacent WV/FH. Ensure adequate depth below proposed grade (30" min per UAR) (line is 4' min. below grade per as-built) (fill per cross-section)	QL-B	N/A	Adjust existing valve to finished grade.	Y	Joint Bid	Joint Bid	*City of Boerne*

City of Boerne (Water) W	U# TBD (Submitted to TxDOT 2/22/17)	14	15	12" DI Water (7 Valves)	866+30, 154' LT 867+31, 149' LT 870+27, 143' LT 872+10, 141' LT 873+00, 143' LT 875+70, 139' LT	Existing WVs in proposed driveway/adjacent to ROW in fill. (Top of 866+30 WV = 1440.49, 1.4' fill) (Top of 867+31 WV =1440.62, 1.7' fill) (Top of 870+27 WV = 1444.27, 1' fill) (Top of 872+10 WVs = 1446.71, 1446.68, 1.9' fill) (Top of 873+00 WV = 1447.89) (Top of 875+70 WV = 1448.30, 2' fill)	QL-C	N/A	Adjust existing valves to finished grade.	Y	Joint Bid	Joint Bid	*City of Boerne*
		15	17	12" PVC Water (Valve)	897+44, 144' LT	Existing WV adjacent to ROW in fill. (Top of WV = 1426.62) (0.70' fill per cross-section)	QL-C	N/A	Adjust existing valve to finished grade.	Y	Joint Bid	Joint Bid	*City of Boerne*
		16	18	12" PVC Water (6 Valves)	899+27, 144' LT, 902+28 146' LT, 905+52, 158' LT, 908+20, 190' LT	Existing WVs adjacent to ROW in fill. (Top of 899+27 WVs = 1420.02, 1419.57, 2.4' fill) (Top of 902+28 WV = 1416.17, 2.5' fill) (Top of 905+52 WVs = 1414.04, 1413.73, 1.4' fill) (Top of 908+20 WV = 1409.72)	QL-C	N/A	Adjust existing valves to finished grade.	Y	Joint Bid	Joint Bid	*City of Boerne*
		17	18	12" PVC Water	904+80, 149' LT	Existing 12" W crossing proposed drainage. Ensure adequate vertical clearance below proposed drainage (1' min, 2' desirable per UAR) (line is 4' min. below grade per as-built) (Prop drainage = 1410.51')	QL-D	5	Option 1: Confirm prop. FL/TH to confirm depth. Option 2: Relocate if necessary.				*Halff (Option 1)* *City of Boerne (Option 2)*
		18	18	12" PVC Water	908+44, 191' LT	Existing 12" W adjacent to drainage. Ensure adequate vertical clearance below proposed grade and drainage if extended (1' min, 2' desirable per UAR) (line is 4' min. below grade per as-built) (30" min per UAR) (XX' cut/fill per cross-section) (Prop drainage = 1405.69')	QL-D	N/A	Option 1: Confirm cut/fill/prop. FL. (Proposed extension eliminated) Option 2: Relocate if necessary.				*Halff (Option 1)* *City of Boerne (Option 2)*
		19	19	16" PVC Water (in 30" Steel Casing)	911+80, 190' LT - 200' RT IH 10 Crossing	Existing 16" W crossing proposed IH 10 pavement/proposed drainage. Ensure adequate depth below proposed grade (30" min per UAR) (2.9' fill LT. per cross-section) (Prop drainage = XXX.XX)	QL-B	6	Option 1: Confirm prop. FL/TH to confirm depth. Option 2: Relocate if necessary.				*Halff (Option 1)* *City of Boerne (Option 2)*
City of Boerne (Wastewater) WW	U# TBD (Submitted to TxDOT 2/22/17)	19A	5	8" Wastewater	783+77, 377' RT	Existing WW manhole in proposed Upper Balcones Rd./culvert. (Top of MH = 1435.73) (XX' cut/fill per cross-section) Ensure adequate vertical clearance below proposed drainage culvert (1' min, 2' desirable per UAR) (8" FL = 1454.74) (Prop drainage = XXX.XX)	QL-C	N/A	Option 1: Analyze shifting driveway culvert to avoid manhole/confirm prop. FL.. Option 2: Adjust existing manhole to finished grade. Option 3: Relocate if necessary.				*Halff (Option 1)* *City of Boerne (Option 2/3)*
		20	7	8" Wastewater	790+41, 160' RT	Existing 8" WW crossing proposed drainage. Ensure adequate vertical clearance below proposed drainage (1' min, 2' desirable per UAR) (8" FL = 1441.85) (Prop bottom of inlet = 1441.57')	QL-B	N/A	Option 1: Confirm prop. FL. Option 2: Relocate if necessary.				*Halff (Option 1)* *City of Boerne (Option 2)*
			7	8" Wastewater	790+97, 162' RT	Existing 8" WW crossing proposed drainage. Ensure adequate vertical clearance below proposed drainage (1' min, 2' desirable per UAR) (8" FL = 1441.85) (Prop drainage = XXX.XX)	QL-B		Option 1: Confirm prop. FL. Option 2: Relocate if necessary.				
		21	7	8" Wastewater	791+31 791+81, 793+81, 159' RT	Existing 8" WW crossing proposed driveway/drainage/inlets. Ensure adequate vertical clearance below proposed drainage (1' min, 2' desirable per UAR) (8" FL = 1440.04, 1439.94, 1439.40) (Prop bottom of inlets = XXX.XX, XXX.XX) (Prop drainage = XXX.XX)	QL-B	N/A	Option 1: Confirm prop. FL. Option 2: Relocate if necessary.				*Halff (Option 1)* *City of Boerne (Option 2)*
		22	7	8" Wastewater	795+09, 159' RT	Existing 8" WW crossing proposed driveway/culvert. Ensure adequate vertical clearance below proposed drainage culvert (1' min, 2' desirable per UAR) (8" FL = 1438.47) (Prop drainage = XXX.XX)	QL-B	N/A	Option 1: Confirm prop. FL. Option 2: Relocate if necessary.				*Halff (Option 1)* *City of Boerne (Option 2)*

City of Boerne (Wastewater) WW	U# TBD (Submitted to TxDOT 2/22/17)	23	8	8" Wastewater	799+87, 159' RT	Existing 8" WW crossing proposed driveway/culvert. Ensure adequate vertical clearance below proposed drainage culvert (1' min, 2' desirable per UAR) (8" FL = 1432.52) (Prop drainage = XXX.XX)	QL-B	N/A	Option 1: Confirm prop. FL. Option 2: Relocate if necessary.				*Halff (Option 1) City of Boerne (Option 2)*
		24	8	8" Wastewater (Manhole)	801+85, 160' RT.	Existing WW manhole in proposed driveway/culvert. (Top of MH = 1435.73) (0.7' cut per cross-section) Ensure adequate vertical clearance below proposed drainage culvert (1' min, 2' desirable per UAR) (8" FL = 1429.49) (Prop drainage = XXX.XX)	QL-C	N/A	Option 1: Analyze shifting driveway culvert to avoid manhole/confirm prop. FL.. Option 2: Adjust existing manhole to finished grade. Option 3: Relocate if necessary.	Y	Joint Bid	Joint Bid	*Halff (Option 1) City of Boerne (Option 2/3)*
		25	9	16" PVC Wastewater	814+23, 192' LT, 201' RT IH 10 EBFR Crossing	Existing 16" WW crossing proposed EBFR pavement/pond. Ensure adequate depth below proposed grade (30" min per UAR) (LT MH flow line = 16.46', RT MH flow line = 18.54') (6' cut for pond)	QL-B	N/A	No conflict as adequate depth/clearance beneath pond	N/A	N/A	N/A	*N/A*
		26	13	8" PVC Wastewater	850+93, 534' LT - 852+10, 653' LT Bus 87 Crossing	Existing 8" WW crossing proposed Bus. 87 pavement. Ensure adequate depth below proposed grade (30" min per UAR) (W. MH flow line = 11.38', E. MH flow line = 11.90') (XX' cut/fill per cross-section)	QL-B	N/A	Option 1: Confirm cut/fill. Option 2: Relocate if necessary. (No conflict Anticipated)				*Halff (Option 1) City of Boerne (Option 2)*
		27	19	10" PVC Wastewater (in 24" Steel Casing)	912+15, 190 LT - 200' RT IH 10 Crossing	Existing 10" WW crossing proposed IH 10 pavement/proposed drainage. Ensure adequate depth below proposed grade (30" min per UAR) (LT MH depth = 9.05', RT MH depth = 19.65') (2.9' LT. fill per cross-section) (Prop drainage = XXX.XX)	QL-B	N/A	Option 1: Confirm prop. FL. Option 2: Relocate if necessary. (No conflict Anticipated)				*Halff (Option 1) City of Boerne (Option 2)*

Attachment B - Schedule of Fees

Professional Services on Time Materials Basis
IH-10 Utility Relocations - Water and Wasteawater

Date: 4/11/2017

TASK / DESCRIPTION		Sheets		PROJECT MANAGER	SR PE	PROJECT ENGINEER	DESIGN ENGINEER	SR ENG TECH	EIT I	SR CAD/GIS TECH	CADD / GIS TECH	SUE TEST HOLE	SURVEY / SUE MANAGER	SURVEY/ SUE TECH	CLERICAL / ADMIN	TOTAL MAN-HOURS	LABOR CHARGES	PRINTING, PLOTTING	DELIV, TRAVEL & SUE	SUB CONSULTANTS	TOTAL COST FOR TASK (INCL MULT'S)
PH1	PROJECT STARTUP & MANAGEMENT & COORDINATION																				
	PROGRESS MANAGEMENT			22	16										10	48	$8,268				$8,268
	SUBTOTAL HOURS/COSTS			22	16										10	48	$8,268				$8,268.06
PH2	DATA COLLECTION AND REVIEW																				
TASK 1	DATA ACQUISITION				8			24								32	$4,088				$4,088
TASK 2	SUE				4			6				10				20	$14,377				$14,377
	SUBTOTAL HOURS/COSTS				12			30				10				52	$18,465				$18,464.80
PH3	PRE DESIGN PHASE																				
	PRELIM DESIGN			2	12			24			40					78	$8,237				$8,237
	OPCC Estimates			2	10			10								22	$3,319				$3,319
	Alternatives to Boerne			2	8			10			20					40	$4,468				$4,468
	SUBTOTAL HOURS/COSTS			6	30			44			60					140	$16,024				$16,023.86
PH 4	DESIGN PHASE																				
Task 1	60% CONSTRUCTION PLANS & SUBMITTAL			3	20			100			60					183	$19,828				$19,828
task 2	90% CONSTRUCTION PLANS & SUBMITTAL			3	20			80			60					163	$17,604				$17,604
task 3	CONSTRUCTION BID PLANS & SPECIFICATIONS			3	40			40			40					123	$15,199				$15,199
	SUBTOTAL HOURS/COSTS			9	80			220			160					469	$52,631				$52,631.42
PH5	CONSTRUCTION ADMINISTRATION & PROJECT CLOSE OUT																				
TASK 1	SHOP DRAWINGS & SUBMITTALS				10			20								30	$3,998				$3,998
TASK 2	RFI'S				10			20								30	$3,998				$3,998
TASK 3	REVIEW OF CONTRACTORS CHANGES				10			12								22	$3,108				$3,108
TASK 4	CONSTRUCTION MEETINGS/SITE VISITS				18										36	54	$5,573				$5,573
TASK 5	RECORD DRAWINGS			1	2			8			16					27	$2,664				$2,664
	SUBTOTAL HOURS/COSTS			1	50			60			16				36	163	$19,341				$19,340.56
FEE SUMMARY																					
PH1	PROJECT STARTUP & MANAGEMENT & COORDINATION			22	16										10	48	$8,268				$8,268
PH2	DATA COLLECTION AND REVIEW				12			30				10				52	$18,465				$18,465
PH3	PRE DESIGN PHASE			6	30			44			60					140	$16,024				$16,024
PH 4	DESIGN PHASE			9	80			220			160					469	$52,631				$52,631
PH5	CONSTRUCTION ADMINISTRATION & PROJECT CLOSE OUT			1	50			60			16				36	163	$19,341				$19,341
TOTAL HOURS				38	188			354			236	10			46	872					
CONTRACT RATES ($)				$216.78	$177.35	$145.78	$123.24	$111.22	$96.19	$93.18	$75.15	$1,300.00	$159.54	$105.30	$66.13						
BASE RATES & REIMB'S TOTAL				$8,238	$33,342			$39,372			$17,735	$13,000			$3,042		$114,729				$114,728.70
TOTAL BY CATEGORY				7%	29%			34%			15%	11%			3%	100%	$114,729				$114,728.70
TOTAL FEE																	$114,729				$114,728.70

EXHIBIT "B"

STANDARD FORM OF AGREEMENT FOR PROFESSIONAL SERVICES

BETWEEN

***CITY OF BOERNE (*CLIENT) AND HALFF ASSOCIATES, INC. (ENGINEER)**

I. SCOPE - Halff Associates, Inc. (hereinafter "Engineer") agrees to perform the professional services described in the attached Scope of Services which incorporates these terms and conditions. Unless modified in writing by the Parties hereto (i.e. Client and Engineer), the duties of Halff shall not be construed to exceed those services specifically set forth in the Scope of Services as listed in Exhibit A attached hereto dated April 6, 2017. The Scope of Services and this Standard form of Agreement, when executed by ***City of Boerne, Texas*** (hereinafter "Client"), shall constitute a binding Agreement on both Parties. Engineer shall perform its obligations under this agreement as an independent contractor and not as an agent or fiduciary of any other Party.

II. COMPENSATION - Client agrees to pay monthly invoices or their undisputed portions within 30 days of receipt. Payment later than 30 days shall include interest at 1-1/2 percent per month or lesser maximum enforceable interest rate, from the date the Client received the invoice until the date Engineer receives payment. Such interest is due and payable when the overdue payment is made.

It is understood and agreed by the Parties that Engineer's receipt of payment(s) from Client is not contingent upon Client's receipt of payment, funding, reimbursement or any other remuneration from others.

Time-related charges will be billed as specified in this Agreement. Unless stated otherwise in this Agreement, direct expenses, subcontracted services and direct costs will be billed at actual cost plus a service charge of 10 percent. Mileage will be billed at current IRS rates.

III. RESPONSIBILITY - Engineer is employed to render a professional service only, and any payments made by Client are compensation solely for the services rendered and the recommendations made in carrying out the work. Engineer agrees to follow the standard practices of the engineering profession to make findings, provide opinions, make factual presentations, and provide professional advice and recommendations. Nothing contained herein shall be argued to have created any warranty or certification, and Engineer shall not be required to provide any certification, assignment or warranty of its work, but upon request and for a separate mutually agreed fee and fully executed contract amendment and at Engineer's sole discretion, Engineer may agree to provide certain specific written statements regarding its services. Such statements shall be in a form prepared by and acceptable to Engineer and shall be requested with sufficient advance notice to allow Engineer to review the documents and prepare a suitable statement.

Engineer's review or supervision of work prepared or performed by Client or by other individuals or firms employed by Client shall not relieve Client or those individuals or firms of complete responsibility for the adequacy of their work. It is understood that any resident engineering or inspection services provided or performed by Engineer shall be for the sole and exclusive purpose of reviewing the general compliance of such activities with respect to the technical provisions of the project specifications and such services by Engineer shall not constitute any form of guarantee with respect to the performance of any contractor. Engineer does not assume responsibility for methods or appliances used by a contractor, for safety conditions, or for compliance by contractors with applicable laws, rules and regulations.

IV. SCOPE OF CLIENT SERVICES - Client agrees to provide site access, and to provide those services described in the attached Scope of Services.

V. OWNERSHIP OF DOCUMENTS - Upon Engineer's completion of services and receipt of payment in full, Engineer shall grant to Client a non-exclusive license to possess the final drawings and instruments produced in connection with Engineer's performance of the work under this Agreement, if any. Said drawings and instruments may be copied, duplicated, reproduced and used by Client for the purpose of constructing, operating and maintaining the improvements. Client agrees that such documents are not intended or represented to be suitable for reuse by Client or others for purposes outside the Scope of Services of this Agreement. Notwithstanding the foregoing, Client understands and agrees that any and all computer programs, GIS applications, proprietary data or processes, and certain other items related to the services performable under this Agreement are and shall remain the sole and exclusive property of Engineer and may not be used or reused, in any form, by Client without the express written authorization of Engineer. Client agrees that any reuse by Client, or by those who obtain said information from or through Client, without written verification or adaptation by Engineer, will be at Client's sole risk and without liability or legal exposure to Engineer or to Engineer's employees, agents, representatives, officers, directors, affiliates, shareholders, owners, members, managers, attorneys, subsidiary entities, advisors, subconsultants or independent contractors or associates. Client agrees that Engineer, Engineer's subconsultants and independent associates will have no liability arising from any reuse. Engineer may reuse

_____/_____
Client Initial / Date

all drawings, reports, data and other information developed in performing the services described by this Agreement in Engineer's other activities.

VI. INTENTIONALLY LEFT BLANK

VII. INSURANCE - Engineer agrees to maintain during the life of the Agreement the following minimum insurance:

A. Commercial general liability insurance, including personal injury liability, blanket contractual liability, and broad form property damage liability in an amount of not less than $1,000,000.
B. Automobile bodily injury and property damage liability insurance with a limit of not less than $1,000,000.
C. Statutory workers' compensation and employers' liability insurance as required by state law.
D. Professional liability insurance (Errors and Omissions) with a limit of $1,000,000 per claim/annual aggregate.

VIII. SUBCONTRACTS - Engineer shall be entitled to subcontract any portion of the work described in the Scope of Services.

IX. ASSIGNMENT - This Agreement is binding on the heirs, successors, and assigns of the Parties hereto. Neither this Agreement, nor any claims, rights, obligations, suits or duties associated hereto, shall be assigned or assignable by either Client or Engineer without the prior written consent of the other Party.

X. INTEGRATION – This Standard Form of Agreement and the Scope of Services, including fee and schedule are fully incorporated herein and represent the entire understanding of Client and Engineer. No prior oral or written understanding shall be of any force or effect with respect to those matters covered herein. The Agreement may not be modified or altered except in writing signed by both Parties.

XI. JURISDICTION AND VENUE - This Agreement shall be administered under the substantive laws of the State Texas (and not its conflicts of law principles) which shall be used to govern all matters arising out of, or relating to, this Agreement and all of the transactions it contemplates, including without limitation, its validity, interpretation, construction, performance and enforcement. Exclusive venue shall lie in ***Kendall*** County, Texas.

XII. SUSPENSION OF SERVICES - If work under this Agreement is suspended for more than thirty (30) calendar days in the aggregate by the Client, the Engineer shall be compensated for services performed and charges incurred prior to receipt of notice to suspend, including an equitable adjustment in fees resulting from the demobilization and, as appropriate, remobilization. Additionally, Client agrees to equitably adjust the work schedule based on the delay caused by the suspension. If work under this Agreement is suspended for more than ninety (90) calendar days in the aggregate by the Client, the Engineer may, at its option, terminate this Agreement upon giving notice in writing to the Client. Further, Engineer may request that the work be suspended by notifying Client, in writing, of circumstances or conditions interfering with normal progress of the work. If the Client fails to make timely payments to Engineer or is otherwise in breach of this Agreement, the Engineer may suspend performance of services upon five (5) calendar days' notice to the Client. The Engineer shall have no liability to the Client for any costs or damages resulting from a suspension occasioned by any breach of this Agreement by Client.

XIII. TERMINATION OF WORK - Either the Client or the Engineer may terminate this Agreement at any time with or without cause upon giving the other Party ten (10) calendar days' prior written notice. Client agrees that termination of Engineer for Client's convenience shall only be utilized in good faith, and shall not be utilized if either the purpose or the result of such termination is the performance of all or part of Engineer's services under this Agreement by Client or by another service provider. Following Engineer's receipt of such termination notice the Client shall, within ten (10) calendar days of Client's receipt of Engineer's final invoice, pay the Engineer for all services rendered and all costs incurred up to the date of Engineer's receipt of such notice of termination.

XIV. TAXES – Client is a political subdivision of the state of Texas and is exempt from taxes. Therefore, to the extent applicable under Texas law, the fees and costs stated in this Agreement, unless stated otherwise, exclude all sales, consumer, use and other taxes. Client agrees to fully reimburse Engineer and its subconsultants for taxes paid or assessed in association with the work under this Agreement, whether those taxes were in effect as of the date of this Agreement or were promulgated after the date of

this Agreement. This clause shall not apply to taxes associated with reimbursable or other project related expenses, which shall be identified in the applicable invoice for reimbursement by Client.

XV. MEDIATION OF DISPUTES - Any conflicts or disputes that arise under or through this Agreement or that may exist following the completion thereof shall be discussed at a meeting of one senior management person from Client and one from Engineer. This meeting shall be a condition precedent to the institution of any legal or equitable proceedings, unless such meeting will infringe upon schedules defined by applicable statutes of limitation or repose. Should such a situation arise, the Parties agree that such meeting shall still be required, but the institution of said proceedings shall not be precluded for failure to meet this specific meeting requirement.

XVI. MERGER AND SEVERABILITY – This Agreement constitutes, represents and is intended by the Parties to be the complete and final statement and expression of all of the terms and arrangements between the Parties to this Agreement with respect to the matters provided for in this Agreement. This Agreement supersedes any and all prior or contemporaneous agreements, understandings, negotiations, and discussions between the Parties and all such matters are merged into this Agreement. Should any one or more of the provisions contained in this Agreement be determined by a court of competent jurisdiction or by legislative pronouncement to be void, invalid, illegal, or unenforceable in any respect, such voiding, invalidity, illegality, or unenforceability shall not affect any other provision hereof, and this Agreement shall be considered as if the entirety of such void, invalid, illegal, or unenforceable provision had never been contained in this Agreement.

XVII. EXCLUSIVITY OF REMEDIES – The Parties acknowledge and agree that the remedies set forth in this Agreement, are and shall remain the Parties' sole and exclusive remedy with respect to any claim arising from, or out of, or related to, the subject matter of this Agreement. The Parties agree that Engineer is to have no liability or responsibility whatsoever to Client for any claim(s) or loss(es) of any nature, except as set forth in this Agreement. No Party shall be able to avoid the limitations expressly set forth in this Agreement by electing to pursue some other remedy.

XVIII. TIMELINESS OF PERFORMANCE - Engineer shall perform its professional services with due and reasonable diligence consistent with sound professional practices.

XIX. It is the intent of the Parties to this Agreement that Engineer's services under this Agreement shall not subject Engineer's individual employees, officers or directors to any personal legal exposure for claims and risks associated with the services performed or performable under this Agreement.

XX. WAIVER - Any failure by Engineer to require strict compliance with any provision of this Agreement shall not be construed as a waiver of such provision, and Engineer may subsequently require strict compliance at any time, notwithstanding any prior failure to do so.

_____/_____
Client Initial / Date