

**RESOLUTION NO. 24-R-02**

**A RESOLUTION BY THE CITY COUNCIL OF THE CITY OF SCHERTZ, TEXAS AUTHORIZING EXPEDITURES WITH UNINTECH CONSULTING ENGINEERS INC., FOR PROFESSIONAL ENGINEERING-RELATED SERVICES ON THE BUFFALO VALLEY SOUTH UTILITY REPLACEMENT AND STREET REHABILITATION PROJECT, AND OTHER MATTERS IN CONNECTION THEREWITH**

WHEREAS, the City staff of the City of Schertz (the “City”) has determined that the City requires professional services relating to engineering and design for the Buffalo Valley South Utility Replacement and Street Rehabilitation Project; and

WHEREAS, City staff has determined that Unintech Consulting Engineers, Inc. is uniquely qualified to provide such services for the City; and

WHEREAS, Unintech Consulting Engineers, Inc. is an approved On-Call Engineering Firm for the City of Schertz; and

WHEREAS, pursuant to Section 252.022(a)(4), the City is not required to seek bids or proposals with respect to a procurement for personal, professional, or planning purposes; and

WHEREAS, the City Council has determined that it is in the best interest of the City to contract with Unintech Consulting Engineers, Inc. pursuant to the On-Call Task Order Agreement attached hereto as Exhibit A (the “Agreement”) up to a maximum total aggregate amount of \$405,000.

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SCHERTZ, TEXAS THAT:

Section 1. The City Council hereby authorizes the City Manager to execute and deliver the Task Order Agreement with Unintech Consulting Engineers, Inc. in accordance with their approved Master Agreement in substantially the form set forth on Exhibit A in the amount of \$372,406 and authorize the City Manager to execute and deliver the Task Order in a not to exceed total aggregate amount of \$405,000.

Section 2. The recitals contained in the preamble hereof are hereby found to be true, and such recitals are hereby made a part of this Resolution for all purposes and are adopted as a part of the judgment and findings of the City Council.

Section 3. All resolutions, or parts thereof, which are in conflict or inconsistent with any provision of this Resolution are hereby repealed to the extent of such conflict, and the provisions of this Resolution shall be and remain controlling as to the matters resolved herein.

Section 4. This Resolution shall be construed and enforced in accordance with the laws of the State of Texas and the United States of America.

Section 5. If any provision of this Resolution or the application thereof to any person or circumstance shall be held to be invalid, the remainder of this Resolution and the application of such provision to other persons and circumstances shall nevertheless be valid, and the City Council hereby declares that this Resolution would have been enacted without such invalid provision.

Section 6. It is officially found, determined, and declared that the meeting at which this Resolution is adopted was open to the public and public notice of the time, place, and subject matter of the public business to be considered at such meeting, including this Resolution, was given, all as required by Chapter 551, Texas Government Code, as amended.

Section 7. This Resolution shall be in force and effect from and after its final passage, and it is so resolved.

PASSED AND ADOPTED, this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

CITY OF SCHERTZ, TEXAS

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Ralph Gutierrez, Mayor

ATTEST:

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Sheila Edmondson, City Secretary

(CITY SEAL)

**EXHIBIT A**  
**TASK ORDER NO. 24 SERVICES AGREEMENT**

## Task Order

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In accordance with Paragraph 1.01 of the Agreement Between Owner and Engineer for Professional Services – Task Order Edition, dated 10-9-2019 ("Agreement"), Owner and Engineer agree as follows:

### 1. Background Data

- a. Effective Date of Task Order:
- b. Owner: City of Schertz
- c. Engineer: Unitech Consulting Engineers, Inc.
- d. Specific Project (title): Buffalo Valley South – Street Reconstruction
- e. Specific Project (description): Provide topographic survey, geotechnical services, civil design services for the reconstruction/reclamation of streets in Buffalo Valley South; specifically: Mill St, 1st St., 2nd St., Bowman St., Lee St., Church St., Zuehl St., Wuest. Project includes the reconstruction of water mains and sewer mains within the right of ways listed.

### 2. Services of Engineer

- A. The specific services to be provided or furnished by Engineer under this Task Order are:

as follows:

***Scope of services as set out in the attached letter of proposal.***

- B. Resident Project Representative (RPR) Services

***Does not apply.***

- C. Designing to a Construction Cost Limit

***Does not apply***

- D. Other Services

Engineer shall also provide the following services:

***None***

- E. All of the services included above comprise Basic Services for purposes of Engineer’s compensation under this Task Order.

### 3. Additional Services

- A. Additional Services that may be authorized or necessary under this Task Order are:

those services (and related terms and conditions) set forth in Paragraph A2.01 of Exhibit A, as attached to the Agreement referred to above, such paragraph being hereby incorporated by reference.

### 4. Owner's Responsibilities

Owner shall have those responsibilities set forth in Article 2 of the Agreement and in Exhibit B, subject to the following:

**N/A.**

### 5. Task Order Schedule

In addition to any schedule provisions provided in Exhibit A or elsewhere, the parties shall meet the following schedule:

<u>Party</u>	<u>Action</u>	<u>Schedule</u>
Engineer	Furnish 1 digital review copy of the 40% plans, opinion of probable Construction Cost, and other Preliminary Design Phase deliverables to Owner.	Within 80 days of Owner’s authorization to proceed with Preliminary Design Phase services.
Owner	Submit comments regarding 40% Phase documents, opinion of probable Construction Cost, and other Preliminary Design Phase deliverables to Engineer.	Within 7 days of the receipt of deliverables from Engineer.
Engineer	Furnish 1 digital copy of the 70% Plan and Specifications to Owner.	Within 30 days of Owner’s authorization to proceed with 70% design phase.
Owner	Submit comments and instructions regarding the 70% Plan and any other deliverables, to Engineer.	Within 7 days of the receipt of the deliverables from Engineer.
Engineer	Furnish 1 digital copy of the 95% Plan and Specifications, assembled drafts of other Construction Contract Documents, the draft bidding-related documents (or requests for proposals or other construction procurement documents), and any other Final Design Phase deliverables, to Owner.	Within 30 days of Owner’s authorization to proceed with 95% Design Phase services.
Owner	Submit comments and instructions regarding the 95% Drawings and Specifications, assembled drafts of other Construction Contract Documents, the draft bidding-related documents (or requests for proposals or other construction procurement	Within 7 days of the receipt of the 95% Drawings and Specifications, assembled drafts of other Construction Contract Documents, the draft bidding-related documents (or requests for proposals or other construction

	documents), and any other Final Design Phase deliverables, to Engineer.	procurement documents), and any other Final Design Phase deliverables from Engineer.
Engineer	Furnish 1 digital copy of the revised Final Drawings and Specifications, assembled Construction Contract Documents, bidding-related documents (or requests for proposals or other construction procurement documents), and any other Final Design Phase deliverables, to Owner.	Within 10 days of the receipt of Owner's comments and instructions regarding the previous Design Phase deliverables
Owner	Submit comments and instructions regarding the final/bid Drawings and Specifications, assembled drafts of other Construction Contract Documents, the draft bidding-related documents (or requests for proposals or other construction procurement documents), and any other Final Design Phase deliverables, to Engineer.	Within 10 days of the receipt of the final Drawings and Specifications, assembled drafts of other Construction Contract Documents, the draft bidding-related documents (or requests for proposals or other construction procurement documents), and any other Final Design Phase deliverables from Engineer.

## 6. Payments to Engineer

A. Owner shall pay Engineer for services rendered under this Task Order as follows:

Description of Service	Amount	Basis of Compensation
1. Basic Services (Part 1 of Exhibit A)		
a. 40% Design Phase	\$143,790.00	Lump Sum
b. 70% Design Phase	\$75,845.00	Lump Sum
c. 95 Design Phase	\$43,740.00	Lump Sum
d. Bid Phase	\$10,950.00	Lump Sum
e. Construction Phase	\$26,880.00	Lump Sum
f. Close out	\$6,000.00	Lump Sum
2. Topographic Survey	\$26,450.00	Lump Sum
3. Geotechnical Sampling & Report	\$21,951.00	Lump Sum
4. Sewer Main CCTV Services	\$16,800.00	Lump Sum
<b>TOTAL COMPENSATION (lines 1.-3)</b>	<b>\$372,406.00</b>	
4. Additional Services (Part 2 of Exhibit A)	(N/A)	Hourly rates

\*Based on a 12 -month continuous construction period.

Compensation items and totals based in whole or in part on Hourly Rates or Direct Labor are estimates only. Lump sum amounts and estimated totals included in the breakdown by phases incorporate Engineer's labor, overhead, profit, reimbursable expenses (if any), and Consultants' charges, if any. For lump sum items, Engineer may alter the distribution of compensation between individual phases (line items) to be consistent with services actually rendered, but shall not exceed the total lump sum compensation amount unless approved in writing by the Owner.

B. The terms of payment are set forth in Article 4 of the Agreement and in the applicable governing provisions of Exhibit C.

## 7. Consultants retained as of the Effective Date of the Task Order:

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### Task Order Form

EJCDC® E-505, Agreement Between Owner and Engineer for Professional Services – Task Order Edition.  
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**8. Other Modifications to Agreement and Exhibits:**

**9. Attachments:**

**a. Letter of Proposal date 12-19-2023**

**10. Other Documents Incorporated by Reference:**

**11. Terms and Conditions**

Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is [ ].

OWNER:

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

ENGINEER:

By: Mark B Hill

Print Name: Mark B Hill, PE  
Unintech Consulting Engineers, Inc.

Title: Civil Division Director

Engineer License or Firm's  
Certificate No. (if required): 94904  
State of: Texas

DESIGNATED REPRESENTATIVE FOR TASK ORDER:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

E-Mail  
Address: \_\_\_\_\_

Phone: \_\_\_\_\_

DESIGNATED REPRESENTATIVE FOR TASK ORDER:

Name: Mark B Hill, PE

Title: Civil Division Director

Address: 2431 E Evans Road  
San Antonio, Texas 78259

E-Mail  
Address: mhill@unintech.com

Phone: 21-641-6003

**Task Order Form**

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# UNINTECH CONSULTING ENGINEERS, INC.

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December 19, 2023

City of Schertz  
Engineering Department  
10 Commercial Place, Bldg 2  
Schertz, TX 78154  
Office: (210) 619-1825

Attn: John Nowak, PE

Re: City of Schertz – On-Call Civil Engineering Services Agreement  
**Proposal – Buffalo Valley South - Reconstruction**

Unintech Consulting Engineers, Inc. is pleased to provide this proposal for professional engineering services to the City of Schertz for the preparation of construction documents for the **Buffalo Valley South Reconstruction** project.

Our understanding of the scope of work is that the City of Schertz desires to reconstruct/reclaim the pavement, and to replace the existing water mains and sewer mains, and associated appurtenances and services along the following streets:

Mill St, 1st St., 2nd St., Bowman St., Lee St., Church St., Zuehl St., Wuest.

The streets are anticipated to be designed to be reclaimed and stabilized, and resurfaced. The grades will be established to facilitate drainage, as necessary. Any curbs in poor condition will be removed and replaced. Any gravel or asphalt driveways to be replaced with concrete driveways. Wheelchair ramps to be installed at each corner.

The sewer main is to be replaced in placed, correcting any substandard slope. The water main is to be sized as an 8-in main, with updated appurtenances and fittings to meet current City design guidelines and codes.

## **Scope of Services**

### **Survey**

Upon release for the design phase, UNINTECH will provide the topographical survey of the proposed project limits to determine locations of existing utilities and pertinent topographic features, provide a DTM, locate underground utilities. UNINTECH will locate property corners to establish approximate right of way limits.

After the topographic survey is completed, and during design it may become apparent that subsurface utility locations (SUE) may be required due to crossing of existing gas or communication lines. The SUE location services will be considered additional services to be negotiated at a later date.

UNINTECH will employ a subconsultant to obtain CCTV recordings of the existing sewer mains in MP4 format for the identification of sewer service locations and existing conditions of the sewer pipe.



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### Geotechnical

A geotechnical report is included in this proposal. The geotechnical subconsultant (HVJ, Inc.) will sample the existing streets in 7 locations for a depth up to 10-feet. The geotechnical will summarize findings, including existing pavement courses, subgrade engineering qualities, presence of ground water. The report will include recommendations for pavement replacement and reclamation.

### Environmental

An environmental study is **not** included in this proposal.

### Construction Plans

For the limits described above, per phase, UNINTECH will prepare a set of construction plans, specifications, and quantity estimate, for review, approval, and construction with associated details per the standards indicated in Statement of Work. Plans and specifications will be in conformance with City of Schertz standards of construction and materials.

UNINTECH will provide the general front end sheets, traffic control, roadway plans, water plans, and sewer plans, SWPPP, and associated details for the project, by design phase

The project will proceed along the following design milestones: 40 percent design, 70 percent design, 95 percent design, 100%/bid phase, construction phase and closeout. The proposed scope of work will follow the City of Schertz standard specifications and design guidance manual.

Deliverables for design phases will include construction plans and estimates. Preliminary bid documents will be provided with the 95% phase submittals with all anticipated special specifications. Deliverables will be provided in PDF format. (CAD files and hard copy bound sets, upon request).

### Permitting

These streets are located within the FEMA designated 100-year flood plain. Work within the flood plain will require a floodplain permit. UNINTECH will prepare the necessary documents to submit to the City for floodplain permitting.

No additional permitting is anticipated.

No easements acquisition is anticipated.

### 100% Design/Bid Phase

For the limits described above, per phase, UNINTECH will provide Bid Documents, Bid Tabulations and recommendation for awards, attend a Pre-Bid meeting and respond to contractor questions.

### Construction Phase

For the limits described above, per phase, Unintech Consulting Engineers, Inc. will attend a pre-construction meeting with the City and selected contractor. UNINTECH will provide review of contractor pay applications, submittals, and RFI. A UNINTECH representative will make two (2)



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site visits per month for 12 months during the construction to observe overall conformance to the plans.

### Close out

UNITECH will attend the final walkthrough with the contractor and City personnel, and provide a punch list of items to be addressed by the contractor. The contractor redlines will be translated into plan of record documents to be provided to the City for the water, sewer, and street plans.

### Project Design Schedule

It is anticipated that complete design of the project from the notice to proceed to the preparation of bid documents will require approximately 21 weeks.

- 40% Design – 80 calendar day
- 70% Design – 30 calendar days
- 95% Design – 30 calendar days
- 100%/Bid Phase – 20 calendar days
- Construction – 12 months
- Closeout – 30 calendar days

### Engineering Fee

Compensation for these services will be in the amount of **\$373,076.00**, which will cover all costs associated with the scope described above, as further detailed in the attached Project Work Plan and Fee Proposal Breakdowns.

40% Design Phase	\$143,790.00
70% Design Phase	\$75,845.00
95 Design Phase	\$43,740.00
Bid Phase	\$10,950.00
Construction Phase	\$26,880.00
Close out	\$6,000.00
Topographic Survey	\$26,450.00
Geotechnical Sampling & Report	\$21,951.00
Sewer Main CCTV Services	\$16,800.00
<b>TOTAL COMPENSATION</b>	<b>\$372,406.00</b>

Additional services and significant changes will be compensated for as provided by Schedule of Fees in the agreement for Engineering Services between the City of Schertz and Unitech Consulting Engineers, Inc. dated October 9, 2019.

Fees payable to permitting agencies will be the responsibility of the City of Schertz.

Should there be any questions or if further information is needed, please do not hesitate to call us at 210-641-6003.



## UNINTECH CONSULTING ENGINEERS, INC.

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Sincerely,

*Mark B Hill*

Mark B Hill, P.E.

**UNINTECH CONSULTING ENGINEERS, INC.**

Encl: Project Work Plan and Fee Proposal Breakdown

City of Schertz

PROJECT WORK PLAN AND FEE PROPOSAL BREAKDOWN

Project: **Buffalo Valley South - Street Reconstruction**  
 Prime Consultant: **UNINTECH CONSULTING ENGINEERS, INC.**  
 Subconsultant:  
 Proposal Date: **12/20/2023**  
 Prepared By: **Mark B Hill, PE**

Project Manger	Project Engineer	EIT	CAD Tech
\$165.00	\$150.00	\$100.00	\$85.00

TASK CODE AND DESCRIPTION	HOURS	HOURS	HOURS	HOURS	TASK HOURS	TASK / PHASE FEE
<b>40% Design</b>	33	30	136	252	451	<b>\$44,965.00</b>
01.070. Project Administration (includes but not limited to invoicing, sub consultants managemen	16				16	\$2,640.00
01.080. QA/QC (processes, communication, and deliverables)	16				16	\$2,640.00
04.010. Typical Sections - Existing and Proposed		1	8		9	\$950.00
04.020. Horizontal Roadway Alignments		8	8		16	\$2,000.00
04.030. Roadway Profiles		2	8		10	\$1,100.00
04.040. Street Cross Sections		2	8	24	34	\$3,140.00
04.050. Plan and Profile Sheets		8	60	156	224	\$20,460.00
04.070. Driveway Summary Sheet		2	8	24	34	\$3,140.00
08.010. Construction Phasing Typical Sections		1	4		5	\$550.00
08.020. Construction Phasing and Sequence of Work		1	4		5	\$550.00
08.030. Conceptual Construction Phasing Layouts		1	4		5	\$550.00
09.010. Intersection Layouts		2	16	40	58	\$5,300.00
11.010. 40% Plans Cost Estimate	1	2	8	8	19	\$1,945.00
<b>70% Design</b>	20	31	50	108	209	<b>\$22,130.00</b>
01.030. Design Review Meetings (70%)	2				2	\$330.00
01.080. QA/QC (processes, communication, and deliverables)	16				16	\$2,640.00
04.010. General Sheets – Index, Summaries / Quantities, Supplemental General Notes		1	2	8	11	\$1,030.00
04.020. Refine Typical Roadway Sections (Existing and Proposed) for various roadways in project area		2	8	8	18	\$1,780.00
04.030. Horizontal Roadway Alignments		1	4		5	\$550.00
04.040. Roadway Profiles		1	4		5	\$550.00
04.050. Street Cross Sections		2	4	8	14	\$1,380.00
04.060. Develop Plan and Profile sheets for 1" = 40' plans		4	12	24	40	\$3,840.00
04.070. Driveway Summary Sheet		2	4	8	14	\$1,380.00
08.010. Construction Phasing Typical Sections		1		8	9	\$830.00
08.020. Construction Phasing and Sequence of Work			4		4	\$400.00
08.030. Construction Phasing Layouts			4	8	12	\$1,080.00
08.040. Traffic control and advanced warning devices			4	8	12	\$1,080.00
08.050. Detour layouts and barricade plans		1		4	5	\$490.00
09.010. Intersection Layouts		2		16	18	\$1,660.00
09.060.010. SW3P Narrative		1		4	5	\$490.00
09.060.020. SW3P Layouts		1		4	5	\$490.00
09.080.020. List of Governing Specifications		4			4	\$600.00
11.010. 70% Plans Cost Estimate	2	8			10	\$1,530.00
<b>95% Design</b>	6	13	42	64	125	<b>\$12,580.00</b>
01.030. Design Review Meetings (95%)	2				2	\$330.00
01.080. QA/QC (processes, communication, and deliverables)	4				4	\$660.00
04.010. General Sheets – Index, Summaries / Quantities, Supplemental General Notes		1	4		5	\$550.00
04.050. Street Cross Sections		1	4	16	21	\$1,910.00
04.060. Develop Plan and Profile sheets for 1" = 40' plans		1	4	16	21	\$1,910.00
04.080. Driveway Summary Sheet		1	4	4	9	\$890.00
08.010. Construction Phasing Typical Sections			1	4	5	\$440.00
08.020. Construction Phasing and Sequence of Work			1	4	5	\$440.00
08.030. Construction Phasing Layouts			1	4	5	\$440.00
09.010. Intersection Layouts			1	8	9	\$780.00
09.060. SW3P Plan			1	4	5	\$440.00
09.060.010. SW3P Narrative			1	4	5	\$440.00
09.090.030. Bid Documents		8	16		24	\$2,800.00
11.010. 95% Plans Cost Estimate		1	4		5	\$550.00
<b>Bid Phase</b>	13	12	12	0	37	<b>\$5,475.00</b>
12.010. Submit 100% Plans With All Joint-Bid Utilities		4	8		12	\$1,400.00
12.020. Final Project Specifications Book	2	8			10	\$1,530.00
12.060. Attend 100% Review Meeting	2				2	\$330.00
12.070. Assist the City in Preparing Advertising Documents	2				2	\$330.00
12.090. Participate in Pre-Bid Meeting	2				2	\$330.00
12.100. Respond to Contractor Questions	2				2	\$330.00
12.110. Prepare and Distribute Necessary Addenda	2				2	\$330.00
12.120. Prepare Bid Tabulation and Letter of Recommendation	1		4		5	\$565.00
12.130. Participate in Pre-Con meeting	2				2	\$330.00
<b>Construction Phase</b>	16	72	0	0	88	<b>\$13,440.00</b>
13.020. Review Contractor Pay Estimates	12	12			24	\$3,780.00
13.030. Review / Negotiate Change Orders		2			2	\$300.00
13.040. Review Shop Drawings		2			2	\$300.00
13.050. Respond to RFIs		2			2	\$300.00
13.060. Project Site Visits and Reports (Minimum Two Per Month)		48			48	\$7,200.00
13.070. Participate in Construction Progress Meetings and Prepare Meeting Minutes (Coincide With 13.6 When		2			2	\$300.00
13.080. Final Walkthrough and Punchlist Review		4			4	\$600.00
<b>Project Closeout</b>	0	2	4	16	22	<b>\$2,060.00</b>
14.010. Prepare Record Drawings		2	4	16	22	\$2,060.00
<b>Subconsulting Services</b>						<b>\$48,401.00</b>
1 Topographic Survey						\$26,450.00
2 Geotechnical Sampling and Report						\$21,951.00
<b>TOTAL BASE FEE WITH HOUR BREAKDOWN</b>	<b>88</b>	<b>160</b>	<b>244</b>	<b>440</b>	<b>932</b>	<b>\$149,051.00</b>

**City of Schertz**

**PROJECT WORK PLAN AND FEE PROPOSAL BREAKDOWN**

Project: **Buffalo Valley South - Street Reconstruction**  
 Prime Consultant: **UNINTECH CONSULTING ENGINEERS, INC.**  
 Subconsultant:  
 Proposal Date: **12/20/2023**  
 Prepared By: **Mark B Hill, PE**

Project Manger	Project Engineer	EIT	CAD Tech
\$165.00	\$150.00	\$100.00	\$85.00

TASK CODE AND DESCRIPTION	HOURS	HOURS	HOURS	HOURS	TASK HOURS	TASK / PHASE FEE
<b>40% Design</b>	<b>45</b>	<b>165</b>	<b>250</b>	<b>490</b>	<b>509</b>	<b>\$98,825.00</b>
Project initiation, coordination, and setup	4		4		8	\$1,060.00
Conduct field reconnaissance to become familiar with project sites.	4	4	4	4	16	\$2,000.00
Review record drawings and block maps provided		4	8	8	20	\$2,080.00
Obtain all available mapping of underground or overhead utilities in the project area and incorporate utility information int		4	16	8	12	\$1,080.00
Conduct preliminary coordination with outside agencies and utilities for permitting purposes and potentia		4	8	24	36	\$3,440.00
Develop a digital base map of the project area incorporating ownership, ROWs, photography, topograph		1		8	9	\$830.00
Prepare 40% Plans - Cover Sheet, Index, Gen Notes		1	4	4	9	\$890.00
Prepare 40% Plans - Quantities	16	60	80	180	336	\$34,940.00
Prepare 40% Plans - Plan/Plan and Profile and Details		1		8	9	\$830.00
Prepare 40% Plans - Tree Protection Plan and Details		2		16	18	\$1,660.00
Insert Quantity Table Per Sheet		8		8	16	\$1,880.00
40% OPCC Estimate - Class 2	4					\$660.00
Project initiation, coordination, and setup			2	8		\$880.00
Prepare 40% Plans - Cover Sheet, Index, Gen Notes		1		4		\$490.00
Prepare 40% Plans - Quantities	16	60	80	150		\$32,390.00
Prepare 40% Plans - Plan/Plan and Profile and Details		4	24	48		\$7,080.00
Prepare 40% Plans - Lateral Sections		4		4		\$940.00
Insert Quantity Table Per Sheet		1	8			\$950.00
40% OPCC Estimate - Class 2		4				\$600.00
Prepare Draft TCEQ Variance & Transmittal						\$600.00
03 Prepare Submittal to City	1	2	8	8		\$1,945.00
<b>70% Design</b>	<b>23</b>	<b>77</b>	<b>190</b>	<b>224</b>	<b>239</b>	<b>\$53,715.00</b>
Design Review Meetings (70%)	2				2	\$330.00
QA/QC (processes, communication, and deliverables)	4				4	\$660.00
Prepare 70% Plans - Cover Sheet, Index, Gen Notes		1		4	5	\$490.00
Prepare 70% Plans - Quantities		1	4	4	9	\$890.00
Prepare 70% Plans - Plan/Plan and Profile and Details	8	32	72	72	184	\$19,440.00
Prepare 70% Plans - Tree Protection Plan and Details		1		8	9	\$830.00
Insert Quantity Table Per Sheet		2		16	18	\$1,660.00
70% OPCC Estimate - Class 2	2	8			10	\$1,530.00
Prepare 70% Plans - Cover Sheet, Index, Gen Notes			2	8		\$880.00
Prepare 70% Plans - Quantities		1		4		\$490.00
Prepare 70% Plans - Plan/Plan and Profile and Details	8	16	72	72		\$17,040.00
Prepare 70% Plans - Lateral Sections		4	24	24		\$5,040.00
Insert Quantity Table Per Sheet		4		4		\$940.00
70% OPCC Estimate - Class 2		1	8			\$950.00
Prepare Draft TCEQ Variance & Transmittal		4				\$600.00
04 Prepare Submittal to City	1	2	8	8		\$1,945.00
<b>95% Design</b>	<b>24</b>	<b>48</b>	<b>64</b>	<b>160</b>	<b>30</b>	<b>\$31,160.00</b>
Design Review Meetings (95%)	2				2	\$330.00
QA/QC (processes, communication, and deliverables)	4				4	\$660.00
Finalize Plan & Profile sheets for 1" = 40' (H), 1" = 5' (V)	4	4	24	64		\$9,100.00
Finalize Quantity Table Per Sheet		8		16		\$2,560.00
Finalize 95% OPCC Estimate - Class 1		8				\$1,200.00
Perform internal QA/QC.	4					\$660.00
Prepare Draft QMP Letter	1					\$165.00
Finalize Plan & Profile sheets for 1" = 40' (H), 1" = 5' (V)	4	4	24	64		\$9,100.00
Finalize Quantity Table Per Sheet		8		16		\$2,560.00
Finalize 95% OPCC Estimate - Class 1		8				\$1,200.00
Perform internal QA/QC.	4					\$660.00
Prepare Draft QMP Letter	1					\$165.00
Bid Documents		8	16		24	\$2,800.00
<b>Bid Phase</b>	<b>13</b>	<b>12</b>	<b>12</b>	<b>0</b>	<b>37</b>	<b>\$5,475.00</b>
12.010. Submit 100% Plans With All Joint-Bid Utilities		4	8		12	\$1,400.00
12.020. Final Project Specifications Book	2	8			10	\$1,530.00
12.060. Attend 100% Review Meeting	2				2	\$330.00
12.070. Assist the City in Preparing Advertising Documents	2				2	\$330.00
12.090. Participate in Pre-Bid Meeting	2				2	\$330.00
12.100. Respond to Contractor Questions	2				2	\$330.00
12.110. Prepare and Distribute Necessary Addenda	2				2	\$330.00
12.120. Prepare Bid Tabulation and Letter of Recommendation	1		4		5	\$565.00
12.130. Participate in Pre-Con meeting	2				2	\$330.00
<b>Construction Phase</b>	<b>16</b>	<b>72</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>\$13,440.00</b>
13.020. Review Contractor Pay Estimates	12	12			24	\$3,780.00
13.030. Review / Negotiate Change Orders		2			2	\$300.00
13.040. Review Shop Drawings		2			2	\$300.00
13.050. Respond to RFI's		2			2	\$300.00
13.060. Project Site Visits and Reports (Minimum Two Per Month)		48			48	\$7,200.00
13.070. Participate in Construction Progress Meetings and Prepare Meeting Minutes (Coincide With 13.6 When		2			2	\$300.00
13.080. Final Walkthrough and Punchlist Review	4	4			8	\$1,260.00
<b>Project Closeout</b>	<b>0</b>	<b>2</b>	<b>16</b>	<b>24</b>	<b>42</b>	<b>\$3,940.00</b>
14.010. Prepare Record Drawings		2	16	24	42	\$3,940.00
<b>Subconsulting Services</b>						<b>\$16,800.00</b>
1 Sewer Main CCTV						\$16,800.00
<b>TOTAL BASE FEE WITH HOUR BREAKDOWN</b>	<b>121</b>	<b>376</b>	<b>532</b>	<b>898</b>	<b>945</b>	<b>\$223,355.00</b>



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November 27, 2023

Mr. Mark B. Hill, PE  
Unintech Consulting Engineers, Inc.  
2431 E. Evans Road  
San Antonio, Texas 78259

Re: Geotechnical Site Investigation  
Buffalo Valley South Street Reconstruction, Water & Sewer Replacement  
Schertz, Texas.  
Owner: City of Schertz  
HVJ Proposal No. SG 23 10478

Dear Mr. Hill:

HVJ South Central Texas, M&J Inc. (HVJSCTx) is pleased to submit this proposal to provide geotechnical investigation services for the above referenced project. Our scope work, as outlined in this proposal, provides the necessary and appropriate level of geotechnical engineering support required for the design.

### **Project Description**

The project involves street reconstruction, water and sewer replacements along 1<sup>st</sup> Street, 2<sup>nd</sup> Street, Mill Street, Zuehl, Dowman, Mill Street and Wuest Street in Schertz, Texas.

Based on the information provided by Unintech, we understand that invert depth of the proposed water and sewer is about 8 feet or less, and will be replaced by open cut installation method.

All the streets are classified as local streets with no bus traffic. Pavement reconstruction will possibly include: 1) reclaiming the pavement with cement stabilization or asphalt emulsion stabilization of the base, treatment of the subgrade, and 2" HMA surface.; (2) street excavation, subgrade stabilization, and 2" of HMA surface, and 5" of HMA base.

### **Pavement Design**

HVJSCTx will retain specialized pavement engineer from HVJ Associates, Inc. (HVJ) to perform pavement engineering for this project.

### **Scope of Work**

For this project, HVJSCTx will conduct the following:

- **Subsurface Exploration:** To investigate subsurface conditions and characterize soil at the project area, geotechnical borings will be drilled. As suggested by Unintech, the exploration will consist of seven (7) borings. Each boring will be drilled to a depth of 10 feet each, and therefore the total drilling footage for the project is 70 feet. Based on the project location and its expected geology, we anticipate encountering clay/sand deposits to the explored depth of 10 feet. However, if different soil and rock conditions are encountered during drilling activities, the boring depths may be adjusted.

Mr. Mark B. Hill, PE  
Buffalo Valley South  
November 27, 2023  
SG 23 10478

The borings will be completed with a truck-mounted rig, equipped with flight augers and sampling tools. Soil samples will be collected using Shelby tubes and/or split-spoon samplers. Soil sampling will be performed continuously to a depth of 10 feet. Field-testing of soil samples will include pocket penetrometer readings in the cohesive soils and Standard Penetration Tests (SPT) in cohesionless soils. Rock coring will not be performed for this project.

Groundwater data will be obtained during and immediately after drilling, if encountered. Upon completion of drilling and groundwater readings, all completed borings will be backfilled with bentonite chips and will topped with a single lift of asphalt to match existing grade where applicable

HVJSCTx will perform Dynamic Cone Penetration (DCP) tests to evaluate subgrade conditions for this project. A total of two (2) DCP tests will be performed on the subgrade.

- Laboratory Tests: Laboratory index tests will be performed on select soil samples recovered from the test borings. The index tests will include Atterberg limits, minus 200 sieve, moisture content, and unconfined compressive strength tests. In addition, auger cuttings will be collected from each boring to perform California Bearing Ratio (CBR) on one (1) composite sample (i.e., composite sample will be prepared by combining auger cuttings of similar soils obtained from different borings/will be collected from unpaved areas near vicinity of the borings) and lime-pH series.

The collected field and laboratory data will be interpreted and used to develop geotechnical investigation report for the project. The result of field and laboratory investigation will be presented in a detailed Geotechnical Investigation Report. The report will include the following specific items:

- Site Vicinity/Topographic map,
- Geology map,
- Soils map,
- Plan of borings,
- Boring logs,
- Laboratory test results summary,
- Potential Vertical Rise (PVR),
- Groundwater conditions,
- Generalized subsurface conditions,
- Recommendations for open-cut installation of the utility lines,
- Trench safety recommendations,
- Pipe bedding and backfill recommendations,
- General discussion on construction and excavation recommendations,
- Pavement Design Report (by HVJ Associates Inc., detailed scopes are presented subsequently).

Mr. Mark B. Hill, PE  
Buffalo Valley South  
November 27, 2023  
SG 23 10478

The above-described report will be prepared by an engineer specializing in soil mechanics after reviewing available boring and laboratory data.

### **Pavement Design**

HVJSCTx will be completing all the required geotechnical field investigation and lab testing results, which HVJ will use in the pavement evaluation and design work.

#### Task 1 Receive and Review HVJSCTx Field Investigations

HVJ will review the background data provided by HVJSCTx, Unintech, and City to evaluate site existing conditions. HVJ will produce a USDA Soils map of the project area with a brief description of each type of soil located within the project area. HVJ will rely on HVJSCTx for all other geotechnical information needed for pavement design including soil classification and Atterberg limits, California Bearing Ratio (CBR) tests, Dynamic Cone Penetrometer (DCP) tests for subgrade stiffness, sulphate and lime series testing for assumed lime stabilization of the subgrade and recommend percentage of lime based on pH requirements, and Potential Vertical Rise (PVR) estimates based on a 10' column of soil. HVJ will also need from HVJSCTx a recommendation for percent lime stabilization of high PI subgrades to meet the required pH.

#### Task 2 Estimate Pavement Design Traffic

HVJ will use street classification based minimum values as provided in the following table if no additional data are provided by HVJSCTx, Unintech, or the City of Schertz:

<b>Roadway Functional Classification</b>	<b>Flexible Pavement 18-kip ESALs</b>
Local Type A street with bus traffic	1,000,000
Local Type A street without bus traffic	100,000

#### Task 3 Develop Pavement Designs

HVJ will use the geotechnical recommendations from HVJSCTx (Task 1) and traffic design input data (Task 2) to prepare pavement designs for the following pavement options: (1) reclaiming the pavement with cement stabilization or asphalt emulsion stabilization of the base, treatment of the subgrade, and 2" HMAC surface.; (2) street excavation, subgrade stabilization, and 2" of HMAC surface, and 5" of HMAC base.

HVJ Associates will prepare the pavement design according to AASHTO Guide for Design of Pavement Structures 1993 Edition based design program, DARWin. The full depth reconstruction designs will be designed for 20-year design life criteria., using the minimum acceptable design traffic based on the functional classification of each street.

#### Task 4 Reporting and Reviews

HVJ will prepare one draft and one final pavement design report which include the following:

1. Document design input values and assumptions including traffic loads, assumed new pavement material strengths, environmental conditions, and pavement designlife.

Mr. Mark B. Hill, PE  
 Buffalo Valley South  
 November 27, 2023  
 SG 23 10478

2. Proposed typical pavement designs for each alternative from pavement design software outputs (e.g., AASHTO DARWin based on AASHTO 1993)
3. Recommended pavement construction material specifications (Assuming standard City specifications)
4. Upon receipt of combined comments from HVJ-SCTx, Unintech, and City of Schertz, HVJ will prepare a final sealed pavement design report.

HVJ will submit a draft pavement design report for review. After resolution of comments, HVJ will prepare a final pavement design report. All submittals will be electronic. Additional revisions and/or supplements to the report following submittal of final report may be considered additional services.

### Assumptions

The following assumptions were made in developing the scope and fee estimate for this project:

- HVJSCTx will coordinate with One-Call to locate underground utilities.
- City of Schertz will provide Right of Entry Permits,
- HVJSCTx will coordinate with the city for traffic control.
- Fees for Right-of-way permits will be waived.
- Unintech will provide an electronic site plan to develop a Plan of Borings.
- If needed, the elevations, and locations of the borings (in latitude/longitude or state plane northing/easting) will be surveyed in by others. HVJSCTx will include elevation and location information on the boring logs.
- As-built drawings and/or underground drainage locations will be provided to HVJSCTx prior to marking boring locations.
- No full depth reclamation, overlay, widening, or other design alternatives are included. All designs are assumed be full reconstruction.
- The geotechnical boring logs, material test results, PVR estimates, and subgrade stabilization recommendations are assumed to be provided by HVJ South Central Texas – M&J, Inc.
- Two pavement reconstruction design alternatives will be prepared. Any additional alternative designs will require additional fees.
- One draft and one final pavement design report will be prepared.

### Fee

Based on the scope of work outlined, a **Lump Sum fee of \$21,951.00** is proposed for the project as presented in the following table.

Scope of Work	Performing Firm	Lump Sum Fee
Geotechnical Investigation	HVJSCTx	\$16,525.00
Pavement Design	HVJA (Specialized Pavement Engineer)	\$5,426.00
TOTAL LUMP SUM		<b>21,951.00</b>

Mr. Mark B. Hill, PE  
Buffalo Valley South  
November 27, 2023  
SG 23 10478

A breakdown of the fee is included at the end of this proposal. Should the project configuration change significantly, additional work may be required. HVJSCTx will recommend such additional work when and if it is deemed necessary.

**Schedule**

We propose to initiate project scheduling and coordination, immediately upon receiving notice-to-proceed. We subsequently expect to complete the test borings approximately one (1) week after receiving notice to proceed. Laboratory testing, evaluation of test results, engineering analyses and report preparation will take approximately four (4) to six (6) weeks after completion of the fieldwork.

**Sample Retainage**

Soil samples will be retained in our laboratory for 30 days after the geotechnical investigation.

**Invoices**

Invoices will be submitted at the end of each month based on the time spent on the work and items completed by the last Saturday of each month, or based on an invoice schedule. HVJSCTx understands that payment will be within 10 days of submission of the data report.

If this proposal meets with your approval, please sign and complete the indicated spaces below and forward a copy of the proposal to us. Thank you for this opportunity. We appreciate your business.

Sincerely,

**HVJ SOUTH CENTRAL TEXAS – M&J INC.**

*Golam Kibria*

Golam Kibria, Ph.D., PE  
Office Manager – San Antonio/Senior Geotechnical Engineer

GK/mm

Agreed to this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Firm: \_\_\_\_\_

Date to Start Work: \_\_\_\_\_

Mr. Mark B. Hill, PE  
 Buffalo Valley South  
 November 27, 2023  
 SG 23 10478

<b>Geotechnical Investigation</b>					
<b>Buffalo Valley South – Street recon/water and sewer replacement project</b>					
<b>HVJ South Central Texas M&amp;J, Inc.</b>					
<b>HVJ SCTx Proposal No. SG 23 10478</b>					
<b>Geotechnical Field Investigation - Drilling and Soil Sampling</b>					
Mobilization/Demobilization	1	@	\$600.00	per mobilization	\$600.00
Drilling & Sampling - Soil Drilling	70	@	\$30.00	per foot	\$2,100.00
Backfilling Soils/Bentonite	70	@	\$6.00	per foot	\$420.00
Driller Standby time	2	@	\$180.00	per hour	\$360.00
Logging	12	hr @	\$85.00	per hour	\$1,020.00
Staking, Utility Clearance, permit Coordination	4	hr @	\$85.00	per	\$340.00
Traffic Control	2	@	\$1,500.00	per day	\$3,000.00
DCP	2	@	\$400.00	each	\$800.00
Support Truck	2	@	\$125.00	each	\$250.00
				<b>Sub Total</b>	<b>\$8,890.00</b>
<b>Laboratory Testing - Standard</b>					
Moisture Content	14	@	\$25.00	each	\$350.00
Atterberg Limits	14	@	\$80.00	each	\$1,120.00
#200 Sieve Analysis	14	@	\$55.00	each	\$770.00
Unconfined Compressive Strength Tests-Soil	2	@	\$65.00	each	\$130.00
California Bearing Ratio (CBR)	1	@	\$550.00	each	\$550.00
Lime-pH Series (Tex-121-E)	1	@	\$175.00	each	\$175.00
Sulfate	4	@	\$70.00	each	\$280.00
				<b>Sub Total</b>	<b>\$3,375.00</b>
<b>Geotechnical Engineering &amp; Reporting</b>					
Project Manager	4	hr @	\$185.00	hr	\$740.00
Professional Engineer III	8	hr @	\$140.00	hr	\$1,120.00
Engineer In Training I	20	hr @	\$115.00	hr	\$2,300.00
Administrative Assistant III	2	hr @	\$50.00	hr	\$100.00
				<b>Sub-Total</b>	<b>\$4,260.00</b>
Pavement Design Services	1	@	\$5,426.00	+ 0% cost	\$5,426.00
				<b>TOTAL</b>	<b>\$21,951.00</b>

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November 27, 2023  
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