

10/25/24 1000-24-0085

Andrew Zagars, PE City Engineer City of Killeen 3201-A S.W.S Young Drive City of Killeen, TX 76542 254-616-3179

Subject: **Proposal for Engineering Services to develop an H&H analysis and LOMR application for Rosewood Tributary, Killeen, TX** 

Scheibe Consulting, LLC was asked to provide a proposal for civil engineering services to develop hydrology and hydraulic modeling and a LOMR application for Rosewood Tributary in Killeen, TX.

Attachment A is a lump sum fee proposal for engineering services, and Attachment B is a contract that will need to be signed to begin work.

I appreciate the opportunity to be of service. Please let me know if you have any questions.

Sincerely, Scheibe Consulting, LLC

iz.

Eric Scheibe, PE, CFM President

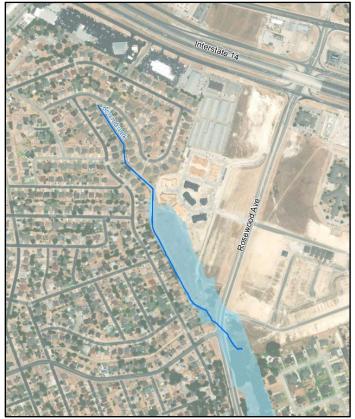


# ATTACHMENT A Engineering Services to develop a drainage impact analysis for Rosewood LOMR, Killeen, TX Scope of Work

## **Project Understanding**

The City of Killeen has tasked Scheibe Consulting, LLC with developing updated hydrologic and hydraulic modeling for the portion of Acorn Creek upstream of Rosewood Avenue with the focus on revising the Current Effective FEMA floodplain and floodway in this area. Rosewood Ave. was recently extended (circa 2014) with the addition of a new culvert crossing on Acorn Creek. Additional topographic updates have also occurred in the area related to channel grading and lining upstream of the Rosewood crossing (circa 2011). Scheibe is currently in the process of developing new H&H model updates throughout the City as part of a Phase 1 Drainage Master Plan update, but this effort will not include new survey data collection or model updates to FEMA compliance until Phase 2 funding is available.

This effort will include a new detailed H&H analysis to FEMA standards and based off Atlas 14 rainfall statistics. Scheibe will then develop an engineering report and submit a Letter of Map Revision (LOMR) to FEMA to update the floodplain in this region. This section of Acorn Creek is currently a FEMA Zone AE stream with effective FEMA modeling available. The effective models will be used as a basis for the updated hydrologic and hydraulic analysis and will be updated with current LiDAR elevation data, Atlas 14 rainfall, new survey data for the channel, and new survey for the Rosewood culvert crossing. The following tasks will be required to submit a LOMR to FEMA for this area:





#### **Basic Scope of Services**

- 1. <u>Project Coordination</u>: This task consists of effort associated with project administration, management, coordination with Owner or Owner's Rep., coordination and supervision of the project team, project meetings, monthly progress report, and quality management so that project deliverables meet schedule and budget constraints.
- 2. <u>Field Survey</u>: Scheibe will conduct field survey to collect existing channel and culvert data. All survey data will be collected for input into the model and collected to FEMA standards.
- 3. <u>Hydrologic & Hydraulic Analysis</u>: Scheibe will obtain and review all available data (LiDAR, aerial images, previous FEMA models, etc.) for the project area. New existing condition hydrologic and (1D) hydraulic model will be created to FEMA standards by revising and updating the current effective hydrologic and hydraulic models with new LiDAR elevation data, revising runoff loss rates based on latest landuse information, and adding the new survey associated with the recent improvements. Atlas 14 rainfall and current LiDAR elevation data will be used as the basis for this existing condition analysis.
- 4. <u>Technical Report and LOMR Application</u>: A technical report containing all the data and analysis required for a FEMA LOMR will be compiled. All required figures and MT2 forms will also be developed for the LOMR application. Coordination with FEMA during the review process and responses to FEMA comments will also be provided (for up to two rounds of FEMA reviews).

### Fee Schedule:

See **Exhibit 2** for the Fee Schedule. This fee will be billed as lump sum, based on % complete.

#### **Project Schedule:**

The modeling and LOMR application will be ready for submittal to FEMA within 8 weeks of notice to proceed. The FEMA review period is expected to be 9 to 12 months. It is anticipated that there will be a FEMA LOMR application fee of \$9,000.00 (+/-).

EXHIBIT 2 - FEE SCHEDULE - Rosewood LOMR Fee																								
						Staff													1 1	Subco				
	Professional Service Description	Total Task Hours (Scheibe)		Total Task Cost	Project Principal	Senior Project Manager	Senior Engineer	Engineer VI	Engineer V	Engineer IV	Engineer III	Engineer II	Engineer I	EIT III	EIT II	ЕІТ І	CAD Tech III	II STAN	2-Man Survey Crew	Admin III	Expenses	TBD	TBD	TBD
					\$ 280.00	\$250.00	\$250.00	\$220.00	\$200.00	\$175.00	\$165.00	\$155.00	\$145.00	\$130.00	\$125.00	\$115.00	\$105.00	\$185.00	\$175.00	\$95.00	Fee	Fee	Fee	Fee
1	Project Coordination	16.5	\$	3,870																				
А	Prepare Invoices and Monthly Progress Reports	16.5	\$	2,310	1.5		3.0													12.0	\$-	\$-	\$-	\$-
В	Project Meetings	6.0	\$	1,560	2.0		4.0														\$-	\$-	\$-	\$-
2	. I Field Survey	30.5	\$	6,020																				
А	Site Visit/Field Survey (2 structures)	30.5	\$	6,020	0.5		2.0										8.0	4.0	16.0		\$ 1,000.00	\$-	\$-	\$-
3	Hydrologic and Hydraulic Analysis	166.0	\$	29,320																				
А	Develop/Update Existing Conditions Hydrology Model	73.0	\$	12,840	1.0		8.0				64.0										\$-	\$-	\$-	\$-
В	Develop Existing Conditions Hydraulic Model	93.0	\$	16,480	1.0		12.0				80.0										\$ -	\$-	\$-	\$-
4	. ITechnical Report and LOMR application	116.0	\$	23,600			•				-	-	1	-			-	-	-	1				
А	Develop Technical Report for LOMR	44.0	\$	7,600			4.0				40.0										\$-	\$-	\$-	\$-
В	Develop LOMR application	32.0	\$	5,960			8.0				24.0										\$-	\$-	\$-	\$-
С	Respond to FEMA comments	40.0	\$	7,280			8.0				32.0										\$ -	\$-	\$-	\$-
D	LOMR Outreach Letters	16.0	\$	2,760			8.0													8.0	\$ -	\$-	\$-	\$-
	END BASIC SERVICES																							
	Total Basic Service Hours:	351	\$	62,810	6	0	57	0	0	0	240	0	0	0	0	0	8	4	16	20	\$ 1,000.00	\$-	\$-	\$-
	Total Basic Services		\$	62,810																				