

SECOND AMENDMENT TO PROFESSIONAL SERVICES CONTRACT

This amendment is made to the Professional Services Contract by and between Scheibe Consulting, LLC of Austin, TX hereinafter referred to as CONSULTANT and City of Laredo located at 1110 Houston Street, Laredo, TX 78040 hereinafter referred to as CITY executed on November 29th, 2021.

The Parties hereby agree to amend the aforementioned agreement by adding the attached Exhibit A to the scope of work for the original agreement. This amendment shall increase the contract amount by two hundred thousand dollars and 00/100 (\$200,000.00). The total contract amount including this amendment is eight hundred ninety-nine thousand dollars and 00/100 (\$899,000.00). The parties intend for the attached document to be fully incorporated and made a part of the original agreement. All other terms and conditions of the original agreement shall remain in full force and effect.

Scheibe Consulting, LLC
Through its authorized representative,
Eric C. Scheibe, PE, CFM
President

Joseph Neeb,
City Manager

ATTEST:

Mario I Maldonado, Jr.
City Secretary

APPROVED AS TO FORM:

Doanh "Zone" T. Nguyen,
City Attorney

Laredo Flood Infrastructure Fund (FIF) Drainage Master Plan Project

Agreement for Professional Engineering Services CIS #2

This Change In Service Request #2 (CIS #2) is a change to the Original Agreement for Professional Engineering Services between the City of Laredo, TX (the "Owner") and Scheibe Consulting, LLC (the "Engineer") dated Nov. 29, 2021. This CIS #2 is specifically an additional services request to Purchase Order 356069, dated 7/17/2023 (which included CIS #1 additional fee of \$49,000.00). All other terms and conditions in the Original Agreement shall remain in full force and effect and shall govern this Amendment.

Included in this Amendment is additional authorization to compensate the Engineer for additional services required by the project, as reflected in the attached **Exhibit A**, attached hereto and incorporated herein.

Total Increased Authorization

\$ 200,000.00

Approved:

Engineer – Scheibe Consulting, LLC

Date

Owner – Laredo, TX

Date

ATTACHMENT A

CIS #2

Engineering Services to assist with the City of Laredo Flood Protection Planning Project, Webb Co., TX Scope of Work

Background

The City of Laredo desired to develop a new and robust 1D/2D hydrologic and hydraulic model for the Manadas and Zacate Creek watersheds, as well as have an independent review conducted of their existing stream gauge network. The City also desired to identify existing flood risk using the newly developed H&H models, and also identify both structural and non-structural solutions to these existing flood risk areas. The City desired that the gauge feasibility study be conducted in cooperation with other regional gauge activities that may continue to progress in parallel to this study. The City also desired that public/stakeholder feedback be solicited within the entire Chacon Creek-Rio Grande HUC 10 boundary, to identify other known flood risk areas that may warrant future investigations.

Introduction

This project was funded by TWDB FIF grant funds and the City of Laredo contracted with Scheibe Consulting, LLC to implement this master planning effort. Over the course of this project, it was identified that a 1D/2D model was not sufficient for the needs of the City, due to the complex urban flooding that the models produced. The scope of work identified in the grant and provided by Scheibe included development of a 1D/2D model for the Manadas and Zacate Creek watersheds, but this effort resulted in a very unstable model, requiring a more advanced approach, including the development of a full 2D model for both watersheds. In addition, the complex nature of the urban flooding, as resulted in the preliminary identification of several very complex flood risk reduction projects. The current scope of work did not include the need to evaluate large diversion channels or other complex stormsewer and surface improvements, which is necessary to complete this project.

The following is a list of additional tasks necessary to develop a stable full 2D model, as well as evaluate the complex flood risk reduction alternatives needed for this project.

- A. **Full 2D Model Development** – Scheibe will develop a full 2D model for both the Manadas and Zacate Creek watersheds, using the latest HEC-RAS software. This effort will include reworking the RAS geometry file, revisions to the 2D meshing, breakline adjustments, recalibration of the model, and revised frequency flow simulations. This revised information will be included the final report for the FIF DMP study.

B. Additional Alternative Analysis – Scheibe will develop a detailed alternative analysis for the:

- a. **Markley Ln Diversion Alternative** – This alternative will include identification of a diversion channel or stormsewer route, generally along or near Markley Ln. (see attached **Figure A**). The additional scope for this alternative will include field investigation, some minor field survey work to identify conflicts and constraints, and coordination with City staff on the final alignment.



Figure A: Markley Ln Diversion Alternative

- b. **Airport Diversion Alternative** - This alternative will include identification of a diversion channel and regional detention pond, generally along or near the Airport property (see attached **Figure B**). The additional scope for this alternative will include field investigation, some minor field survey work to identify conflicts and constraints, and coordination with City staff on the final alignment.

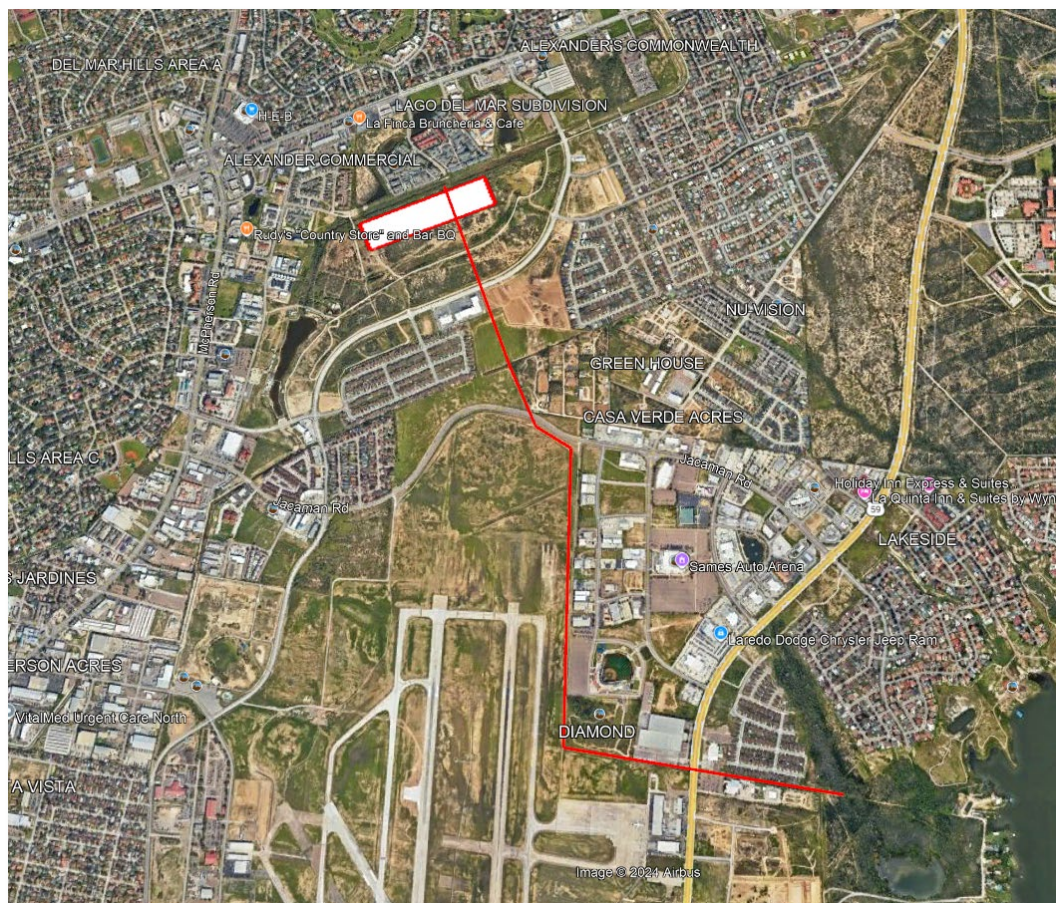


Figure B: Airport Diversion Alternative

Fee Schedule:

A. Full 2D Model Development - \$130,000

B. Additional Alternative Analysis - \$70,000

Total = \$200,000