

**DANNENBAUM ENGINEERING COMPANY – AUSTIN, LLC**

**T.B.P.E. FIRM REGISTRATION #8995**

**3409 EXECUTIVE CENTER DRIVE, SUITE 129, AUSTIN, TEXAS 78731**

**OFFICE: (512) 345-8505      FAX: (512) 345-9634**

November 20, 2017

Joe Ramos, Jr. P.E.,  
City Engineer  
City of Seguin  
205 N River Street  
Seguin, Texas 78155

**REFERENCE: PROPOSAL FOR LETTER OF MAP REVISION  
GUADALUPE TRIBUTARY 4A  
FROM RUDELOFF RD TO FM 78**

Dear Mr. Ramos:

Dannenbaum Engineering Company- Austin, LLC (“the Engineer”) is pleased to submit this proposal to perform and process a Letter of Map Revision (LOMR) through the Federal Emergency Management Agency (FEMA) for the City of Seguin (City). The Engineer understands the City would like to map a section of the Guadalupe Tributary 4a from Rudeloff Rd to FM 78, as depicted in Attachment A (Project Limits).

**Task 1 – Project Management**

- 1) Provide project management services for the project including meetings, correspondence with project stakeholders. Engineer will attend and conduct meetings with stakeholders at City’s request
- 2) Provide Quality Assurance/Quality Control (QA/QC)

**Task 2 – Data Search, Collection, and Surveys**

- 1) Collect existing hydrologic and hydraulic models
- 2) Collect data for adjacent LOMRs
- 3) Collect As-Built Plans from City of Seguin
- 4) Conduct Surveys for cross-section at culverts under FM 78, CR 45, and Rudeloff Rd. See Attached Proposal From Zamora Surveying

**Task 3 – Update Hydrologic and Hydraulic Models**

- 1) Hydraulics - Update Existing hydraulic models by supplementing with additional data collected in Task 2
- 2) Hydrology- Develop new rating curves for culvert crossings and update routing in HEC-HMS model

**Task 4 – Floodplain Mapping**

- 1) Generate preliminary floodplain from Task 3 results. Review and modify preliminary floodplain maps
- 2) Develop base flood elevations (BFE’s)
- 3) Refine Floodplain and Format Shapefiles to FEMA standards

**Task 5 – Floodway Mapping**

- 1) Optimize Floodway Encroachments
- 2) Map Floodway and Format Shapefiles to FEMA standards

**Task 6 – Report Compilation**

- 1) Text - Create project write-up
- 2) Tables - Generate Required Tables to compare Water Surface Elevations.
- 3) Prepare FEMA MT-2 Forms
- 4) Generate Public Notification 3 individual legal notices
- 5) Exhibits
  - Create and annotate Hydraulic Workmap showing, effective FEMA Flood Zones, Proposed 100yr Floodplain, Proposed Floodway, BFE's, Contours, Aerials, City Limits, and Hydraulic Model cross-sections
  - Create Overlay Map showing Effective Flood Insurance Rate Map (FIRM) and proposed 100yr Floodplain, Floodway, and BFE's
  - General Exhibits: Vicinity Map, Drainage Boundaries
  - Create Flood Insurance Study (FIS) Profiles

**Task 7 – FEMA Coordination**

- 1) FEMA Coordination & Response to Comments
- 2) 6512 Documentation Notifying property owners that BFE's will be established along floodplain

**Compensation and Payment**

The Engineer agrees to perform the above-described services, for the lump sum fees as itemized in Attachment B to be invoiced monthly based on percent of services completed.

Engineering Fee	\$40,940.00
Surveying Fee	\$15,310.00
FEMA Fee	\$8,250.00
Other Direct Cost – Newspaper Notices, Mileage, Supplies	\$1,300.00
<b>TOTAL</b>	<b>\$65,800.00</b>

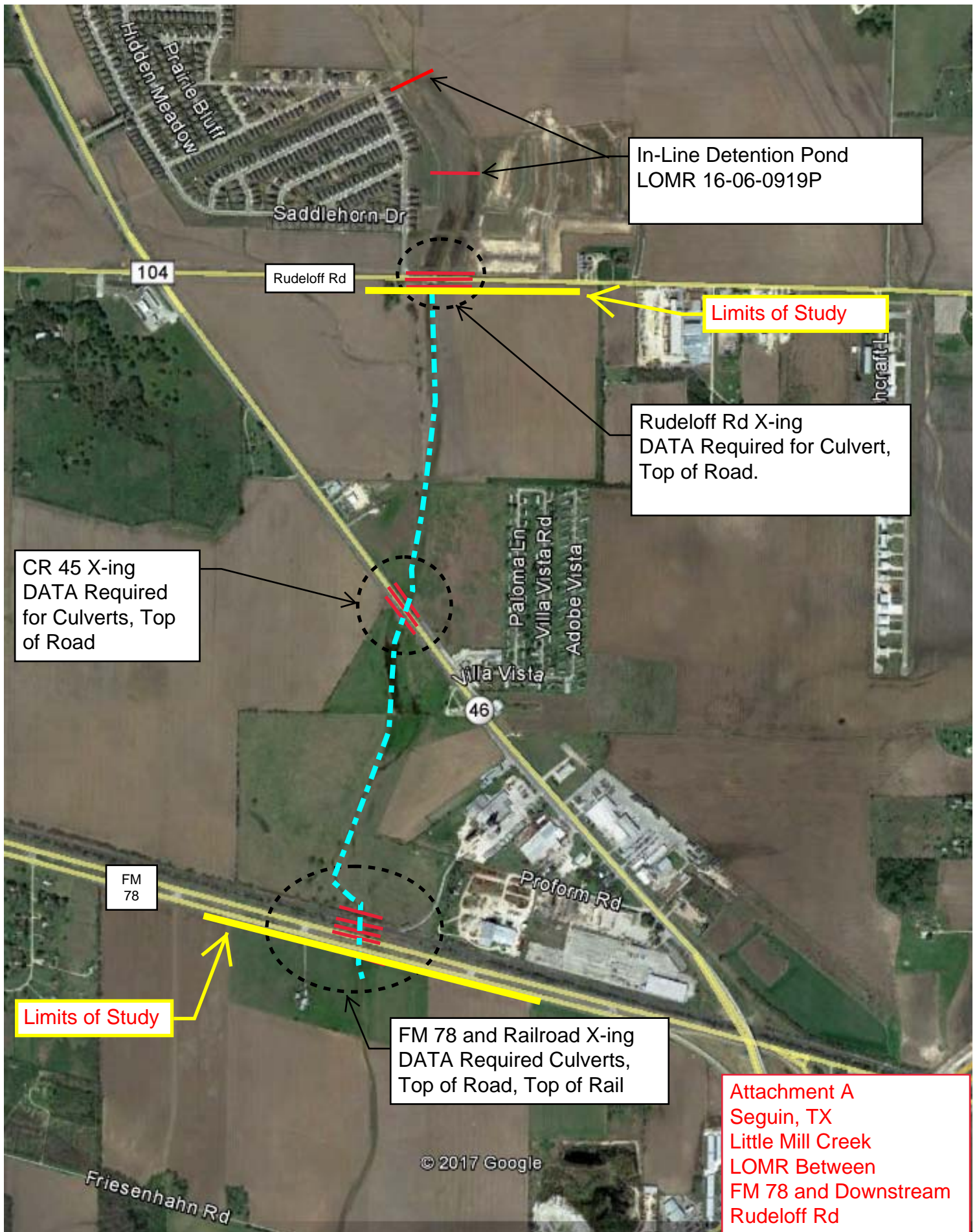
Sincerely,

**DANNENBAUM ENGINEERING COMPANY – AUSTIN, LLC**



Rafael Beckmann, P.E., CFM  
Project Manager

Cc: Tom Arndt, P.E. – President – Dannenbaum Engineering Company-Austin, LLC



In-Line Detention Pond  
LOMR 16-06-0919P

Limits of Study

Rudeloff Rd X-ing  
DATA Required for Culvert,  
Top of Road.

CR 45 X-ing  
DATA Required  
for Culverts, Top  
of Road

FM  
78

Limits of Study

FM 78 and Railroad X-ing  
DATA Required Culverts,  
Top of Road, Top of Rail

Attachment A  
Seguin, TX  
Little Mill Creek  
LOMR Between  
FM 78 and Downstream  
Rudeloff Rd

# ATTACHMENT B

City of Seguin  
Texas

## Guadalupe Tributary 4a LOMR from Rudeloff to FM 78

November 20, 2017

### ESTIMATED NOT TO EXCEED PAYMENTS FOR SERVICES AND EXPENSES OF THE ENGINEER

#### RATES:

Division Manager-	\$225.00 /hour
Project Manager-	\$170.00 /hour
Project Engineer -	\$110.00 /hour

CADD Technician -	\$95.00 /hour
Clerical -	\$75.00 /hour

LOMR Compilation :	\$40,940.00
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#### SUBCONSULTANTS:

Zamora Surveying	\$ 15,310.00
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Sub-Total	\$ 15,310.00
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#### EXPENSES:

ODC-Printing, Mileage, Newspaper:	\$ 1,300.00
LOMR Application FEE	\$ 8,250.00

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TOTAL ESTIMATED FEE:	\$65,800.00
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**ATTACHMENT B**  
**LOMR**  
Guadalupe Tributary 4a LOMR from Rudeloff to FM 78

TASK		Division Manager \$225.00	Project Manager \$170.00	Project Engineer \$110.00	CADD \$95.00	Secretary \$70.00	Total Hours	Total Cost
<b>1.0</b>	<b><u>Project Management</u></b>	<b>8</b>	<b>10</b>	<b>8</b>	<b>0</b>	<b>4</b>	<b>30</b>	<b>\$ 4,660.00</b>
	Meetings		6			2	8	\$ 1,160.00
	Correspondence		4	8		2	14	\$ 1,700.00
	QA/QC	8					8	\$ 1,800.00
<b>2.0</b>	<b><u>Data Collection</u></b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>\$ 780.00</b>
	Collect existing Hydrologic and Hydraulic Models		2	4			6	\$ 780.00
	Collect Data for Adjacent LOMRs		2	4			6	\$ 780.00
	Collect As-Built for Culverts from City of Seguin		2	4			6	\$ 780.00
<b>3.0</b>	<b><u>Update Hydrologic and Hydraulic Models</u></b>	<b>0</b>	<b>12</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>52</b>	<b>\$ 6,440.00</b>
	Hydraulics		6	20			26	\$ 3,220.00
	Hydrology		6	20			26	\$ 3,220.00
<b>4.0</b>	<b><u>Floodplain Mapping</u></b>	<b>0</b>	<b>12</b>	<b>48</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>\$ 7,320.00</b>
	Generate Preliminary Floodplain from Task 3 Results		4	16				\$ 2,440.00
	Develop BFE		4	16			20	\$ 2,440.00
	Refine Floodplain and Format Shapefiles		4	16			20	\$ 2,440.00
<b>5.0</b>	<b><u>Floodway Mapping</u></b>	<b>0</b>	<b>8</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$ 4,880.00</b>
	Optimize Floodway Encroachments		4	16				\$ 2,440.00
	Map Floodway & Format Shapefiles		4	16				\$ 2,440.00
<b>6.0</b>	<b><u>Report (Update FEMA Template)</u></b>	<b>0</b>	<b>14</b>	<b>44</b>	<b>32</b>	<b>14</b>	<b>104</b>	<b>\$ 11,240.00</b>
	Text - Create Project write-up		2	12		8	22	\$ 2,220.00
	-Tables		2	8		2	12	\$ 1,360.00
	-FEMA MT-2 Forms		2	4		2	8	\$ 920.00
	-Public Notification - 3 Individual Notices		2	2		2	6	\$ 700.00
	-Exhibits							
	+Hydraulic Workmap		2	6	8		16	\$ 1,760.00
	+Annotated FIRM Panel		2	6	8		16	\$ 1,760.00
	+General Exhibits				8		8	\$ 760.00
	+FIS profiles		2	6	8		16	\$ 1,760.00
<b>7.0</b>	<b><u>FEMA Coordination</u></b>	<b>0</b>	<b>14</b>	<b>36</b>	<b>16</b>	<b>16</b>	<b>76</b>	<b>\$ 8,980.00</b>
	FEMA Coordination & Response to Comments		10	32	16	8	76	\$ 7,300.00
	6512 Documentation Notifying Individual Property Owners		4	4		8		\$ 1,680.00
	<b><u>SUB-TOTAL</u></b>							<b>\$ 40,940.00</b>
<b>8.0</b>	<b><u>ODC</u></b>							<b>\$ 1,300.00</b>
	Newspaper Notification							\$ 800.00
	Mileage							\$ 250.00
	Supplies							\$ 250.00
<b>9.0</b>	<b><u>LOMR Application Fee to FEMA</u></b>							<b>\$ 8,250.00</b>
<b>10.0</b>	<b><u>Surveying (Zamora Surveying)</u></b>							<b>\$ 15,310.00</b>
	<b><u>GRAND TOTAL</u></b>							<b>\$ 65,800.00</b>



November 19, 2017

Mr. Rafael Beckmann, P.E.  
Dannenbaum Engineering Company-Austin, LLC  
3409 Executive Center Drive, Suite 129  
Austin, Texas 78731

**RE: Little Mill Creek in Seguin Texas, Guadalupe County**

Zamora, L.L.C (ZWA) is pleased to submit to this proposal to Dannenbaum Engineering Company-Austin, LLC for providing professional surveying services for the above referenced project. The following scope of services with associated fees is based upon the emails as provided by Dannenbaum, dated November 15, 2017 and revised November 17, 2017. This proposal is our estimate of the anticipated services required and on assumptions. If our assumptions are incorrect, the associated fees would require a revision to address the correct assumption.

### **ASSUMPTIONS**

1. Surveying service limits will be as shown on Attachment A. Right-of-entry will be provided by the Engineer or City of Seguin.
2. Project Control will be established using GPS horizontal datum based on NAD-83 (EPOCH: 2011), Texas Plane Coordinate System, Central Zone (4203) and vertical datum will be based on NAVD 88; unless other existing control is provided by Engineer.
3. Cross-sections shall include but not be limited to: top of channel bank, bottom of channel bank, approximate flowline or edge of water, and major grade breaks.

### **SURVEYING SERVICES**

1. **Project Control:** ZWA shall utilize GPS/VRS network within the project area. ZWA shall establish two (2) primary survey control monuments as needed. All horizontal values will be referenced to NAD-83 (EPOCH: 2011), Texas Plane Coordinate System, Central Zone (4203). All horizontal values will be represented in US Survey Feet (USFT) and will be scaled to surface utilizing Surface Adjustment Factor (SAF) for Travis County of 1.00011. The vertical values for this project will be based on the North American Vertical Datum of 1988 (NAVD88) utilizing Geoid 2012A. The vertical values will be represented in USFT.
2. **Creek Cross-Sections:** ZWA shall collect sixteen (16) cross-sections along creek channel as shown on Attachment A for location and length. Cross-sections will consist of 8 to 10 natural ground data shots to include but not be limited to: top of channel bank, bottom of channel bank, approximate flowline or edge of water, and major grade breaks.
3. **Road or Railroad Cross-Sections:** ZWA shall collect cross-sections along existing roadways and existing railroad shown on Attachment A. Cross-sections will consist of 50-foot interval data shots along a 400-foot section located at the crown of roadway for Rudeloff Road, at the edge of pavement for SH 46 and FM 78, and at the center of rails for railroad.
4. **Culverts:** ZWA shall collect existing culverts along existing roadways and existing railroad as shown on Attachment A. This data shall include but not be limited to: drainage structure size, material, thickness of walls, flowline elevations and top of bank. Photos will be taken of the culvert upstream and downstream.
5. ZWA shall process all field data, check and incorporate into CAD platform. ZWA shall provide Quality Assurance / Quality Control of ALL field, office data and files upon completion.

**Zamora, L.L.C. dba "ZWA"**  
TX Firm No. 10062700

1435 South Loop 4, Buda, TX 78610 ~ P.O. Box 1036, Buda, TX 78610  
Austin Metro Area: 512-295-6201 ~ Toll Free: 1-877-321-6201

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6. Proper traffic control devices in accordance with the Texas Manual on Uniform Traffic Control Devices (Texas MUTCD) shall be used when instruments/equipment are adjacent to a roadway. A set of warning signs shall be used to warn of survey crews working next to the roadway ROW. Any work within Texas Department of Transportation lanes of travel will require full traffic control measures as specified by the State. Traffic Control measures are not part of this scope of service.
7. ZWA shall assure compliance and adherence to all rules, regulations and policies as set forth by the Texas Board of Professional Land Surveyors and Texas Society of Professional Surveyors Manual of practice for surveying.

### **PROJECT DELIVERABLES**

1. 3D AutoCAD file of survey points.
2. Digital photos of culverts.
3. Field Book PDF copies.
4. ASCII points list including point number, x, y, and z values and point descriptor.

### **FEE ESTIMATE:**

#### **Design Survey of Survey Limits (lump sum)**

**\$15,310.00**

THIRD PARTY SERVICES: All third-party services including permits, uniformed officers, traffic control operations, and outside reproduction cost will be invoiced at cost.

\*\*TAXES: Any applicable state taxes will be added to the fees for this project unless resale certificate provided.

### **ADDITIONAL SERVICES**

All other surveying services, if requested by the Client, above and beyond the scope outlined herein will be provided based upon the 2017 Rate Schedule for ZWA. If requested, a scope of work and estimated fee will be provided in writing prior to ZWA proceeding with any additional service.

#### **Land Surveying (State of Texas) Board Rule Section 29:**

Complaints with the Professional Land Surveying Services provided by Zamora, L.L.C can be directed to:

***Texas Board of Professional Land Surveying, 12100 Park 35 Circle Building A, Suite 156 MC 230, Austin, Texas 78753, Phone (512) 239-5263***

This proposal for surveying services is valid only for the services indicated hereon. Any additional services will be billed on a time and material basis or under a separate lump sum fee agreeable to both ZWA and Client.

Sincerely,

Gina Loftis Franklin, R.P.L.S.  
Survey Project Manager  
Zamora, L.L.C.

**Zamora, L.L.C. dba "ZWA"**

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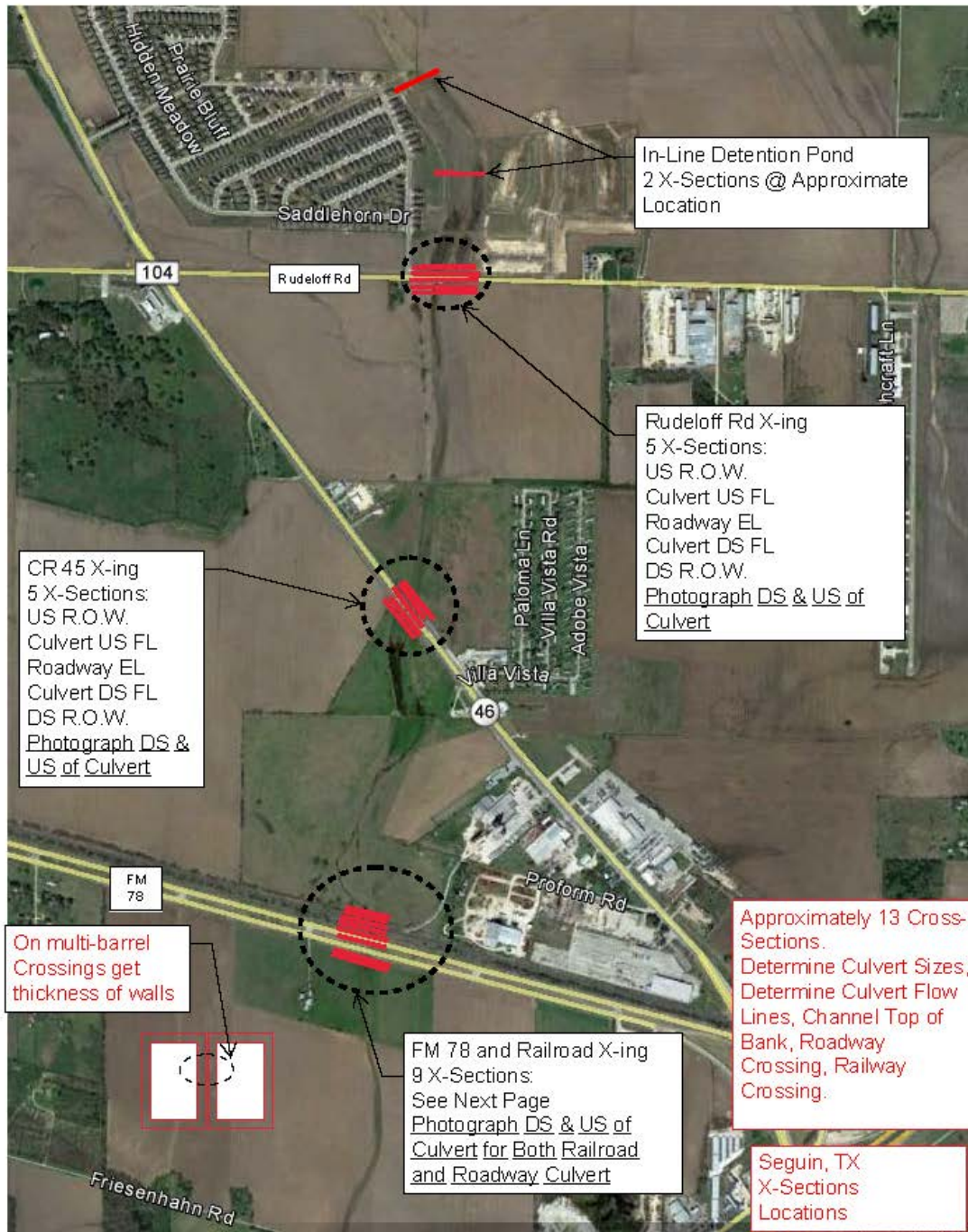


# ZWA

**Zamora, L.L.C.**

**State-wide Professional Land Surveying  
Offices in Buda and El Paso Texas**

## Attachment A Survey Project Limits



**Zamora, L.L.C. dba "ZWA"**

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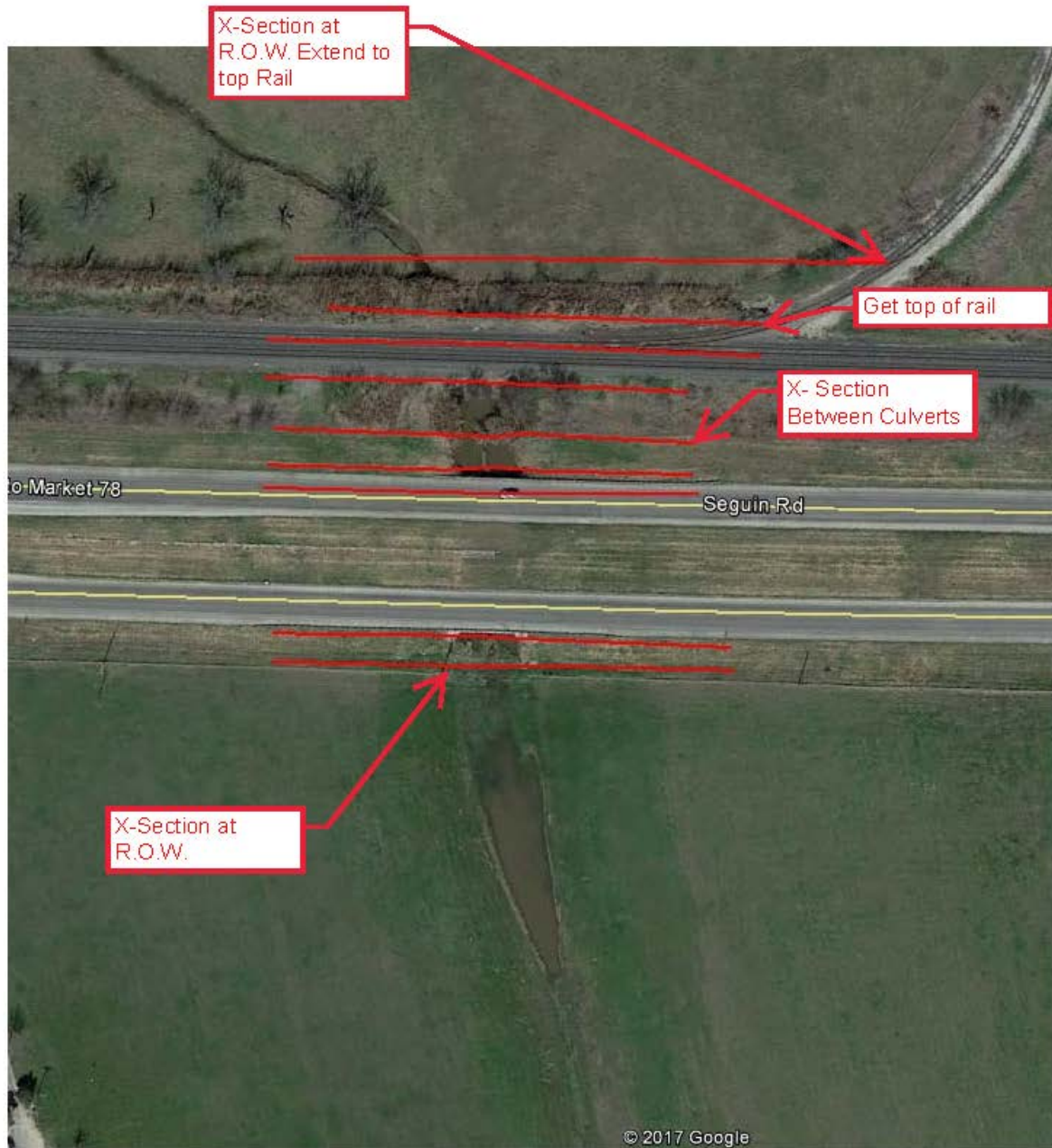




# ZWA

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