

**CONTRACT AMENDMENT NO. 1**  
**TO**  
**WILLIAMSON COUNTY CONTRACT FOR**  
**ENGINEERING SERVICES**

**WILLIAMSON COUNTY ROAD AND BRIDGE PROJECT:**  
**Engineering Design Services for the repair of San Gabriel Ranch Road ("Project")**

THIS CONTRACT AMENDMENT NO. 1 to Williamson County Contract for Engineering Services is by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and Freese and Nichols, Inc. (the "Engineer") and becomes effective as of the date of the last party's execution below.

WHEREAS, the County and the Engineer executed the Williamson County Contract for Engineering Services dated effective April 07, 2016 (the "Contract");

WHEREAS, pursuant to Article 14 of the Contract, the terms of the Contract may be modified by a written fully executed Contract Amendment;

WHEREAS, the "Compensation Cap" under Article 5 of the Contract limits the maximum amount payable under the Contract to \$306,702.00; and,

WHEREAS, the Rate Schedule in Exhibit D of the Contract are limited to the rates noted in said Exhibit D; and,

WHEREAS, it has become necessary to amend the Contract.

**AGREEMENT**

NOW, THEREFORE, premises considered, the County and the Engineer agree that the Contract is amended as follows:

- I. The Compensation Cap under Article 5 of the Contract is hereby increased from \$306,702.00 to \$575,083.00.

All other terms of the Contract are unchanged and will remain in full force and effect.

IN WITNESS WHEREOF, the County and the Engineer have executed this Contract Amendment, in duplicate, to be effective as of the date of the last party's execution below.

**ENGINEER:**

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

Signature

Printed Name

Title

Date

**COUNTY:**

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

Signature

Printed Name

Title

Date

## LIST OF ATTACHMENTS

Attachment A - Services to be Provided by County

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

Attachment B - Services to be Provided by Engineer

Attached behind this page

**Freese and Nichols, Inc.**  
**San Gabriel Ranch Road**  
**Final Design**  
**PSA Supplemental No. 1**

**Project Description**

This Supplemental is a result of an alternative evaluation study performed by Freese and Nichols to assist Williamson County in deciding how to address the concerns at San Gabriel River Ranch Road Dam, including hydraulic inadequacy, auxiliary spillway erosion, and undermining of the county road. Because of that study, Williamson County has decided to remove the dam and create a new channel along the original creek alignment and construct a two-lane bridge over the new channel. This Supplemental includes preparation of plans and specifications for the dam removal, channel restoration, and bridge construction. It also includes environmental permit coordination with U.S. Army Corps of Engineers. Informal conversations with USACE suggest that an Individual Permit (with mitigation) may be required.

**A. Delete the stricken text in PSA Exhibit B, and replace with the following:**

**DESIGN**

1. Public Involvement
  - a. Attend one (1) public meeting to inform area residents of concept
  - b. Prepare draft posters (total of 3 posters) for public meeting for County review.
  - c. Address County's comments and prepare final posters (total of 3 posters).
2. Perform additional survey
  - a. 1-ft topo of the dam embankment, and 400-feet of creek channel downstream from the dam.
  - b. Two channel cross sections downstream of the topo area.
  - c. Five channel cross sections upstream of the dam.
  - d. Tree survey
3. US Army Corps of Engineers (USACE) Permit
  - a. Coordinate and Attend a Pre-Application Meeting with USACE to identify and confirm permitting approach and requirements.
  - b. Perform additional fieldwork to supplement initial field visit to delineate regulated waters, identify wildlife habitat and potential cultural resources.
  - c. Prepare Waters of the U.S. Delineation Report.
  - d. Prepare Federally-listed Species Habitat Evaluation Report.
  - e. Prepare Cultural Resources Assessment.
  - f. Develop functional assessment/mitigation plan.
  - g. Develop and submit a pre-construction notification (PCN) to USACE.

4. Stormwater Pollution Prevention Plan
  - a. Develop a reference storm water pollution prevention plan (SWPPP) for construction to be executed by the project's Primary Operator (Contractor). The SWPPP is to help reduce the release of sediment and pollution from the construction site in accordance with the Texas Commission on Environmental Quality (TCEQ) Texas Pollutant Discharge Elimination System (TPDES) general permit for storm water runoff from construction activity (TXR150000).
5. Williamson County Floodplain Development Permit
  - a. Prepare and submit a development permit to Williamson County.
6. Sediment Evaluation (If requested by resource agencies during permitting)
  - a. Obtain eight sediment samples from the surface of the lake bottom. It is assumed that FNI will be able to utilize a boat on the lake for purposes of sediment sampling.
  - b. Perform laboratory analysis for identified potential chemicals of concerns (COCs) including:
    - i. heavy metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) by EPA Method 6020.
    - ii. chlorinated herbicides by EPA Method 8151
    - iii. organochlorine pesticides by EPA Method 8081
    - iv. organophosphate pesticides by EPA Method 8141A
    - v. VOCs by SW-846 8260B
7. Utilities
  - a. Coordinate utility relocation with utility companies. It is assumed that the utilities will remain in similar horizontal alignment as they currently do and will be supported vertically by the bridge.
8. Channel Design
  - a. Perform gradation testing on up to eight sediment samples
  - b. Evaluate channel stability to erosion for normal and flood flows
  - c. Perform slope stability analysis of the proposed channel slopes
9. Letter of Map Revision
  - a. Study Area: The hydrologic study area will include the approximately 5.5 square mile drainage basin upstream from San Gabriel River Ranch Dam. The hydraulic model study area will begin at Lackey Creek Road and end at the confluence of Lackey Creek and North Fork San Gabriel River.
  - b. Obtain FEMA effective model and backup data for Clearwater Ranch.
  - c. Obtain FEMA backup data for the zone A mapping of Lackey Creek and the North Fork San Gabriel River, if available.
  - d. Incorporate Clearwater Ranch FEMA data into conceptual design phase hydrologic model.
  - e. Develop an existing condition hydraulic model and determine floodplain limits across the study area.
  - f. Based upon the above data, complete existing conditions hydraulic model and include:

- i. Cross Section Plots
  - ii. Floodplain Delineation
  - iii. HEC-RAS Computer Models
- g. Modify existing condition hydrologic and hydraulic models as necessary to develop a proposed hydraulic model of the revised conditions through the site.
- h. Determine proposed floodplain and identify project impacts.
- i. Based on the above data complete:
  - i. Water Surface Profile Plots
  - ii. Cross Section Plots
  - iii. Floodplain Delineation
  - iv. Project impacts
  - v. Computer printouts of hydraulic models
- j. Complete necessary FEMA MT-2 forms for inclusion in submittal.
- k. Submit LOMR to FEMA and pay applicable review fees.
- l. Prepare one digital copy of the report (FEMA, Community, and client) explaining the methodologies and results of the study and containing appropriate charts, graphs, plots, exhibits to describe the study.
- m. Provide necessary coordination with FEMA and the Community to provide technical information in support of the report. FNI will revise/respond to two rounds of FEMA comments.
- n. Prepare newspaper notification advertisement of map change
  - i. Identify adversely impacted properties from flood study.
  - ii. Research property ownership obtaining names and addresses of adversely impacted properties.
  - iii. Coordinate with the community to develop a newspaper notification ad to run in the local newspaper.
  - iv. Submit and pay for newspaper add two local papers
  - v. Supply FEMA with copies of the newspaper ad.
- 10. Prepare 30 percent review drawings of the design.
  - a. Provide proposed typical section and cross sections
  - b. Provide proposed plan and profile sketches
  - c. Provide proposed drainage feature sketches
  - d. Provide table of contents for technical specifications
  - e. Provide opinion of probable construction cost
  - f. Attend one meeting with Williamson County staff to discuss comments
- 11. Prepare 90% set of construction documents
  - a. Finalize
    - 1. Roadway grades and cross sections
    - 2. Grading plans
    - 3. Roadway details
    - 4. Detailing of all drainage structures
    - 5. Environmental Controls

- 6. Attend one meeting with Williamson County staff to discuss comments
- b. Provide complete set of draft specifications
- c. Update opinion of probable construction cost
- d. Submit plans and specifications to TCEQ Dam Safety
- 12. Develop final plans and specifications for bidding that incorporate County's latest comments
- 13. Submit Issued for Bid plans and specifications to County and TCEQ Dam Safety
- 14. Update OPCC to accompany Issued for Bid set

**Deliverables**

- a. 30% Plans, specification outline, Opinion of Probable Construction Cost
- b. 90% Plans, Specifications, SWPPP, and Opinion of Probable Construction Cost
- c. Issued-For-Bid Plans, Specifications, SWPPP, and Opinion of Probable Construction Cost
- d. Design memorandum
- e. FEMA Letter of Map Revision Submittal
- f. USACE 404 Pre-Construction Notification

**B. The Compensation and Expenses under the PSA shall be adjusted as follows:**

Original PSA Compensation Cap	\$306,702
<u>Proposed Additional Effort</u>	<u>+\$268,381</u>
<b>Revised Compensation Cap</b>	<b>\$575,083</b>



## **EXHIBIT B**

### **ENGINEERING SERVICES**

#### **Project Description**

San Gabriel Ranch Road (SGRR) is located in Williamson County on Lackey Creek. The roadway suffered significant damage in recent floods and is currently closed to traffic. The road embankment creates a small lake just upstream of SGRR. This lake has very limited storage capacity and the control structures consist of one ~27-inch corrugated metal pipe for a principal spillway and two ~30-inch concrete pipes for the emergency spillway. The drainage area is approximately five square miles and the spillways are inadequate for passing anything other than very small storms. When the pipes are overwhelmed, the roadway embankment is then subjected to overtopping. This overtopping recently resulted in damage to the roadway and subsequent closure of the roadway.

The roadway embankment is classified as a dam by Texas Commission on Environmental Quality (TCEQ) and TCEQ has performed several inspections throughout the years. Williamson County does not own the dam but is responsible for the roadway. Williamson County has selected Freese and Nichols, Inc. to evaluate the frequent flooding of the roadway and develop possible alternatives to reduce the frequency of roadway overtopping and to provide erosion protection for the site. As part of the evaluation, Freese and Nichols, Inc. (FNI) will perform a high level review of the dam as it relates to TCEQ Dam Safety Criteria.

It is anticipated that there will be two Work Authorizations that will include, but not limited to, a Design Phase and a Construction Phase:

#### **A. DESIGN PHASE**

##### **Evaluation and Schematic Design**

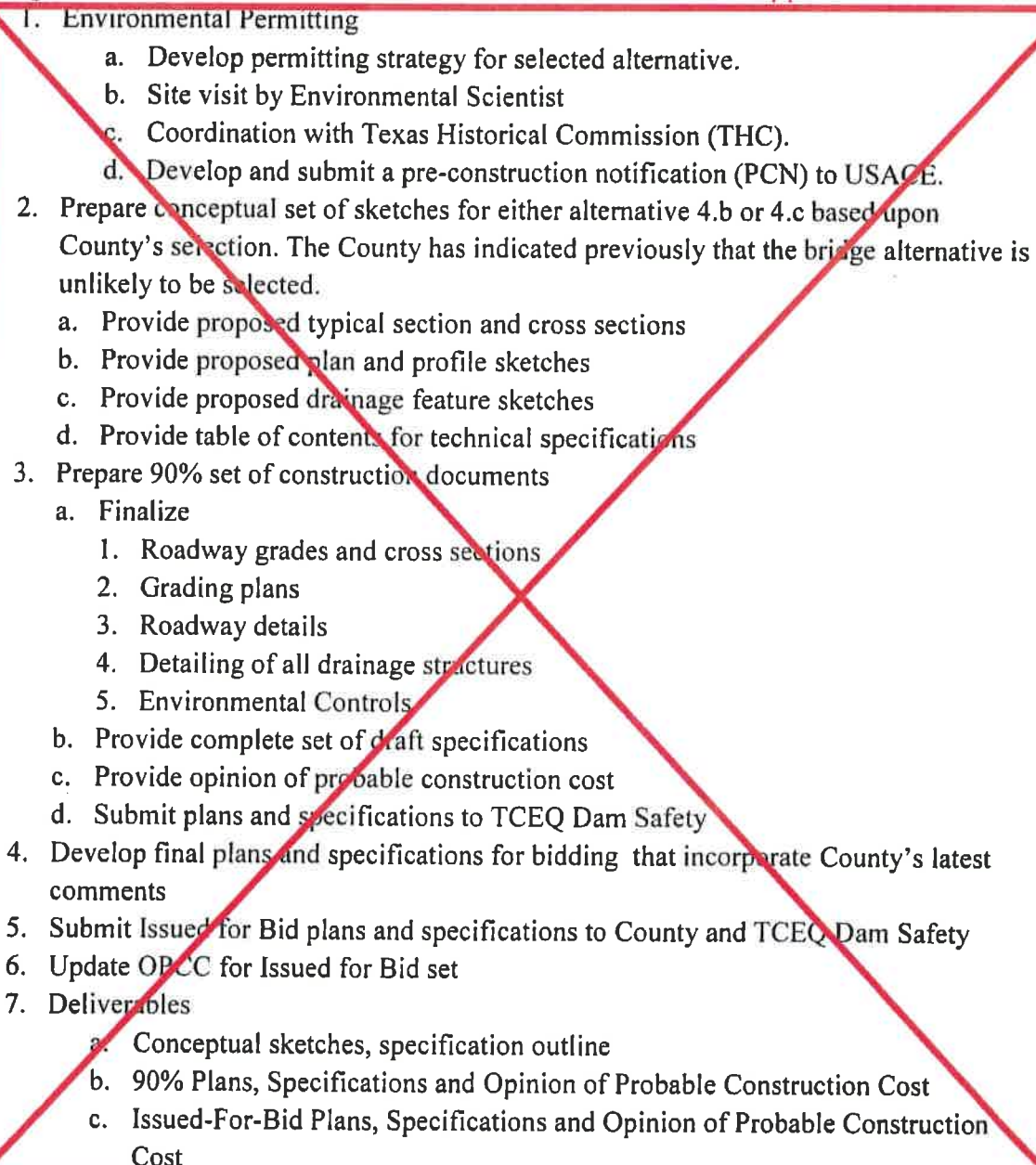
1. Perform survey
  - a. Roadway profile and select cross sections of embankment
  - b. Flow line elevations for existing pipes and channel
  - c. Pond cross sections to determine storage capacity
  - d. 1-ft topo of the spillway approach channel
  - e. 1-ft topo of the river channel from the roadway to 100-feet downstream
2. Perform geotechnical Investigation
  - a. Perform four borings
  - b. Provide geotechnical witness logging of soil strata and characterizations
  - c. Perform geological reconnaissance of soil and bedrock exposures in the Lackey Creek channel between the spillway and its confluence with the North Fork San Gabriel River
  - d. Perform basic soil tests (Atterberg limits, minus 200, moisture contents) and penetrometer tests as appropriate

- e. Perform preliminary evaluation of dam embankment stability of existing dam in accordance with TCEQ Dam Safety Guidelines for steady-state and rapid drawdown loading conditions.
- 3. Perform hydrologic and hydraulic (H&H) analyses in accordance with TCEQ Dam Safety Guidelines and City of Austin Drainage Criteria Manual.
  - a. Evaluate drainage area and runoff characteristics for existing and ultimate development
  - b. Develop stage-storage-discharge rating curves to represent existing dam conditions
  - c. Develop peak reservoir stage, storage and discharge for 2 to 100-year recurrence intervals
  - d. Develop peak reservoir stage, storage and discharge for 75% PMF
- 4. Develop schematic design for three alternative repair concepts as follows:
  - a. Removing embankment at approximate location of original Lackey Creek stream channel and installation of bridge crossing Lackey Creek while keeping same roadway alignment.
  - b. Leaving dam hydraulics and roadway alignment unchanged, replace the principal spillway corrugated metal pipe, re-laying the existing concrete pipe, and providing channel and slope armoring at outfall of the present emergency spillway concrete pipes.
  - c. Removing the existing emergency spillway concrete pipes and installation of an emergency spillway structure to pass flows under the roadway and into a drop structure at the outfall, including armoring the outfall area as needed, replacing the principal spillway corrugated metal pipe. Evaluate and address seepage control and erosion along the embankment interface. Keep roadway elevations unchanged.
- 5. Evaluate the following for each alternative:
  - a. Peak reservoir stage, storage and discharge for 2-100-year recurrence intervals
  - b. Peak reservoir stage, storage and discharge for 75% PMF
  - c. Increased water levels in Lackey Creek from San Gabriel Ranch Road to confluence with San Gabriel River.
  - d. Opinion of probable construction costs
  - e. Permit requirements
- 6. Provide documentation of proposed alternatives
  - a. Document geotechnical results in Technical Memorandum
  - b. Document H&H results in Technical Memorandum
  - c. Summarize results of alternative analysis in Summary Report
  - d. Attend up to two (2) meetings with Williamson County staff to present results
  - e. Attend one (1) public meeting to inform area residents of concepts
- 7. Deliverables

- a. Geotechnical Results Technical Memorandum
- b. Hydrology and Hydraulics Technical Memorandum
- c. Alternative Summary Report
- d. Posters for public meeting

#### **Design**

See Supplemental No. 1

- 
- 1. Environmental Permitting
    - a. Develop permitting strategy for selected alternative.
    - b. Site visit by Environmental Scientist
    - c. Coordination with Texas Historical Commission (THC).
    - d. Develop and submit a pre-construction notification (PCN) to USACE.
  - 2. Prepare conceptual set of sketches for either alternative 4.b or 4.c based upon County's selection. The County has indicated previously that the bridge alternative is unlikely to be selected.
    - a. Provide proposed typical section and cross sections
    - b. Provide proposed plan and profile sketches
    - c. Provide proposed drainage feature sketches
    - d. Provide table of contents for technical specifications
  - 3. Prepare 90% set of construction documents
    - a. Finalize
      - 1. Roadway grades and cross sections
      - 2. Grading plans
      - 3. Roadway details
      - 4. Detailing of all drainage structures
      - 5. Environmental Controls
    - b. Provide complete set of draft specifications
    - c. Provide opinion of probable construction cost
    - d. Submit plans and specifications to TCEQ Dam Safety
  - 4. Develop final plans and specifications for bidding that incorporate County's latest comments
  - 5. Submit Issued for Bid plans and specifications to County and TCEQ Dam Safety
  - 6. Update OPCC for Issued for Bid set
  - 7. Deliverables
    - a. Conceptual sketches, specification outline
    - b. 90% Plans, Specifications and Opinion of Probable Construction Cost
    - c. Issued-For-Bid Plans, Specifications and Opinion of Probable Construction Cost

#### **Bid Phase**

- 1. Attend Pre-Bid Meeting
- 2. Prepare any necessary addenda

3. Attend Bid Opening
4. Assist County with bid evaluations

## **B. CONSTRUCTION PHASE**

FNI will proceed with the performance of construction phase services as described below. FNI will endeavor to protect COUNTY in providing these services; however, it is understood that FNI does not guarantee the Contractor's performance, nor is FNI responsible for supervision of the Contractor's operation and employees. FNI shall not be responsible for the means, methods, techniques, sequences or procedures of construction selected by the Contractor, or any safety precautions and programs relating in any way to the condition of the premises, the work of the Contractor or any Subcontractor. FNI shall not be responsible for the acts or omissions of any person (except its own employees or agents) at the Project site or otherwise performing any of the work of the Project.

The ENGINEER or ENGINEER OF RECORD shall be defined as the professional engineer responsible for the preparation, modification, and interpretation of the design documents for the project including evaluations, analyses, technical reports, plans and specifications.

The purpose of this phase is for FNI to provide the following professional engineering services to support the construction in accordance with Texas Administrative Code Title 30, Part 1, Chapter 299 Dams and Reservoirs. The overall construction schedule is assumed to be 120 calendar days. Any effort directly or indirectly related to a time extension to the CONTRACTOR and project duration will be an additional service for FNI.

General Construction Management Services shall include:

1. Prepare and provide COUNTY with five (5) sets of "Issued for Construction" construction plans and contract documents incorporating addenda changes. Provide TCEQ with one (1) copy of "Issued for Construction" documents.
2. Assist COUNTY in conducting pre-construction conference with the CONTRACTOR and review construction schedules prepared by the CONTRACTOR pursuant to the requirements of the construction contract. Coordinate communication procedures with COUNTY and CONTRACTOR.
3. Designated FNI staff that participated in the design phase shall visit the project site for up to four (4) visits to observe the general progress of the construction work, observe critical construction activities, and coordinate with the COUNTY'S Onsite Representative. In this effort FNI will endeavor to protect the COUNTY against defects and deficiencies in the work of CONTRACTOR and will report any observed deficiencies or non-conforming work in writing to the COUNTY. Visits to the site in excess of the number listed under this item are an additional service. The site visits under this task do not include attendance to monthly progress meetings or special technical support visits.
4. Attend monthly construction progress meetings (one-half day trip per meeting, 4 meetings total) separate from the site visits described above to evaluate overall progress, submittal status, and contract changes.

5. Interpret the intent of drawings and specifications for COUNTY and Contractor. Review key contractor's submittals for consistency with plans, specifications, and project requirements, including requests for information, modification requests, certified test results, and shop drawings in accordance with the requirements of the construction contract documents. Prepare design clarification responses required.
6. Submit monthly reports of construction progress to the COUNTY and TCEQ Dam Safety. Reports will describe construction progress in general terms and summarize project costs, construction schedule and pending and approved contract modifications. Report outline will be based on TCEQ Dam Safety Program guidelines for Design and Construction for Dams in Texas. Provide COUNTY and TCEQ with one (1) copy of monthly report.
7. Conduct, in company with COUNTY's representative, a substantial completion review of the Project for conformance with the design concept of the Project and general compliance with the Construction Contract Documents. Prepare a list of deficiencies to be corrected by the contractor before recommendation of final payment. Conduct a follow up final review to determine that items on the substantial completion checklist have been completed and are in accordance with Construction Contract Documents. Review and comment on the certificate of completion and the recommendation for final payment to the CONTRACTOR.
8. Revise the construction drawings in accordance with the information furnished to the COUNTY to by CONTRACTOR reflecting changes in the Project made during construction. "Record Drawings" shall be provided by FNI to the following:
  - a. COUNTY, three (3) sets of prints;
  - b. TCEQ, one (1) set of prints;
9. Submit Record Drawings within sixty (60) calendar days upon receipt of all documentation from CONTRACTOR of record changes. Submit project completion certificate per TCEQ requirements within 45 days of project substantial completion.

#### **Deliverables**

- d. Conceptual sketches, specification outline
- e. 90% Plans, Specifications and Opinion of Probable Construction Cost
- f. Issued-For-Bid Plans, Specifications and Opinion of Probable Construction Cost
- g. Issued-For-Construction Plans
- h. Record Drawings

### **C. ADDITIONAL SERVICES**

Additional Services to be performed by FNI, if authorized by CLIENT, which are not included in the above described basic services, are described as follows:

1. Additional survey and geotechnical investigations
2. Hydraulic or hydrologic impact on San Gabriel River
3. FEMA floodplain coordination, including Letter of Map Revision

4. USACE Individual Permit
5. Permitting for dam removal
6. Bridge design
7. Additional construction phase services

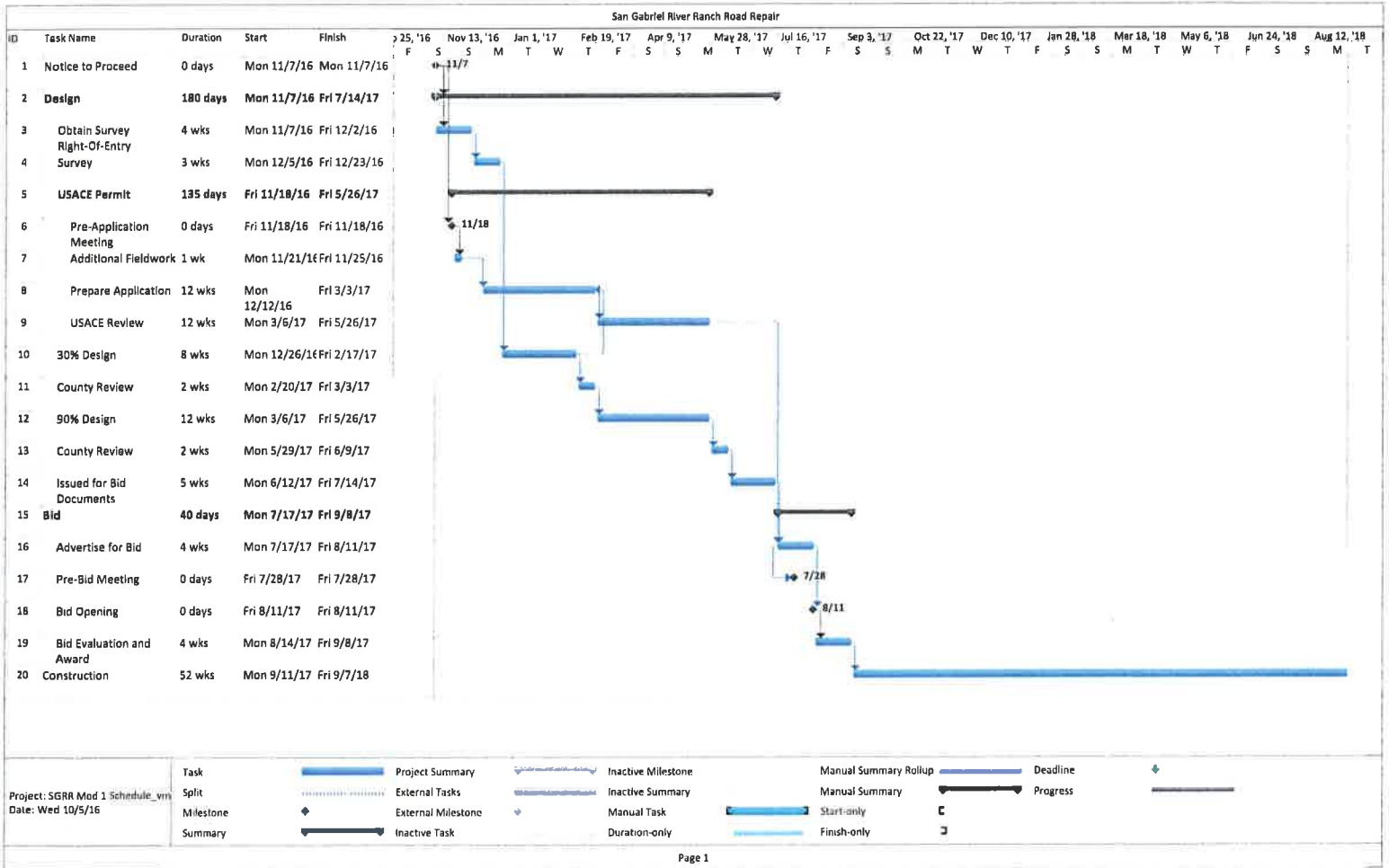
#### **C. RESPONSIBILITIES OF COUNTY**

COUNTY shall perform the following in a timely manner so as not to delay the services of FNI:

1. Obtain Right-Of-Entry or perform public notifications as needed to conduct survey services, geotechnical investigation, and site visits.
2. Right-of-way and easement document preparation
3. Public Involvement Coordination
4. Onsite resident representation during construction
5. Quality control testing during construction

## Attachment C - Work Schedule

Attached behind this page





## Attachment D - Fee Schedule

Attached behind this page

Williamson County  
San Gabriel Ranch Road Amendment  
13-Oct-16  
Detailed Cost Breakdown

Project Fee Summary		
Basic	\$	268,381
Special	\$	-
Total Project	\$	268,381

Project Role	Basic Services										Total Hours	Total Labor Effort	Total Expense Effort	Total Sub Effort	Total Effort
	Hourly Bill Rate	Professional 9	Professional 8	Professional 4	Professional 3	Professional 1	Professional 1	Corporate Project Support	CAD Technician/Design	CAD Technician/Design					
1 Public Involvement		4		8	4						14	\$ 2,652	\$ 119	\$ -	\$ 2,771
2 Survey						4		1	4		13	\$ 2,020	\$ 111	\$ 18,500	\$ 18,631
3 USACE Permit								1			0	\$ -	\$ -	\$ -	\$ -
Pre-Application Meeting at USACE				12	4						1	\$ 148	\$ 9	\$ -	\$ 157
Additional Fieldwork				8							28	\$ 4,116	\$ 238	\$ -	\$ 4,354
Waters of the U.S. Delineation Report						12					38	\$ 4,588	\$ 306	\$ -	\$ 4,894
Federally-listed Species Habitat Evaluation Report											80	\$ 10,078	\$ 680	\$ -	\$ 10,758
Cultural Resource Assessment				4	4						32	\$ 4,048	\$ 272	\$ -	\$ 4,320
Functional Assessment/Mitigation Plan						8					8	\$ 1,248	\$ 68	\$ -	\$ 1,316
Permit Submittal				30	12						127	\$ 16,817	\$ 1,080	\$ -	\$ 17,897
4 SWPPP		4			24	4			6		24	\$ 3,232	\$ 204	\$ -	\$ 3,436
6 Williamson County Floodplain Development Permit				2		1		1	1		0	\$ -	\$ -	\$ -	\$ -
6 Sediment Evaluation											0	\$ -	\$ -	\$ -	\$ -
Obtain Samples						24					0	\$ -	\$ -	\$ -	\$ -
Laboratory Testing and Analysis		12		30							42	\$ 8,220	\$ 357	\$ 5,840	\$ 14,417
7 Utility Coordination				4		24					0	\$ -	\$ -	\$ -	\$ -
8 Channel Design											28	\$ 4,300	\$ 238	\$ -	\$ 4,538
Erosion Analysis		3		8	32	44		1			0	\$ -	\$ -	\$ -	\$ -
Slope Stability		5	8	4	24	2					38	\$ 13,312	\$ 748	\$ -	\$ 14,060
9 Letter of Map Revision											43	\$ 7,802	\$ 386	\$ -	\$ 8,188
Obtain FEMA Backup Data					2						0	\$ -	\$ -	\$ -	\$ -
Incorporate FEMA data into hydrologic model				1	2						2	\$ 312	\$ 17	\$ -	\$ 329
Develop hydraulic model and determine floodplain					4						3	\$ 490	\$ 26	\$ -	\$ 516
Complete existing conditions hydraulic model					4						4	\$ 624	\$ 34	\$ -	\$ 658
Update models to incorporate dam removal				1	4						5	\$ 802	\$ 43	\$ -	\$ 845
Complete proposed conditions hydraulic model					16						18	\$ 2,496	\$ 136	\$ -	\$ 2,632
Complete FEMA MT-2 Forms		1		2	24						27	\$ 4,340	\$ 230	\$ -	\$ 4,570
Submit LOMR to FEMA					4						4	\$ 624	\$ 264	\$ -	\$ 908
LOMR Report		4		8	24						36	\$ 6,128	\$ 306	\$ -	\$ 6,434
Address FEMA Comments		1		2	12						15	\$ 2,468	\$ 128	\$ -	\$ 2,596
Newspaper Notification					3						3	\$ 466	\$ 376	\$ -	\$ 844
10 30% Plans and Specifications		20	14	12	24	40		1	20	80	1	\$ 148	\$ 9	\$ -	\$ 157
11 80% Construction Documents		30	22	30	40	80		1	80	100	190	\$ 27,906	\$ 1,815	\$ -	\$ 29,721
12 Issued for Bid Documents		25	2	18	12	40		1	30	24	0	\$ -	\$ -	\$ -	\$ -
13 Bid Phase											363	\$ 53,268	\$ 3,086	\$ -	\$ 56,352
1 Pre-Bid Meeting											0	\$ -	\$ -	\$ -	\$ -
2 Addenda		8		8		8		1	8		150	\$ 23,960	\$ 1,275	\$ -	\$ 24,835
3 Bid Opening		2		4							0	\$ -	\$ -	\$ -	\$ -
4 Bid Evaluation		2		4							0	\$ -	\$ -	\$ -	\$ -
Total Basic Services Hours											1,495	\$ 223,727	\$ 22,314	\$ 22,340	\$ 268,381
Total Basic Services Labor Effort															

Williamson County  
San Gabriel River Road Amendment  
13-Oct-16  
Detailed Cost Breakdown

Project Fee Summary		
Basic	\$	258,381
Special	\$	-
Total Project	\$	258,381

Phase	Task	Expenses	Tech Charge	Miles	B&W (sheet)	Color (sheet)	Bonding (each)	Lg Format - Bond - B&W (sq ft)	Lg Format - Glossy/Myl ar - B&W (sq ft)	Lg Format - Vinyl/Adhesive - B&W (sq ft)	Lg Format - Bond - Color (sq ft)	Lg Format - Glossy/Myl ar - Color (sq ft)	Lg Format - Vinyl/Adhesive - Color (sq ft)	Other	Total Exp Effort
1	Public Involvement		14												\$ 119
2	Survey		13												\$ 111
3	USACE Permit		1												\$ -
	Pre-Application Meeting at USACE		28												\$ 238
	Additional Fieldwork		36												\$ 306
	Waters of the U.S. Delineation Report		80												\$ 680
	Federally-listed Species Habitat Evaluation Report		32												\$ 272
	Cultural Resource Assessment		8												\$ 68
	Functional Assessment/Mitigation Plan		127												\$ 1,080
	Permit Submittal		24												\$ 204
4	SWPPP		36												\$ 323
			0												\$ -
5	Williamson County Floodplain Development Permit		5												\$ 43
			0												\$ -
6	Sediment Evaluation		0												\$ -
	Obtain Samples		24												\$ 204
	Laboratory Testing and Analysis		42												\$ 357
			0												\$ -
7	Utility Coordination		28												\$ 238
			0												\$ -
8	Channel Design		0												\$ -
	Erosion Analysis		88												\$ 748
	Slope Stability		43												\$ 368
			0												\$ -
9	Letter of Map Revision		0												\$ -
	Obtain FEMA Backup Data		2												\$ 17
	Incorporate FEMA data into hydrologic model		3												\$ 28
	Develop hydraulic model and determine floodplain		4												\$ 34
	Complete existing conditions hydraulic model		4												\$ 34
			0												\$ -
	Update models to incorporate dam removal		5												\$ 43
	Complete proposed conditions hydraulic model		16												\$ 138
	Complete FEMA MT-2 Forms		27												\$ 230
	Submit LOMR to FEMA		4											9250	\$ 9,284
	LOMR Report		36												\$ 306
	Address FEMA Comments		15												\$ 128
	Newspaper Notification		3											350	\$ 378
			1												\$ 9
10	30% Plans and Specifications		190												\$ 1,615
			0												\$ -
			0												\$ -
11	90% Construction Documents		363												\$ 3,066
12	Issued for Bid Documents		150												\$ 1,275
			0												\$ -
			0												\$ -
13	Bid Phase		0												\$ -
Bid	1 Pre-Bid Meeting		0												\$ -
Bid	2 Addenda		29												\$ 247
Bid	3 Bid Opening		6												\$ 51
Bid	4 Bid Evaluation		6												\$ 51
Total Basic Services Items			1,495												9,600
Total Basic Services Expenses Effort			\$ 12,798	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,600
															\$ 22,314

Frasse and Nichols, Inc.

Williamson County  
San Gabriel Ranch Road Amendment  
13-Oct-16  
Detailed Cost Breakdown

Project Fee Summary	
Basic	\$ 268,381
Special	\$ -
Total Project	\$ 268,381

Phase	Task	Subconsultants	Gorrodona	Xenco	TRI	0	0	0	0	0	0	0	0	0	0	Total Sub Effort
1	Public Involvement															\$ -
2	Survey		16,500													\$ 16,500
3	USACE Permit		0													\$ -
	Pre-Application Meeting at USACE															\$ -
	Additional Fieldwork															\$ -
	Waters of the U.S. Delineation Report															\$ -
	Federally-listed Species Habitat Evaluation Report															\$ -
	Cultural Resource Assessment															\$ -
	Functional Assessment/Mitigation Plan															\$ -
	Permit Submittal															\$ -
4	SWPPP															\$ -
5	Williamson County Floodplain Development Permit															\$ -
6	Sediment Evaluation															\$ -
	Obtain Samples															\$ -
	Laboratory Testing and Analysis			4,800	1,040											\$ 5,840
7	Utility Coordination															\$ -
8	Channel Design															\$ -
	Erosion Analysis															\$ -
	Slope Stability															\$ -
9	Letter of Map Revision															\$ -
	Obtain FEMA Backup Data															\$ -
	Incorporate FEMA data into hydrologic model															\$ -
	Develop hydraulic model and determine floodplain															\$ -
	Complete existing conditions hydraulic model															\$ -
	Update models to incorporate dam removal															\$ -
	Complete proposed conditions hydraulic model															\$ -
	Complete FEMA MT-2 Forms															\$ -
	Submit LOMR to FEMA															\$ -
	LOMR Report															\$ -
	Address FEMA Comments															\$ -
	Newspaper Notification															\$ -
10	30% Plans and Specifications															\$ -
11	90% Construction Documents															\$ -
12	Issued for Bid Documents															\$ -
13	Bid Phase															\$ -
Bid	1 Pre-Bid Meeting															\$ -
Bid	2 Addenda															\$ -
Bid	3 Bid Opening															\$ -
Bid	4 Bid Evaluation															\$ -
Total Basic Services Subconsultants Cost			\$ 16,500	\$ 4,800	\$ 1,040	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Basic Services Subconsultants Effort			\$ 16,500	\$ 4,800	\$ 1,040	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,340