

MEMORANDUM



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#14,726

TO: Hunt County Commissioners Court
FROM: Chris Bosco, P.E.
SUBJECT: Hunt County Transportation Bond Program
DATE: July 25, 2017

FILED FOR RECORD
at 11:50 o'clock 2 M

JUL 25 2017

JENNIFER LINDENZWEIG
County Clerk, Hunt County, TX
By *Jennifer Lindenzweig*

The purpose of this memo is to summarize the proposed contract authorizations for professional services for the Hunt County Transportation Bond Program. The proposed projects have been selected based on input from the Hunt County Transportation Steering Committee and coordination with TxDOT and NCTCOG. The following table summarizes the professional services fee per project for commissioner court approval. *(Refer to the attached project memorandums for more detailed cost summaries and a complete scope of services for each project)*

Project No.	Project	Professional Service Fee
1.0	Program Management	\$382,220
1.5	FM 2642 (100% Design)	\$1,996,690
1.13	FM 1565 Turn Lanes (100% Design)	\$91,560
1.17	SS 264 and SH 276 Intersection Traffic Study	\$14,950
1.20	SH 276 and FM 35 Intersection Traffic Study	\$14,950
1.21	SH 66 Corridor Study	\$293,240
	Total (Contract Authorization No. 1)	\$2,793,610

TO: Transportation Steering Committee
FROM: Chris Bosco, P.E.
SUBJECT: Contract Amendment: **1.0 Program Management** (HUC17265)
DATE: July 19, 2017

The purpose of this memo is to summarize the scope and fee services for approval of the program management contract for the Hunt County Transportation Bond Program.

This scope of services in this contract amendment for program management services includes the following services. (Refer to the attached detailed scope of services)

1. Program Funding Coordination
2. Project Scope development and refinement
3. Program Schedule and Budget Updates
4. Stakeholder Coordination and Reporting
5. Monthly Report Development

The follow is a summary of table summarizing the current contract amount and the proposed contract amendment for professional engineering services.



Fee Summary Table

1.0 Program Management

Category	Work Description	Current Contract Amount	Proposed Task Order	Project Totals
Program Management	Right-of-way Agent / Appraisals	\$0	\$0	\$0
	Right-of-way Attorney	\$0	\$0	\$0
	Program Management	\$0	\$382,220	\$382,220
Engineering	Direct Expenses	\$0	\$0	\$0
	Project Management	\$0	\$0	\$0
	Conceptual Development	\$0	\$0	\$0
	Preliminary Engineering Design	\$0	\$0	\$0
	Hydrology/Drainage Design	\$0	\$0	\$0
	Structural	\$0	\$0	\$0
	Final Design / Planning	\$0	\$0	\$0
Environmental	Environmental Services	\$0	\$0	\$0
Surveying	Topographic/Boundary Survey	\$0	\$0	\$0
	Subsurface Utility Engineering (SUE)	\$0	\$0	\$0
	ROW Map / Documents	\$0	\$0	\$0
Geotechnical	Geotechnical Investigation/Design	\$0	\$0	\$0
	Totals	\$0	\$382,220	\$382,220

SCOPE OF SERVICES
Hunt County – Work Authorization #1

Project Task 1.0 Program Management

Transportation Bond Program Management Services

The scope set forth herein defines the work to be performed by FNI in completing the project.

OBJECTIVE

Continue to perform services necessary to support refinement and execution on the Transportation Bond Program from the period beginning with execution of the Professional Services Agreement (PSA) in April 2017 through the end of Fiscal Year 2018. Perform tasks described in Article I of the PSA and as further described below.

WORK TO BE PERFORMED

- Task 1.01 – Program Funding Coordination
- Task 1.02 – Project Scope Development
- Task 1.03 - Program Definition Refinements
- Task 1.04 – Program Schedule and Budget Updates
- Task 1.05 – Stakeholder Coordination and Reporting
- Task 1.06 – Monthly Reports

Task 1.01 – Program Funding Coordination

Provide support and collaborate with the Transportation Steering Committee, TxDOT Paris District, NCTCOG, and Hunt County to develop and identify funding opportunities to best serve transportation infrastructure development and the interests of Hunt County. Schedule and attend stakeholder coordination meetings. Prepare and maintain meeting agenda's, information packets, meeting minutes, and action items. Identify opportunities and provide necessary information to support funding applications to TxDOT and NCTCOG on behalf of Hunt County. This will include collecting and analyzing project-specific traffic and crash data, and preparing applications for TxDOT Highway Safety Improvement Program (HSIP) funding and other applicable local grant programs.

Task 1.02 – Project Scope Development

For the projects included and those under consideration to be included in the bond program, collaborate with TxDOT and stakeholders to refine project limits and typical cross sections, design speed, pavement type; pedestrian, bicycle and transit accommodations, and access features based on anticipated growth and land use. Identify most probable roadway footprints and alignments for the purpose of refining right-of-way, utility, and construction cost estimates to be used for project prioritization based on anticipated funding availability and implementation schedules.

Task 1.03 - Program Definition Refinements

Provide support and collaborate with the Transportation Steering Committee, TxDOT Paris District, NCTCOG, and Hunt County to refine the bond program project matrix to reflect funding responsibility for each project development phase to be supported by the bond program and TxDOT. These refinements are anticipated based on on-going development of NCTCOG/TxDOT funding opportunities, and project scope and cost estimate refinements described in Tasks 1.01 and 1.02. Support bond program definition updates based on various project prioritization, funding, and implementation strategies.

Task 1.04 – Program Schedule and Budget Updates

Based on bond program refinements described in Task 1.03, prepare corresponding implementation budgets and cash outlay schedules over each bond sale period and fiscal year. Budget summaries will reflect updated costs for program management, engineering, ROW, and utilities for each project included the updated bond project list.

Task 1.05 – Stakeholder Communication and Reporting

Schedule and attend stakeholder coordination meetings. Prepare and deliver presentations to the commissioner's court and other stakeholder groups as appropriate to communicate program alternatives and recommendations. Prepare and maintain meeting agenda's, information packets, meeting minutes, and action items to reflect the bond program development and refinement.

Task 1.06 – Monthly Reports

Prepare monthly program reports summarizing the progress of each project, status of funding, upcoming public and stakeholder meetings, and project financial reports. It is anticipated that reports will be produced monthly and updates will be presented to the Commissioners Court every two months.



Client: Hunt County Hunt County Courthouse 2507 Lee Street Greenville, Texas 75401	FNI Project No.: HUC17265 Phase/Task/Dept. No.: 1.15 Date: July 21, 2017
This authorization is in accordance with the terms and conditions outlined in the Professional Services Agreement executed on April 11, 2017.	
Project Description: 1.5 – FM 2642 (FM 35 to SH 66) - Hunt County Transportation Bond Program (HCTBP)	
Description of Services: The scope of services includes fully developing the FM 2642 (FM 35 to SH 66) Roadway Improvement Project through Final Design and Right-of-Way Acquisition in accordance with TxDOT requirements as outlined in the attached Scope of Services, Work Authorization #1.	
Compensation shall be as follows: FNI shall be paid for the services described above actual cost (not to exceed) fee of One Million, Nine Hundred Ninety-Six Thousand, Six Hundred Ninety Dollars (\$1,996,690). Refer to the attached memo with fee summary for a detailed breakdown of the engineering services.	
	Amount of this Authorization
	\$1,996,690
Schedule: The project schedule shall be in accordance with the PMP project schedule and TxDOT/NCTCOG's funding schedule.	

The above described services shall proceed upon return of this Task Authorization. Services will be billed as they are done. All other provisions, terms, and conditions of the agreement for services which are not expressly amended shall remain in full force and effect.

- A contract modification will be submitted.
- This Task Authorization will serve as notice to proceed.

FREESE AND NICHOLS, INC.:

BY: Chris Bosco
 Chris Bosco, P.E.
 Print or Type Name

TITLE: Principal

DATE: 7/25/17

HUNT COUNTY:

BY: John L. Horn
 John L. Horn
 Print or Type Name

TITLE: Hunt County Judge

DATE: 7/25/17

MEMORANDUM



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TO: Transportation Steering Committee
FROM: Chris Bosco, P.E.
SUBJECT: Contract Amendment: 1.5 FM 2642 (FM 35 to SH 66)
DATE: July 19, 2017

The purpose of this memo is to summarize the scope and fee services for approval of complete (100%) design services for FM 2642 from FM 35 to SH 66 in accordance with TxDOT requirements.

This scope of services in this contract amendment for the FM 2642 project includes the following services. (Refer to the attached detailed scope of services)

1. Project management
2. Topographic and Boundary Survey
3. Geotechnical Investigation and Design
4. Level "B" SUE
5. Schematic Design
6. Environmental Documentation
7. Drainage Analysis and Design
8. Final Plans, Specifications, and Estimates
9. Right-of-way Acquisitions Services

The follow is a summary of table summarizing the current contract amount and the proposed contract amendment for professional engineering services.



Fee Summary Table

Project 1.5 - FM 2642

Category	Work Description	Current Contract Amount	Proposed Task Order	Project Totals
Program Management	Right-of-way Agent / Appraisals	\$0	\$218,240	\$218,240
	Right-of-way Attorney	\$0	\$49,500	\$49,500
Engineering	Direct Expenses	\$0	\$8,640	\$8,640
	Project Management	\$0	\$97,800	\$97,800
	Conceptual Development	\$0	\$135,840	\$135,840
	Preliminary Engineering / Schematic Design	\$0	\$288,120	\$288,120
	Hydrology/Drainage Design	\$0	\$136,980	\$136,980
	Structural	\$0	\$67,180	\$67,180
	Final Design / Planning	\$0	\$570,950	\$570,950
Environmental	Environmental Services	\$0	\$109,390	\$109,390
Surveying	Topographic/Boundary Survey	\$0	\$57,640	\$57,640
	Subsurface Utility Engineering (SUE)	\$0	\$68,090	\$68,090
	ROW Map / Documents	\$0	\$99,220	\$99,220
Geotechnical	Geotechnical Investigation/Design	\$0	\$89,100	\$89,100
	Totals	\$0	\$1,996,690	\$1,996,690

SCOPE OF SERVICES
Hunt County – Work Authorization #1

Project Task 1.5 FM 2642 (FM 35 to SH 66)

Professional Engineering Services

The scope set forth herein defines the work to be performed by the ENGINEER in completing the project.

OBJECTIVE

The project objective is to fully develop the FM 2642 (FM 35 to SH 66) Roadway Improvement Project through Final Design and Right-of-Way Acquisition.

WORK TO BE PERFORMED

A. DESIGN SERVICES:

- Task 1.5.A.1 - Project / Program Management
- Task 1.5.A.2 - Design Development (Conceptual)
- Task 1.5.A.3 - Surveying
- Task 1.5.A.4 - Drainage Analysis
- Task 1.5.A.5 - Structural Analysis
- Task 1.5.A.6 - Environmental Services
- Task 1.5.A.7 - Geotechnical Investigations and Pavement Design
- Task 1.5.A.8 - Subsurface Utility Investigations
- Task 1.5.A.9 - Preliminary Engineering Design (60%)
- Task 1.5.A.10 – Final Engineering Design (90% AND 100%)

B. RIGHT-OF-WAY SERVICES:

- Task 1.5.B.1 - Right-Of-Way Maps and Documents
- Task 1.5.B.2 - Right-Of-Way Agent / Acquisition Services
- Task 1.5.B.3 - Right-Of-Way Legal Services

C. ADDITIONAL SERVICES (NOT INCLUDED IN THIS TASK ORDER)

A. DESIGN SERVICES

Task 1.5.A.1 - Project / Program Management

Project / Program Management Services are described in Article I.B of the AGREEMENT.

Deliverables: Project / Program Management Plans and updates to include project schedules, budgets, quality control (QA/QC) plans, progress reports, stakeholder meeting, coordination, and decision documentation.

Task 1.5.A.2 - Design Development (Conceptual)

Conceptual Design Development Services are described in Article I.C of the AGREEMENT. Develop preliminary design concepts in coordination with TxDOT-Paris District to include:

- a. Typical section development and alternatives analysis.
- b. Preliminary alignment development and alternatives analysis
- c. Preliminary environmental clearance analysis and coordination
- d. TxDOT and stakeholder coordination
- e. Preliminary ROW impact evaluation
- f. Cost estimate updates

Deliverables:

- a. Typical Cross Sections – Depict main lanes, auxiliary (turn) lanes, lane and median widths, curb and/or curb and gutter type, sidewalk location and width, existing and proposed right of way.
- b. Roll Plots – Provide aerial image background with proposed roadway alignment footprint including horizontal and vertical geometry, turn lanes, driveway and side street connections, culvert locations sizes, proposed right-of-way requirements.
- c. Cost estimates – Provide updated cost estimates for construction, right-of-way, and utilities relocation.

Task 1.5.A.3 - Surveying

Establish horizontal and vertical survey control. Perform topographic survey utilizing mobile LiDAR. Provide supplemental surveys as required to establish base maps depicting existing topographic features, right-of-way limits, drainage/hydrologic features within the existing FM 2642 Right-of-Way for the limits of the described project (13,200 LF)

Deliverables: Electronic files in accordance with TxDOT requirements and in format(s) to support engineering design deliverables.

Task 1.5.A.4 - Drainage Analysis and Design

FNI will prepare a drainage study to document the proposed cross drainage across the roadway.

1. Task Management and Meetings
 - a. Manage internal team and coordinate with transportation project team.
 - b. Attend up to two (2) meetings with TxDOT to discuss drainage study.
 - c. Identify preferred design criteria for culvert crossings and storm drain design, coordinate with project team and client, and document in a memorandum.
2. Data Collection and Field Survey
 - a. In addition to data obtained from TxDOT, ENGINEER will research and make efforts to obtain pertinent information to aid in coordination of the proposed improvements with any planned future improvements that may influence the project. ENGINEER will also identify and seek to obtain data for existing conditions that may impact the project including; utilities, agencies, Local Government Master Plans, Local Government drainage complaint files, existing applicable drainage studies, FEMA floodplain and floodway maps, existing models of project area (if any) and property ownership as available from the Tax Assessor's office.
 - b. ENGINEER will make up to one (1) visit to the site to observe and document existing conditions and aid in the design of the drainage structures.
 - c. Survey data will be required at eleven (11) culvert locations and include two (2) cross sections upstream and downstream of crossings for a total of four (4) cross sections at each crossing.

3. Hydrology
 - a. Delineate contributing drainage areas based on available topographic information and the proposed roadway profile.
 - b. Calculate peak discharges for culverts using rational method for up to eleven (11) culvert crossings with contributing drainage areas less than 200 acres.
 - c. Tabulate peak discharges for standard return events including 2, 5, 10, 25, 50, and 100-year events.
4. Hydraulics
 - a. Develop proposed culvert sizes for up to eleven (11) culvert crossings using HY-8 software.
 - b. Make recommendations for FEMA coordination as appropriate.

Deliverables: Drainage Study in report format summarizing methodology and results, submitted to TxDOT for review and address comments.

TASK 1.5.A.5 - Structural Analysis and Design

Based on the recommendations of the Drainage Study Report Identify the appropriate TxDOT standard drawings to replace or extend up to eleven 7 (seven) box culverts and 4 (four) pipe culverts. Develop special details as needed for wingwalls, other culvert end treatment types, and handrails in locations where TxDOT standard drawings are deemed not applicable.

Deliverables: Plan sheet details and TxDOT Standards necessary to convey the design for construction.

Task 1.5.A.6 - Environmental Services

Environmental documentation will be prepared to TxDOT environmental standards. This scope assumes that the project will not require an EA or EIS and can be authorized as a Categorical Exclusion (CE).

1. Prepare/submit draft scoping documents to TxDOT – FNI will prepare the required scoping documents such as the Workplan Development Tool and the Project Scope for CE's and submit to TxDOT for review.
2. Address TxDOT scoping comments – FNI will address comments to these scoping documents.
3. Internal kickoff meeting – Once the scoping documents have been approved and executed by TxDOT, FNI project team will conduct an internal kickoff meeting to discuss roles and responsibilities.
4. Field data collection – Once right of entry has been approved; FNI's environmental project team will conduct a site visit along the proposed ROW to collect field data for the required environmental resource reports.
5. Prepare/submit draft CE documents to TxDOT - FNI will submit the draft CE documents for review by the TxDOT Paris District. Documents that may be required for the CE include:
 - a. Biological Evaluation Form
 - b. Noise Modeling & Impact Assessment
 - c. Hazmat/Legacy Pollution Assessment
 - d. Cultural Resources Assessment/THC Coordination
 - e. Air Quality Impact Assessment (Qualitative MSAT)
 - f. Section 404 JD Evaluation (NWP w/o PCN)
 - g. SWPPP/EPIC Sheet Preparation

This scope assumes that a Water Resources Report will not be required. If one is required it can be provided at an additional cost. If other TxDOT environmental resource reports/documents are not listed above then it is assumed that they will not be required and are not included in this Scope of Services.

6. Address TxDOT comments to draft CE documents - Upon receipt of comments, FNI will make the required revisions.
7. Follow up site visit – FNI will conduct up to one follow up site visit to collect field data for any changes to the ROW.
8. CE document modifications to accommodate redesign – FNI will modify TxDOT forms/reports to address changes in ROW/design. Each TxDOT form or technical report will be modified up to two times due to design changes.
9. Prepare submit final CE documents to TxDOT – Once no additional ROW/design changes are anticipated; FNI will finalize the CE documents and submit to TxDOT.
10. Public Hearing, MAPO, other public involvement – FNI will assist in public hearings, MAPO's, and other public involvement as needed. FNI assumes costs associated with Public Involvement such as newspaper advertisements, court reporters and facility rentals will be paid for by client or reimbursed as an additional cost with mark up.

Deliverables: Environmental Document forms necessary for TxDOT/FHWA approval along with technical reports needed to support environmental determination.

Task 1.5.A.7 - Geotechnical Investigations and Pavement Design

1.1.A.7.1 Geotechnical Investigations:

The purpose of this investigation is to perform a geotechnical field exploration and provide geotechnical recommendations in general accordance with the TxDOT geotechnical manual. The location of proposed soil borings for bridge design, embankment settlement analysis, retaining walls, pavement design, and slope stability and along storm drain alignment shall be determined in accordance with the latest edition of the State's Geotechnical Manual.

Perform soil borings (field work), soil testing and prepare the boring logs in accordance with the latest edition of the 2012 TxDOT Geotechnical Manual. Selected laboratory testing will be conducted on samples that are representative of the materials obtained during the field exploration. The tests will be used to evaluate and classify the soils, identify subsurface site characteristics, and provide data for analysis. Field investigation will include the following number of borings and depths: 12 borings at 20 feet deep, 3 borings at 30 feet deep.

All the field and laboratory tests will be performed according to ASTM or TxDOT standards, where applicable, or with other established procedures. Results of the field and laboratory data will be used to provide geotechnical recommendations for the proposed improvements. A geotechnical report of our study will be prepared by an engineer specializing in soil mechanics and foundation engineering after reviewing available structural, geological, boring, and laboratory data.

The following items will be included in the Geotechnical Report:

- Plan of borings,
- Table of laboratory results,
- Boring logs with geological formations,
- Generalized subsurface conditions,

- Groundwater level observations,
- Laboratory test results,
- Utility construction recommendations,
- Culvert foundation recommendations,
- Potential Vertical Rise (PVR) calculations (TxDOT procedure)

1.5.A.7.2 Pavement Design

Design two flexible pavement section alternatives including subgrade stabilization if necessary to achieve a 20-year design life. Planned cross section design alternatives include: Hot Mix Asphalt Concrete (HMAC) over Flexible Base, and HMAC over HMAC Base. The pavement design will include consideration of traffic loads to be provided by FNI and/or Hunt County in the form of TxDOT TP&P data. The traffic data required includes current and projected traffic counts and truck percentages. The TxDOT pavement design procedure using FPS21 analysis program will be used along with Texas Triaxial and Mechanistic design checks, as well as any available local pavement design guide.

Utilize nondestructive deflection testing (NDT) with the Falling Weight Deflectometer (FWD) to calculate subgrade design parameters for input into the FPS21 software, as per TxDOT requirements. The data may also be used to finalize boring locations to ensure geotechnical data is collected for any changes in subgrade conditions identified along the alignment in profiles of the NDT data.

Pavement Design Report shall include:

- Flexible pavement thickness design recommendations
- Subgrade stabilization, if determined necessary

Review the construction documents (plans and specifications) for the 60% and 90% submittals during the Design Phase to confirm design recommendations are properly addressed.

Deliverables:

- Geotechnical Investigation and Recommendation Report
- Pavement Design Report

Task 1.5.A.8 - Subsurface Utility Investigations

Utilizing geophysical methods (Quality Level B), locate all tonable underground utilities to include telecommunications, electric, lighting, and gas pipeline. For non-tonable underground utilities such as PVC and AC water lines, obtain existing utility records and compare to visible surface features (Quality Level C). Utilities will be investigated within the existing right-of-way for the described project length equal to 13,200 feet. The scope includes up to 30,000 LF of Level C/D SUE and up to 30,000 LF of Level B SUE.

Deliverables: Prepare Existing Utility Base Maps depicting the utility owner, type, location, and size of each existing utility with the corresponding Quality Level for each.

Task 1.5.A.9 – Preliminary Engineering Design (60%)

Preliminary plans and specifications shall be submitted to TxDOT and County for review. Development of Preliminary Engineering Design Drawings shall be developed based on implementing suggested changes to the Conceptual Design and to also include:

- Temporary Traffic Control Plans to reflect proposed construction sequencing
- A Project Control Sheet, showing all Survey Control Points
- Updated Typical Cross Sections
- Roadway plan and profile sheets displaying station and coordinate data for all horizontal alignment P.C.'s, P.T.'s, P.I.'s; station and elevation data of all vertical profile P.C.'s, P.T.'s, P.I.'s, low points, and high points; lengths of vertical curves, grades, K values, e, and vertical clearances where required.
- Bearings given on all proposed centerlines, or baselines.
- Intersection layout sheets including ROW lines, horizontal alignments, utilities, curbs, sidewalks, driveways, lane dimensions and arrows, and existing and proposed contours.
- Preliminary roadway details to include curbs, curb expansion joints, driveways, sidewalks, and pavement details.
- Storm drain layout sheets showing location and size of all inlets, manholes, junction boxes, culverts and piping to include storm drain profiles showing existing and proposed flow lines, flows, lengths and slopes of pipe, top of ground profile over pipe and connections to existing or proposed storm sewer systems.
- Preliminary signing, pavement marking, and street lighting layouts.

Deliverables

- Plans – Provide PDF and hard copy sets of 11" x17 "(Tabloid) plans depicting the Preliminary (60%) design.
- Roll Plots - Updated from Conceptual Design Phase depicting the Preliminary (60%) Design.
- Cost Estimates – Updated cost estimates for construction, right-of-way, and utilities relocation.

Task 1.5.A.10 – Final Engineering Design (90% and 100%)

Final plans and specifications shall be prepared and submitted to TxDOT and County Approval

Prepare Draft Final (90%) construction plans and specifications for TxDOT and County review. Following a 90% plans review meeting, FNI shall prepare and submit Final Construction Documents (100%). Plans and technical specifications shall be stamped, dated, and signed by the responsible ENGINEER registered in State of Texas.

Deliverables:

- Plans – Provide PDF and hard copy sets of 11" x17 "(Tabloid) plans depicting the Draft Final (90%), and Final (100%) design in accordance with TxDOT requirements.
- Specifications – Provide PDF and hard copy sets of the construction specifications package in accordance with TxDOT requirements.
- Estimates - Final estimates of probable construction costs and bid forms using TxDOT standard bid items.

B. RIGHT-OF-WAY SERVICES:

Task 1.5.B.1 - Right-Of-Way Maps and Documents

Perform boundary surveys and produce right-of-way maps, sketches, legal descriptions, and other documents as necessary to support up to 16 ROW/easement parcel takes in accordance with TxDOT standards.

Task 1.5.B.2 - Right-Of-Way Agent / Acquisition Services

FNI will subcontract with a ROW agent to facilitate property acquisition for up to 16 undeveloped parcels as outlined below:

- Property Appraisals and Appraisal Reviews
 - a. Provide a copy of the permission for ROE to the appraiser. If no ROE has been previously obtained for appraisal, the appraiser must obtain ROE before entering onto the subject property.
 - b. Appraisers shall provide advanced notice of the date and time of inspection of the subject property to the acquisition provider in order to coordinate the initial property owner interview with the relocation assistance specialist.
 - c. Conduct a pre-appraisal contact with the property owner
 - d. Afford the property owner or their representative the opportunity to accompany the appraiser during their inspection of the property.
 - e. The reports shall conform to the Uniform Standards of Professional Appraisal Practices.
 - f. The appraiser shall notify the PM of any environmental concerns associated with the right of way (ROW) being acquired which could require re-mediation.
 - g. All appraisals will be administratively reviewed and recommended for approval. After receiving the draft appraisal report, it will be delivered to the Review Appraiser. The Review Appraiser will ensure that the report has:
 - i. Consistency of values
 - ii. Supporting documentation available to support the conclusion reached
 - iii. Compliant with the Uniform Standards of Professional Appraisal Practices
 - h. The Review Appraiser will coordinate as necessary with the Appraiser regarding any revisions or comments which may be required.
 - i. The Appraiser and Review Appraiser will be available for updating the report for eminent domain proceedings. The fees for the appraisal updates and expert witness preparation and testimony are not included in this scope of work. The fee for appraisal updates and expert witness preparation will be supplemental to this Task Order.
 - j. When the Appraisal is finalized, the Appraisal along with the Review will be submitted to the County for final approval prior to making an offer. FNI will attend (if requested) Commissioners Court to seek approval of the appraisal.

- **Parcel Negotiations**

- a. All acquisitions will comply with CFR Part 24 and the Uniform Relocation Assistance and Real Property Act of 1970 (Uniform Act).
- b. Prepare and send an Introduction letter along with the Landowners' Bill of Rights by Certified Mail-Return Receipt Requested (CMRRR)
- c. A written offer, appraisal report and required brochures will be sent to each property owner or the property owner's designated representative through CMRRR.
- d. Up to five follow-up contacts will be made with each property owner with a goal to reach an agreement conducive to all parties.
- e. If the property owner chooses to make a counter offer, FNI will advise them to provide a written and signed letter along with the appropriate backup documentation in support of the counter offer.
- f. FNI will provide to the County a written summary memo along with the counter offer. If requested FNI will attend County Commissioners Court to explain the counter offer and to offer a recommendation.
- g. Once an agreement has been reached, the necessary instruments (Memorandum of Agreement (MOA), Deed and W9) will be secured and provided to the title company in request of a closing statement
- h. If after 30 days of negotiations and an impasse has been determined or the property owner is non-responsive, a Final Offer Letter (FOL) will be delivered by CMRRR along with the draft conveyance document and MOA.
- i. If after an additional 14 days (FOL period) an agreement still has not been reached, an Eminent Domain package will be assembled and delivered to the County's contracted attorney and an electronic copy will be provided to the County Attorney

Task 1.5.B.3 - Right-Of-Way Legal Services

Provide legal services necessary to support negotiations and parcel acquisition for up to 3 parcels requiring the legal services of an eminent domain attorney.

B. ADDITIONAL SERVICES (NOT INCLUDED IN THE EXISTING SCOPE OF SERVICES)

COUNTY and FNI agree that the following services are beyond the Scope of Services described in the tasks above. However, FNI can provide these services, if needed, upon request. Any additional amounts paid to FNI as a result of any material change to the Scope of the Project shall be agreed upon in writing by both parties before the services are performed. These additional services include the following:

- City water and Sewer replacement design
- Streetscape and Landscape design plans
- Construction survey staking
- SUE Level "A" Potholes
- Performance of materials testing or specialty testing services.
- Preparation of a formal written request for USACE authorization under a letter of permission procedure.
- Preparation of a standard individual Section 404 permit application.
- Preparation of Environmental Information Document, Environmental Assessment, or an Environmental Impact Statement.
- Meetings or consultation with the USACE or other resource agencies, except as specifically noted in the scope of services.

- Presence/absence surveys for state and/or federally listed threatened/endangered species.
- Preparation of a mitigation plan to compensate for impacts to waters of the U.S.
- Application to Texas Commission on Environmental Quality for individual 401 Water Quality Certification.
- Application for General Land Office easements.
- Application for Texas Parks & Wildlife Department Sand and Gravel Permit.
- Additional field investigations or analysis required to respond to public or regulatory agency comments.
- Field survey or analysis required for cultural resources investigations.
- Consultation with the U. S. Fish and Wildlife Service under Section 7 of the Endangered Species act.
- Expert representation at legal proceedings or at contested hearings.
- Mitigation monitoring if required by permit conditions.
- Monitoring for compliance with permit conditions.
- Additional modifications to the compensatory mitigation plan.
- Phase II Environmental Site Assessment.
- Construction Inspection and management



Client: Hunt County Hunt County Courthouse 2507 Lee Street Greenville, Texas 75401	FNI Project No.: HUC17265 Phase/Task/Dept. No.: 1.13 Date: July 21, 2017
This authorization is in accordance with the terms and conditions outlined in the Professional Services Agreement executed on April 11, 2017.	
Project Description: 1.13 FM 1565 Griffis Elementary School Turn Lanes Design Services Hunt County Transportation Bond Program (HCTBP)	
Description of Services: The project objective is to design turn lane improvements along FM 1565 to enhance safety and access to the Kathy Griffis Elementary School in accordance with the attached Scope of Services, Work Authorization #1.	
Compensation shall be as follows: FNI shall be paid for the services described above actual cost (not to exceed) fee of Ninety-One Thousand, Five Hundred Sixty Dollars (\$91,560). Refer to the attached memo with fee summary for a detailed breakdown of the engineering services.	
	Amount of this Authorization
	\$91,560
Schedule: The project schedule shall be in accordance with the PMP project schedule and the construction funding schedule.	

The above described services shall proceed upon return of this Task Authorization. Services will be billed as they are done. All other provisions, terms, and conditions of the agreement for services which are not expressly amended shall remain in full force and effect.

- A contract modification will be submitted.
- This Task Authorization will serve as notice to proceed.

FREESE AND NICHOLS, INC.:

BY: Chris Bosco
 Chris Bosco, P.E.
 Print or Type Name

TITLE: Principal

DATE: 7/25/17

HUNT COUNTY:

BY: John L. Horn
 John L. Horn
 Print or Type Name

TITLE: Hunt County Judge

DATE: 7/25/17

MEMORANDUM



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TO: Transportation Steering Committee
FROM: Chris Bosco, P.E.
SUBJECT: Contract Amendment: **1.13 FM 1565 Turn Lanes**
DATE: July 19, 2017

The purpose of this memo is to summarize the scope and fee services for FM 1565 Griffis Elementary School turn lanes. The project scope is intended to improvement access and safety for school traffic.

This scope of services included in this contract amendment includes the following services. (Refer to the attached detailed scope of services)

1. Project management
2. Topographic Survey
3. Level "B" SUE
4. Preliminary Design
5. Final Design plans, specifications and estimates

The follow is a summary of table summarizing the current contract amount and the proposed contract amendment for professional engineering services.



Fee Summary Table

1.13 - FM 1565 @ Elementary School

Category	Work Description	Current Contract Amount	Proposed Task Order	Project Totals
Program Management	Right-of-way Agent / Appraisals	\$0	\$0	\$0
	Right-of-way Attorney	\$0	\$0	\$0
Engineering	Direct Expenses	\$0	\$730	\$730
	Project Management	\$0	\$5,100	\$5,100
	Conceptual Development	\$0	\$0	\$0
	Preliminary Engineering / Schematic Design	\$0	\$11,350	\$11,350
	Hydrology/Drainage Design	\$0	\$3,100	\$3,100
	Structural	\$0	\$0	\$0
	Final Design / Planning	\$0	\$17,320	\$17,320
Environmental	Environmental Services	\$0	\$14,080	\$14,080
Surveying	Topographic/Boundary Survey	\$0	\$23,930	\$23,930
	Subsurface Utility Engineering (SUE)	\$0	\$15,950	\$15,950
	ROW Map / Documents	\$0	\$0	\$0
Geotechnical	Geotechnical Investigation/Design	\$0	\$0	\$0
	Totals	\$0	\$91,560	\$91,560

SCOPE OF SERVICES
Hunt County – Work Authorization #1

Project Task 1.13 FM 1565 Griffis Elementary School Turn Lanes
DESIGN SERVICES

The scope set forth herein defines the work to be performed by the FNI in completing the project.

OBJECTIVE

The project objective is to design turn lane improvements along FM 1565 to enhance safety and access to the Kathryn Griffis Elementary School.

WORK TO BE PERFORMED

A. DESIGN SERVICES:

- Task 1.13.A.1 - Project / Program Management
- Task 1.13.A.2 - Design Development (Conceptual)
- Task 1.13.A.3 - Surveying
- Task 1.13.A.4 - Drainage Analysis
- ~~Task 1.13.A.5 - Structural Analysis (Not Required)~~
- Task 1.13.A.6 - Environmental Services
- Task 1.13.A.7 - Subsurface Utility Investigations
- Task 1.13.A.8 - Preliminary Engineering Design (60%)
- Task 1.13.A.9 - Final Engineering Design (90% AND 100%)

B. ADDITIONAL SERVICES (NOT INCLUDED IN THIS TASK ORDER)

A. DESIGN SERVICES

Task 1.13.A.1 - Project / Program Management

Project / Program Management Services are described in Article I.B of the AGREEMENT.

Deliverables: Project / Program Management Plans and updates to include project schedules, budgets, quality control (QA/QC) plans, progress reports, stakeholder meeting, coordination, and decision documentation.

Task 1.13.A.2 - Design Development (Conceptual)

Conceptual Design Development Services are described in Article I.C of the AGREEMENT. Develop preliminary design concepts in coordination with TxDOT-Paris District to include:

- a. Typical section development and alternatives analysis.
- b. Preliminary alignment development and alternatives analysis
- c. Preliminary environmental clearance analysis and coordination
- d. TxDOT and stakeholder coordination
- e. Preliminary ROW impact evaluation
- f. Cost estimate updates

Deliverables:

- a. Typical Cross Sections – Depict main lanes, auxiliary (turn) lanes, lane and median widths, curb and/or curb and gutter type, sidewalk location and width, existing and proposed right of way.
- b. Roll Plots – Provide aerial image background with proposed roadway alignment footprint including horizontal and vertical geometry, turn lanes, driveway and side street connections, culvert locations sizes, proposed right-of-way requirements.
- c. Cost estimates – Provide updated cost estimates for construction, right-of-way, and utilities relocation.

Task 1.13.A.3 - Surveying

Establish horizontal and vertical survey control. Perform topographic survey utilizing mobile LiDAR for up to 1,320 linear feet within the existing right-of-way. Provide supplemental surveys as required to establish base maps depicting existing topographic features, right-of-way limits, drainage/hydrologic features.

Deliverables: Electronic files in accordance with TxDOT requirements and in format(s) to support engineering design deliverables.

Task 1.13.A.4 - Drainage Analysis

Analyze flow capacity of the existing roadside swales. Existing swales will be re-established or flows conveyed through culvert pipes as may be required due to right-of-way constraints:

Deliverable: Technical memo describing existing conditions and proposed design.

~~Task 1.13.A.5 - Structural Analysis (Not Required)~~

Task 1.13.A.6 - Environmental Services

Environmental coordination and documentation will be prepared to meet TxDOT requirements. This scope assumes that the project will be considered exempt or as a programmatic exclusion and will not require specific-specific federal or state environmental authorization due to the limited scope of the proposed improvements.

Deliverable: Technical Memo describing TxDOT coordination, scope of work and exempt nature of project with respect to requirements for project-specific federal or state environmental authorization.

Task 1.13.A.7 - Subsurface Utility Investigations

Utilizing geophysical methods (Quality Level B), locate all tonable underground utilities to include telecommunications, electric, lighting, and gas pipeline. For non-tonable underground utilities such as PVC and AC water lines, obtain existing utility records and compare to visible surface features (Quality Level C). Utility mapping will include the limits of the existing right-of-way for a distance up to 1,320 LF.

Deliverables: Prepare Existing Utility Base Maps depicting the utility owner, type, location, and size of each existing utility with the corresponding Quality Level for each.

Task 1.13.A.8 – Preliminary Engineering Design (60%)

Preliminary plans and specifications shall be submitted to TxDOT and County for review. Development of Preliminary Engineering Design Drawings shall be developed based on implementing suggested changes to the Conceptual Design and to also include:

- Temporary Traffic Control Plans to reflect proposed construction sequencing
- A Project Control Sheet, showing all Survey Control Points
- Updated Typical Cross Sections
- Roadway plan and profile sheets displaying station and coordinate data for all horizontal alignment P.C.'s, P.T.'s, P.I.'s; station and elevation data of all vertical profile P.C.'s, P.T.'s, P.I.'s, low points, and high points; lengths of vertical curves, grades, K values, e, and vertical clearances where required.
- Bearings given on all proposed centerlines, or baselines.
- Intersection layout sheets including ROW lines, horizontal alignments, utilities, curbs, sidewalks, driveways, lane dimensions and arrows, and existing and proposed contours.
- Preliminary roadway details to include curbs, curb expansion joints, driveways, sidewalks, and pavement details.
- Storm drain layout sheets showing location and size of all inlets, manholes, junction boxes, culverts and piping to include storm drain profiles showing existing and proposed flow lines, flows, lengths and slopes of pipe, top of ground profile over pipe and connections to existing or proposed storm sewer systems.
- Preliminary signing, pavement markings.

Deliverables:

- Plans – Provide PDF and hard copy sets of 11" x17 "(Tabloid) plans depicting the Preliminary (60%) design.
- Roll Plots - Updated from Conceptual Design Phase depicting the Preliminary (60%) Design.
- Cost Estimates – Updated cost estimates for construction, right-of-way, and utilities relocation.

Task 1.13.A.9 – Final Engineering Design (90% and 100%)

Final plans and specifications shall be prepared and submitted to TxDOT and County Approval

Prepare Draft Final (90%) construction plans and specifications for TxDOT and County review. Following a 90% plans review meeting, FNI shall prepare and submit Final Construction Documents (100%). Plans and technical specifications shall be stamped, dated, and signed by the responsible ENGINEER registered in State of Texas.

Deliverables:

- Plans – Provide PDF and hard copy sets of 11" x17 "(Tabloid) plans depicting the Draft Final (90%), and Final (100%) design in accordance with TxDOT requirements.
- Specifications – Provide PDF and hard copy sets of the construction specifications package in accordance with TxDOT requirements.

- Estimates - Final estimates of probable construction costs and bid forms using TxDOT standard bid items.

B. ADDITIONAL SERVICES (NOT INCLUDED IN THE EXISTING SCOPE OF SERVICES)

COUNTY and FNI agree that the following services are beyond the Scope of Services described in the tasks above. However, FNI can provide these services, if needed, upon request. Any additional amounts paid to FNI as a result of any material change to the Scope of the Project shall be agreed upon in writing by both parties before the services are performed. These additional services include the following:

- City water and Sewer replacement design
- Streetscape and Landscape design plans
- Construction survey staking
- Level "A" SUE
- Geotechnical Investigation and Pavement Design
- TxDOT Environmental Document
- ROW Acquisition Services includes appraisals, ROW documents, and Negotiations
- Performance of materials testing or specialty testing services.
- Preparation of a formal written request for USACE authorization under a letter of permission procedure.
- Preparation of a standard individual Section 404 permit application.
- Preparation of Environmental Information Document, Environmental Assessment, or an Environmental Impact Statement.
- Meetings or consultation with the USACE or other resource agencies, except as specifically noted in the scope of services.
- Presence/absence surveys for state and/or federally listed threatened/endangered species.
- Preparation of a mitigation plan to compensate for impacts to waters of the U.S.
- Application to Texas Commission on Environmental Quality for individual 401 Water Quality Certification.
- Application for General Land Office easements.
- Application for Texas Parks & Wildlife Department Sand and Gravel Permit.
- Additional field investigations or analysis required to respond to public or regulatory agency comments.
- Field survey or analysis required for cultural resources investigations.
- Consultation with the U. S. Fish and Wildlife Service under Section 7 of the Endangered Species act.
- Expert representation at legal proceedings or at contested hearings.
- Mitigation monitoring if required by permit conditions.
- Monitoring for compliance with permit conditions.
- Additional modifications to the compensatory mitigation plan.
- Stormwater Pollution Prevention Plans.
- Phase II Environmental Site Assessment.
- Construction Inspection and management
- Eminent Domain



Client: Hunt County Hunt County Courthouse 2507 Lee Street Greenville, Texas 75401	FNI Project No.: HUC17265		
	Phase/Task/Dept. No.: 1.17		
	Date: July 21, 2017		
This authorization is in accordance with the terms and conditions outlined in the Professional Services Agreement executed on April 11, 2017.			
Project Description: 1.17 – SS 264 and SH 276 (Main St.) - Hunt County Transportation Bond Program (HCTBP)			
Description of Services: The project objective is to evaluate existing intersection operations and identify improvement that would improve safety and capacity in accordance with the attached Scope of Services, Work Authorization #1.			
Compensation shall be as follows: FNI shall be paid for the services described above actual cost (not to exceed) fee of Fourteen Thousand, Nine Hundred Fifty Dollars (\$14,950). Refer to the attached memo with fee summary for a detailed breakdown of the engineering services.			
	<table border="1"> <tr> <td style="text-align: center;">Amount of this Authorization</td> <td style="text-align: center;">\$14,950</td> </tr> </table>	Amount of this Authorization	\$14,950
Amount of this Authorization	\$14,950		
Schedule: The project schedule shall be in accordance with the PMP project schedule and funding partnerships with TxDOT/NCTCOG.			

The above described services shall proceed upon return of this Task Authorization. Services will be billed as they are done. All other provisions, terms, and conditions of the agreement for services which are not expressly amended shall remain in full force and effect.

- A contract modification will be submitted.
- This Task Authorization will serve as notice to proceed.

FREESE AND NICHOLS, INC.:

BY: Chris Bosco

Chris Bosco, P.E.
Print or Type Name

TITLE: Principal

DATE: 7/25/17

HUNT COUNTY:

BY: John L. Horn

John L. Horn
Print or Type Name

TITLE: Hunt County Judge

DATE: 7/25/17

MEMORANDUM



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TO: Transportation Steering Committee
FROM: Chris Bosco, P.E.
SUBJECT: Contract Amendment: 1.17 - SS 264 and SH 276 (Main St.)
DATE: July 19, 2017

The purpose of this memo is to summarize the scope and fee services for approval of an intersection operations study of the intersection of SS 264 and SH 276 (Main St.) in Quinlan. The project scope includes evaluating the existing intersection operations to identify improvements to the safety and traffic operations.

This scope of services included in this contract amendment for an intersection operations study includes the following services. (Refer to the attached detailed scope of services)

1. Project management
2. Field observations
3. Existing conditions assessment and analysis
4. Conceptual design exhibits
5. Intersection study report

The follow is a summary of table summarizing the current contract amount and the proposed contract amendment for professional engineering services.



Fee Summary Table

1.17 - SS 264 and SH 276 (Main St.)

Category	Work Description	Current Contract Amount	Proposed Task Order	Project Totals
Program Management	Right-of-way Agent / Appraisals	\$0	\$0	\$0
	Right-of-way Attorney	\$0	\$0	\$0
Engineering	Direct Expenses	\$0	\$930	\$930
	Project Management	\$0	\$1,500	\$1,500
	Conceptual Development	\$0	\$0	\$0
	Preliminary Engineering / Schematic Design	\$0	\$4,310	\$4,310
	Hydrology/Drainage Design	\$0	\$0	\$0
	Structural	\$0	\$0	\$0
	Final Design / Planning	\$0	\$8,210	\$8,210
Environmental	Environmental Services	\$0	\$0	\$0
Surveying	Topographic/Boundary Survey	\$0	\$0	\$0
	Subsurface Utility Engineering (SUE)	\$0	\$0	\$0
	ROW-Map / Documents	\$0	\$0	\$0
Geotechnical	Geotechnical Investigation/Design	\$0	\$0	\$0
	Totals	\$0	\$14,950	\$14,950

SCOPE OF SERVICES
Hunt County – Work Authorization #1

Project 1.17- Intersection Operations Studies
SS264 at SH 276 (Main St.) in Quinlan

The scope set forth herein defines the work to be performed by the FNI in completing the project.

OBJECTIVE

The project objective is to evaluate existing intersections operations and identify improvement that would improve safety and capacity.

WORK TO BE PERFORMED

- Task Group 1.4.1 - Project / Program Management
- Task Group 1.4.2 - Existing Conditions and Data Collection
- Task Group 1.4.3 - Assessment and Analysis
- Task Group 1.4.4 - Illustrative Design
- Task Group 1.4.5 - Study Documentation

Task Group 1.4.1 - Project / Program Management

Project / Program Management Services are described in Article I.B of the AGREEMENT.

Deliverables: Project / Program Management Plans and updates to include project schedules, budgets, quality control (QA/QC) plans, progress reports, stakeholder meeting, coordination, and decision documentation.

Task Group 1.4.2 Existing Conditions and Data Collection

1.4.2.1 Traffic Data Collection

Obtain historic traffic volumes and crash data necessary to perform traffic operations and warrants analysis.

1.4.2.2 Field observation

Conduct field reviews during peak traffic periods. Observe driver characteristics with respect to compliance with existing traffic control devices.

Task Group 1.4.3 Conditions Assessment and Analysis

1.4.3.1 Crash Analysis – Review number of crashes by type and determine if deficient roadway geometry, signage, or pavement markings are a potential contributing factor. Evaluate whether traffic control devices are in compliance with the FHWA Manual of Uniform Traffic Control Devices (MUTCD).

1.4.3.2 Warrant Studies – Perform traffic signal and/or stop control warrant studies in accordance with the FHWA Manual of Uniform Traffic Studies (MUTS).

Task Group 1.4.4 Conceptual Design

Prepare conceptual exhibits that depict existing conditions along with recommended improvements.

Task Group 1.4.5. Study Documentation

FNI will prepare an Intersection Study Report to present existing conditions, evaluation methodology, and recommendations in a concise narrative with accompanying graphics exhibits.

Deliverables

- DRAFT Intersection Study Report
- FINAL Intersection Study Report



Client: Hunt County Hunt County Courthouse 2507 Lee Street Greenville, Texas 75401	FNI Project No.: HUC17265
	Phase/Task/Dept. No.: 1.20
	Date: July 21, 2017

This authorization is in accordance with the terms and conditions outlined in the Professional Services Agreement executed on April 11, 2017.

Project Description: 1.20 – SH 276 and FM 35 - Hunt County Transportation Bond Program (HCTBP)

Description of Services:
 The project objective is to evaluate existing intersection operations and identify improvement that would improve safety and capacity in accordance with the attached Scope of Services, Work Authorization #1.

Compensation shall be as follows:
 FNI shall be paid for the services described above actual cost (not to exceed) fee of Fourteen Thousand, Nine Hundred Fifty Dollars (\$14,950). Refer to the attached memo with fee summary for a detailed breakdown of the engineering services.

	Amount of this Authorization	\$14,950
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Schedule:
 The project schedule shall be in accordance with the PMP project schedule and funding partnerships with TxDOT/NCTCOG.

The above described services shall proceed upon return of this Task Authorization. Services will be billed as they are done. All other provisions, terms, and conditions of the agreement for services which are not expressly amended shall remain in full force and effect.

- A contract modification will be submitted.
- This Task Authorization will serve as notice to proceed.

FREESE AND NICHOLS, INC.:

BY: Chris Bosco, P.E.
 Print or Type Name

TITLE: Principal

DATE: 7/25/17

HUNT COUNTY:

BY: John L. Horn
 Print or Type Name

TITLE: Hunt County Judge

DATE: 7/25/17

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MEMORANDUM



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TO: Transportation Steering Committee
FROM: Chris Bosco, P.E.
SUBJECT: Contract Amendment: 1.20 - SH 276 and FM 35
DATE: July 19, 2017

The purpose of this memo is to summarize the scope and fee services for approval of an intersection operations study of the intersection of SH 276 and FM 35. The project scope includes evaluating the existing intersection operations to identify improvements to the safety and traffic operations.

This scope of services included in this contract amendment for an intersection operations study includes the following services. (Refer to the attached detailed scope of services)

1. Project management
2. Field observations
3. Existing conditions assessment and analysis
4. Conceptual design exhibits
5. Intersection study report

The follow is a summary of table summarizing the current contract amount and the proposed contract amendment for professional engineering services.



Fee Summary Table

1.20 - SH 276 and FM 35

Category	Work Description	Current Contract Amount	Proposed Task Order	Project Totals
Program Management	Right-of-way Agent / Appraisals	\$0	\$0	\$0
	Right-of-way Attorney	\$0	\$0	\$0
Engineering	Direct Expenses	\$0	\$930	\$930
	Project Management	\$0	\$1,500	\$1,500
	Conceptual Development	\$0	\$0	\$0
	Preliminary Engineering / Schematic Design	\$0	\$4,310	\$4,310
	Hydrology/Drainage Design	\$0	\$0	\$0
	Structural	\$0	\$0	\$0
	Final Design / Planning	\$0	\$8,210	\$8,210
Environmental	Environmental Services	\$0	\$0	\$0
Surveying	Topographic/Boundary Survey	\$0	\$0	\$0
	Subsurface Utility Engineering (SUE)	\$0	\$0	\$0
	ROW Map / Documents	\$0	\$0	\$0
Geotechnical	Geotechnical Investigation/Design	\$0	\$0	\$0
	Totals	\$0	\$14,950	\$14,950

SCOPE OF SERVICES
Hunt County – Work Authorization #1

Project 1.20 - Intersection Operations Studies
SH 276 and FM 35

The scope set forth herein defines the work to be performed by FNI in completing the project.

OBJECTIVE

The project objective is to evaluate existing intersections operations and identify improvement that would improve safety and capacity.

WORK TO BE PERFORMED

- Task Group 1.4.1 - Project / Program Management
- Task Group 1.4.2 - Existing Conditions and Data Collection
- Task Group 1.4.3 - Assessment and Analysis
- Task Group 1.4.4 - Illustrative Design
- Task Group 1.4.5 - Study Documentation

Task Group 1.4.1 - Project / Program Management

Project / Program Management Services are described in Article I.B of the AGREEMENT.

Deliverables: Project / Program Management Plans and updates to include project schedules, budgets, quality control (QA/QC) plans, progress reports, stakeholder meeting, coordination, and decision documentation.

Task Group 1.4.2 Existing Conditions and Data Collection

1.4.2.1 Traffic Data Collection

Obtain historic traffic volumes and crash data necessary to perform traffic operations and warrants analysis.

1.4.2.2 Field observation

Conduct field reviews during peak traffic periods. Observe driver characteristics with respect to compliance with existing traffic control devices.

Task Group 1.4.3 Conditions Assessment and Analysis

1.4.3.1 Crash Analysis – Review number of crashes by type and determine if deficient roadway geometry, signage, or pavement markings are a potential contributing factor. Evaluate whether traffic control devices are in compliance with the FHWA Manual of Uniform Traffic Control Devices (MUTCD).

1.4.3.2 Warrant Studies – Perform traffic signal and/or stop control warrant studies in accordance with the FHWA Manual of Uniform Traffic Studies (MUTS).

Task Group 1.4.4 Conceptual Design

Prepare conceptual exhibits that depict existing conditions along with recommended improvements.

Task Group 1.4.5. Study Documentation

FNJ will prepare an Intersection Study Report to present existing conditions, evaluation methodology, and recommendations in a concise narrative with accompanying graphics exhibits.

Deliverables

- DRAFT Intersection Study Report
- FINAL Intersection Study Report



Client: Hunt County Hunt County Courthouse 2507 Lee Street Greenville, Texas 75401	FNI Project No.: HUC17265
	Phase/Task/Dept. No.: 1.21
	Date: July 21, 2017

This authorization is in accordance with the terms and conditions outlined in the Professional Services Agreement executed on April 11, 2017.

Project Description: 1.21 – SH 66 Corridor Study - Hunt County Transportation Bond Program (HCTBP)

Description of Services:
 This project is a Corridor Study to assesses the current and future (20 year) traffic operational needs of the state highway facility known as SH 66 within Hunt County, Texas from east of Royse City to SH 69 in Greenville. In addition, the County is interested in studying different design alternatives that may enhance safety of railroad crossings and mitigate any traffic congestion, such as grade separations and other treatments in accordance with the attached Scope of Services, Work Authorization #1.

Compensation shall be as follows:
 FNI shall be paid for the services described above actual cost (not to exceed) fee of Two Hundred Ninety-Three Thousand, Two Hundred Forty Dollars (\$293,240). Refer to the attached memo with fee summary for a detailed breakdown of the engineering services.

	Amount of this Authorization	\$293,240
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The above described services shall proceed upon return of this Task Authorization. Services will be billed as they are done. All other provisions, terms, and conditions of the agreement for services which are not expressly amended shall remain in full force and effect.

- A contract modification will be submitted.
- This Task Authorization will serve as notice to proceed.

FREESE AND NICHOLS, INC.:

BY: Chris Bosco
 Chris Bosco, P.E.
 Print or Type Name

TITLE: Principal

DATE: 7/25/17

HUNT COUNTY:

BY: John L. Horn
 John L. Horn
 Print or Type Name

TITLE: Hunt County Judge

DATE: 7/25/17

MEMORANDUM



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TO: Transportation Steering Committee
FROM: Chris Bosco, P.E.
SUBJECT: Contract Amendment: **1.21 SH 66 Corridor Study**
DATE: July 19, 2017

The purpose of this memo is to summarize the scope and fee services for approval of a corridor study of the SH 66 from Royse City to SH 69 in Greenville. The project scope includes evaluating the existing corridor operations to identify improvements to the safety and traffic operations.

This scope of services included in this contract amendment for corridor study includes the following services. (Refer to the attached detailed scope of services)

1. Project management
2. Field observations
3. Meetings and Public Involvement
4. Existing conditions assessment and analysis
5. Conceptual design exhibits
6. Intersection study report

The follow is a summary of table summarizing the current contract amount and the proposed contract amendment for professional engineering services.



Fee Summary Table

1.21 SH 66 Corridor Study

Category	Work Description	Current Contract Amount	Proposed Task Order	Project Totals
Program Management	Right-of-way Agent / Appraisals	\$0	\$0	\$0
	Right-of-way Attorney	\$0	\$0	\$0
Engineering	Direct Expenses	\$0	\$3,980	\$3,980
	Project Management	\$0	\$37,900	\$37,900
	Conceptual Development	\$0	\$0	\$0
	Preliminary Engineering Study	\$0	\$74,080	\$74,080
	Hydrology/Drainage Design	\$0	\$0	\$0
	Structural	\$0	\$0	\$0
	Final Design / Planning	\$0	\$177,280	\$177,280
Environmental	Environmental Services	\$0	\$0	\$0
Surveying	Topographic/Boundary Survey	\$0	\$0	\$0
	Subsurface Utility Engineering (SUE)	\$0	\$0	\$0
	ROW Map / Documents	\$0	\$0	\$0
Geotechnical	Geotechnical Investigation/Design	\$0	\$0	\$0
	Totals	\$0	\$293,240	\$293,240

SCOPE OF SERVICES

Hunt County – Work Authorization #1

Project Task 1.21 SH 66 Corridor Study

The scope set forth herein defines the work to be performed by FNI in completing the project.

OBJECTIVE

This project is a Corridor Study to assesses the current and future (20 year) traffic operational needs of the state highway facility known as SH 66 within Hunt County, Texas from east of Royse City to SH 69 in Greenville. The County is interested in studying where, along the corridor, additional lanes may need to be provided and under what anticipated conditions and horizon year. In addition, the County is also interested in studying different design alternatives that may enhance safety of railroad crossings and mitigate any traffic congestion, such as grade separations and other treatments.

The work efforts to develop short range and longer range recommendations for treatments along the SH 66 corridor include the following work areas and tasks.

WORK TO BE PERFORMED

- Task Group 1.3.1 - Project / Program Management
- Task Group 1.3.2 - Existing Conditions and Data Collection
- Task Group 1.3.3 - Meetings and Public Involvement
- Task Group 1.3.4 - Assessment and Analysis
- Task Group 1.3.5 - Illustrative Design
- Task Group 1.3.6 - Study Documentation

Task Group 1.3.1 - Project / Program Management

Project / Program Management Services are described in Article I.B of the AGREEMENT.

Deliverables: Project / Program Management Plans and updates to include project schedules, budgets, quality control (QA/QC) plans, progress reports, stakeholder meeting, coordination, and decision documentation.

Task Group 1.3.2 Existing Conditions and Data Collection

FNI will use a combination of baseline data provided by the project partners (County, local cities and TxDOT), and will make use of the available resources and take advantage of previous studies and research.

Task 1.3.2.1 Data Gathering

Information to be used and collected by FNI in this study will include aerial photos, available studies of recent and planned improvements and demographic trends, US Census information, available development plans, existing roadway infrastructure, GIS data from the County, longitudinal link level traffic data from TxDOT, travel demand data from NCTCOG, and other relevant material. Other information to be gathered and reviewed may include, but are not limited

to, regional context, transportation plans, culture, history, economic growth trends, municipal boundaries and regulatory controls, and general planning context adjacent to the corridor.

Task 1.3.2.2 Site Visits

FNI staff will conduct one site visit to the corridor to further understand the character of the corridor and to document and photograph existing conditions. The site visit will be coordinated with the County to allow the opportunity for representatives from the County and cities to join FNI during the site visit.

Task 1.3.2.3 Review of Plans and Programs

FNI will be guided by the adopted principles and vision of the current Hunt County Transportation Plan, the Rockwall County Transportation Plan, and the Comprehensive Plans of the cities of Greenville, Caddo Mills and Royse City. FNI will review these and other pertinent plans to gain insight and document the basis for development of the corridor concepts. FNI will conduct discussions with County and City staff to review local knowledge of development interests and expectations, opportunities and constraints for development along the corridor and in the area between SH 66 and IH 30.

Task 1.3.2.4 Documentation and Mapping of Existing and Planned Conditions

Once organized, the data acquired from Tasks 1.1, 1.2 and 1.3 will form the knowledge base from which the plan will be developed. FNI will summarize and document all data gathered and assessments, paying particular attention to opportunities to enhance traffic operations, corridor character zone identity, redevelopment and multimodal transportation options. A series of existing conditions and assessment maps, and a corridor opportunities and constraints map, will serve as a basis for identifying the physical framework for potential corridor improvements.

Deliverables:

- Base maps and databases
- Draft report chapter on existing conditions

Task Group 1.3.3. Meetings and Public Involvement

FNI will work collaboratively with the County to engage the stakeholders and public to solicit input and feedback on the potential enhancements to the corridor.

Task 1.3.3.1 Public Involvement Plan

FNI will assist the County in developing a Public Involvement Plan (PIP) specifically for this project to outline goals, identify target audiences, determine vehicles for communications, and lay out a schedule for meetings and deployment of communication tools. The PIP for this study will be consistent with the County Public Participation Plan (PPP) and the County Limited English Proficiency Plan (LEP) to help ensure project scheduling demands are met and that appropriate segments of the population are offered the opportunity to participate in the study.

Task 1.3.3.2. Public and Stakeholder Meeting Support Tasks

The County will facilitate the public participation process related to this project. FNI will arrange interviews to be conducted by FNI with County Commissioners, TxDOT Area representatives, the cities of Greenville, Caddo Mills and Royse City, and key stakeholders in the corridor for focused individual or small group discussions. The County will arrange for the public meeting locations and public announcements. FNI staff would provide support to the County for the arrangements and facilitation of the meetings, provide printed materials for the meetings and add outreach efforts to encourage community participation in the visioning and feedback process. FNI will also

develop, conduct and analyze an online survey to support the public involvement efforts, if deemed desirable by the County.

Task 1.3.3.3 Project Steering Committee Meetings

FNI will collaborate with the County to engage the large and small business owners, churches and schools who operate along the SH 66 study corridor through the County's formation of a Project Steering Committee (PSC). The County will assemble the PSC and lead the organization and participation of the PSC, and FNI will prepare materials for the meetings and facilitate discussions of the project. FNI will participate in up to three meetings with the PSC as part of this task.

Task 1.3.3.4 Agency Coordination Meetings

FNI will conduct initial meetings to take place with relevant boards, committees and staff of Hunt County and TxDOT to aid in establishing initial work tasks. Meetings will also take place with representatives of Greenville, Caddo Mills and Royse City, and other state and federal agencies with an interest in the project to discuss the needs and opportunities along SH 66, and to discuss conceptual design and operational issues.

Task 1.3.3.5 Project Meetings for Corridor Needs and Issues

FNI will conduct a series of three public meetings, one each in Greenville, Caddo Mills and Royse City, to engage the community, and will serve as the springboard for developing alternative design scenarios. The meetings will include presentations on existing conditions, planning strategies, street connectivity, design alternatives, and then provide time for individual discussion on specific issues.

Task 1.3.3.6 Presentations to County

At strategic stages of the study, FNI will present the interim and draft study findings and recommendations to the County Commissioners Court and/or designated County boards and committees:

Project Kick-off Meeting within the first month after notice to proceed.

After incorporating project PSC comments, and comments from the attendees at the first round of public meetings, present the preliminary findings and initial concepts.

After incorporating comments from the public meeting(s) on the final draft plan (Task 2.7), present the draft final recommendations to the County Commissioners.

FNI will create materials and presentations for the meetings.

Task 1.3.3.7 Community Meeting(s) Prior to Public Hearing

Upon completion of the final concept for the corridor, FNI will conduct a series of three public meetings, one each in Greenville, Caddo Mills and Royse City, to solicit broad community input on the proposed master plan vision, design concepts, and implementation schedule. FNI will create materials and presentations for the meetings and will conduct the technical portion of the meetings, which will be hosted and moderated by the County and/or the cities of the corridor.

Task 1.3.3.8 Project Website/Social Media

As part of the information strategy, FNI will prepare materials for uploading to a FNI hosted website or onto a project page on the County website. The project webpage would include a brief project description, allow presentations to be posted, provide a link to an online survey, if developed, and provide a comment section for community feedback. It is envisioned that plan concepts, as they are created and after approval by the County, would be posted on the website for public review. Other web-based information dissemination will be prepared, in accordance with the PIP.

Deliverables

- Public Involvement Plan
- Meeting materials
- Meeting summaries
- Draft report chapter on public engagement

Task Group 1.3.4 Assessment of Development and Design Parameters.

The connection between land use and transportation will be assessed by FNI by looking at the potentials and constraints for future development and redevelopment in the corridor. FNI will review the visible and reported existing roadway conditions to identify engineering challenges as well as public right-of-way utilization opportunities for the corridor. Much of these tasks will be initially addressed in preparation for the project workshop described in Task 2.4.

Task 1.3.4.1 Development Opportunities and Constraints Assessment

FNI will review the physical framework of the corridor, local policies, regulatory framework, land assembly framework, and the type and nature of the ownership within the study area to form a basis for understanding of the development potential along the corridor. The assessment will consider the area between SH 66 and IH 30 between Royse City and Caddo Mills. The following information will be reviewed:

- Existing land use patterns and resulting area identity
- Existing sub-areas on the corridor including centers of activity, employment, and community
- Existing regulations and resulting effects on development
- Encumbering issues associated with the above for redevelopment

Task 1.3.4.2 ROW Assessment

FNI will review the available SH 66 corridor Rights-of-Way (ROW) information to determine the apparent available public space along the corridor utilizing GIS parcel data provided by the County and TxDOT record drawings and ROW maps. No survey will be conducted. Adjacent parcels will be identified for bundled ownership, current uses, current values, and other readily available factors.

Task 1.3.4.3 Drainage Issues

FNI will consider the apparent and identified drainage concerns during development of the conceptual designs for the corridor. FNI will evaluate the potential to implement potential Low Impact Design (LID) drainage facilities or other cost-effective alternatives to traditional storm drain systems as part of the corridor concept. LID facilities generally consist of the use of engineered soil and plant systems to both physically filter and biologically absorb pollutants, and may include bio-retention cells, filter strips, or grass swales to capture street drainage and enhance water quality. FNI will identify potential approximate locations for LID applications along the corridor.

Task 1.3.4.4 Traffic Data Collection and Analysis

FNI will utilize available traffic count data for state highways and 2015 "saturation counts" commissioned by TxDOT on major arterial roadways. FNI will collect peak hour turning movement counts at up to 11 intersection turning movement counts and 24-hour counts at up to 12 locations on specific roadways, on an as needed basis to provide the needed insight into addressing corridor operations at key intersections.

Task 1.3.4.5 Safety and Operations

Using the findings from historical crash location and volume data, FNI will review potential intersection types, including conventional intersections and roundabouts, as alternative and cost-effective traffic control types that could enhance the multimodal mobility and safety of the corridor. FNI will develop a traffic model for the corridor using Synchro to evaluate modifications to intersection geometry to test roadway re-configuration concepts for meeting traffic mobility needs. Where appropriate, grade separations will also be address for their potential to improve traffic safety and operations.

Deliverables

Draft report chapter on corridor opportunities and constraints

Task Group 1.3.5 Illustrative Design

An illustrative design of the configuration of the corridor roadway ROW, typical sections, intersections, drainage, aesthetics and other elements will be prepared by FNI.

Task 1.3.5.1 Alternative Roadway Design Elements

FNI will review the corridor to identify applicable measures to provide transportation infrastructure with the appropriate capacity and operational characteristics to enhance the relative safety and operation for all modes of users – motorists, freight, pedestrians, and bicyclists as appropriate. In context to the corridor's varying land uses throughout, FNI will identify segments to apply various typical section elements to using a context sensitive approach informed by the roadway purpose and adjacent intended development and character. FNI will develop an illustrative layout plan for the mobility treatments along the corridor, indicating approximate sizes and configurations of the facilities, but will not include actual design of the facilities.

Task 1.3.5.2 Corridor Definition/Urban Design

Urban designers and landscape architects with FNI will identify appropriate areas and general character for LID and landscape treatments, such as street trees and plant massing, to emphasize the character zones along the corridor. Potential locations for gateway features and signage will be identified to help reinforce district themes along with established commercial and residential areas. Appropriate lighting levels and examples of pedestrian amenities will be identified that would serve to provide increased safety features but also help to create continuity in the corridor experience. FNI will explore such urban design options during the public workshop process and will refine the treatment concepts to incorporate review comments.

Task 1.3.5.3 Special Area Conceptual Design

Areas of special safety or operational improvement needs will have conceptual diagrams prepared to illustrate the proposed concepts. One special area that will be addressed includes the passage of SH 66 through the city of Caddo Mills, potential alignments and configurations, and their impacts to residential and commercial opportunities and interests.

Task 1.3.5.4 Cost Estimates

Estimate the costs of the recommended improvements, in sets of implementation projects for consideration of inclusion in future Capital Improvement Programs.

Task 1.3.5.5 Implementation Strategies

Prepare recommendations for prioritization of the sets of recommended improvement projects. Provide suggested sources of potential funding mechanisms and cost sharing for the projects.

Deliverables

- Illustrative designs, typical sections, policy and action items for implementation
- Draft chapter on corridor design concepts and associated facilities and policies

Task Group 1.3.6. Study Documentation

Using the products generated during the project workshop in Task 2.4, FNI will prepare a report of initial findings and project illustrations to present preliminary findings and interim recommendations for review with County staff, Task Force, the County Technical Committee, at public meetings and with the County Policy Board. FNI will incorporate comments from each of these reviews in preparation for the subsequent review, as appropriate.

Task 1.3.6.1 Draft and Final Report

FNI will prepare a final report to present all recommendations in a concise, clear narrative with accompanying graphics and figures, as necessary, to describe the intentions of the community and the attributes of the recommendations. Project information, such as public input, marketing data, and the planning process, will be explained in a summary style, with other supporting information included in appendices, as needed. FNI will develop typical sections for the various context zones of usage and available space in order to customize the treatment to project goals for specific areas. FNI will prepare an illustrative graphic representation of the entire corridor to serve as the overall vision. The master plan will illustrate potential infill developments, recommended paving and traffic controls, bicycle/pedestrian facilities, and locations of gateway features and landscaping by typology to clearly depict the project recommendations. The draft report will be provided to the County in digital pdf format.

Task 1.3.6.2 Incorporate County Staff Review Comments on the Draft Report

After submittal of the draft corridor plan to County staff, FNI will collaborate with the County to address review comments on the document and prepare it for public release in digital pdf format in advance of the series of three public meetings (see Task 2.7).

Task 1.3.6.3 Incorporate PSC and Public Review Comments on the Draft Report

The draft report will be submitted to the PSC for their review and comment, while also being posted to the project website for public review. After conducting the public meetings to review the draft final report, FNI will collaborate with the County to address the PSC and public review comments on the document and prepare it for submittal in pdf format and subsequent presentation to the County Commissioners.

Task 1.3.6.4 Incorporate County Commissioners Comments into Final Report

After presenting the draft final report to the County Commissioners, FNI will collaborate with the County project manager to address review comments on the document and prepare it for publishing as the final report. The final report will be provided in both Microsoft Word and pdf format.

Deliverables

- DRAFT Corridor Study Report
- FINAL Corridor Study Report