

ATTACHMENT SC

City of Pflugerville

Old Austin-Hutto Road Rehabilitation Project

Background and Scope of Work

Professional engineering services for the Old Austin-Hutto Road Rehabilitation Project will include preliminary engineering, final design and permitting. The project will begin approximately 400 LF off East Pecan Street and extend eastward approximately 3900 LF. The proposed typical section for the full length of the project will be a 3-lane section. Drainage improvements at the low water crossing will be included to provide mitigation of existing flooding conditions. Prepare final construction plans and specifications including opinion of probable construction cost (OPCC).

Project Assumptions

- A. Bid Phase and Construction Phase services for this project will not be included in this contract. The addition of these services will be covered under supplemental agreement.
- B. Construction material testing will not be included in this contract. The addition of these services will be covered under supplemental agreement.
- C. ROW acquisitions will be kept to a minimum per City's direction.
- D. Coordination with TxDOT will be minimal and will include permit for construction within their ROW only.
- E. Design in accordance with City's 2014 Edition of the Unified Development Code and November 2014 Edition of the Engineering Design Manual & Construction Standards and TxDOT standards, as applicable.

Contract Services

Freese and Nichols, Inc. (CONSULTANT) has been selected to provide professional services for the Old Austin-Hutto Road Rehabilitation project. The City desires to proceed with the Design Phase for this project, the subject of this Agreement for Professional Services.

ARTICLE I

BASIC SERVICES: After authorization from the City, CONSULTANT shall proceed with the Basic Services as described below. CONSULTANT will provide monthly progress reports and schedule updates to the City. CONSULTANT shall render the following professional services in connection with the development of the Project:

- A. PHASE A – DESIGN PHASE: Upon execution of this AGREEMENT and upon receiving a Notice to Proceed from the City, CONSULTANT shall provide professional services in this phase as follows:
 - 1. PROJECT MANAGEMENT
CONSULTANT shall coordinate internally and also with the City for successful Design Phase initiation, planning, execution, monitoring/controlling and closeout. CONSULTANT shall manage Design Phase integration, scope, time, cost, quality, staff resources, communications, risk and procurements as necessary. This includes but is not limited to:
 - a) Consult with the City: (1) to review the scope of services, (2) to verify the City's requirements for the Project, and (3) to review available data.

- b) Advise the City as to the necessity of the City's providing or obtaining data or services from others, and assist the City in connection with any such services.
 - c) Direction and coordination of CONSULTANT's staff for completion of required tasks and deliverables for the Design Phase.
 - d) Provide internal QC review of all deliverables.
2. MEETINGS: CONSULTANT will prepare meeting agendas and minutes for all meetings and workshops listed below:
- a) Attend one (1) project site evaluation to assess the project site and assist in determining necessary improvements.
 - b) Public Meeting – City will conduct one (1) Public Meeting. CONSULTANT will prepare up to three (3) exhibits and provide up to two (2) staff to attend the Public Meeting.
 - c) Attend one (1) review workshop to review the City's comments on the Conceptual Design and one (1) general coordination meeting as needed.
 - d) Attend two (2) public forums for utility coordination.
 - e) Attend one (1) meeting with each business owner along Old Austin-Hutto Road within the project limits. Assume four (4) total meeting dates.
3. DESIGN PHASE: CONSULTANT will provide the following services:
- a) Roadway: Roadway design will be based on the City of Pflugerville Engineering Design Manual & Construction Standards.
 - i. Conceptual (30%) Design:
 - 1. Establish horizontal and vertical alignment.
 - 2. Provide typical sections and OPCC with ribbon curb and open drainage ditches.
 - a. Three lane roadway
 - 3. Determine if right-of-way or easements are needed.
 - 4. Identify future intersection location for connection to Pfennig Lane.
 - 5. Schematic with proposed roadway on a roll plot at 1" = 100' scale.
 - ii. Final Design (60%, 90%, 100%):
 - 1. Finalize horizontal and vertical alignment.
 - 2. Develop Plan and Profile sheets at 1" = 40'.
 - 3. Finalize typical roadway cross section/pavement design.
 - 4. Establish roadway design including
 - a. Ribbon curb locations and geometry
 - b. Lane widths
 - c. Sidewalk modifications
 - d. Transitions and extent of construction of intersecting streets
 - e. Driveways
 - 5. Prepare roadway cross sections at 50' intervals.
 - 6. Prepare traffic control plan.
 - 7. Prepare pavement markings and signage plan.
 - 8. Prepare erosion control plan.
 - 9. Prepare roadway details.
 - b) Drainage: Drainage design will be based on the City of Pflugerville Engineering Design Manual & Construction Standards.

i. Conceptual (30%) Design:

1. Prepare hydrologic analysis to determine the amount of stormwater runoff contributing to the road side ditches and low water crossing.
2. Prepare hydraulic analysis to determine roadside ditch sizing requirements for use in the roadway 30% design cross sections.
3. Prepare hydraulic calculations to determine the necessary improvements to remove the low water crossing.

ii. Final Design (60%, 90%, 100%):

1. Based on selected roadway and drainage improvements from the conceptual design task, finalize the hydrologic and hydraulic analysis for necessary roadside ditches and low water crossing improvements.
2. Improvements to roadside ditches, if needed, will be incorporated into the roadway plan, profile, and cross-section sheets.
3. Develop plan, section, and detail sheets for the low water crossing improvements.

c) Environmental:

i. Desktop Archeological Resource Survey

Identification, evaluation and documentation tasks shall be performed by the FNI in accordance with the provisions of the Secretary of the Interior's Standards, the Antiquities Code of Texas, and standards promulgated by the Council of Texas Archeologists (CTA).

1. FNI will conduct a literature review to establish appropriate cultural contexts for the project area, and prepare a memorandum discussing previously documented archeological sites and other cultural resources within the project area. Explicit reference to the Texas Archeological Sites Atlas, the NRHP, and the list of State Archeological Landmarks will be included as appropriate.
2. FNI will complete a letter summarizing the findings of the desktop archeological survey and recommendations for additional work, if necessary. The letter will be submitted to the Texas Historical Commission for concurrence. If THC recommends an archeological survey, that would be an additional service.

ii. Section 404 Permitting

1. FNI will conduct field investigations in accordance with current federal delineation methodology including the *1987 Corps of Engineers Wetland Delineation Manual* and *2010 Regional Supplement for the Great Plains Region*.
 - a. Preliminary Data Collection—FNI will obtain and review pertinent data to identify potential waters of the U.S within the project area.
 - b. Field delineation—FNI will identify and delineate the boundaries of all potential waters of the United States,

including traditional navigable waters, relatively permanent waters, non-relatively permanent waters, and special aquatic features including wetlands that are adjacent, abutting, or isolated to these waters.

2. Section 404 Assessment Memorandum— FNI will prepare a memorandum documenting the Project impacts on waters of the U.S. including type of impact (e.g., fill vs. excavation) and duration (e.g., temporary vs. permanent) and an assessment of Section 404 permitting requirements or options, as appropriate.

- a. The memorandum will describe the quantities of impacts including type, duration, and water body / special aquatic feature impacted.
- b. The memorandum will indicate if the project requires a Section 404 permit and if it qualifies for a nationwide permit (NWP).

If the Project qualifies for a NWP, the memorandum will indicate which permit and if pre-construction notification is required. If no pre-construction notification is required, the memorandum will clearly state the basis for that assessment, citing the appropriate NWP clauses.

If the Project does not qualify for a NWP or would require a pre-construction notification to the Corps of Engineers, then this would be an additional service.

iii. Threatened and Endangered Species

1. FNI will review the U.S. Fish and Wildlife Service's and Texas Parks and Wildlife's county list of threatened and endangered species and provide an evaluation documented in a memorandum as to the potential to affect a listed species. If, based on the evaluation, additional consultation with USFWS or TPWD is recommended, this would be considered an additional service.

- d) Illumination: The submittals included in the scope of work are limited to 60%, 90% and 100% review submittals. Consult will provide the following services for street lighting.

- i. Design Approach: The street lights shall conform to the latest edition of the City of Pflugerville Unified Development Code and the Engineering Design Manual & Construction Standards. The guidelines established in these documents will be used to produce the illumination layout sheets. It is anticipated luminaires will be located on existing overhead power poles. Additional wooden poles will be placed if maximum spacing per UDC is exceeded.
- ii. Review: Illumination layouts will be provided to Oncor for review and comments.

- iii. Revisions: Illumination layouts will be revised to incorporate comments from Oncor.
- e) Utility Coordination and Planning Phase:
 - i. Gather information on tie-in locations, existing gas lines in the area, flood plain, and other present utilities.
 - ii. Conduct up to one (1) site visit.
 - iii. Review existing as-builts and GIS information.
 - iv. If the City and the CONSULTANT determine that utilities need to be relocated or replaced due to road rehabilitation, this design will be performed as an additional service as outlined in the Additional Services in this contract.
- f) Geotechnical Investigation and Pavement Design: See Holt Engineering, Inc. proposal for more details.
- g) Topographic Survey: See Baker-Aicklen & Associates, Inc. proposal for more details.
- h) Traffic Counts: See GRAM Traffic Counting, Inc. proposal for more details.
- 4. ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST (OPCC): CONSULTANT will provide OPCC with each deliverable.
- 5. DELIVERABLES: CONSULTANT will provide copies of reports and other data to the City as required. Furnish electronic and hard copies as shown for the following deliverables for the Design Phase:
 - a) 30% Deliverable – one (1) electronic copy and one (1) hard copy of roll plot schematic
 - b) 60% Deliverable – one (1) electronic copy and four (4) hard copies (11x17) of plans and list of proposed specifications
 - c) 90% Deliverable – one (1) electronic copy and four (4) hard copies (11x17) of plans and contract documents
 - d) 100% Deliverable – one (1) electronic copy and four (4) hard copies (11x17) of final signed-sealed plans and contract documents

ARTICLE II

ADDITIONAL SERVICES: Additional Services to be performed by CONSULTANT, if authorized by the City, which are not included in the above described basic or supplemental services, are described as follows:

- A. Bid Phase and Construction Phase services related to the Old Austin-Hutto Road Rehabilitation project.
- B. Meetings with additional utilities outside of the public forums.
- C. Environmental coordination with TxDOT.
- D. Environmental services related to acquiring additional right-of-way.
- E. Right-of-way acquisition.
- F. Preparation of Storm Water Pollution Prevention Plan.