

AGENDA ITEM 19

Consider approving Work Authorization No. 3 for Reynolds, Smith, & Hills, Inc. on CR 110 and 100.

Mike Weaver addressed the Court on this bridge structure which will cost the Texas Turnpike Authority an estimated \$3.5M.

Moved: **Commissioner Limmer**

Seconded: **Judge Doerfler**

Motion: To approve Work Authorization No. 3 for Reynolds, Smith, & Hills, Inc. on CR 110 and 100.

Vote: **5 - 0**

< Attachment >

ATTACHMENT A**WORK AUTHORIZATION NO. 03**

This Work Authorization is made pursuant to the terms and conditions of the Agreement entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (*the "County"*) and Reynolds, Smith & Hills, Inc. (*the "Engineer"*).

Part 1. The *Engineer* will provide the following engineering services:

Roadway planning and Final Design services for Chandler Road from CR110 to CR 100.

Part 2. The maximum amount payable for services under this Work Authorization without modification is \$235,463.00.

Part 3. Payment to the *Engineer* for the services established under this Work Authorization shall be made in accordance with the Agreement.

Part 4. This Work Authorization shall become effective on the date of final acceptance of the parties hereto and shall terminate 365 calendar days after notice to proceed, unless extended by a Supplemental Work Authorization.

Part 5. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

ATTACHMENT A (con't.)

Part 6. This Work Authorization is hereby accepted and acknowledged below.

ENGINEER:

Reynolds, Smith & Hills, Inc.

By:

Donald R. Glenn

Signature

Donald R. Glenn, P.E.

Printed Name

Vice President

Title

1/26/04

Date

COUNTY:

Williamson County, Texas

By:

John C. Doerfler

Signature

John C. Doerfler

Printed Name

County Judge

Title

2-10-04

Date

LIST OF EXHIBITS

Exhibit A - Services to be Provided by Engineer

Exhibit B - Fee Schedule

Exhibit C - Work Schedule

OK
my 1-26-04

EXHIBIT I
HOURLY RATES

- 1. Project Manager.....\$148.00
- 2. Senior Engineer.....\$110.00
- 3. Project Engineer.....\$ 84.00
- 4. Engineer.....\$ 68.00
- 5. CADD Technician.....\$ 75.00
- 6. Secretary/Clerical.....\$ 48.00
- 7. Expert Witness Testimony.....\$200.00

WILLIAMSON COUNTY, TEXAS**CHANDLER ROAD:
CR 110 TO CR 100****EXHIBIT A
SERVICES TO BE PROVIDED BY THE ENGINEER****GENERAL**

The work to be performed by the Engineer consists of providing engineering services for the final plans, specifications and estimate package for a new alignment roadway – Chandler Road from CR 110 to CR 100. The construction will consist of a 2 lane rural roadway that will be turned into a four lane divided roadway with depressed median in the future. The southern half of the 4-lane divided roadway will be constructed with this contract. The engineer shall provide roadway, traffic, and drainage services for the project.

I. MODIFY AND REVIEW SCHEMATIC

- A. The Engineer shall modify the horizontal and vertical alignment of the design schematic (from CR 110 to FM 1660) to accommodate the alignment change around the Williamson County shooting range and coordinate any changes to the schematic with the County. The Engineer shall review and refine the portion of the schematic provided by the County not being affected by the alignment change to confirm it's understanding of the project and to verify completeness and accuracy of the information.

II. ROADWAY DESIGN**A. Geometric Design**

- 1. The Engineer shall produce roadway typical sections, plan & profile sheets, and supporting details for subject roadway and crossroads. Vertical alignment shall be checked and adjusted to accommodate hydraulic structures, superelevation transitions, design speeds, intersecting streets, driveways and other clearance considerations. Crossovers, left and right turn bays, and speed change lanes shall be checked for location and storage length.
- 2. The Engineer shall design the horizontal alignment and shall show bearings in the tangent sections and complete curve data including delta angles, PI stations, tangent lengths, length of curve, and radii.
- 3. The Engineer shall design the vertical alignment showing the existing and proposed centerline elevations at 100 foot intervals and with vertical curve PVI stations, curve lengths, design speeds, "K" values, and tangent grades.

4. Geometric design shall be in conformance with the design guides and manuals referenced in AASHTO, TxDOT Roadway Design Manual and the Williamson County Road Bond Program.

B. Grading Design, Cut and Fill Quantities

1. Develop a GEOPAK roadway geometry model.
2. Determine earthwork and paving quantities for each phase. It is anticipated that at earthwork quantities will be provided at the 60%, 90% and 100% plan submittals for County's review.
3. The ENGINEER will provide plotted cross-sections (final design and at three phase submittal) showing original terrain, finished grade, centerline and ROW in a non-exaggerated scale for review.

C. Plan and Profile Sheets

1. The ENGINEER shall show the center-line, edge of pavement, lane widths, shoulder widths, location and widths of median openings, pavement cross slopes, superelevations with transitions, direction of traffic flow, and layouts for all speed change lanes. The plan and profile sheets will be 1"=100' horizontal and 1"=10' vertical scale. Plans will be produced in 11"x17" sheet format. The plans will be prepared in English units within the Microstation CADD environment.
2. The ENGINEER shall provide intersection layout sheets and details depicting the intersection geometrics. Intersection layout sheets can be produced at an appropriate scale other than the roadway plans. The Engineer shall provide a transition to existing cross streets where necessary.
3. The Engineer shall incorporate the pavement design developed by the County for this project.

III. DRAINAGE DESIGN

- A. The Engineer shall meet with the representatives of the County to discuss drainage concerns.
- B. The Engineer shall perform the hydrologic analysis, and determine and design all culvert crossings.
- C. The Engineer shall develop design details based on hydraulic and hydrologic analysis.
- D. The Engineer shall identify existing and proposed roadway crossings and drainage channels located in the project site.
- E. The Engineer shall conduct a site visit and verify location of crossings.

- F. The Engineer shall develop drainage area maps for each cross culvert location and provide a plan and profile for each cross culvert location
- G. The Engineer shall design the open ditch sections to handle the flows anticipated and summarize the capacity calculations in the plans. The Engineer shall develop drainage area maps for the project.
- H. The Engineer shall provide necessary details for drainage design.

IV. ROW AND UTILITY ADJUSTMENT

A. Right-of-Way Adjustments

1. The Engineer shall review and evaluate the proposed right-of-way map to verify that all construction staging and alignment considerations have been taken into account. The Engineer shall identify the right-of-way requirements for the project following the initial 200-foot alignment provided by the County. Any additional right-of-way requirements shall be coordinated with the County. The Engineer shall prepare right-of-way exhibits for any additional right-of-way and submit to the County for incorporation into right-of-way maps as soon as practical. Existing and proposed right-of-way limits will be shown on the final design plans.
2. The Engineer shall make recommendations to the COUNTY on locations for slope, channel, construction and temporary easements.

B. Utility Coordination and Adjustments

1. The Engineer shall review, research where necessary and, confirm utility location maps provided by the County. The Engineer shall coordinate existing and proposed utility locations with County's utility coordinator.
2. The Engineer shall determine if design changes or alignment changes are warranted to accommodate existing and proposed utilities. Alignment and schematic geometry should minimize utility conflicts and adjustments where possible.
3. The Engineer shall design project to minimize utility conflicts and adjustments where possible.
4. The Engineer shall review utility companies proposed adjustment plans for compliance with Williamson County guidelines. The Engineer shall provide recommendations to the County for corrections or approval.
5. The Engineer shall show the approximate horizontal location and ownership of utilities with critical clearance considerations on the plan and profile sheets. The horizontal location of utilities shall be provided by the County's utility coordinator. Verification of vertical location of utilities may be required which will be handled by the County's utility coordinator.

6. Utility relocation for all private and public utilities will be by others.
7. The Engineer shall attend two utility coordination meetings conducted by the County's utility adjustment/relocation consultant and discuss potential utility conflicts. The meetings will take place at 60% and 90% stage of design plans

V. SIGNING AND PAVEMENT MARKINGS

- A. The Engineer shall prepare pavement marking, delineator, object marker, and signing layout plan sheets at a scale equal to the roadway plan sheets. Where details are necessary a larger scale will be provided.
- B. The Engineer shall prepare summary table of all permanent pavement marking, channelization devices, object marker, and delineator quantities.
- C. The Engineer shall prepare any required special sign details.
- D. The Engineer shall prepare summary of sign quantities.
- E. All signing and pavement markings shall be in conformance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD).

VI. MISCELLANEOUS ROADWAY

- A. The Engineer shall provide preliminary cost estimates at the 90% phase submittal.
- B. The Engineer shall prepare Traffic Control Plan, detour layouts, and Sequence of Construction including the following:
 1. The existing and proposed traffic control devices that will be used to handle traffic during each construction sequence. Include any regulatory signs, warning signs, construction warning signs, guide signs, route markers, construction pavement markings, channelizing devices, portable changeable message signs, flashing arrow boards, barricades, or barriers that may be required.
 2. Where detours are provided, typical cross-sections shall be shown.
 3. The Engineer shall prepare summary table of work zone pavement markings and traffic control quantities.
- C. The Engineer shall prepare storm water pollution prevention plan (SW3P) and erosion control layout and detail sheets.
- D. The Engineer shall quantity summary tables for all roadway, earthwork, SW3P and traffic and control quantities.
- E. The Engineer shall prepare basis of estimate table for all material applications.

- F. The Engineer shall assemble applicable details and standard sheets.
- G. The Engineer shall include a list of general notes, to be provided by the County, necessary to supplement or clarify the specifications to be used for the project construction.
- H. The Engineer shall make intermediate submittals. The submittals shall consist of (10) 11"x17" paper sets. The final plan sheets shall be on standard Mylar type tracing film.
- I. The Engineer shall prepare meeting minutes and distribute the minutes to participants for all meetings attended by the Engineer during the design phase.
- J. The Engineer shall perform QA/QC of the plans throughout the design phase and at phase submittals.

VII. BID PHASE/ PRE-CONSTRUCTION AND CONSTRUCTION ASSISTANCE

- A. The Engineer shall assist in preparing the bid document addenda, responding to questions during the bid phase and shall assist in evaluating bids.
- B. The Engineer shall attend a pre-construction meeting with the contractor.
- C. The Engineer shall assist in addressing questions from the construction contractor during construction. The Engineer shall respond to RFI's in a timely manner. The Engineer shall provide assistance to the County during construction activities. The Engineer shall visit the construction site upon direction from the County to assist in construction administration.
- D. Construction phase services are based on one (1) bid package from CR 110 to FM 1660.

[illegible]

