RECEIVED
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BY: PGT

Project Name: RM 620 Interim Improvements

CONTRACT FOR ENGINEERING SERVICES SUPPLEMENTAL AGREEMENT NO. 2 TO THE PROFESSIONAL SERVICES AGREEMENT

STATE OF TEXAS
COUNTY OF WILLIAMSON

THIS SUPPLEMENTAL AGREEMENT to contract for engineering services is by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and Halff Associates, Inc. (the "Engineer") and becomes effective when fully executed by both parties.

§

WHEREAS, the County and the Engineer executed a contract on February 19, 2007;

WHEREAS, the not-to-exceed fee in Exhibit 1, Section 1, Item the agreement to \$574,976.00; and,

WHEREAS, the "Compensation Cap" in Exhibit 1, Section 4, Item 4.3 limits the maximum amount payable under the agreement to \$574,976.00; and,

WHEREAS, the Hourly Rates in Exhibit II are limited to the rates noted; and,

WHEREAS, it has become necessary to amend the agreement.

AGREEMENT

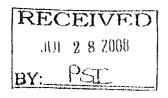
NOW, THEREFORE, premises considered, the *County* and the *Engineer* agree that said contract is amended as follows:

- I. The not-to-exceed fee in Exhibit 1, Section 1, Item 1. I is hereby increased from \$574,976.00 to \$734,844.00.
- II. The Compensation Cap in Exhibit 1, Section 4, Item 4.3 is hereby increased from \$574,976.00 to \$800,000.00.
- III. The hourly Rates in the original Exhibit II are hereby amended as shown in the attached revised Exhibit II.

All other provisions are unchanged and remain in full force and effect.

IN WITNESS WHEREOF, the *County* and the *Engineer* have executed this supplemental agreement in duplicate,

ENGINEER: By: Mill (14/1/14/14) Signature	COUNTY: By: Signature
Michael A Maya Printed Name	Printed Name
Vice President Title	Title
7/23/088 Date	08-05-02 Date
	OV 7/28/02
	MATT



Project Name: RM 620 Interim Improvements

ATTACHMENT A

WORK AUTHORIZATION NO. 2

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 Halff Associates, Inc. (the "Engineer").

Part1. The Engineer will provide the following engineering services:

Construction Administration services related to RM 620 Interim Improvements – Phase I.

- Part 2. The maximum amount payable for services under this Work Authorization without modification is \$18,808.00.
- 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 on <u>December 31, 2008</u>, unless extended by a Supplemental Work Authorization.
- Part 5. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

ox 1/20/08

ATTACHMENT A (con't.)

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

ENGINEER:	COUNTY:
Halff Associates, Inc.	Williamson County, Texas
By: Yhhl aMya Signature	By: Signature
Michael A. Maya Printed Name	Dan A. Gattis Printed Name
Via President Title	County Judge Title
7/23/08 Date	08-05-62 Date

LIST OF EXHIBITS

Exhibit A - Services to be Provided by County

Exhibit B - Services to be Provided by Engineer

Exhibit C - Work Schedule

Exhibit D - Fee Schedule (based on approved rates in PSA Exhibit II executed by Commissioners Court action)

EXHIBIT A

SERVICES PROVIDED BY THE COUNTY

FOR

CONSTRUCTION ADMINISTRATION RM 620 INTERIM IMPROVEMENTS (PHASE I)

IN WILLIAMSON COUNTY

RIGHT TURN LANES AT WYOMING SPRINGS, OAKLANDS & DEEPWOOD

This engineering scope includes the following major tasks:

• Construction Administration (Task 1)

Coordination Services by County

- Provide construction supervision on-site
- Preside over public or small group meetings
- Provide Engineer with Contractor submittals, Requests for Information (RFI's), shop drawings and correspondence
- Review Engineer progress, submittals and plan changes

EXHIBIT B

SERVICES PROVIDED BY ENGINEER

FOR

CONSTRUCTION ADMINISTRATION RM 620 INTERIM IMPROVEMENTS (PHASE I)

IN WILLIAMSON COUNTY

RIGHT TURN LANES AT WYOMING SPRINGS, OAKLANDS & DEEPWOOD

Scope of Services provided by Halff Associates, herein referred to as "Engineer" for Williamson County, herein referred to as "County", involves construction administration services associated with addition of right turn lanes at Wyoming Springs, Oaklands and Deep Wood on the RM 620 Highway within the City of Round Rock, in Williamson County, Texas. Also includes construction administration services for O'Connor pedestrian improvements at Luckenwald, Liberty Walk and Manheim.

Project management services for the County will by provided by the County's "Contract Manager (PSI)", or its "Designated Representative (HNTB Corporation)." Services are based on receiving written Notice to Proceed from the County. Engineer will coordinate with Williamson County, TxDOT and City of Round Rock regarding construction issues. Engineer will not coordinate directly with the Contractor unless directed by the County.

TASK 1 - CONSTRUCTION ADMINISTRATION

The task entails providing construction administration services associated with construction of right turn lanes on RM 620 at the intersections of Wyoming Springs, Oaklands and Deep Wood as well as miscellaneous pedestrian improvements along O'Connor at the intersections of Luckenwald, Liberty Walk and Manheim.

1.1 Pre-Construction Meeting

This task includes preparing for and attending one (1) pre-construction meeting with the County and Contractor to provide project review and discuss project specific issues.

1.2 Contractor Submittals & Shop Drawing Review

This task includes review of Contractor submittals and shop drawings received from HNTB. Review will include providing stamped approval/rejected notations to provide Contractor with necessary information. This also includes review by sub-consultant (Savant Group) for traffic signal related items.

1.3 Requests for Information (RFI's) Response

This task includes responding to Contractor RFI's and providing additional information to the Contractor related to the plans.

1.4 Minor Plan Revisions for Change Orders

This task includes preparing minor plan revisions related to change orders. Changes to plans will include revision clouds with descriptions of changes and will be sealed by a professional engineer. The County will be provided a max of five (5) copies of each plan revision sheet related to the applicable change order. This also includes design by sub-consultant (Savant Group) for traffic signal related items.

1.5 Meetings & Field Visits

This task includes attending and providing information necessary for three (3) County meetings and five (5) field visits with the County construction supervisor and Contractor. This task does not include providing meeting minutes for each visit.

<u>Exclusions</u>: The following items are excluded from the proposed scope of services under this proposal:

- 1. Preparing "as-built" plans.
- 2. Providing construction inspection services.
- 3. Providing construction staking.
- 4. Providing construction materials testing.

ANY ADDITIONAL SERVICES REQUIRED BEYOND THOSE SPECIFICALLY IDENTIFIED IN THIS PROPOSAL ARE BEYOND THE SCOPE OF SERVICES TO BE PROVIDED UNDER THIS PROPOSAL AND CAN BE PROVIDED UNDER A SUPPLEMENTAL AGREEMENT TO THIS PROPOSAL/CONTRACT.

EXHIBIT C

SCHEDULE OF SERVICES PROVIDED BY ENGINEER

FOR

CONSTRUCTION ADMINISTRATION RM 620 INTERIM IMPROVEMENTS (PHASE I)

IN WILLIAMSON COUNTY

RIGHT TURN LANES AT WYOMING SPRINGS, OAKLANDS & DEEPWOOD

The schedule for construction administration related to the installation of the Wyoming Springs, Oaklands and Deep Wood turn lanes along with the O'Connor pedestrian improvements will adhere to the construction schedule established with the Contractor. Construction administration services will be provided in the 120 calendar day duration that begins as follow:

Construction Notice to Proceed:

June 2, 2008

Construction Duration:

120 Calendar Days

EXHIBIT D

FEE SCHEDULE OF SERVICES PROVIDED BY ENGINEER

FOR

CONSTRUCTION ADMINISTRATION RM 620 INTERIM IMPROVEMENTS (PHASE I)

IN WILLIAMSON COUNTY

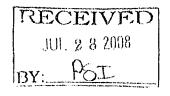
RIGHT TURN LANES AT WYOMING SPRINGS, OAKLANDS & DEEPWOOD

Date: 7/23/2008

E X H I B I T " D " RM 620 INTERIM IMPROVEMENTS (PHASE I) - CONSTRUCTION ADMINISTRATION Work Authorization #2

AVO - 24825

TXDOT FUNC. CODE	TASK/DESCRIPTION	PRINCIPAL	PROJECT MNGR	SR. ENG ENV. / PLANNER	PE	E.I.T.	ENV SCIENTIST	CADD / GIS / VIS/TECH	SURVEY & SUE CREW	CLERICAL / ADMIN	TOTAL MAN- HOURS	LABOR CHARGES (DIRECT)	PRINTING, PLOTTING	Deliv, Travel & Misc	SUB CONSULT'S	TOTAL COST FOR TASK (INCL MULT'S)
	TASK 1 - CONSTRUCTION ADMINISTRATION 1.1 PRE-CONSTRUCTION MEETING 1.2 CONTRACTOR SUBMITTALS 8 SHOP DRAWINGS 1.3 RFI RESPONSES 1.4 PLAN REVISIONS FOR CHANGE ORDERS 1.5 MEETING & FIELD VISITS		2 8 4 4 12		2 24 12 12 20			16		2 2 2	4 34 18 54 32	\$606 \$4,514 \$2,318 \$5,150 \$4,620	\$50 \$50 \$100	\$50 \$100 \$50 \$50 \$150	\$500 \$500	\$656 \$5,164 \$2,418 \$5,800 \$4,770
	SUBTOTAL HOURS/COSTS		30		70	20		16		6	142	\$17,208	\$200	\$400	1000	\$18,808
	FEE SUMMARY TASK 1 - CONSTRUCTION ADMINISTRATION		30		70	20		16		6	142	\$17,208	\$200	\$400	\$1,000	\$18,808
	TOTAL HOURS BASE HOURLY RATES (5) BASE SALARIES & REIME'S TOTAL	\$217.00	30 \$180.00 \$5,400	\$135.00	70 \$123.00 \$8,610	20 \$88.00 \$1,760	\$88.00	\$67.00 \$1,072	\$129.26	6 \$61.00 \$366	142	\$17.208	\$200	\$400	\$1,000	\$18,808
	TOTAL FEE		31%		50%	10%		6%		2%		\$17,208	\$200	\$400	\$1,000	\$18,808



Project Name: RM 620 Interim Improvements

ATTACHMENT A

WORK AUTHORIZATION NO. 3

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 Halff Associates, Inc. (the "Engineer").

Part1. The Engineer will provide the following engineering services:

Modification of RM 620 Interim plans to include phasing as well as design of a continuous left turn lane from Cornerwood to Wyoming Springs with associated utility coordination and signal design.

- Part 2. The maximum amount payable for services under this Work Authorization without modification is \$141,060.00.
- 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 on <u>December 31, 2009</u>, 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.

COUNTY: Williamson County, Texas
By: Signature
Dan A. Gattis Printed Name
County Judge Title
09-05-08 Date
o/ 1/26/07

Exhibit D - Fee Schedule (based on approved rates in PSA Exhibit II executed by Commissioners Court action)

Exhibit B - Services to be Provided by Engineer

Exhibit C - Work Schedule

EXHIBIT A

SERVICES PROVIDED BY THE COUNTY

FOR

ENGINEERING PLANS SPECIFICATIONS & ESTIMATES (PS&E) RM 620 INTERIM IMPROVEMENTS PHASE II

IN WILLIAMSON COUNTY LEFT TURN LANES FROM CORNERWOOD TO WYOMING SPRINGS

This engineering scope includes the following major tasks:

- Project Management (Task 1)
- SUE & Utility Engineering (Task 2)
- Environmental Documentation (Task 3)
- Plans, Specifications and Estimates (Task 4)

Informational Services by County

The County/TxDOT will make the following available for Engineer access:

- Assist Engineer in obtaining property owner information from Williamson Co. Appraisal District and proposed development plans affected by RM 620 improvements
- Provide survey and utility locations obtained in the TxDOT funded RM 620 EA & Schematic in a timely manner to aid in design
- Provide cave mapping and Biological Assessment to be used in plan and document preparation

Coordination Services by County

- Advertise and publish legal notices for public or small group meetings
- Preside over public or small group meetings
- Provide assistant personnel for meeting registration
- Assist Engineer in obtaining property rights-of-entry for environmental and ground surveys.
- Review Engineer work progress, schedules, reports, preliminary/detailed plans, and cost estimates.
- Support project development with stakeholders such as agencies and the private sector.
- Coordination with Utilities

RM 620 Page 1 07/21/08

EXHIBIT B

SERVICES PROVIDED BY ENGINEER

FOR

ENGINEERING PLANS SPECIFICATIONS & ESTIMATES (PS&E)

RM 620 INTERIM IMPROVEMENTS PHASE II

IN WILLIAMSON COUNTY

LEFT TURN LANES FROM CORNERWOOD TO WYOMING SPRINGS

Scope of Services provided by Halff Associates, herein referred to as "Engineer" for Williamson County, herein referred to as "County", involves preparation of Plans, Specifications & Estimates (PS&E) associated with addition of continuous left turn lanes from Cornerwood to Wyoming Springs as well as a left turn lane on Great Oaks and an additional right turn lane (south bound) at O'Connor on the RM 620 Highway within the Cities of Austin and Round Rock, in Williamson County, Texas. Also includes providing two (2) plan set submittals as follows:

<u>Phase I</u> – Right Turn Lanes at Wyoming Springs, Oaklands and Deep Wood along with O'Connor Pedestrian Improvements:

<u>Phase II</u> – Right Turn Lanes at Cornerwood, Great Oaks and O'Connor along with Two Way Left Turn from Cornerwood to Wyoming Springs.

Project management services for the County will by provided by the County's "Contract Manager (PSI)", or its "Designated Representative (HNTB Corporation)." The completion of Services for Phase I is based upon original schedule. The completion of services for Phase II is based on the enclosed schedule.

Services will include the PS&E for only the Interim Improvements identified above. Service is based upon enclosed schedule from Notice to Proceed through Williamson County approval and TxDOT concurrence with roadway limits for RM 620 from Cornerwood to Wyoming Springs. Total centerline length is approximately 5,700 linear feet.

Engineer will coordinate with the offices of Williamson County, TxDOT, Capital Metro, City of Round Rock, and CAMPO.

TASK 1 - PROJECT MANAGEMENT AND COORDINATION (FC190)

Engineer, in association with the Williamson County Road Bond Manager, herein referred to as "Contract Manager", will be responsible for directing/coordinating all activities associated with redesigning RM 620 ("Project"). Engineer will generate and complete PS&E for the portion of RM 620 from Cornerwood to Wyoming Springs.

Engineer will coordinate with Williamson County, TxDOT and/or City of Round Rock on other projects affecting RM 620 within the corridor.

All design solutions will be coordinated with, and properly tie into, any other existing State and/or non-State project(s), either conceptual or ongoing, but not limited to SH 45, the O'Connor Road extension and the Great Oaks extension.

1.1 - Monthly Progress Reports, Invoices, and Billings

Engineer will adhere to Project schedule(s) and prepare Monthly Progress Reports. These Reports will include, but not be limited to:

- A. TASKS completed during the reporting period.
- B. TASKS/Objectives planned for upcoming periods with items and decisions needed from Client.
- C. Problems encountered and the actions to remedy them.
- D. Overall Project status, including a tabulation of TASK percentage complete, management schedule indicating Project development progress, and supporting documentation.

Engineer and sub-consultant invoices will be submitted to the Contract Manager.

Deliverables

- Progress Report (1 copy per Invoice/Billing).
- Invoices (1 copy per Billing).

1.2 - Coordination/Administration

Development and maintenance of effective communication between Engineer, Contract Manager, and other entities is essential to achieving successful/expedient Project completion. Engineer will oversee preparation of all documents and manage all Project activities:

- A. <u>Coordination</u>. All correspondence and coordination will be handled through, and with the concurrence of, the Contract Manager.
- B. <u>Lines of Communication</u>. Communications between the Engineer and the County is via the Contract Manager unless otherwise directed by the Contract Manager or County. Engineer shall designate one Texas Registered Professional Engineer as the Project (Services) Manager responsible for Project management and all Contract Manager Communications.
- C. <u>Administration</u>. Engineer will manage all Project activities (including scheduled/unscheduled meetings), direct Engineer's team/staff correspondence with County, and assist the County in preparing responses to Project-related internal/external inquiries.
- D. <u>Project Meetings</u>. Approximately 5 meetings involving Engineer are forecasted with external parties:

- 1) regional, local, state, and federal agencies/offices (1 meeting);
- 2) property owner(s) concerning Project issues/concerns/questions (1 meeting);
- 3) utility owners (1 meeting); and
- 4) elected officials, civic groups, etc., as needed or specified by the County (2 meetings).

When time and circumstances allow, Engineer will discuss as necessary any known meeting agendas with the Contract Manager prior to each meeting to ensure that released information is appropriate and correct. Project data collected will not be released to any non-County office and/or the public at-large without Contract Manager approval. Engineer will document all Project-related meetings attended by the Engineer and will forward meeting minutes to the Contract Manager unless meeting minutes are provided by another party. Engineer will maintain an ongoing, functional Catalogue of attendee names, dates, locations, names/telephone numbers/addresses, and all matters discussed.

- E. <u>Correspondence</u>. Engineer will submit all written materials, letters, survey forms, etc. used to solicit Project information, and/or collect data, to Contract Manager for review and acceptance before distribution to other parties. Copies of all outgoing correspondence and all incoming correspondence will be provided to Contract Manager on a minimum monthly basis. Correspondence and reports will bear the approved state/federal Project identification number(s) as determined appropriate by Contract Manager. All document processing will be prepared using Microsoft Word, version 7.0 or compatible Microsoft Word format. Any computer discs/diskettes utilized will be IBM compatible.
- F. <u>Agency Communication</u>. Project communication with other agencies will be processed by the County, unless otherwise instructed by Contract Manager in order to ensure all parties are internally aware of any Project decisions/conclusions.
- G. Release of Information. Release of Project-related information to non-County offices must be approved by Contract Manager. Any information released or distributed must be marked "Preliminary Subject to Change Without Notice" or "DRAFT" or similar disclaimer.
- H. <u>Document Printing and Distribution</u>. Engineer will be responsible for printing copies of all draft and final documents, reports, etc. produced for the Project unless otherwise defined by a specific Task described herein. Copies may be double-sided as agreed to by Contract Manager. The County office will be responsible for distribution of draft and final documents (excluding minutes) to agencies and organizations and when responding to public inquiries. The Engineer will provide documents to the County for posting on the County's internet database management system, as requested.
- I. <u>Service Completion.</u> Upon Project completion/finalization, Engineer will submit all original Project files, exhibits, etc. to the County. Copies of original Project files will be retained by Engineer for a minimum of three (3) years after submittal of originals to the County.
- J. <u>Evaluation</u>. Engineer performance, professionalism, quality of work, etc. may be subject to assessment by the County.

Deliverables

- All incoming correspondence (1copy).
- All outgoing correspondence (1 copy).
- Coordination (meeting) Catalogue (internal use only).
- Original (Project) files (1copy).

1.3 - Control/Scheduling

Engineer will prepare a detailed, colorized (11" x 17", if possible) graphic Project Schedule indicating Tasks/Subtasks, critical dates, milestones, deliverables, and agency reviews (timeframe) requirements. Project schedule will be in a format depicting the order and interdependence of the Tasks, Subtasks, milestones, and the deliverables specified herein. Progress will be reviewed monthly and should reviews indicate a substantial, justifiable change in progress, the schedule will be reviewed via Contract Manager - Engineer collaboration and updated as necessary.

Engineer will also prepare a less detailed, colorized (8 1/2" x 11"), graphic Project schedule with major Project milestones identified. This schedule should be dimensioned such that it is Microsoft Powerpoint-adaptable, readily reproducible, and understandable to the lay public.

Deliverables

- Reproducible, colorized/detailed Project Schedule (up to 8 copies per update).
- Reproducible, colorized/less detailed, Project Schedule (copied/presented as necessary for public distribution/information purposes).
- Project schedule update included with each design submittal

1.4 - Subconsultant Management

Engineer will engage subconsultant(s) via contact(s), monitor and manage subconsultant activities (staff and schedule), and review and recommend payment of subconsultant invoices/billings. Subconsultant Progress Reports, Invoices, and billings will be incorporated into Subtask 1.1.

Deliverables

- Subconsultant Contracts (2 copies with related attachments).
- Subconsultant Progress Reports (1 copy per invoice).
- Subconsultant Invoices (1 copy).

1.5 - Quality Assurance/Quality Control

Engineer is expected to conduct internal and comprehensive quality assurance/quality control reviews throughout Project development in order to appraise design, technical and business performance and provide real-time direction and objective solutions.

TASK 2 - SUBSURFACE UTILITY ENGINEERING (FC 150)

2.1 - Level A Subsurface Utility Engineering (SUE)

- Right of Entry If needed, right of entry will be provided by Williamson County. Halff will
 coordinate with the property owners once right of entry has been obtained.
- Designating Halff will designate the existing utilities for the purpose of marking the test
 hole locations using geophysical prospecting equipment and mark with paint and/or pin
 flags at locations specified below. Halff will perform SUE in accordance with ASCE
 CI/ASCE 38-02 "Standard Guideline for the Collection and Depiction of Existing
 Subsurface Utility Data." Halff's services will be performed in a manner consistent with
 that degree of skill and care ordinarily exercised by members of the same profession
 currently practicing under similar circumstances.
- Locating (Vacuum Excavation) Fourteen (14) test holes will be performed on the following utilities:
 - o AT&T at STA 411+50, 415+50, 441+50, 443+50, 446+50, 323+76, and 385+00 (7 test holes)
 - o ATMOS at STA 414+50, 324+00, 325+19 (4 test holes)
 - o Brushy Creek Mud at STA 351+34 (2 test holes)
 - o City of Round Rock at STA 383+50 (1 test hole)

Halff will dig a 12" x 12" test hole, record the depth, backfill and compact the hole, and restore the surface to its original condition. An iron rod with cap or "x-cut" will be set to mark the location of the test hole.

- Surveying The test holes will be surveyed and tied to the project survey control using existing established control for the project.
- Project Manager/Professional Engineer A Project Manager will be on-site for a portion
 of this project for field crew supervision, field quality control, and coordination with onsite personnel. A Professional Engineer will be responsible for QAQC, management of
 the contract, sealing the final deliverables, and coordination with Williamson County.
- SUE Deliverables/CADD An 8.5"x11" test hole data form will be completed and submitted to Williamson County for each hole performed indicating depth, size, condition, and material of the utility. Electronic files will also be provided in Microstation format.
- Traffic Control Halff will provide routine/ordinary traffic control consisting of cones and free-standing signage for this project. It does not include lane closure(s), flag person(s), arrow board(s), and changeable message board(s). If unique traffic control situations are required, Halff will prepare a Supplemental Agreement and submit for approval to Williamson County.

2.2 - Utility Engineering

Halff Associates, Inc. shall perform all Utility Adjustment Engineering services for approximately six (6) utilities as listed below:

Underground

- AT&T Telephone
- AT&T Fiber Optic Cable
- City of Round Rock Water
- Brushy Creek MUD Water

- Atmos Energy Gas
- ONCOR- Electric

The work to be performed by the Engineer under this contract shall consist of providing engineering services required for Utility Engineering on the RM 620 Phase 2 Project. These services include all utility adjustment engineering activities including but not limited to, meeting and contact with all utilities on the project, initial project notifications, preparation of existing utility layouts, providing progress reports, preparation of contact lists, reviewing conflicts between the utilities and the proposed project, resolutions of all utility conflicts, creation of a utility conflict list, creating a utility tracking report, review of all of the proposed utility adjustments, and recommending the proposed locations of the utility adjustments. The above list of services is general in nature and should not be considered inclusive to the engineer's responsibilities, as listed in the following scope.

- 2. <u>Utility Engineering</u> including the identification of utility conflicts, coordination, compliance with Williamson County's Design Criteria Manual, and resolution of utility conflicts. The Engineer shall coordinate all activities with Williamson County, or their designee, to facilitate the orderly progress and timely completion of the design phase.
 - 2.1. Coordination of engineering activities include:
 - 2.1.1. Utility Layout: The Engineer shall maintain a utility layout in the latest version of Microstation used by Williamson County. This layout shall include all existing utilities which are to remain in place or be abandoned, and all adjusted utilities. This layout will be utilized to monitor the necessity and evaluate alternatives. The Engineer's registered Professional Engineer (P.E.) will utilize the layout of existing utilities as prepared, if available, and make a determination of the following:
 - 2.1.1.1. Facilities in conflict with the proposed project that are to be relocated.
 - 2.1.1.2. Facilities to be abandoned in place.
 - 2.1.1.3. Facilities to remain in service and in place,
 - 2.1.1.4. The Engineer's P.E. shall be responsible for determining if there are additional facilities, not shown in the Subsurface Utility Engineering (SUE) documents, which require relocation. The Engineer shall coordinate this information with Williamson County immediately upon discovery.
 - 2.2. Public & Individual Meetings with Utility Companies, as required, to facilitate utility conflict identification and resolution (approximately 4 public utility meetings and 8 individual utility meetings).
 - 2.2.1. Progress Meetings: Meet with Williamson County periodically to coordinate the work effort and resolve problems and prepare a written report of such meetings. The meetings will review:
 - 2.2.1.1. Activities completed since the last meeting
 - 2.2.1.2. Problems encountered.
 - 2.2.1.3. Late activities.
 - 2.2.1.4. Activities required by the next progress meeting.
 - 2.2.1.5. Solutions for unresolved and/or anticipated problems.
 - 2.2.1.6. Information or items required from other agencies/consultants.
 - 2.3. Review of Utility's Proposed Adjustments
 - 2.3.1. Evaluate Alternatives: The Engineer's P.E. will evaluate alternatives in the adjustment of utilities balancing the needs of both Williamson County and the Utility.
 - 2.3.2. Review Plans for compliance with Williamson County's Design Criteria Manual and proposed location data. This proposal includes reviewing two sets of

relocation plans per utility company. The responsibility for quality and accuracy of Utility adjustment plans will remain with the Utility Company.

- 2.4. Prepare a <u>Proposed Utility Layout</u> in the latest version of MicroStation used by Williamson County that can be overlaid on the base file and determine the following;
 - 2.4.1. All facilities conflicts have been resolved.
 - 2.4.2. All stakeholders have concurred with the various alignments.
 - 2.4.3. Establish the sequence of construction for all utility relocation work, whether it is included as a part of the roadway construction or not.
 - 2.4.4. Determine which utilities will be built as part of the contract.
 - 2.4.5. Determine which facilities will be relocated prior to construction.
- 2.5. Coordinate, develop and/or review PS&E for all utilities including the ones in the construction contract.

Deliverables:

- Existing Utility Layout & Electronic CD-Micro station compatible or Cad format
- Test Hole Data Sheets & Electronic CD-Micro station compatible or Cad format
- Draft Proposed Relocation Utility Layout & CD-Micro station compatible or Cad format
- Approved Proposed Relocation Utility Layout & CD-Micro station compatible or Cad format
- Easements of Record Spreadsheet
- Master Utility Contact List
- Utility Tracking Report (UTR)
- Meeting minutes (delivered electronically) for approximately 16 meetings
- Utility Coordination Meeting Checklist
- Review Comments Forms
- Utility Design Review Submittal Log
- Utility Completion Checklist
- Monthly invoices and progress reports

TASK 3 -ENVIRONMENTAL ASSESSMENT PREPARATION (FC 120)

3.1 - Specific Resource Studies

Details concerning certain resource studies are provided below:

- Coordination with SWCA Threatened and endangered species have been identified in the project area. There are several known caves that harbor endangered species in the project vicinity and at least two caves are likely to be impacted by the proposed project. Determining wildlife habitat will include coordination with the TCEQ and U.S. Fish and Wildlife Service (USFWS). USFWS may require excavation of several mapped surface features to determine what kind of subsurface structure is present and to determine impacts to Edwards Aquifer water quality and endangered karst species. It is our understanding that the County (or it's agents) will handle all cave investigations and mapping. This scope includes the coordination and meetings required to support SWCA with the USFWS and TCEQ.
- Cultural Resources The Engineer has researched the intersections (O'Connor Drive, Great Oaks Drive, and Cornerwood Drive) associated with the earlier project APE to identify known eligible and listed NRHP sites, State Archaeological Landmarks, State Historical Markers, and structures of 50 years of age or older. Additional research will be required for the additional APE associated with the proposed continuous left turn lane due to the increased project area. The 2005 RM 620 Feasibility Study identified several areas that may require intensive archeological survey within the new APE. Identified resources will be photographed, described, and mapped. Field surveys will describe previously disturbed areas within the archeological APE. The Engineer will complete the inventory and assessment requirements of Federal Section 106 process and the Texas Antiquities Code. Appropriate information will be furnished to the Engineer.

TASK 4 - CONSTRUCTION PLAN PREPARATION (FC 160)

The task entails developing the plans, specifications and estimates (PS&E) for designing continuous left turn lanes on RM 620 from Cornerwood to Wyoming Springs as well as a left turn lane on Great Oaks to east bound RM 620 (excludes retaining walls, signal modifications, landscape and irrigation design) and an additional right turn lane (south bound) at O'Connor and RM 620 within Williamson County. Also includes providing two (2) PS&E packages as follows: Phase I — Right Turn Lanes at Wyoming Springs, Oaklands and Deep Wood along with O'Connor Pedestrian Improvements (from previous Work Authorizations); Phase II — Right Turn Lanes at Cornerwood, Great Oaks and O'Connor (from previous Work Authorizations) along with Two Way Left Turn from Cornerwood to Wyoming Springs. Since Phase I does not add any design, no additional scope or fee is provided. For Phase II, additional scope and fee is provided at the 90% and 100% levels since previous submittals of 30% and 60% have already been accounted for under the original work authorization. However, a 60% resubmittal will be provided. This task will conform to the current version of the Roadway Design Manual. Certain tasks will be subcontracted to the traffic signal consultant and geotechnical consultant.

4.1 Plan Submittal – 90% (Phase II)

This task includes preparation of plans to a 90% level and includes design of the following general items: traffic control, roadway, pavement, drainage, traffic signals, pavement markings and signage plans, erosion control, and cross sections. This task also includes preparation of the construction documents to meet Williamson County Road Bond 2006 criteria. This task will provide the basic services as described later in this section: 1-10, 12-16, 18-29, 37-38, 41.

4.2 Plan Submittal – 100% (Phase II)

This task includes preparation of plans to a 100% level (final plans) and includes design of the following general items: traffic control, roadway, pavement, drainage, traffic signals, pavement markings and signage plans, erosion control, and cross sections. This task also includes preparation of the construction documents (final) to meet Williamson County Road Bond 2006 criteria. This task will provide the basic services as described later in this section: 1-10, 12-16, 18-29, 37-38, 40-41.

4.3 Bid Phase Services

This task includes items to aid the County during advertisement of the project for bid. Also includes attending and providing materials for the pre-bid, bid opening and pre-construction conference as provided in the basic services described later in this section: 30-34, 39.

The proposed scope of basic services is based on the following assumptions and/or qualifications:

- The proposed facilities to be designed will be in general conformance with those shown on the conceptual design of Alternative B Interim Improvements identified by Halff under a contract with the County.
- The entire design package will be developed in two (2) PS&E packages as described above. Further project programming beyond that described is not included in the proposed scope of services.

- 3. Halff will coordinate the design of the proposed facilities with the County, City of Round Rock, City of Austin, and TxDOT.
- 4. It is anticipated that other adjoining projects will be concurrently designed and will be included in the design process (by others).
- 5. Halff and all subconsultant personnel will be trained in proper safety procedures prior to entering TxDOT right-of-way.
- 6. Halff will conduct general field reconnaissance and collect data including a photographic record of pertinent notable existing features that potentially affect the design of the proposed improvements. Halff does not warrant the field reconnaissance efforts will identify all existing features and/or conditions that could potentially affect the design of the proposed improvements.
- 7. Halff's sub-consultant will provide geotechnical services to determine existing pavement structures and recommend a compatible pavement design.
- 8. The design of the proposed traffic signals and temporary (work zone) traffic signals at Cornerwood and O'Connor will use existing and projected traffic data, including intersection movements done by Wilbur Smith in 2005. Halff will revise intersection geometry, as applicable, to comply with traffic signal designs and anticipated traffic queues (see attached scope and fee). Design of signal preemption is not included in the proposed scope of services.
- 9. Halff will conduct utility engineering meetings and be responsible for tasks associated with identifying relocation of utilities in conflict with construction as part of the design phase.
- Halff will develop removal Items layouts and details depicting existing facilities to be removed.
- Scope of services does not include the design of ITS facilities for the ultimate RM 620 corridor build-out, however Halff will incorporate to the project documents layouts and sizes of conduits required for future ITS facilities if so provided by County/TxDOT.
- 12. Halff will perform hydraulic calculations for the storm sewer design required for the turn lane additions, such as enclosing the ditches within a culvert in order to minimize the right-of-way need. Halff will model hydraulic impacts to existing outfall channels to determine their adequacy for conveyance of design storm event and notify County of any identified deficiency in available capacity.
- 13. Halff will develop a proposed construction sequence scheme based on discussions with County, City, and TxDOT. The construction sequence will depict the phased construction of the proposed facilities and the required maintenance of traffic movements in each phase, including public intersections and critical private driveways. This scheme will be presented to said entities for review and evaluation. The scheme will be modified to reflect received feedback while attempting to satisfy potentially competing goals. This revised scheme will be presented to said entities for review and evaluation and again modified as deemed appropriate. Once approval of the construction sequence by County and TxDOT is obtained, detailed development of the Traffic Control Plans will commence. Thereafter, any revisions caused to the Traffic Control Plans by changes to the construction sequence requested by any governing entities (except for Halff's error or omission) are not included in the proposed scope of services. Review of alternate construction sequence/traffic control plans proposed by the contractor is not included in the proposed scope of services.
- 14. Halff will design temporary drainage facilities to correspond with the Traffic Control Plans. Temporary retaining wall layouts and details are not anticipated and are not included in this scope of work.
- 15. Halff will develop SW3Ps to conform to the phased construction of the proposed facilities as depicted on the Traffic Control Plans.

- 16. Determination of quantities for removal of existing pavement markings will be based on record plans and windshield survey only. Halff will field inventory existing signs and overhead sign structures affected by the proposed construction.
- 17. Design of safety illumination and lighting facilities is not included in the proposed scope of services.
- 18. Design plans will be developed using the MicroStation V8 platform.
- 19. Since existing plans have been submitted at 30% and 60%, a 90% and 100% (Final) design submittal shall be included. A completed check list shall be submitted w/ each package submittal. Submittals shall be 11"x17" in .pdf format and three (3) hard copies, unless otherwise directed, and posted to the County's Internet project management database. The project construction manual, also in hard copy and .pdf format, shall be included with the 90% & 100% submittals, and furnished as part of the bid documents.
- 20. Halff will coordinate with TxDOT to obtain TxDOT's master list of general notes and specification data, to be modified as needed by Halff to comply with project-specific conditions. Halff will coordinate with TxDOT to prepare final general notes and specification data sheets for insertion to the final PS&E.
- 21. Halff will compute and tabulate quantities and prepare the statements of probable construction cost using TxDOT bid items and descriptive codes at the 90 and 100 stages. Halff will coordinate with Williamson County to prepare final estimate and quantity (consolidated summary) sheets for Insertion to the final PS&E.
- 22. Halff will coordinate with County for determining particular needs for, developing applicable provisions, and including accelerated construction strategies in the construction contract documents. Calculating road user costs, etc. is not included in the proposed scope of services.
- 23. Halff will coordinate with County to develop contract documents, etc. as is customary for projects being let through the County letting process.
- 24. Submittal of project documents to the Texas Department of Licensing and Regulation (TDLR) is included in the proposed scope of services (excludes TDLR fees). Halff will design proposed pedestrian facilities in compliance with TxDOT and/or County standards and details which should be ADA/TDLR compliant.
- 25. Design/Geopak cross sections will be developed at 50' station locations along roadway improvements. Cross section reports including design surface and existing surface point data (modified to reflect removal of existing pavement structures based on record plan information), in XYZ format, will be extracted from these cross sections and provided to County and TxDOT.
- 26. Earthwork quantities determined from design/Geopak cross sections will reflect removal of existing pavement structures based on record plan information.
- 27. Halff will develop the construction time estimates and schedules based on TxDOT's time estimating procedure and production rates applicable to the Austin District and will be included with the 90/100 submittals.
- 28. Halff will coordinate with the various approving agencies/entities to obtain approval/concurrence signatures on the plans cover sheets. The County and/or TxDOT will provide assistance with the acquisition of signatures if Halff's efforts to acquire same meet opposition.
- 29. Halff will prepare and submit structural design calculations records for major facilities at contract completion.
- 30. Halff will attend one (1) pre-bid meeting and prepare documents required for that meeting.
- 31. Halff will answer contractor questions as needed and issue addendums as directed by the County during the bid process of the project.
- 32. Halff will prepare the construction contracts (Project Manual) for execution and provide the number of copies requested (minimum 4) for the pre-construction conference.

- 33. Provide tabular form of bids received and recommend contractor to award for the County.
- 34. Halff Associates' project manager and assistant will attend one (1) pre-construction meeting. No significant preparation for the pre-construction meetings is included in the proposed scope of services.
- 35. Reviews of shop drawings for proposed facilities submitted by the contractor are not included in the proposed scope of services.
- 36. Addressing County and contractor-initiated requests for information (RFIs) related to the Halff-developed construction documents is not included in the proposed scope of services.
- 37. Halff will coordinate with County and TxDOT to obtain a sample project which will be used as a model for level of detail and format purposes upon which the subject project will be patterned.
- 38. Halff will develop the PS&Es for the projects in accordance with the design schedule.
- 39. Halff will provide assistance to County during the letting process.
- 40. All contract documents, including hard copies and electronic files, shall be turned over to the County at the completion of the project. Contract documents shall be posted to the County's Internet project management database as requested.
- 41. Engineer will attend a comment resolution meeting following each design review.

The following items are <u>excluded</u> from the proposed scope of services offered under this proposal:

- 1. Attending Value Engineering sessions.
- 2. Preparing and submitting the notice of intent (NOI) for SW3P activities to the appropriate agencies.
- 3. Performing public involvement and other NEPA documentation and preliminary engineering services (beyond tasks identified above).
- 4. Preparing "as-built" plans.
- 5. Providing construction inspection and construction administration/support services.
- 6. Providing "full size" plots/prints of construction plans.
- 7. Exposing and tying existing underground utilities/facilities (beyond tasks identified above).
- 8. Researching private drainage systems and incorporating same into proposed drainage facilities design.
- 9. Developing alternate facilities designs (i.e. steel superstructure and concrete superstructure for bridges, etc.).
- 10. Reviewing and evaluating alternate designs proposed by contractor.
- 11. Performing forensic pavement analyses.
- 12. Performing roadway capacity and level of service analyses (intersection analyses are included). Performing traffic impact studies (beyond tasks identified above).
- 13. Designing landscaping and irrigation/sprinkler facilities.
- 14. Designing hardscape (enhanced flatwork) facilities.
- 15. Designing noise abatement facilities.
- 16. Developing wetland, tree, etc. mitigation plans/designs.
- 17. Designing pavement structure drainage systems.
- 18. Designing storm water pump stations.
- 19. Coordinating design with FEMA. Preparing LOMR/CLOMR.
- 20. Designing public and/or franchised utility adjustments or systems.
- 21. Preparing and submitting quantity calculation backup/records.
- 22. Confirming and resetting project control monumentation if disturbed by others (i.e. utility companies, mowing operations, etc.).
- 23. Providing right-of-way acquisition services (i.e. property valuations, damages assessments, condemnation assistance/services, negotiations, relocation assistance, property management, serving as right-of-way agent, etc.).
- 24. Design of improvements/modifications to private facilities (i.e. sprinkler systems, security systems, parking facilities, temporary perimeter fences, etc.) to accommodate the proposed improvements.
- 25. Iterating design tasks, or portions thereof, after a design issue consensus has been reached or due to receipt of instructions or information contrary to previous directives and information or due to revisions in design criteria.
- 26. Bridge design over Jackhammer Cave between Cornerwood and Great Oaks (assumes the cave will be considered a 'take' and mitigation will be achieved by utilizing the County's cave mitigation bank in the Regional Habitat Conservation Plan).

ANY ADDITIONAL SERVICES REQUIRED BEYOND THOSE SPECIFICALLY IDENTIFIED IN THIS PROPOSAL ARE BEYOND THE SCOPE OF SERVICES TO BE PROVIDED UNDER THIS PROPOSAL. ANY REQUIRED ADDITIONAL SERVICES WILL BE SEPARATELY IDENTIFIED AND NEGOTIATED AND SUCH ADDITIONAL SCOPE AND COMMENSURATE FEE WILL BE EXECUTED/AUTHORIZED UNDER A SUPPLEMENTAL AGREEMENT TO THIS PROPOSAL/CONTRACT.

Consultant/Engineer will provide all equipment, material, labor and supplies (except as shown on EXHIBIT A) necessary to accomplish the Project Tasks.

The work will be performed in accordance with, but not limited to, the following manuals and standards:

- 1. Williamson County Road Bond Program Design Criteria, latest edition.
- Standard Specifications for Construction of Highways, Streets, and Bridges, 2004 -TxDOT.
- 3. Bridges and Structures Operation and Planning Manual TxDOT.
- 4. Bridges and Structures Hydraulic Manual TxDOT.
- 5. Bridges and Structures Design Examples TxDOT.
- 6. Standard Specifications for Highway Bridges AASHTO.
- 7. TxDOT Roadway Design Manual.
- 8. TxDOT Environmental Manual.
- 9. A Policy on Geometric Design of Highways and Streets, 2004 AASHTO.
- 10. Highway Capacity Manual Special Report 209 Texas Research Board (TRB)
- 11. Technical Advisory T6640.8A FHWA.
- 12. Noise Guidelines TxDOT.
- 13. Air Quality Guidelines TxDOT.
- 14. Texas Manual on Uniform Traffic Control Devices TxDOT.
- 15. Standard Highway Sign Designs for Texas TxDOT.
- 16. Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals AASHTO.
- 17. Utility Accommodation Policy TxDOT.
- 18. Utility Manual TxDOT.
- 19. Code of Federal Regulations, Title 23 "Highway" Federal Register.
- 20. Administrative Order No. 5-89 Signing, Sealing and Dating of Engineering Documents. TxDOT.
- 21. Administrative Circular No. 26-91 Minimum Signing, Sealing and Dating Procedures for Department Engineering Documents TxDOT.
- 22. Guide for the Development of Bicycle Facilities, 2002 AASHTO.
- 23. Guide for the Design of High Occupancy Vehicle Facilities, 2001 AASHTO.
- 24. Code of Federal Regulations, Title 49 "Transportation" Federal Register.
- 25. Right-of-Way Manual TxDOT.
- 26. U.S. Army Corps of Engineers Wetland Delineation Manual of 1987.

NOTES: (1) All designs shall be in accordance with the above references, except where variances are permitted in writing by the State or FHWA.

(2) Engineer is responsible for purchasing all reference items/manuals required to complete Project TASKS/Subtasks.

EXHIBIT C

SCHEDULE OF SERVICES PROVIDED BY ENGINEER

FOR

ENGINEERING PLANS SPECIFICATIONS & ESTIMATES (PS&E)

RM 620 INTERIM IMPROVEMENTS PHASE II IN WILLIAMSON COUNTY

LEFT TURN LANES FROM CORNERWOOD TO WYOMING SPRINGS

The schedule for the Wyoming Springs, Oaklands and Deepwood turn lanes along with the O'Connor pedestrian improvements will adhere to the original Work Authorization and Supplemental (1) schedule. The proposed additional services schedule for Cornerwood, Great Oaks and O'Connor along with the two-way left turn from Cornerwood to Wyoming Springs will adhere to the HNTB schedule for RM 620. The scope of work assumes that the HNTB schedule provides the following design durations:

60% Resubmittal – 30 Days 90% Submittal – 60 Days 100% Submittal – 30 Days

EXHIBIT D

FEE SCHEDULE OF SERVICES PROVIDED BY ENGINEER

FOR

ENGINEERING PLANS SPECIFICATIONS & ESTIMATES (PS&E) RM 620 INTERIM IMPROVEMENTS PHASE II

IN WILLIAMSON COUNTY

LEFT TURN LANES FROM CORNERWOOD TO WYOMING SPRINGS

EXHIBIT "D" RM 620 PS+E FOR INTERIM IMPROVEMENTS Work Authorization #3

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		BASE BALARSES & RESIGNS TOTAL	\$4,340	\$11,100	\$11,610	\$38,654	\$24,640	\$4,578	\$9,648	\$10,B58	\$854		\$114,340	\$1,794	\$650	\$24,277	\$141,060
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TOTAL FEE \$114,340 \$1,794 \$650 \$24,277 \$141,06		TOTAL BY CATEGORY	4%	10%	10%	32%	22%	4%	8%	9%	1%		\$114,340	\$1,794	\$650	\$24,277	\$141,060
107AL FEE \$114,340 \$1,794 \$650 \$24,277 \$141,06															ļ	-	
107AL FEE \$114,340 \$1,784 \$650 \$24,277 \$141,06	,			—	 					—							
3119,340 \$1,794 \$550 \$24,277 \$141,00	1	TOTAL SEC											*404 91-	84.704	***		\$144 nen
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