

Memorandum

To: Honorable Mayor Bill Agan and members of the Richland Hills City Council
From: Jason Moore, Assistant to the City Manager
Date: February 2, 2016
Subject: Baker Blvd Intersection Project - Change Order and Amendment to Contract

Council Action: Authorize the City Manager to execute a change order and contract amendment with Halff Associates in an amount not to exceed \$92,700.

Background Information: Due to additional design services required and modifications to the original scope for the Baker Blvd intersection project, a change order is needed to compensate Halff Associates for their additional efforts. Attachment “A” provides a thorough description of those changes.

In October 2015, city staff worked with the consultant and TxDOT in applying for additional federal funding for this project. To date, the requested funds have been approved at the various levels and will be submitted to the Regional Transportation Council for final approval in February. Due to savings in Right-of-Way acquisition, from the original budget number, we were able to shift those funds over to engineering to cover these expenses. The grant funding still provides a 80/20 (federal/local) split. The city pays the engineering services up front and then requests reimbursement from TxDOT for the 80% match.

This project is still on schedule to let this August 2016, with construction beginning in September/October 2016.

Board/Citizen Input: N/A

Financial Impact: \$92,700 (\$74,160 federal & \$18,540 local) for engineering services

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Attachments: Attachment “A”; & Attachment “B”

**City of Richland Hills, Texas
Baker Blvd. (SH-183) Intersection Improvements**

Change Order and Amendment to Consultants Contract

**Attachment "A"
Scope of Work**

This Attachment "A" further defines the additional services to be performed by Halff in conjunction with the design and construction of the Baker Blvd. (SH-183) Intersection Improvements.

The following is a formal scope of services for additional effort which has been necessary to complete the schematic and ROW documentation tasks for the Baker Boulevard (SH 183) Intersection Improvements project at Handley-Ederville, Ash Park/Vance Drive, and Rufe Snow Drive.

General Description

The original scope of work for this project included designing improvements to the three intersections along Baker Boulevard listed above for a distance of approximately 600 feet east and west of the intersection. Improvements included curb and gutter, sidewalk, and the addition of right turn lanes where warranted by traffic. Improvements also included the re-alignment of Ash Park Drive on the south side of Baker Boulevard to match up with Vance Road on the north side of Baker Boulevard. The re-alignment will allow for the removal of the offset signalized intersection and provide a true "cross" intersection.

In coordination efforts with TxDOT and the City of Richland Hills, it was determined that it would be beneficial to expand the improvements of the curb and gutter and sidewalk beyond the limits of the intersections and look at this as a corridor rather than intersections. Continuous sidewalks and curb and gutter was requested from Rufe Snow Drive to Handley-Ederville Road.

Furthermore, TxDOT and the City of Richland Hills requested that improvements west of Rufe Snow Drive (600-feet) and east of Handley-Ederville Road (600-feet) be removed to allow for the cost increase caused by the additions.

A corridor schematic was required to show the proposed improvements which was beyond the original scope of work which included only intersections. Additional design survey work was necessary in order to complete the base file for the corridor from Rufe Snow Drive to Handley-Ederville Road. Additional Right-of-Way determination effort was necessary to locate and set the existing right-of way through the entire corridor. Additional schematic design effort was

necessary to evaluate impacts of installing curb and gutter as well as locating sidewalk to avoid impacts to ditches, parking areas, etc.

Lastly, in meeting with TxDOT and the City of Richland Hills, TxDOT requested that subsurface utility engineering and maps be completed throughout the corridor to identify potential conflict locations.

Additional Services

The additional services included in this agreement are as follows:

A. Project Coordination

Due to the significant time in which it has taken to get approval of the schematic phase, Halff has completed additional coordination efforts and attended meetings not included in the initial scope of work. Halff has attended at least nine (9) meetings between TxDOT and the City of Richland Hills.

B. Schematic Design & Design Phase Services

In the original scope and fee, Halff listed the assumptions for the project design. One of the assumptions stated that the schematic would not be necessary for the entire project corridor from Rufe Snow Drive to Handley Ederville Road. The original scope of work was prepared to provide schematic design within 600 feet in each direction of the three intersections. As discussed above, the schematic limits were revised to include the entire corridor of Baker Boulevard from Rufe Snow Drive to Handley-Ederville Road. Additional efforts are also necessary during the design phase services to reflect the additional project limits.

Additional effort included:

1. Preparation of corridor schematic map.
2. Layout of additional sidewalk.
3. Layout of additional curb and gutter.
4. Layout of new driveway locations based on curb and gutter section.
5. Preparation of Geopak Site Model for additional improvements to determine drainage impacts and potential areas needing a retaining wall.
6. Preparation of additional plan sheets for the construction plan document for roadway, drainage and traffic control.

C. Surveying

The original scope and fee included only survey for the portion of the roadway within 600' of the each intersection. Additional design survey was completed to obtain topographic information throughout the project corridor. The services included the following tasks:

1. Obtaining complete and accurate topographic information along the corridor filling in the gaps between the intersections described above. The field survey included existing edges of pavement, sidewalks, property corners and pins, fences, trees, landscaped areas, manholes, storm sewer inlets and outfalls, evidence of underground and overhead utilities, and other improvements.
2. Provided all field surveys necessary to determine the limits of existing right-of-way and/or easements.
3. Provided horizontal and vertical control monuments at approximately 500 feet intervals along the project route.
4. Constructed existing topographic digital terrain model (DTM) for the full corridor.

D. Right-of-Way Determination

The original scope of work for this project included only preparation of right-of-way maps at the location of the property taking. TxDOT requested that right-of-way maps also be prepared throughout the limits of the project corridor. Additional efforts were necessary outside of the original scope of work to prepare these maps throughout the corridor. The right-of-way maps were prepared for the full corridor from Rufe Snow Drive to Handley-Ederville Road which included the following:

1. Property owner name, mailing address, and volume and page of deed
2. Location of all existing property pins and monuments.
3. Topography of land
4. Lot, Block and Subdivision
5. Roadway centerline
6. Existing rights of way, property lines and natural boundaries
7. Bearings and calls of existing and proposed property lines
8. Location of proposed easement or right of way pins
9. Area of Parcel
10. Parcel number

E. Subsurface Utility Engineering (SUE)

TxDOT requested that Subsurface Utility Engineering (SUE) be performed throughout the corridor of Baker Boulevard from Rufe Snow Drive to Handley Ederville Road. The City has good record of their utilities, so this additional effort is for locating franchise utilities.

Halff will perform SUE in accordance with ASCE CI/ASCE 38-02 “Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data.” This standard defines the following Quality Levels:

Quality Level A: Precise horizontal and vertical location of utilities obtained by the actual exposure (or verification of previously exposed and surveyed utilities) and subsequent measurement of subsurface utilities, usually at a specific point. Minimally intrusive excavation equipment is typically used to minimize the potential for utility damage. A precise horizontal and vertical location, as well as other utility attributes, is shown on plan documents.

Quality Level B: Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate horizontal position of subsurface utilities. Quality Level B data should be reproducible by surface geophysics at any point of their depiction. This information is surveyed to applicable tolerances defined by the project and reduced onto plan documents.

Quality Level C: Information obtained by surveying and plotting visible above-ground utility features and by using professional judgment in correlating this information to Quality Level D information.

Quality Level D: Information derived from existing records or oral recollections.

Locating (Vacuum Excavation) – Level A

Locating is not included under this task.

Designating – Level B

Halff will designate tonable subsurface utilities using geophysical prospecting equipment and mark with paint and/or pin flags within the apparent existing right-of-way along Baker Blvd. from Rufe Snow Drive to Handley Ederville Road. We anticipate designating approximately 40,000 linear feet of utilities including gas, electric, telephone, and fiber optic. Designating water, wastewater, storm sewer, irrigation lines, asbestos concrete and/or pvc lines, as well as pvc lines without tracer wire or access is not included in this proposal.

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. Because of limited record information, Halff cannot guarantee that all utilities will be found and marked on the project.

Surveying – Level C

The designating work (paint marks, pin flags, and all above ground utility appurtenances) will be surveyed and tied to the project survey control.

Records Research – Level D

Available Records will be provided by the City. Halff will perform additional record research as needed to successfully complete the project.

SUE Field Manager / Professional Engineer

A SUE Field Manager will be on-site for a portion of this project for field crew supervision, field quality control, and coordination with on-site personnel. A Professional Engineer will be responsible for QA/QC, management of the contract, sealing the final deliverables and coordination with the project team.

SUE Deliverables / CADD

Deliverables for the designating portion of this project will include color plots containing the horizontal locations of the designated utilities. The utilities will be overlaid onto the base map. Electronic files will also be provided in Microstation and/or AutoCAD format along with PDFs.

Right-of-Entry

Right-of-entry is not included under this task as work is anticipated within the right-of-way. If right-of-entry is required, it will be performed and provided to Halff by the City. Halff will coordinate with property owner(s) once right of entry has been obtained.

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), changeable message board(s), or the preparation of engineered traffic control plans. If unique or additional traffic control situations are required, Halff will prepare a Supplemental Agreement and submit for approval to the City.

**City of Richland Hills, Texas
Baker Blvd. (SH 183) Intersection Improvements**

**Attachment "B"
Basis of Compensation**

This Attachment "B" further defines the additional basis of compensation to the Consultant for the services rendered.

A. Basic Services

1. The basic fee for the design services as described in Attachment "A" will be a lump sum fee of **\$53,300**, for additional efforts necessary to complete the schematic design and design phase services for the project corridor. This includes printing and direct costs normally associated with production of these services.

The basis of compensation for design services shall be as follows:

Design Services will be billed lump sum.

B. Special Services

1. The maximum not-to-exceed fee for the special services as described in Attachment "A" will be **\$39,400**, for additional efforts towards project coordination, surveying and right-of-way determination. This includes printing and direct costs normally associated with production of these services.

All special services will be billed lump sum.

The following table summarizes special services fees.

Special Services Summary

Task	Fee
Project Coordination	\$3,400
Surveying	\$4,600
Right of Way Determination	\$5,400
Subsurface Utility Engineering	\$26,000
Total Special Services	\$39,400

The total maximum fee for all services is **\$92,700**.

No.	Task	PIC \$194.81	PM \$127.25	Sr. CE \$121.61	Mid CE \$97.45	EIT \$81.08	Jr. CADD \$54.32	Clerical \$58.37	RPLS \$155.70	Surv Tech \$75.00	2-Man Crew \$132.80	Designating 1-Man \$70.00	Designating 2-Man \$140.00	SUE Field Man. \$115.00	SUE PM \$185.00	Subtask Subtotal	"Sub"	Subtask Total	
A	Project Coordination		24		4											\$3,443.80		\$3,443.80	
	Task Total																		\$3,443.80
B	Schematic Design & Design Phase Services	6	60	90	100	160	200									\$53,330.56		\$53,330.56	
	Task Total																		\$53,330.56
C	Surveying						4		2	8	26					\$4,581.48		\$4,581.48	
	Task Total																		\$4,581.48
D	Right-of-Way Determination		6				24		6	14	10					\$5,379.38		\$5,379.38	
	Task Total																		\$5,379.38
E	Subsurface Utility Engineering								4	48	24	24	80	40	6	\$26,000.00		\$26,000.00	
	Task Total																		\$26,000.00
	Project Total Fee																		\$26,000.00
	Total Hours	6	90	90	104	160	228	0	12	70	60	24	80	40	6				\$92,735.22