

Supplemental Services Amendment No. 3 to Design of Streambank Stabilization for Timber Creek – Phase 2 Professional Services Agreement

The Professional Services Agreement for Design of Streambank Stabilization for Timber Creek – Phase 2 between the City of Lewisville (the “City”) and Halff Associates, Inc. (the “Consultant”), dated December 18, 2017 (the “PSA”), is hereby amended to provide supplemental professional services in connection with the Design of Streambank Stabilization for Timber Creek – Phase 2, including preparation of construction plans for stream and storm drain outfall improvements from Valley Vista Estates along West Corporate Drive and preparation of construction plans for Fish Hatchery Road Bridge Erosion Repairs, which additional services shall be hereinafter referred to as the “Project”.

The name of the PSA shall be amended to read “Design of Streambank Stabilization in Various Locations including Timber Creek – Phase 2 Professional Services Agreement.”

I. PROJECT. The Project is described as follows:

The Project includes additional scope of work, including the following:

- A. Preliminary and Final Design/Engineering and Construction Phase services for stream improvements which will consist of modifying the existing storm drain outfall for Valley Vista Estates to address channel and outfall erosion. The approximate 200 linear-foot project corridor will include an energy dissipation structure at the existing storm drain outfall and channel improvements to the confluence with Timber Creek. The scope of work for this PSA includes surveying and geotechnical engineering services, U.S. Army Corps of Engineers (USACE) permitting services, preparation of plans, specifications and estimates for construction and construction administration services and;
- B. Preliminary and Final Design Engineering and Construction Phase services for repairs to existing gabion baskets under and along the southern bridge abutment on Fish Hatchery Road. The existing gabion baskets were severely damaged by the 2015 floods and need repair prior to the U.S. Army Corps of Engineers’ (USACE) utilization of Fish Hatchery Road in their ongoing remediation work at Lewisville Lake Dam. The scope of work includes surveying and geotechnical engineering services, preparation of plans, specifications and estimates for construction and construction administration services.

This additional scope of work is being added in order to ensure that it may be bid along with the other work already included in the PSA, as amended.

II. ADDITIONAL SCOPE OF SERVICES.

The Consultant will perform the following additional services, outlined generally as follows:

A. Valley Vista Estates Drainage Outfall:

1. Design surveys along the Valley Vista Estates outfall channel for proposed channel improvements.
2. Engage the services of CMJ Engineering, Inc. to perform subsurface borings in design to provide general geotechnical information needed for the design and reconstruction of the Valley Vista Estates drainage outfall channel.
3. Preparation of construction plans for the Valley Vista Estates outfall channel suitable for review, permitting, bidding, construction, inspection and record keeping.
4. Preparation of technical specifications required for bidding and construction of the Valley Vista Estates drainage outfall.
5. Provide construction staking for Valley Vista Estates drainage outfall.
6. Assist the City through the bidding/construction/closure phase of Valley Vista Estates drainage outfall.

B. Fish Hatchery Road Bridge Erosion Control:

1. Design surveys of Fish Hatchery Road Bridge and upstream and downstream of southern bridge abutment for proposed repairs to existing gabion baskets.
2. Engage the services of CMJ Engineering, Inc. to evaluate and analyze slope conditions, and provide recommendations and geotechnical design parameters for remedial measures for the Fish Hatchery Road Bridge portion of the project.
3. Preparation of construction plans for the Fish Hatchery Road Bridge Erosion Repairs suitable for review, permitting, bidding, construction, inspection and record keeping.
4. Preparation of technical specifications required for bidding and construction of the Fish Hatchery Bridge Erosion Repairs.
5. Assist the City through the bidding/construction/closure phase of the Fish Hatchery Bridge Erosion Repairs.
6. Assist the City and attend up to two public meeting to explain proposed project to residents, if requested.

A more detailed description of the Valley Vista Drainage Outfall additional services is contained in Attachment “A” and a more detailed description of the Fish Hatchery Bridge Erosion Control additional services is contained in Attachment “B”, both of which are hereby

included in this Supplemental Services Amendment No. 3 to Design of Streambank Stabilization for Timber Creek – Phase 2 Professional Services Agreement by reference.

III. ADDITIONAL COMPENSATION.

- A. The Consultant agrees to perform the additional services for Valley Vista Estates Drainage Outfall described herein for the amounts stated; and, the City agrees to make payments in the amounts stated. The total fee for all described services shall not exceed \$ **75,340.00**. A breakdown of fees for the additional services is included in Attachment “C”, which is hereby included in this Supplemental Services Amendment No. 3 to Design of Streambank Stabilization for Timber Creek – Phase 2 Professional Services Agreement reference.
- B. The Consultant agrees to perform the services for Fish Hatchery Road Bridge Erosion Control described herein for the amounts stated; and, the City agrees to make payments in the amounts stated. The total fee for all described services shall not exceed \$ **62,080.00**. A breakdown of fees for various services is included in Attachment “D,” which is hereby included in this Supplemental Services Amendment No. 3 to Design of Streambank Stabilization for Timber Creek – Phase 2 Professional Services Agreement by reference.
- C. The total, maximum fee for all services under the PSA will increase from \$206,595.00 to **\$344,015.00**.

Invoices shall be submitted by cover letter from the project engineer. The letter shall certify that the invoice properly represents work done. The City reserves the right to request additional justification prior to payment of any invoice. If satisfactory justification is not received, the City reserves the right to amend the invoice or to refuse to make payment without incurring penalty or interest. Invoices shall be based on percentage of work completed per identifiable unit of work. The City agrees to make prompt payments for all approved invoices and agrees to pay interest at the rate approved by law for approved invoices not paid within 30 days from the date of approval.

IV. TIME OF COMPLETION.

A project schedule for the additional services outlined herein, shown in Attachment “E”, is hereby included in this Supplemental Services Amendment No. 3 to Design of Streambank Stabilization for Timber Creek – Phase 2 Professional Services Agreement by reference. The Consultant agrees to perform the services in accordance with the schedule, to the extent over which the Consultant has control.

V. PERFORMANCE.

In compliance with Texas Local Government Code 271.904, the Contractor agrees to perform the additional services outlined herein with the professional skill and care

ordinarily provided by competent engineers practicing under the same or similar circumstances and professional license; and to perform the services outlined herein as expeditiously as is prudent considering the ordinary professional skill and care of a competent engineer, under the schedule as referenced in Section VIII of this Agreement.

VI. CLOSURE.

By signature below, the parties to this Supplemental Services Amendment No. 3 to Design of Streambank Stabilization for Timber Creek – Phase 2 Professional Services Agreement hereby bind themselves to the terms stated herein, including all attachments referred to herein.

SIGNATURES ON FOLLOWING PAGE

CITY OF LEWISVILLE, TEXAS
Approved by the Lewisville City
Council _____

By: _____
Donna Barron, City Manager

Date: _____

Attest: _____
Julie Worster

By:  _____
Benjamin Bryant

Date: 3/8/19

Attest:  _____
LEVI HEIN

CITY OF LEWISVILLE
151 West Church Street
Lewisville, Texas 75057

APPROVED AS TO FORM:

Lizbeth Plaster, City Attorney

ATTACHMENT "A" SERVICES
Supplemental Services Amendment No. 3
to Design of Streambank Stabilization for Timber Creek – Phase 2
Professional Services Agreement

Valley Vista Estates Drainage Outfall

This Attachment "A" further defines the additional services to be performed by Halff Associates, Inc. in conjunction with preparation of the final Design, Engineering and Construction phase services for stream and outfall improvement plans from Valley Vista Estates, hereinafter called Project. The Project will consist of modifying the existing storm drain outfall from Valley Vista Estates to address channel and outfall erosion. The approximate 200 linear-foot project corridor will include an energy dissipation structure at the existing storm drain outfall and channel improvement to the confluence with Timber Creek. Services include the following:

Design Assumptions – Certain assumptions were employed in developing the scope and fee for this proposal.

- A. Energy Dissipater** – The storm drain structure will be a baffled outlet, also known as an Impact Basin – USBR Type VI.
- B. Hydraulic Modeling** – Develop a hydraulic model of the outfall channel that extends through the study area to the confluence with Timber Creek. The hydraulic parameters derived from this study will be used for the design of bank stabilization.
- C. Private Property Access** – The City of Lewisville will gain right of entry on private property for the consultant as needed by the design team (surveyors, geotechnical engineers, etc.)
- D. Permitting** - The proposed reconstructing the outfall and adding riprap protection along the channel banks to protect the slope and the existing structures may be authorized under Nationwide Permit 3 – Maintenance. Provided the channel is restored to original design capacity, or something very similar in form, function, and capacity to the original structure it qualifies under authorization for NWP 3. The NWP authorizes the placement of fill material (i.e. riprap) necessary to protect the structure and also authorizes channel modification within 200 feet of the structure necessary to ensure proper performance of the structure. These activities may be authorized under NWP 3 without requiring written authorization from the USACE and the project could commence as soon as design is complete.
- E. Temporary Construction Easements** – N/A

I. Plan and Specifications Work Plan:

- A. Topographic Surveying and Base Map Preparation:** The Consultant shall provide surveying services; which, in general, may be defined as normal services applicable to a project of this type. The entire area of the creek and adjacent properties near the eroded area to be surveyed. A topographic base map was prepared that will show existing fences, trees six inches and larger in diameter, and other improvements affecting design. Existing one-foot contours will be shown. Property boundaries will also be tied and shown in the plans.
- B. Geotechnical Investigation.** The Consultant shall engage a geotechnical sub-consultant to provide subsurface investigations in the form of boring logs. One (1) borings will be drilled and shall be of enough depth and spacing to provide general information needed for the design and construction of the project. Laboratory tests will consist of: moisture content and soil identification, liquid and plastic limit determinations, unconfined compression tests on soil, direct shear test on soil and groundwater condition; recommendations for wall foundation type, depth , and allowable loading; foundation construction requirements; global stability analysis for existing and proposed conditions; recommendations for structure, including founding material, allowable adhesion, and spacing; and earthwork recommendations.
- C. Hydraulic Modeling.** The Consultant shall prepare hydraulic model to reflect proposed channel improvement conditions. The modeling will consider fill and excavation associated with the project. The consultant shall prepare a brief memorandum report summarizing the results of the hydraulic study. Memo will include explanation of study procedure, comparison of water surface elevations, profile comparison and hydraulic workmaps.
- D. Permitting.** The Consultant shall prepare an application for Nationwide Permit 3, Maintenance, with the U.S. Army Corps of Engineers Fort Worth District. Application process will include a site visit by Consultant's Environmental Science staff, determination of Jurisdictional Waters, and preparation of application and supporting documents for the U.S. Army Corps of Engineers. This does not include preparation of an Individual Permit, although this is not anticipated for this project.
- E. Construction Plans:** The Consultant shall develop construction plans for review, permitting, bidding, construction, inspection and record keeping. In general, construction plans shall be consistent with normal practice for projects of this nature. The construction plans will consist of numerous sheets generally ordered as follows:
1. Title Sheet. The title sheet shall include a location map. It shall also include a sheet index with drawings numbered consecutively and without subscripts. Additionally, the title sheet shall show the project name, project number, date, City logo,

Consultant's name, address, and telephone number and other items as may be specified.

2. Project Layout Sheet(s). The purpose of the project layout is to depict the project in a simplified view. Major items of work will be shown without excessive detail. This sheet(s) will include a listing of abbreviations, legend, general notes, and key map.
3. Typical Sections. As a minimum, typical sections will be drawn showing the relationship of the existing creek and proposed wall and grading. Typical sections will include right-of-way lines, fences, utilities, and all proposed improvements.
4. Plan Sheets & Wall Elevation (Profile) Sheets. Plan sheets will show the proposed wall layout and grading plan. The wall elevation sheets will provide a profile view of the proposed wall.
5. Cross-Section Sheets. The cross-section sheets will show cross-section views of the channel, proposed wall, and proposed and existing grades at various station locations along the length of the project.
6. Detail Sheets. The City's standard drawings will be used as a beginning point in developing standard details for this project. They will be reviewed and modified for this project. Where other agency standards are used, they shall be reduced as necessary to fit on the City's standard sheet format with complete title block.
7. Miscellaneous. Construction plans will also address erosion control. Wall construction details will be provided as well.
8. Review Plans. – Preliminary plans shall be prepared and submitted at the 60% milestone. Final plans shall be prepared and submitted at the 90% and 100% milestones. Also, the Consultant may submit plan sheets or working drawings to the City for review and comment to reduce the number of revisions that otherwise would be required. During development of the plans, the Consultant shall attend meetings as needed. One (1) meeting with residents and/or property owners will be held during design. The Consultant shall prepare and present a project layout exhibit and give a brief presentation at the public meetings. The Consultant shall, in company with the City, perform at least one plans-in-hand review at each milestone.
9. Design. – The design of the project shall be in general accordance with the City of Lewisville ordinances, standard details, and good engineering practices.
10. Prints. – The Consultant shall provide prints of construction plans for review and permitting. Two sets of half-sized plans will be submitted to the City for each review stage and will include an estimate of probable construction costs. The Consultant will provide utility companies with copies of plans for review. The City will provide prints for bidding and construction.

11. General. – Construction plans shall be developed on electronic files compatible with the City's Intergraph CADD system – Microstation. Construction plans shall also be furnished on 22" x 34" sheets. The City's standard format shall be used. All review prints shall be furnished on 22" x 34" sheets. Construction plans shall be suitable for half-scale reduction and shall be provided as follows: one set of 11" x 17" paper originals drawn by laser plotter.

F. Specifications. The Consultant shall prepare technical specifications required for bidding and constructing the project. Only specifications amending or supplementing COG specifications need be furnished. Under this section, the Consultant shall also provide a listing of bid items with quantities and construction cost estimates. Specifications, bid items and quantities shall be furnished by electronic file.

H. Bidding, Construction, Closure:

1. Bidding – During the bidding phase, the Consultant will assist the City by addressing technical questions and preparing draft addenda for issuance by the City. The Consultant shall attend a pre-bid meeting, if required and prepare minutes. The Consultant will not be required to assist the City in evaluating bids, nor will the Consultant be required to attend the bid opening or prepare the bid tabulation.
2. Construction –
 - a. The Consultant's design engineer and/or project manager shall attend the pre-construction meeting.
 - b. Represent the CITY in the non-resident administration of the PROJECT. In this capacity, the ENGINEER shall have the authority to exercise whatever rights the CITY may have to disapprove work and materials that fail to conform to the Contract Documents when such failures are brought to the ENGINEER's attention. (This function of ENGINEER shall not be construed as supervision of the PROJECT and does not include on-site activities other than visit the site at least once per calendar month to evaluate the general progress of the construction and overall PROJECT conditions or when specifically requested by CITY to visit on site for a particular matter. It particularly does not involve exhaustive or continuous on-site inspection to check the quality or quantity of the work or material; nor does it place any responsibility on the ENGINEER for the techniques and sequences of construction or the safety precaution incident thereto, and ENGINEER will not be responsible or liable in any degree for the Contractor's failure to perform the construction work in accordance with the Contract Documents.) Monthly reports shall be prepared and forwarded to the City outlining any deviations noted from the requirements of the contract documents.

- c. The Consultant shall assist the City in the preparation of field changes and/or change orders which may become necessary for the orderly completion of the project and responding to requests for information.
 - d. The Consultant shall assist the City in performing a final walk-through inspection and prepare a written “final punch list”.
3. Closure – The Consultant shall prepare record drawings, incorporating all changes provided by the Contractor and known variations to provide the City the best possible set of record drawings. The final record drawings shall be furnished on mylar, of the same specification as provided for in the Agreement, and on CD.

II. Surveying Services Work Plan. The Consultant shall provide surveying services, which, in general, may be defined as normal services applicable to a project of this type. The following particulars will also apply.

A. Construction Staking. During the construction phase, the Consultant shall provide construction control staking for use by the contractor. Control monumentation shall be checked and/or re-established. A minimum of five (5) days’ notice must be given before start of control staking. Any lost or destroyed stakes will be replaced at the contractor’s expense.

B. Easement Preparation. N/A

III. Services Not Included

A. Miscellaneous. Engineering Services, not included in the scope of work, include those services that may result from significant changes in the general scope, extent or character of the PROJECT or its design including, but not limited to, changes in size, complexity, CITY’s schedule, character of construction or method of financing; and revising previously accepted studies, reports, design documents or Contract Documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes or orders enacted subsequent to the preparation of such studies, reports or documents, or are due to any other causes beyond ENGINEER’s control.

C. ADDITIONAL Engineering services in connection with the PROJECT, including services which are to be furnished by the CITY and services not otherwise provided for in this Agreement will be at the following rates:

Staff Member and Resident Project Representative - Salary Cost Times Multiplier of **2.3**.

D. Miscellaneous services not provided for herein and not generally associated with a project of this type will be paid for under an amendment to this Agreement and for an additional fee.

**ATTACHMENT “B” SERVICES
Supplemental Services Amendment No. 3
to Design of Streambank Stabilization for Timber Creek – Phase 2
Professional Services Agreement**

Fish Hatchery Road Bridge Erosion Repairs

This Attachment “B” further defines the additional services to be performed by Halff Associates, Inc. in conjunction with preparation of construction plans for Fish Hatchery Road Bridge Erosion Repairs, hereinafter called Project. Our services include the following:

- I. Design Assumptions:** Certain assumptions were employed in developing the scope and fee for this proposal.
 - A. Gabion Wall and Baskets:** The primary method of bank stabilization involves construction of a gabion wall and baskets with tiebacks.
 - B. Hydraulic Modeling:** No hydraulic modeling of Lake Lewisville Spillway/McWhorter Creek will be performed. Since the proposed repairs are not located within the floodway a “No Rise” certificate is not required by FEMA.
 - C. Private Road Access:** The City of Lewisville will provide access through the locked gate on Fish Hatchery Road for the consultant’s design team (surveyors, geotechnical engineers, etc.)
 - D. Permitting:** This scope assumes the project will be authorized via nationwide permit for maintenance, without the need for preparing a pre-construction notification (PCN) to the USACE. Should design encroach on USACE fee-owned land, an additional scope for PCN and other documentation will be provided.
 - E. Project Limits:** Proposed repairs will be limited to the existing right-of-way of Fish Hatcher Road.
 - F. Bridge Inspection:** An inspection of the bridge by Consultant’s structural team leader, Paul J. Rielly, P.E., SECB, was performed on Monday, November 26, 2018. The bridge was deemed structurally sound. No repairs to the bridge structure are included in this proposal. Consultant will provide an inspection memorandum with this scope of work.
 - G. Construction:** This proposal assumes the project will be advertised with the Timber Creek Streambank Stabilization Phase 2 project as an added alternative.

II. Plan and Specifications Work Plan

- A. Topographic Surveying and Base Map Preparation:** The Consultant shall provide surveying services; which, in general, may be defined as normal services applicable to a project of this type. The entire area of gabion basket failures located under and around the southern bridge abutment and the eroded areas within the existing right-of-way near the bridge approach are to be surveyed. A topographic base map will be prepared showing Fish Hatchery Road, the bridge, metal beam guard rails, existing fences and other improvements affecting design. Existing one-foot contours will be shown. Property boundaries will also be tied and shown in the plans.
- B. Geotechnical Investigation:** The Consultant shall engage a geotechnical subconsultant to provide subsurface investigations in the form of boring logs. Two borings will be drilled to depths of 35 to 40 feet to at least 10 feet into unweathered gray shale to provide general information needed for the design and construction of the project. Laboratory tests will consist of: moisture content and soil identification, percent passing #200 sieve, sieve analyses/hydrometer analyses, liquid and plastic limit determinations, unconfined compression tests on soil, unconfined compression tests on rock, direct shear tests on soil and unit weight determinations. An engineering report will be prepared and will address general soil and ground-water conditions, slope stability analyses for planned hard armor structure, calculation drive forces due to instability and resisting forces available in soils and/or shale for lateral restraint and tie backs, foundation construction requirements, recommended lateral pressures for design of below-grad walls and retaining structures and earthwork recommendations.
- C. Construction Plans:** The Consultant shall develop construction plans for review, permitting, bidding, construction, inspection and record keeping. In general, construction plans shall be consistent with normal practice for projects of this nature. The construction plans will consist of numerous sheets generally ordered as follows:
1. Title Sheet. The title sheet shall include a location map. It shall also include a sheet index with drawings numbered consecutively and without subscripts. Additionally, the title sheet shall show the project name, project number, date, City logo, Consultant's name, address, and telephone number and other items as may be specified.
 2. Project Layout Sheet(s). The purpose of the project layout is to depict the project in a simplified view. Major items of work will be shown without excessive detail. This sheet(s) will include a listing of abbreviations, legend, general notes, and key map.

3. Typical Sections. As a minimum, typical sections will be drawn showing the relationship of the existing creek, bridge, proposed repairs and grading. Typical sections will include right-of-way lines, fences, utilities, and all proposed improvements.
4. Plan Sheets & Wall Elevation (Profile) Sheets. Plan sheets will show the proposed baskets and/or wall layout and grading plan. The wall elevation sheets will provide a profile view of the proposed wall.
5. Cross-Section Sheets. The cross-section sheets will show cross-section views of the channel, proposed wall, and proposed and existing grades at various station locations along the length of the project.
6. Detail Sheets. The City's standard drawings will be used as a beginning point in developing standard details for this project. They will be reviewed and modified for this project. Where other agency standards are used, they shall be reduced as necessary to fit on the City's standard sheet format with complete title block.
7. Miscellaneous. Construction plans will also address erosion control. Wall construction details will be provided as well.
8. Review Plans. – Preliminary plans shall be prepared and submitted at the 60% milestone. Final plans shall be prepared and submitted at the 90% and 100% milestones. Also, the Consultant may submit plan sheets or working drawings to the City for review and comment to reduce the number of revisions that otherwise would be required. During development of the plans, the Consultant shall attend meetings as needed. The Consultant shall, in company with the City, perform at least one plans-in-hand review at each milestone.
9. Design. – The design of the project shall be in general accordance with the City of Lewisville ordinances, standard details, and good engineering practices.
10. Prints. – The Consultant shall provide prints of construction plans for review and permitting. Two sets of half-sized plans will be submitted to the City for each review stage and will include an estimate of probable construction costs. The Consultant will provide utility companies with copies of plans for review. The City will provide prints for bidding and construction.
11. General. – Construction plans shall be developed on electronic files compatible with the City's Intergraph CADD system – Microstation. Construction plans shall also be furnished on 22" x 34" sheets. The City's standard format shall be used. All review prints shall be furnished on 22" x 34" sheets. Construction plans shall be suitable for half-scale reduction and shall be provided as follows: one set of 11" x 17" paper originals drawn by laser plotter.

D. Specifications: The Consultant shall prepare technical specifications required for bidding and constructing the project. Only specifications amending or supplementing COG specifications need be furnished. Under this section, the Consultant shall also provide a listing of bid items with quantities and construction cost estimates. Specifications, bid items, and quantities shall be furnished by electronic file.

E. Bidding, Construction, Closure

1. Bidding – During the bidding phase, the Consultant will assist the City by addressing technical questions and preparing draft addenda for issuance by the City. The Consultant shall attend a pre-bid meeting, if required and prepare minutes. The Consultant will not be required to assist the City in evaluating bids. The Consultant will attend the bid opening, but not be required to prepare the bid tabulation.
2. Construction
 - a. The Consultant's design engineer and/or project manager shall attend the pre-construction meeting.
 - b. During the construction phase, the Consultant shall provide construction control staking for use by the contractor. Control monumentation shall be checked and/or re-established. A minimum of five (5) days' notice must be given before start of control staking. Any lost or destroyed stakes will be replaced at the contractor's expense. Contractor shall be responsible for construction staking of proposed repairs.
 - c. Represent the CITY in the non-resident administration of the PROJECT. In this capacity, the ENGINEER shall have the authority to exercise whatever rights the CITY may have to disapprove work and materials that fail to conform to the Contract Documents when such failures are brought to the ENGINEER's attention. (This function of ENGINEER shall not be construed as supervision of the PROJECT and does not include on-site activities other than visit the site at least once per calendar month to evaluate the general progress of the construction and overall PROJECT conditions or when specifically requested by CITY to visit on site for a particular matter. It particularly does not involve exhaustive or continuous on-site inspection to check the quality or quantity of the work or material; nor does it place any responsibility on the ENGINEER for the techniques and sequences of construction or the safety precaution incident thereto, and ENGINEER will not be responsible or liable in any degree for the Contractor's failure to perform the construction work in accordance with the Contract Documents.)

- d. The Consultant shall assist the City in the preparation of field changes and/or change orders which may become necessary for the orderly completion of the project and responding to requests for information.
 - e. The Consultant shall assist the City in performing a final walk-through inspection and prepare a written “final punch list”.
3. Closure – The Consultant shall prepare record drawings, incorporating all changes provided by the Contractor and known variations to provide the City the best possible set of record drawings. The final record drawings shall be furnished on mylar, of the same specification as provided for in the Agreement, and on CD.

III. Services Not Included

- A. Engineering Services, not included in the scope of work, include those services that may result from significant changes in the general scope, extent or character of the PROJECT or its design including, but not limited to, changes in size, complexity, CITY's schedule, character of construction or method of financing; and revising previously accepted studies, reports, design documents or Contract Documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes or orders enacted subsequent to the preparation of such studies, reports or documents, or are due to any other causes beyond ENGINEER's control.
- B. Additional services not provided for herein and not generally associated with a project of this type will be negotiated based on the scope of work and included in a contract amendment.

**ATTACHMENT "C" COMPENSATION
Supplemental Services Amendment No. 3
to Design of Streambank Stabilization for Timber Creek – Phase 2
Professional Services Agreement**

Valley Vista Estates Drainage Outfall

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

- I. Basic Fee Services** - The basic fee for the services as described in Attachment "A" will be **\$52,250.00** which includes printing, direct costs and computer charges normally associated with production of these services and reproduction of up to ten (10) sets of plans for review purposes.

The basis of compensation for Basic Fee services shall be as follows:

1. \$52,250.00 for Final Design Phase (100% complete)

Item (1) will be billed lump sum monthly based on percent completion of the design tasks and may include partial payments of the total amounts designated for each of the items.

2. Construction Phase Services will be billed based on 2.30 times salary cost up to a maximum not to exceed **\$9,470.00**.

- II. Special Services** – The maximum not -to-exceed fee for the special services as described will be **\$13,620.00**, which includes printing, direct costs, and computer charges normally associated with these services. The basis of compensation for Special Services will be 2.30 times the salary cost up to the maximum not-to-exceed fee. The following table summarizes special services fees:

TASK DESCRIPTION	FEE
I A. Design Surveys	\$2,930.00
I B. Geotechnical Services	\$6,600.00
I D. Permitting	\$2,290.00
II A. Construction Staking	\$ 1,800.00
TOTAL SPECIAL SERVICES	\$13,620.00

Miscellaneous Services – The fee for additional services not provided herein will be negotiated based on the scope of work and included in a contract amendment.

The total maximum fee for all services is \$ **75,340.00**

**ATTACHMENT “D” COMPENSATION
Supplemental Services Amendment No. 3
to Design of Streambank Stabilization for Timber Creek – Phase 2
Professional Services Agreement**

Fish Hatchery Road Bridge Erosion Repairs

This Attachment “D” further defines the basis of compensation to the Consultant for the services rendered.

- I. Basic Fee Services** – The basic fee for the services as described in Attachment “B” will be **\$ 45,600.00** which includes printing, direct costs and computer charges normally associated with production of these services.

The basis of compensation for Basic Fee services shall be as follows:

1. \$ 24,560.00 for Preliminary Design Phase (60% submittal)
2. \$ 12,280.00 for Final Design Phase (90% submittal)
3. \$ 3,760.00 for Final Design Phase (100% complete)
4. \$ 5,000.00 for Bidding and Construction Phase Services

Items (1) through (4) will be billed lump sum monthly based on percent completion of the project and may include partial payments of the total amounts designated for each of the items.

- II. Special Services** – The lump sum fee for the special services as described in Attachment “B” will be **\$ 16,480.00**, which includes printing, direct costs and computer charges normally associated with production of these services. The following table summarizes special services fees.

TASK DESCRIPTION	FEE
Design Surveys	\$ 4,010.00
Geotechnical Engineering Study	\$ 10,560.00
Bridge Inspection & Memorandum	\$ 1,910.00
TOTAL SPECIAL SERVICES	\$ 16,480.00

- III. Miscellaneous Services** – The fee for additional services not provided herein will be negotiated based on the scope of work and included in a contract amendment.

The total maximum fee for all services is **\$ 62,080.00**.

ATTACHMENT "E" Time of Completion

Supplemental Services Amendment No. 3 to Design of Streambank Stabilization for Timber Creek – Phase 2 Professional Services Agreement

Design of Fish Hatchery Road Bridge Erosion Repairs and Valley Vista Estates Drainage Outfall

The Consultant agrees to perform its services in accordance with the schedule below, to the extent over which the Consultant has control. The City agrees to review plans and other submittals and to arrange meetings in a timely manner.

- I. Commencement of Work — The City agrees to issue written authorization to proceed as soon as practical after approval by the Lewisville City Council. The Consultant agrees to commence work in accordance with the Agreement within ten (10) working days following receipt of a written authorization.
- II. Time Line — The following items of work shall be completed within the time line indicated:
 - 1. Completion/furnishing 60% preliminary plans sufficient for USACE permitting: 75 calendar days from date of written authorization excluding City review time.
 - 2. Completion/furnishing 90% final plans, specifications, bid quantities, and construction cost estimate: 100 calendar days from date of written authorization excluding USACE (45 day) and City review time.
 - 3. Completion/furnishing 100% final plans, specifications, bid quantities, and construction cost estimate: 120 calendar days from date of written authorization, excluding City review time.
 - 4. Bidding and construction services shall correspond to City's schedule and construction time.
 - 5. Closure: 30 calendar days from the date of construction completion.