SUPPLEMENTAL AGREEMENT NO. 3

TO

LEWISVILLE LAKE BRIDGE CORRIDOR
FEASIBILITY STUDY INTERLOCAL AGREEMENT

(FSF-75)

STATE OF TEXAS

§

COUNTY OF DENTON

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THIS SUPPLEMENTAL AGREEMENT NO. 3, by and between the NORTH TEXAS

TOLLWAY AUTHORITY, a regional tollway authority and a political subdivision of the State

of Texas, acting by and through its Board of Directors (the "Authority"), and the COUNTY OF

DENTON, a political subdivision of the State of Texas, acting by and through its duly elected

Commissioners Court (the "County"), is entered into effective as of the 19th day of October,

2005.

WITNESSETH

WHEREAS, the Authority and the County entered into the Lewisville Lake Bridge

Corridor Feasibility Study Interlocal Agreement dated as of September 20, 2000 (the "Existing

Agreement"), which describes the parties' respective obligations regarding a transportation

project (the "Project") divided into two basic parts;

WHEREAS, one part of the Project is a proposed four-lane toll bridge across Lewisville

Lake, defined in the Existing Agreement and herein as the "Bridge," and the other part is

composed of (a) two segments of a proposed four-lane roadway (sometimes described as

"Section 1" and "Section 3," respectively) situated on either side of the Bridge and (b) the east-

west portion of FM 720 situated in the Town of Little Elm (sometimes described as "Section 4,"

"Section 5" and "Section 6"), said second part of the Project extending to the intersection of I-

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35E and Swisher Road on the west and to the proposed intersection of the Dallas North Tollway with FM 2934 on the east, defined therein and herein as the "Access Roads;"

WHEREAS, the Existing Agreement as originally drafted limited the Authority's obligations to the Bridge, and costs are allocated in a manner consistent with that division of responsibility, both during the feasibility study period for the Project and afterwards;

WHEREAS, while there was and is no intention to change the allocation of costs as provided in the Existing Agreement, the Authority and the County agreed that the Authority should take the lead role in selecting consultants to perform work on various sections of the entire Project, and not just the Bridge, and, to that end, the parties executed (1) that certain letter agreement approved by the County by Court Order No. 02-0662 dated October 15, 2002, and which was accepted by the Authority on November 1, 2002 (the "Letter Agreement") by which the County (a) approved certain contracts (the "Previous Contracts") with Binkley & Barfield, Inc. and Dannenbaum Engineering Corporation to prepare plans, specifications and estimates for two segments of the Access Roads and (b) agreed to reimburse the Authority for costs arising under the Previous Contracts as more specifically set forth therein, (2) Supplemental Agreement No. 1 dated as of November 21, 2001 and approved by the County by Court Order No. 05-0429, dated July 19, 2005 (the "First Supplemental Agreement") by which the Authority and the County agreed that HNTB Corporation, the Authority's "General Engineering Consultant" ("HNTB"), be retained to conduct the preliminary design phase and to oversee the final design efforts for the entire Project, with resulting costs being shared between the Authority and the County in an agreed manner based on the relationship between the Bridge and Access Roads portions of the Project as more specifically set forth therein and (3) Supplemental Agreement No. 2 dated July 28, 2005 and approved by the County by Court Order No. 05-0611, dated August 30, 2005 (the "Second Supplemental Agreement") by which the Authority and the County agreed that PBS&J, Inc., the Authority's "Right-of-Way Acquisition Team" ("PBS&J"), be retained to provide real estate and title service for the Access Roads portion of the Project, survey and legal description preparation service for the "Section 3" portion of the Access Roads, right-of-way acquisition service for the Access Roads, appraisal service for the Access Roads, and utility relocation coordination service for the Access Roads, with all resulting costs being reimbursed to the Authority by the County consistent with the parties' overall obligations regarding the Bridge and Access Roads portions of the Project as more specifically set forth therein, the First Supplemental Agreement and the Second Supplemental Agreement being collectively referred to as the "Previous Supplemental Agreements";

WHEREAS, consistent with the parties' decision for the Authority to take the lead role in selecting consultants for the entire Project and for the County to reimburse the Authority as provided in the Letter Agreement and the Previous Supplemental Agreements, the Authority and the County agreed that Bridgefarmer & Associates, Inc. ("Bridgefarmer"), be retained to perform all required services for the development of the plans, specifications and estimates (the "PS&E") for a 4.9-mile portion of FM 720 within the corporate limits of the Town of Little Elm and being a portion of the Project sometimes described as "Section 4," "Section 5" and "Section 6," with all resulting costs being reimbursed to the Authority by the County consistent with the parties' overall obligations regarding the Bridge and Access Roads portions of the Project;

WHEREAS, the Authority and Bridgefarmer have prepared, negotiated and executed that certain Agreement For Architectural And/Or Engineering Services (NTTA Contract No. 02031-LLB-00-PS-EN) dated October 31, 2005 (the "Bridgefarmer Agreement"), the Scope of Services to the Bridgefarmer Agreement begin attached hereto as "Schedule 1" and made a part

hereof for all purposes, and the parties desire to set forth their obligations with respect to the Bridgefarmer Agreement; and

WHEREAS, the County, by Court Order No. OS-OBLG dated Nov. 29, 2005, has authorized the County to enter into this Supplemental Agreement No. 3 and to perform its obligations hereunder;

AGREEMENT

NOW, THEREFORE, in consideration of these premises and of the mutual covenants and agreements of the parties hereto by them respectively kept and performed as hereinafter set forth, and other good and valuable consideration, the receipt and sufficiency of which being hereby acknowledged, the Authority and the County agree as follows:

taking all official action, the County approves the Bridgefarmer Agreement, including the services described therein (and the detailed Scope of Services attached hereto), the selection of Bridgefarmer, the amount of compensation listed therein, plus a ten percent (10%) contingency for a total not-to-exceed amount under this Supplemental Agreement No. 3 of \$1,650,000.00, and the computation by Bridgefarmer and payment by the County of fees provided in the Bridgefarmer Agreement. The County specifically acknowledges its obligation to reimburse the Authority for all costs arising under the Bridgefarmer Agreement in accordance with the terms thereof, provided that all invoices submitted to the County shall be addressed to John R. Polster, County Transportation Consultant, whose address is ITS, 2701 Valley View Lane, Farmers Branch, Texas 75234, and all payments to the Authority shall be remitted to the Authority within thirty (30) days of the County's receipt of the applicable invoice, addressed to Keith H. Nelson,

Assistant Director of Finance, at the applicable address set forth in Section 7.6 of the Existing Agreement.

2. Additional Services and Contracts. The parties acknowledge that subsequent to

the execution of this Supplemental Agreement No. 3 it will be necessary for the Authority to

select, and negotiate and contract with, various consultants to provide additional services for the

Project. These services will include, but not be limited to, aerial mapping, geotechnical

engineering, additional preparation of final design, and construction management. The Authority

shall inform the County of the progress of its selection, negotiation and contracting process

regarding the retention of consultants for the Project. The costs for the resulting services will be

divided as anticipated in the Existing Agreement with respect to the Bridge and Access Roads

portions of the Project, and the approval and reimbursement terms applicable to such future

contracts shall be addressed in subsequent supplemental agreements between the Authority and

the County.

3. Authorization. Each party to this Supplemental Agreement No. 3 represents to

the other that it is fully authorized to enter into this Supplemental Agreement No. 3 and to

perform its obligations hereunder, and that no waiver, consent, approval, or authorization from

any third party is required to be obtained or made in connection with the execution, delivery, or

performance of this Supplemental Agreement No. 3. Each signatory on behalf of the County and

the Authority, as applicable, is fully authorized to bind that entity to the terms of this

Supplemental Agreement No. 3.

4. <u>Full Force and Effect</u>. Except as amended in the Letter Agreement, the Previous Supplemental Agreements, or hereby, all terms of the Existing Agreement shall remain in full force and effect as written, including without limitation Section 3.1.

IN WITNESS WHEREOF, the County and the Authority have executed this Supplemental Agreement No. 3 on the dates shown below, to be effective on the date listed above.

COUNTY OF DENTON,

By: Eum Colle By: By: Ary Tone	
COMM	Mary Horn, County Judge
APPROVED AS TO FORM	
Assistant District Attorney	
ATTEST:	NORTH TEXAS TOLLWAY AUTHORITY
Kelson Frankling	. Aldett
Ruby Franklin Secretary	Allan Rutter, Executive Director
·	Date: 11/8/05

APPROVED AS TO FORM:

Locke Liddell & Sapp LLP General Counsel

ATTEST:

rank E. Stevenson, II

Supplemental Agreement No. 3 To

Lewisville Lake Bridge Corridor Feasibility Study ILA

SCHEDULE 1

to

SUPPLEMENTAL AGREEMENT No. 3

TO

LEWISVILLE LAKE BRIDGE CORRIDOR FEASIBILITY STUDY INTERLOCAL AGREEMENT

The Scope of Services

<u>to</u>

The Bridgefarmer Agreement

[see the following pages]

Exhibit A Scope of Services

Final Design Services for Lewisville Lake Corridor, Sections 4, 5 and 6. 02031-LLB-XX-PS-EN

1. PROJECT DESCRIPTION

Sections 4-6 of the Lewisville Lake Corridor Project is the east-west portion of FM 720 located in the Town of Little Elm. These Sections, henceforth referred to as the Project, is approximately 4.9 miles long and when constructed, it will carry two lanes of traffic in each direction plus a 40-foot median and connect to Lewisville Lake Corridor Section 3 on the west and Eldorado Parkway on the east (see Exhibit 1). There are two bridges on this Project: an approximately 2,400-foot bridge, which will cross Lewisville Lake and replace the existing two-lane bridge, and a 220-foot bridge, which is proposed to replace an existing flat slab bridge at Harts Branch. Both bridges will match the proposed roadway typical section, but the longer bridge will be designed so that the substructure can accommodate the future inside widening of the bridge without impacting Lewisville Lake. TxDOT had previously prepared preliminary plans to replace the existing FM 720 Bridge over Lewisville Lake but suspended the work in 2002.

The Project is proposed to be placed in a 120-foot right-of-way which has been partially acquired by Denton County.

The North Texas Tollway Authority (Authority) has an agreement with Denton County to administer the design contract for Denton County and Texas Department of Transportation (TxDOT). TxDOT will construct and maintain the Project and therefore, engineering designs, plans and specifications, and construction procedures will comply with TxDOT's standards and procedures for work of similar character and extent. In no way limiting the complete character of the services to be performed by the Consultant, the following is given as indication of the extent of those services and of the procedures contemplated.

The Consultant shall be required to seal and sign, by an experienced professional engineer registered in the State of Texas, all designs and construction documents. The professional engineer reviewing, signing, and sealing the final plans shall be a permanent employee of the Consultant.

2. TECHNICAL SERVICES

The Consultant shall perform all required services for development of the Plans, Specifications and Estimates (PS&E) for Project. These services shall include, but not be limited to the following items.

2.1 FIELD SURVEYS FOR DESIGN

- 2.1.1 General. Geometric Controls and benchmarks have been established and right-of-way surveys have been performed by others. A calculated centerline of the Project has been established by Denton County. All available survey information, photogrammetric mapping, and calculated centerline will be furnished to the Consultant. The Consultant shall verify the accuracy of the centerline, right-of-way corners, and any other controls previously established.
- 2.1.2 <u>Surveying.</u> Make complete field surveys of existing conditions to supplement aerial photogrammetry including the following.
 - 1.) Existing utilities and drainage facilities as required.
 - 2.) Coordinate with utility companies for type, size, and location of underground utilities. Exposure of underground utilities, if necessary, will be performed and paid for by others.
 - 3.) Survey all existing topographic features and cross-sections of the alignment and drainage channels to supplement aerial photogrammetry furnished by the Authority.
 - 4.) Survey existing cross sections along existing cross streets, driveways, and railroad as may be necessary for design purposes.
 - 5.) Survey overhead power lines, telephone lines, cable T.V., and any other overhead features; establish location and features of tower foundations and the elevation of lowest wires and cables.
 - 6.) Provide topographic surveys to supplement topographic mapping furnished by Denton County. Supplemental topography may be required by the Consultant such as the location of all dwellings, buildings, sheds, fences, streams, roads, utilities, orchards, the outline of wooded or heavy brush areas, large ornamental trees, and any other pertinent items of culture within the limits specified. Any dwelling or structure adjacent to, but not more than fifty feet outside the limits of the work, shall also be located. Provide sufficient topo survey to determine construction limits for driveways, cross streets and drainage channels.
 - 7.) Contact representatives of all public and private utilities and locate all utilities of record and others, which are apparent in the field. Exact locations both in plan and elevations shall be determined.
 - 8.) Profile the lake bottom to determine the creek channel bottom. Two mudline profiles parallel to the existing bridge. One at the existing bridge, and one approximately 50' south.
 - 9.) Survey boring locations
 - 10.) Perform a tree survey for trees with trunks larger than 4" DBH. Identify location, size at diameter breast height, and species.

2.2 SURVEYS FOR RIGHT-OF-WAY AND EASEMENTS

2.2.1 <u>General</u>. Existing right-of-way for the Project has been determined by and is available from Denton County. If, as the final plans are further developed, it becomes apparent that easements or additional right-of-way is required within or abutting the Project, the

Consultant shall immediately determine its extent and recommend to the Authority and the GEC the limits of easements or additional right-of-way required.

All survey necessary for temporary and permanent easements for drainage, relocated roads, detours, streets, railroads, utilities, and all other features required for the construction of the Project shall be performed by the consultant as Extra Work.

2.2.2 <u>Right-of-Way Negotiations.</u> The Consultant will not be required to appraise, search title for, or negotiate for any right-of-way or easements required for the Project. However, the Consultant may be required to provide engineering assistance in additional acquisition of right-of-way or easements, and appear from time to time in right-of-way meetings or conferences with the Authority, the GEC and/or the General Counsel relating to right-of-way acquisition. No extra compensation will be due the Consultant for such assistance, except with respect to trial preparation or to the appearance of the Consultant as a witness in any court proceeding as provided in any court proceeding.

2.3 SOILS AND FOUNDATIONS

- 2.3.1 <u>Subsurface Exploration</u>. TxDOT had previously conducted a subsurface exploration for the FM 720 Bridge and the Authority has substantial subsurface information related to the Lewisville Lake Toll Bridge (Section 2). The Consultant is required to utilize the available information and develop a subsurface exploration program to establish recommendations for design of subgrade, pavement, bridge and retaining wall foundation, roadway embankments, sign structures, other structures and embankment stability for the Project. Global stability analysis will be required for any wall designs.
- 2.3.2 <u>Soil Boring</u>. If additional soil borings are required, develop a soil boring location plan and provide criteria for obtaining soil samples for laboratory analysis. The soil boring program will comply with TxDOT's standards. The Consultant will prepare a plan of operations, a site safety plan and a spill prevention plan for all geotechnical investigations. These documents will be provided to the USACE offices for review and approval prior to proceeding with work. Work will be conducted in accordance with permits and agreements established with the USACE by the Authority.
- 2.3.3 <u>Drilling Program</u>. For the purpose of the geotechnical work plan, it is assumed that multiple piers/columns at each bent will support the bridge. The geotechnical exploration will entail finding suitable bearing strata for the required loads
- 2.3.4 <u>Laboratory Analysis</u>. Laboratory tests will be performed for classification purposes to determine strength characteristics and to evaluate both the short and long term deformation/swell properties of the materials encountered. Testing will be in accordance with TxDOT's standard procedures which include but are not limited to moisture content and soil identification, liquid and plastic limit determinations, unconfirmed compression tests on soil and rock, absorption pressure and/or one-point pressure swell tests and unit weight determinations all as appropriate. For global stability purposes, direct shear tests will be performed on selected samples. Rock Quality Designation (RQD) will be

recorded for all core samples. The specific types and quantities of tests will be determined based on soil/rock types encountered in the borings.

Samples not used for laboratory testing will be retained by the Consultant for a period that extends at least to the end of the period of construction. Following that period, the Consultant will determine from the Authority the ultimate disposition of the samples.

- 2.3.5 <u>Geotechnical Report</u>. The Consultant will prepare a comprehensive Geotechnical Report complying with TxDOT's standards which may be issued to bidders and become part of the construction contract documents. The geotechnical engineering report will present the results of the field and laboratory data together with the analyses of the results and will address the following:
 - Soil and rock strata based on all bridge boring locations;
 - Final bridge foundation design recommendations including foundation type, identification of bearing strata, allowable bearing pressure and lateral support for sign structures and light standards;
 - Soil and groundwater conditions encountered at the boring locations;
 - Foundation design recommendations including foundation type, identification of bearing strata, allowable bearing pressure and lateral support for sign structures and light standards;
 - · Recommendations for embankment construction;
 - Soil classification for borrows material and oils in excavation areas;
 - Pavement design recommendations, including subgrade preparation and pavement thickness;
 - Earthwork recommendations, including material and compaction requirements;
 - Construction considerations related to soil and groundwater conditions at the borings.
 - Fifteen (15) copies of the completed final report will be provided after comments are addressed.

2.4 PLANS, GENERAL NOTES, SPECIFICATIONS AND ESTIMATES

The horizontal and vertical alignment for the project have been approved by Denton County and TxDOT but will need to be verified by the Consultant to ensure that they are compatible with Sections 3 and 7. Consultant is allowed to make minor modifications to the alignments to improve the design and/or reduce project cost.

- 2.4.1 <u>Calculations and PS&E</u>. Prepare calculations, designs, plans, specifications and estimates for the construction of the Project, including grading, drainage, pavement, bridges, retaining walls, roadway illumination, traffic control devices, fiber optic infrastructure systems, attenuators, guard fencing; structures; traffic control; storm water pollutions prevention plans (SW3P); and all incidentals as a function of the Scope of Services and as more particularly described herein.
- 2.4.2 <u>Structural Design</u>. Using LRFD design, the structural design (bridge, retaining wall, culvert, etc.) shall be in accordance with the current version of the Texas Department of Transportation (TxDOT) Bridge Design Manual and the Geotechnical Manual where applicable. All bridge structural details shall be in accordance with the TxDOT Bridge

- Detailing Manual and applicable TxDOT standard drawings. All other structural details shall be in accordance with the applicable TxDOT and Authority standard drawings.
- 2.4.3 404 Permit. The Consultant shall prepare the plans to comply with requirements specified in the 404 Permit, which has been issued to Denton County by the USACE. A copy of the Permit will be made available to the Consultant. The USACE requires that "any surface runoff from the roadway must be collected in a storm water system and may not be permitted to drain directly into the lake." The Consultant shall design and obtain approval from the USACE. For facilities to collect and treat runoff prior to releasing it into the lake, The Consultant will utilize the system being developed for the LLTB and LLCP Section 3. The Consultant shall prepare plans for excavations of the lake storage pool to compensate for volume lost to bridge support columns and roadway embankment. The Consultant shall prepare plans for tree mitigation or a yet to be identified environmental mitigation. The Consultant shall prepare a plan sheet with notes defining the environmental commitments and requirements for the project.
- 2.4.4 <u>Utility Plans</u>. Prepare utility plans for the Project that clearly illustrate the horizontal and vertical location of existing public and private utilities within the right-of-ways. Utility plans shall be developed at the same scale as roadway paving plans and shall include the location of utilities relocated in conjunction with this project. Review of utility adjustment or relocation plans that may be required for the Project are included in the Scope of Services, but may be requested of the Consultant by the Authority under a Supplemental Agreement to this contract as provided for under terms of the Agreement. The Consultant should be prepared to attend meetings as requested with the GEC, AUTHORITY and utility companies, and TxDOT.
- 2.4.5 <u>Signing, Signals, Pavement Markings and Delineation</u>. Prepare preliminary and final designs, plans and specifications for signing, signal, pavement marking and delineation for inclusion in the plans. The Texas Manual of Uniform Traffic Control Devices (TMUTCD) guidelines will be used in developing these plans. Signs and sign supports for small signs shall be designed using the most recent TxDOT standard designs and drawings. Signal modifications will be made to the three (3) existing signals at the following intersections: Preston Lakes, Hart Rd., and Lobo Lane.
- 2.4.6 <u>Sequencing</u>. Prepare sequence of construction plans, temporary signing, traffic protection and detour plans and specifications to maintain existing levels of traffic flow during construction of the Project.
- 2.4.7 <u>Guard Fence</u>. Provide designs, plans and specifications for protective guard fence along the top of the slopes, at power poles, lighting poles, retaining wall ends, culverts, sign poles and foundations and other obvious hazards as may be required. Metal beam guard fence safety end treatment conforming to TxDOT standards shall be required at all locations.
- 2.4.8 <u>Construction Quantities and Costs</u>. Quantities are to be prepared based on the final design. Quantities will not be prepared by phase. Prepare estimates of construction quantities and costs based on preliminary and final construction plans for the Project. The initial estimate of construction cost shall be prepared and submitted at the 30 percent

- plan completion stage. An estimate shall also be prepared and submitted at the 60 percent, 90 percent and 100 percent completion stage. A final estimate shall be prepared upon plan completion and acceptance by the Denton County, TxDOT and Authority. Additional estimates may be requested at any time during the plan development process.
- 2.4.9 <u>Supplemental Information</u>. Prepare preliminary and final drafts of supplemental specifications, special provisions, notices, proposal, quantities, estimates and other information necessary for the preparation of construction contract documents, including alternate bids. The 2004 Edition of the <u>TxDOT Standard Specifications</u> will be utilized for the Project. The Consultant shall prepare any new Special Specifications, Special Provisions and General Notes required for this Project in compliance with the 2004 Standard Specifications. All revisions of specifications, special provisions, special specifications or general notes must be submitted with the 90 percent complete plans in marked-up or draft copy format.
- 2.4.10 <u>Additional Design Services</u>. Provide such additional design services as the Authority may determine to be necessary to provide complete construction plans and bidding documents for usual items of construction. Bridgefarmer will prepare a bid list for TxDOT to enter into DCIS. This will be in an Excel Spreadsheet format.
- 2.4.11 <u>Bidding</u>. Provide assistance to and participation with TxDOT during the bidding process.
- 2.4.12 <u>Review of Drawings</u>. Review of shop, erection, working or other drawings is not a part of this Agreement.
- 2.4.13 <u>Clarifications</u>. Provide assistance to TxDOT in matters relating to the clarifications or supplementation of plans and specifications during the construction period for the Project is not a part of this Scope of Services but may be requested of the Consultant by the Authority under a Supplemental Agreement as provided for under the Extra Work provisions of the Agreement.
- 2.4.14 Trench Safety. Trench safety designs shall be prepared if required by TxDOT.

2.5 PUBLIC UTILITY RELOCATIONS

- 2.5.1 <u>Utility Locations</u>. The Consultant shall show on its plans the location, alignment and grade of each public or private utility crossing, including both aerial and underground lines, giving the station, skew, elevations, owner, the type of line crossed and all other pertinent data visible in the field or obtainable from local residents, records and utility representatives. It is a requirement that the Consultant prepare and submit these plans as soon as possible after complete execution of the Agreement so that all utility company relocations may be approved and relocated prior to awarding of the general construction contracts.
- 2.5.2 <u>Construction Procedure</u>. In general, it is contemplated that the utility companies will prepare the necessary plans and estimates; and complete the relocation of its facilities. However, the Authority may direct or authorize the Consultant to prepare the designs, create the specifications and prepare utility relocation or adjustment plans and include

such relocations in its construction plans. The Consultant will be compensated according to the Extra Work provisions of the Agreement. The utility companies may request the inclusion of their construction plans and specifications in plans issued by the Authority for construction of the project. If so, the Authority will require the Consultant to include such utility relocation plans, in logical numbered sequence, within the construction plans and specifications it is preparing and tabulate utility quantities in the construction plan quantity summary and bidding documents. To include this work, the Consultant will be compensated according to the Extra Work provisions of the Agreement. In addition to preparing the plans and data required, the Consultant shall be required to participate in negotiations with the utility companies for the maintenance, relocation and restorations of all utilities.

3 CONTROL OF WORK

- 3.3 <u>Conceptual Plans</u>. The schematic of the Project contains conceptual plans and profiles of the roadway, as prepared from controlled photogrammetric mapping. Project development schedules and preliminary estimates of construction costs are also available. The construction plans prepared by the Consultant are to be based generally on the schematic design and shall adhere to the location and principal features shown to the extent found feasible, economical and consistent with the terms of the Agreement and prudent engineering standards.
- 3.4 <u>Location and Design Feature Modifications</u>. The Consultant shall make every effort to improve the location and design features of the Project where final designs indicate the desirability of improved or more economical design relative to detail shown in the schematic design. The Authority and/or the GEC will, as the work progresses, modify or supplement the data shown in the schematic design with drawings of typical or standard details, criteria, or other instructions and guidance that are considered necessary for a coordinated design of the entire Project.
- 3.5 Review Participation. The Consultant shall submit for review and shall participate in reviews of its engineering designs, plans and specifications by and with the staffs of the Authority, TxDOT and the GEC. The GEC's review will consist of checking for and commenting on the format, adequacy and economy of design. The Consultant solely shall be responsible for the accuracy, and adequacy of its respective engineering and technical work. The Consultant shall also be responsible for obtaining approval of the construction documents from various agencies including, but not limited to, TxDOT, Denton County, US Army Corps of Engineers (USACE), Texas Department of Licensing and Regulations (TDLR), Texas Commission on Environmental Quality (TCEQ) and the Town of Little Elm.
- 3.6 Review. Formal review shall occur at approximately 30 percent, 60 percent, 90 percent and 100 percent completion of PS&E. A final submittal of PS&E shall be made after review and inclusion of comments from all reviewing agencies. Microstation CADD files will be submitted on approved electronic media if requested by the Authority with the interim milestone submittals and the final submittal. All designs, plans, schedules and progress shall be performed as required and shall be subject to the control, review and approval of TxDOT and the Authority acting through its GEC. Submittals will be rejected if not complete and a complete resubmittal will follow. Rejection of an incomplete submittal will not be a cause for an extension of the schedule for submittal. The schedule for submittal shall occur at approximately 30 percent, 60 percent, 90 percent and 100 percent completion of designs, plans, specifications and estimates. The final

submittal shall be made after review and inclusion of comments from all reviewing agencies. Fifteen (15) copies of the plans shall be submitted at the 30 percent, 60 percent, 90 percent level, and 100 percent level; and on 11"x17" 20-lb bound paper in English units. Same numbers of copies of the specifications on 8½" x11" paper shall also be included at the 60 percent, 90 percent, and 100 percent review stages. Final submittal for TxDOT letting shall comply with TxDOT's requirements relative to plans sizes and number of copies. Printing of bid and construction sets will be performed by TxDOT. Final construction plans shall meet all requirements specified in Section 5.

4 PROGRESS OF ENGINEER SERVICES

The Consultant will be required to participate in a monthly design coordination meeting that may include representatives from TxDOT, Denton County, USACE, Town of Little Elm, the Authority and GEC. The Consultant shall prepare meeting minutes of these meetings. Additionally, a monthly progress report of engineering services shall be submitted to the Authority as an attachment to monthly pay estimate requests.

5 PREPARATION OF CONSTRUCTION PLANS

As stated previously, the Project will be constructed, maintained and owned by TxDOT and therefore, the preparation of plans, specifications and estimates shall comply with TxDOT Design Standards and Manual.

6 ASSISTANCE DURING ADVERTISING AND AWARD OF CONSTRUCTION CONTRACT

The Consultant shall assist TxDOT during the bidding process, if required.

7 ITEMS TO BE FURNISHED TO THE CONSULTANT BY THE AUTHORITY

The following items will be supplied to the Consultant:

- a. Copies and the electronic file of the schematic for Sections 4-6.
- b. Section 3 and 7 plan sets.
- c. Standard and sample forms for invoices, reports, estimates, and other items necessary for control of the work:
- d. Available environmental related documents;
- e. Available right-of-way parcel information;

8 COORDINATING WITH ENGINEERING AND CONSTRUCTION WORK ON ADJACENT SECTIONS

Continuous close contact and cooperation between the Consultant and other firms furnishing engineering or engineering-related services, and between the Consultant and the GEC and the Authority will be essential to obtain the uniformity and high professional standard of design and construction which is mandatory throughout the design and construction of the Project.

9 U.S. ARMY CORPS OF ENGINEERS (USACE) PERMIT

The USACE has issued a Section 404 permit (project number 200200210) to Denton County, dated April 25, 2003 - for the construction of the Toll Bridge. A copy of the permit will be made available to the Consultant. The Consultant shall prepare the plans to comply with requirements stated in the permit so that the final plans can be approved by the USACE.

10 DELIVERABLES

- Electronic CADD and Geopak files in Microstation version 7 on a CD/DVD
- Signed & Sealed PS&E construction plans
- Cross-sections on 11x17 format sheets will be included with every submittal. Construction phasing cross sections shall also be prepared by Consultant to check drop-off depths.
- Construction time estimate complying with TxDOT's requirements.
- The Consultant may be required to provide the GEC copies of all correspondences, reports, schedules, plans, specifications, estimates, etc... in PDF format.