

**AGREEMENT FOR ENGINEERING SERVICES  
BETWEEN THE  
CITY OF NORTH RICHLAND HILLS  
AND  
MULTATECH ENGINEERING, INC.**

**I.**

This Agreement is executed by and between the City of North Richland Hills, a municipal corporation located in Tarrant County, Texas, acting by and through Mark Hindman, its duly authorized City Manager (hereinafter called "CITY"), and **MULTATECH ENGINEERING, INC.**, a Texas corporation, acting by and through **REPRESENTATIVE**; its duly authorized Principal (hereinafter called "ENGINEER").

**WITNESSETH**, that CITY desires professional engineering services in connection with the **LARIAT TRAIL PROJECT – MEADOW LAKES DRIVE TO RIVIERA DRIVE AND CIRCLE VIEW COURT TO DEAD END**

**NOW, THEREFORE**, CITY and ENGINEER, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

**II. PROJECT**

In this Agreement, the "PROJECT" means the engineering design of the **LARIAT TRAIL PROJECT – MEADOW LAKES DRIVE TO RIVIERA DRIVE AND CIRCLE VIEW COURT TO DEAD END** in accordance with the Public Works Design Manual, applicable CITY codes, regulations and standards.

**III. BASIC AGREEMENT**

ENGINEER is an independent contractor and undertakes and agrees to perform professional engineering services in connection with the PROJECT, as stated in the sections to follow. It is understood and agreed that ENGINEER is not and will not by virtue of this contract be deemed to be an agent or employee of CITY and that CITY will not be entitled to direct the performance by ENGINEER's employees or subcontractors of the tasks contemplated by this contract. All engineering services shall be performed with diligence and in accordance with professional standards customarily obtained for such services in the State of Texas. For rendering such services CITY agrees to pay ENGINEER as set forth in Section VIII: "Compensation" and Exhibit F: "Compensation".

#### **IV. SCOPE OF ENGINEER'S SERVICES**

ENGINEER shall render the professional services necessary for development of the PROJECT, in accordance with the schedule in Exhibit A: "Project Schedule" and as detailed in Exhibit B: "Basic Engineering Services", said exhibits being attached hereto and incorporated herein for all purposes. ENGINEER shall be responsible, to the level of competency presently maintained by other practicing professional engineers in the same type of work in the Dallas/Fort Worth Metroplex area, for professional and technical soundness, accuracy, and adequacy of all designs, drawings, specifications, and other work and materials furnished under this Agreement.

#### **V. SPECIAL ENGINEERING SERVICES**

The CITY will pay the ENGINEER for Special Engineering Services as indicated in Exhibit C: "Special Engineering Services", attached hereto and made a part of this Agreement.

#### **VI. ADDITIONAL ENGINEERING SERVICES**

Additional Engineering Services are defined in Exhibit D: "Additional Engineering Services", attached hereto and made a part of this Agreement. No Additional Engineering Services are authorized unless authorization for specified additional services are provided to ENGINEER by CITY in writing and approved by CITY.

#### **VII. SCOPE OF CITY SERVICES**

The City will furnish items and perform those services as identified in Exhibit E: "Services to be provided by the City", attached hereto and made a part of this Agreement.

#### **VIII. COMPENSATION**

- A. In consideration of the services described herein, CITY shall pay and ENGINEER shall receive compensation in accordance with Exhibit F: "Compensation".
- B. Total payments including without limitation reimbursable expenses, to ENGINEER by CITY for the services stated in Section IV and Section V above shall not exceed **ONE HUNDRED SEVENTY-ONE THOUSAND, FOUR HUNDRED FIFTY-FIVE (\$171,455.00)**,
- C. CITY may authorize additional services to be provided by ENGINEER as mutually agreed upon by the parties. Any authorization for additional services shall be given to ENGINEER by CITY in writing and approved by CITY.

- D. CITY and ENGINEER understand that the variables in ENGINEER's cost of performance may fluctuate. The parties agree that any fluctuation in ENGINEER's costs will in no way alter ENGINEER's obligations under this Agreement nor excuse performance or delay on ENGINEER's part.

## **IX. OWNERSHIP OF DOCUMENTS**

All completed or partially completed evaluations, reports, surveys, designs, drawings and specifications prepared or developed by ENGINEER under this Agreement, including any original drawings, computer disks, mylars or blue lines, shall become the property of CITY when the Agreement is concluded or terminated, and may be used by CITY in any manner it desires; provided, however, that ENGINEER shall not be liable for the use of such drawings for any project other than the PROJECT described in this Agreement.

## **X. INDEMNITY**

**ENGINEER AND ITS SUBCONSULTANTS SHALL INDEMNIFY AND HOLD CITY AND ALL OF ITS OFFICERS, AGENTS, SERVANTS, AND EMPLOYEES HARMLESS FROM ANY LOSS, DAMAGE, LIABILITY OR EXPENSES, ON ACCOUNT OF DAMAGE TO PROPERTY AND INJURIES, INCLUDING DEATH, TO ANY AND ALL PERSONS, INCLUDING BUT NOT LIMITED TO OFFICERS, AGENTS OR EMPLOYEES OF ENGINEER OR ITS SUBCONSULTANTS, AND ALL OTHER PERSONS PERFORMING ANY PART OF THE WORK AND IMPROVEMENTS, WHICH MAY ARISE OUT OF ANY NEGLIGENT ACT, ERROR, OR OMISSION IN THE PERFORMANCE OF ENGINEER'S PROFESSIONAL SERVICES OR IN THE PREPARATION OF EVALUATIONS, REPORTS, SURVEYS, DESIGNS, WORKING DRAWINGS, SPECIFICATIONS AND OTHER ENGINEERING DOCUMENTS INCORPORATED INTO ANY IMPROVEMENTS CONSTRUCTED IN ACCORDANCE THEREWITH; ENGINEER SHALL DEFEND AT ITS OWN EXPENSE ANY SUITS OR OTHER PROCEEDINGS BROUGHT AGAINST CITY AND ITS OFFICERS, AGENTS, SERVANTS AND EMPLOYEES OR ANY OF THEM ON ACCOUNT OF THE FOREGOING DESCRIBED NEGLIGENT ACTS, ERRORS OR OMISSIONS, AND SHALL PAY ALL EXPENSES AND SATISFY ALL JUDGMENTS WHICH MAYBE INCURRED BY OR RENDERED AGAINST CITY, ITS OFFICERS, AGENTS, SERVANTS AND EMPLOYEES OR ANY OF THEM, IN CONNECTION WITH THE FOREGOING DESCRIBED NEGLIGENT ACTS, ERRORS, OR OMISSIONS; PROVIDED AND EXCEPT HOWEVER, THAT THIS INDEMNIFICATION PROVISION SHALL NOT BE CONSTRUED AS REQUIRING ENGINEER TO INDEMNIFY OR HOLD CITY OR ANY OF ITS OFFICERS, AGENTS, SERVANTS OR EMPLOYEES HARMLESS FROM ANY LOSS, DAMAGES, LIABILITY OR EXPENSE, ON ACCOUNT OF DAMAGE TO PROPERTY OR INJURIES TO PERSONS CAUSED BY DEFECTS OR DEFICIENCIES IN DESIGN CRITERIA AND INFORMATION FURNISHED TO ENGINEER BY CITY, OR ANY SIGNIFICANT DEVIATION IN CONSTRUCTION FROM ENGINEER'S DESIGNS, WORKING DRAWINGS, SPECIFICATIONS OR OTHER ENGINEERING DOCUMENTS.**

Approval by CITY of contract documents shall not constitute or be deemed to be a release of the responsibility and liability of ENGINEER, its officers, agents, employees and subconsultants, for the accuracy and competency of the services performed under this Agreement, including but not limited to evaluations, reports, surveys, designs, working drawings and specifications, and other engineering documents. Approval by CITY shall not be deemed to be an assumption of such responsibility and liability by CITY for any error, omission, defect, deficiency or negligence in the performance of ENGINEER's professional services or in the preparation of the evaluations, reports, surveys, designs, working drawings and specifications or other engineering documents by ENGINEER, its officers, agents, employees and subconsultants, it being the intent of the parties that approval by CITY signifies CITY's approval of only the general design concept of the improvements to be constructed.

## **XI. INSURANCE**

For the duration of this Agreement, ENGINEER shall maintain the following minimum public liability and property damage insurance which shall protect ENGINEER, its subcontractors, its subconsultants and CITY from claims for injuries, including accidental death, as well as from claims for property damage which may arise from the performance of work under this Agreement. ENGINEER shall provide a Certificate of Insurance verifying that the following minimum limits of coverage are provided:

**A. Worker's Compensation Insurance:**

Statutory requirements                      (\$ 300,000 minimum)

**B. Comprehensive General Liability and Bodily Injury:**

Bodily Injury	\$ 500,000 per person, or \$ 1,000,000 per occurrence; and
Property Damage	\$ 100,000 each occurrence; or
Combined Single Limit	\$ 1,000,000 aggregate

**C. Comprehensive Automobile Liability:**

Bodily Injury	\$ 500,000 per person, or \$ 1,000,000 per occurrence; and
Property Damage	\$ 100,000 each occurrence; or
Combined Single Limit	\$ 1,000,000 aggregate

**D. Professional Liability:**

Errors and Omissions                      \$ 1,000,000

The Certificate of Insurance shall contain a provision that such insurance cannot be canceled or non-renewed without thirty (30) days prior written notice to CITY.

## **XII. ARBITRATION**

No arbitration arising out of or relating to this Agreement shall occur without both parties' written approval.

## **XIII. TERMINATION AND SUSPENSION**

- A. CITY may terminate this Agreement at any time for convenience or for any cause by a notice in writing to ENGINEER. Either CITY or ENGINEER may terminate this Agreement in the event the other party fails to perform in accordance with the provisions of this Agreement. Upon receipt of such notice, ENGINEER shall immediately discontinue all services and work and the placing of all orders or the entering into contracts for supplies, assistance, facilities, and materials, in connection with the performance of this Agreement and shall proceed to cancel promptly all existing contracts insofar as they are chargeable to this Agreement.
- B. If CITY terminates this Agreement under the foregoing Paragraph A, CITY shall pay ENGINEER a reasonable amount for services performed prior to such termination, which payment shall be based upon the payroll cost of employees engaged on the work by ENGINEER up to the date of termination of this Agreement and for subcontract and reproduction in accordance with the method of compensation stated in Section VIII: "Compensation" hereof. In the event of termination, the amount paid shall not exceed the amount appropriate for the percentage of work completed.

## **XIV. SUCCESSORS AND ASSIGNS**

CITY and ENGINEER each bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of such other party in respect to all covenants of this Agreement; except as above, neither CITY nor ENGINEER shall assign, sublet or transfer its interest in this Agreement without the written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of CITY.

## **XV. AUTHORIZATION, PROGRESS, AND COMPLETION**

CITY and ENGINEER agree that the PROJECT is planned to be completed in accordance with the Exhibit A: "Project Schedule" which is attached hereto and made a part hereof. ENGINEER shall employ manpower and other resources and use professional skill and diligence to meet the schedule; however, ENGINEER shall not be responsible for schedule delays resulting from conditions beyond ENGINEER's control. With mutual agreement, CITY

and ENGINEER may modify the Project Schedule during the course of the PROJECT and if such modifications affect ENGINEER's compensation, it shall be modified accordingly, subject to City Council approval.

For Additional Engineering Services, the authorization by CITY shall be in writing and shall include the definition of the services to be provided, the schedule for commencing and completing the services and the basis for compensation as agreed upon by CITY and ENGINEER.

It is understood that this Agreement contemplates the full and complete Engineering services for this PROJECT including any and all services necessary to complete the work as outlined in Exhibit B: "Basic Engineering Services". Nothing contained herein shall be construed as authorizing additional fees for services to provide complete services necessary for the successful completion of this PROJECT.

#### **XVI. SUBCONTRACTS**

ENGINEER shall be entitled, only if approved by CITY, to subcontract a portion of the services to be performed by ENGINEER under this Agreement.

#### **XVII. RIGHT TO AUDIT**

ENGINEER agrees that CITY shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy any directly pertinent books, design calculations, quantity take-offs, documents, papers and records of ENGINEER involving transactions relating to this Agreement. ENGINEER agrees that CITY shall have access during normal working hours to all necessary ENGINEER facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. CITY shall give ENGINEER reasonable advance notice of intended audits.

ENGINEER further agrees to include in all its subconsultant agreements hereunder a provision to the effect that the subconsultant agrees that CITY shall, until the expiration of three (3) years after final payment under the subcontract, have access to and the right to examine and photocopy any directly pertinent books, design calculations, quantity take-offs, documents, papers and records of such subconsultant, involving transactions to the subcontract, and further, that CITY shall have access during normal working hours to all subconsultant facilities, and shall be provided adequate and appropriate work space, in order to conduct audits in compliance with the provisions of this article. CITY shall give subconsultant reasonable advance notice of intended audits.

#### **XVIII. EXHIBITS**

Both parties agree to the following exhibits and as such, the following exhibits are made a part of this Agreement:

Exhibit "A"	Project Schedule
Exhibit "B"	Basic Engineering Services
Exhibit "C"	Special Engineering Services
Exhibit "D"	Additional Engineering Services
Exhibit "E"	Services to be provided by the City
Exhibit "F"	Compensation
Exhibit "G"	Form 1295

## **XIX. MISCELLANEOUS**

- A. Authorization to Proceed. Signing this Agreement shall be construed as authorization by CITY for ENGINEER to proceed with the work, unless otherwise provided for in the authorization.
- B. Legal Expenses. In the event legal action is brought by CITY or ENGINEER against the other to enforce any of the obligations hereunder or arising out of any dispute concerning the terms and conditions of this Agreement, the prevailing party in any litigation between the parties to this agreement shall be entitled to reasonable attorney fees.
- C. Notices. Any notice or correspondence required under this Agreement shall be sent by certified mail, return receipt requested, or by personal delivery and shall be effective upon receipt, if addressed to the party receiving the notice or correspondence at the following address:

If to ENGINEER:

Multatech Engineering, Inc.  
Attn: Eric A. Canales, P.E., PMP  
2821 West 7<sup>th</sup> Street, Suite 400  
Fort Worth, TX 76107

If to CITY:

City of North Richland Hills  
Attn: Nathan Frohman, P.E., CFM  
Public Works & Engineering Department  
4301 City Point Drive  
North Richland Hills, Texas 76180

With Copies to the City Manager and City Attorney at the same address.



- D. Independent Contractor. ENGINEER shall perform services hereunder as an independent contractor, and not as an officer, agent, servant or employee of the CITY and ENGINEER shall have the exclusive right to control services performed hereunder by ENGINEER, and all persons performing same, and shall be responsible for the negligent acts and omissions of its officers, agents, employees, and subconsultants. Nothing herewith shall be construed as creating a partnership or joint venture between CITY and ENGINEER, its officers, agents, employees and subconsultants; and the doctrine of respondent superior has no application as between CITY and ENGINEER.
- E. Venue. This Agreement shall be governed by the laws of the State of Texas, and venue in any proceeding relating to this Agreement shall be in Tarrant County, Texas.
- F. Entire Agreement. This Agreement represents the entire agreement between CITY and ENGINEER and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both CITY and ENGINEER.
- G. Severability. If any provision in this Agreement shall be held illegal by a valid final judgment of a court of competent jurisdiction, the remaining provisions shall remain valid and enforceable.
- H. Disclosure. By signature of this Agreement, ENGINEER warrants to CITY that it has made full disclosure in writing of any existing conflicts of interest or potential conflicts of interest, including but not limited to personal financial interests, direct or indirect, in property abutting the PROJECT and business relationships with abutting property owners. ENGINEER further warrants that it will make disclosure in writing of any conflicts of interest which develop subsequent to the signing of this Agreement and prior to final payment under this Agreement.



This Agreement is executed in two (2) counterparts.

IN TESTIMONY WHEREOF, the parties hereto have executed this Agreement this the \_\_\_\_\_ day of \_\_\_\_\_, 2022.

CITY OF NORTH RICHLAND HILLS  
(CITY)

ENGINEERING FIRM, INC.  
(ENGINEER)

By: \_\_\_\_\_  
Mark Hindman, City Manager

By: \_\_\_\_\_  
Eric A. Canales, Vice President

Date: \_\_\_\_\_

Date: \_\_\_\_\_

ATTEST:

ATTEST:

\_\_\_\_\_  
Alicia Richardson, City Secretary

\_\_\_\_\_  
Notary Public in and for the State of Texas

APPROVED TO FORM AND LEGALITY:

\_\_\_\_\_  
Maleshia B. McGinnis, City Attorney

\_\_\_\_\_  
Miranda Bosher  
My Commission Expires:

\_\_\_\_\_

**CITY SEAL**

**CORPORATE SEAL**

**EXHIBIT A**

**PROJECT SCHEDULE  
FOR  
LARIAT TRAIL PROJECT – MEADOW LAKES DRIVE TO RIVIERA DRIVE AND  
CIRCLE VIEW COURT TO DEAD END**

PROJECT SCHEDULE

The Scope of Services for this PROJECT is based on the following schedule:

<u>Activity</u>	<u>Due Date</u>
Notice To Proceed from City	<b>April 26, 2022</b>
Submit Conceptual Design	<b>June 24, 2022</b>
Receive City Review Comments	<b>July 22, 2022</b>
Submit Preliminary 60% Plans	<b>September 16, 2022</b>
Receive City Review Comments	<b>October 14, 2022</b>
Submit 90% Plans	<b>December 16, 2022</b>
Receive Final City Review Comments	<b>January 20, 2023</b>
Submit Final 100% Plans for Bid	<b>February 24, 2023</b>
Advertise for Construction Bids	<b>March 24, 2023</b>
Open Construction Bids	<b>April 28, 2023</b>
Begin Construction	<b>May 26, 2023</b>

**Note:** Due dates shown are submittal dates of task activities listed.

**EXHIBIT B**

**BASIC ENGINEERING SERVICES  
FOR  
LARIAT TRAIL PROJECT – MEADOW LAKES DRIVE TO RIVIERA DRIVE AND  
CIRCLE VIEW COURT TO DEAD END**

The scope of work for BASIC Engineering Services involves Conceptual, Preliminary and Final Design, Project Plans, Specifications and Estimates for the reconstruction of Lariat Trail, an existing 2-lane asphalt roadway from Meadow Lakes Drive to Riviera Drive and from Circleview Court to the Dead End. The improvements will include the replacement of the pavement including curb-and-gutter, installation of pedestrian facilities along the corridor, and basic wet utility replacement. The project will also include mill and overlay of the existing asphalt pavement between Riviera Drive and Circleview Court.

**1. PROJECT MANAGEMENT**

**1.1. Manage the Team:**

- Lead, manage and direct design team activities
- Conduct and document bi-weekly design team meetings.
- Ensure quality control is practiced in performance of the work
- Communicate internally among team members
- Allocate team resources

**1.2. Communications and Reporting:**

- Attend a pre-design project kickoff meeting with CITY staff to confirm and clarify scope, understand CITY objectives, and ensure economical and functional designs that meet CITY requirements.
- Conduct review meetings with the CITY at the end of each study/design phase.
- Conduct QC/QA reviews and document those activities
- Prepare and submit monthly invoices in the format acceptable to the CITY.
- Prepare and submit monthly progress reports.
- Prepare and submit baseline Project Schedule initially and Project Schedule updates.
- Coordinate with other agencies and entities as necessary for the design of the proposed infrastructure and provide and obtain information needed to prepare the design.

**2. CONCEPTUAL DESIGN (30% SUBMITTAL)**

**2.1. Data Collection:**

- ENGINEER will research and make efforts to obtain pertinent information to aid in coordination of the proposed improvements with any planned future

improvements that may influence the project. ENGINEER will also identify and seek to obtain data for existing conditions that may impact the project including; utilities, agencies (TxDOT and railroads), City Master Plans, and property ownership as available from the Tax Assessor's office.

- Meet with City engineering staff and obtain any additional design criteria, available GIS information, pertinent utility plans, street plans, plats and right-of-way maps, existing easement information, previous studies prepared by others, as-built plans for portions of surrounding infrastructure, historical drainage complaints and other information available for the project area.
- Perform site visit to verify survey
- Prepare design criteria chart for roadway, drainage, water and sewer design.

## 2.2. Roadway:

- Prepare existing typical sections of the roadway to be constructed along with proposed typical sections which outline the proposed improvements. Typical sections shall include existing ROW, existing and proposed lane widths and direction arrows, existing and proposed curbs, sidewalks, and retaining walls.
- Prepare conceptual plan roll plot showing existing and proposed horizontal roadway alignment; curb and gutter, lane widths, existing ROW; proposed sidewalks and driveways, and limits of mill-and-overlay.

## 2.3. Drainage and Utilities:

- Research and draw all known public and private utilities onto a topographical or planimetric drawing.
- Prepare conceptual plan layout of proposed water and sanitary sewer
- Delineate existing drainage area boundaries and prepare existing drainage area map.
- Place inlets per CITY design criteria.
- Prepare conceptual plan layout of proposed storm drain (analysis to be completed at Preliminary Design).

## 2.4. Opinion of Probable Construction Cost (OPCC)

- Prepare conceptual level OPCC, in accordance with AACE standards, for the entire project using recent average unit bid prices which are representative of similar types of construction in the local area. The ENGINEER has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. OPCC provided herein are based on the information known to ENGINEER at this time and represent only the ENGINEER's judgment as a design professional familiar with the construction industry. The ENGINEER cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its OPCC.

Assumptions:

- Address up to one (1) round of comments from the CITY.

Deliverables:

- Conceptual design exhibits (.pdf and 2 hard copies)
- Drainage area map (.pdf and 2 hard copies)
- OPCC (.pdf and 2 hard copies)
- Project decision log (.pdf and 2 hard copies)

### **3. PRELIMINARY DESIGN PLANS (60% SUBMITTAL)**

#### **3.1. Roadway:**

- Prepare preliminary plans based on the approved conceptual plans.
- Prepare Cover Sheet, Index, and General Notes.
- Project Control Sheet, showing all Control Points, used or set while gathering data.
- Updated existing and proposed typical sections.
- Removal plan sheets.
- Roadway profile and design cross sections. Profile will be based upon top of curb.
- Roadway mill-and-overlay sheets.
- Prepare roadway plan and profile sheets depicting existing and proposed horizontal roadway, existing ROW, existing and proposed sidewalks, curb ramps, existing and proposed driveways, proposed lane dimensions and lane arrows, storm drain, CITY owned and franchise utilities. Proposed roadway profile labeling vertical curves station and elevation data of all vertical profile P.C.'s, P.T.'s, P.I.'s, low points, and high points; lengths of vertical curves, grades, K values, e, and vertical clearances where required.
- Prepare driveway plan and profile sheets.
- Prepare cross sections at fifty-foot intervals and driveways along the project limits.
- Compile applicable CITY and TxDOT paving details.

#### **3.2. Drainage:**

- Compile the hydrological and hydraulic data.
- Prepare existing and proposed drainage area maps.
- Determine conveyance paths, channel slopes, time of concentration, and runoff coefficients as required to calculate design-year flows.
- Analyze the existing drainage system on Lariat Trail between Meadow Lakes Drive and Riviera Drive to determine modifications needed to accommodate the proposed storm drain improvements.

- Analyze the drainage flows and patterns south of Circleview Drive beyond the Dead End to improve current drainage situation.
- Analyze the proposed drainage improvements required to accommodate the roadway modifications.
- Prepare a preliminary storm sewer and inlet plan with alignments and sizes.
- Prepare preliminary storm sewer profiles with design notes for stationing, size, slope, flow lines, and pipe material.
- Temporary erosion control.
- Compile applicable CITY and TxDOT details.

### 3.3. Water

- Refine the plan alignment based on comments from the CITY.
- Prepare water line profile.
- Place fire hydrants, valves and service lines per CITY standards.
- Prepare plan and profile sheets.
- Compile applicable CITY details.

### 3.4. Sanitary Sewer

- Refine the plan alignment based on comments from CITY.
- Prepare sanitary sewer profile.
- Place service lines and manholes per CITY standards.
- Prepare plan and profile sheets.
- Compile applicable CITY details.

### 3.5. Traffic Control

- Prepare traffic control and sequencing narrative.
- Prepare conceptual layout for the planned construction phasing. Up to two (2) phases are assumed.
- Compile applicable TxDOT standard details.

### 3.6. Compile and prepare an updated OPCC

### 3.7. Prepare project decision log documenting key design decisions.

### 3.8. Constructability Review

- Prior to the 60 percent review meeting with the CITY, the ENGINEER will schedule and attend a project site visit with the CITY Project Manager and construction personnel to walk the project. The ENGINEER will summarize the CITY's comments.

3.9. The preliminary design submittal plans will be half size – 11"x17" and will consist of:

- Cover sheet
- Index sheet
- General notes sheets
- Project control sheet
- Typical sections sheets
- Preliminary removal sheets
- Preliminary roadway plan and profile sheets (4)
- Preliminary Mill-and-Overlay sheet (1)
- Preliminary cross sections (4)
- Preliminary drainage area map and runoff calculations
- Inlet and preliminary storm calcs (1)
- Preliminary storm drain plan and profile sheets (1)
- Preliminary erosion control sheets (1)
- Preliminary water line plan and profile sheets (2)
- Preliminary sanitary sewer plan and profile sheets (2)
- Preliminary traffic control sheets (4)
- OPCC

Assumptions:

- Address up to one (1) round of comments

Deliverables:

- 60% plans (11x17) (.pdf and 3 hard copies)
- 60% plans (22x34) (1 hard copy)
- 60% OPCC (.pdf and 2 hard copies)
- 60% project decision log (.pdf and 2 hard copies)

#### **4. FINAL DESIGN PLANS (90% & 100%)**

##### **4.1. Final Plans and contract documents (90%)**

- Finalize the plan sheets listed in Task 3.9 for 90% submittal.
- Prepare the following sheets, addition to the plan sheets listed in Task 3.9:
  - .1. Traffic Control Phase 1 Sheets (2)
  - .2. Traffic Control Phase 2 Sheets (2)
- Prepare project manual and specifications.
- Prepare updated OPCC.
- Submit 90% plans, project manual and OPCC.

##### **4.2. Final Plans and contract documents (100%)**



- Address CITY 90% Comments.
- Finalize the plans, project manual, and specifications.

Assumptions:

- Address up to one (1) round of comments

Deliverables:

- 90% plans (11x17) (.pdf and 2 hard copies)
- 90% plans (22x34) (1 hard copy)
- 90% project manual (.pdf and 2 hard copies)
- 90% OPCC (.pdf and 2 hard copies)
- 90% project decision log (.pdf and 2 hard copies)
- 100% plans (11x17) (.pdf and 2 hard copies)
- 100% plans (22x34) (1 hard copy)
- 100% project manual (.pdf and 2 hard copies)
- 100% OPCC (.pdf and 2 hard copies)
- 100% project decision log (.pdf and 2 hard copies)

**EXHIBIT C**

**SPECIAL ENGINEERING SERVICES  
FOR  
LARIAT TRAIL PROJECT – MEADOW LAKES DRIVE TO RIVIERA DRIVE AND  
CIRCLE VIEW COURT TO DEAD END**

The scope of work for SPECIAL Engineering Services involves Surveys (Design) and Geotechnical Engineering. The scope of work for the Special Engineering Services is more generally described as follows:

**1. FIELD SURVEY**

ENGINEER will perform an on the ground survey of the property under the direct supervision of a Registered Professional Land Surveyor.

**1.1. Surveying Services – North and South Portion Full Mapping**

- Survey area generally includes ROW to ROW of Lariat Trail from Meadow Lakes Drive to Riviera Drive and from Circle View Drive to the Dead End.
- Survey will include the property at the south end of Lariat Trail from the dead end, along the drainage swale to the rear property line.
- The size, length, and flowline elevation of existing storm sewers will be surveyed. Drainage areas contributing to the PROJECT or conveying water from the PROJECT will be determined through field investigations and available topographic mapping.
- Above ground features of existing utilities within the proposed Right-of-Way for the limits of the PROJECT will be field located, including elevations of sanitary and storm sewer manhole flowlines and water/gas valve stems. 811 Utility Locate will be requested and markings will be located. The excavation and other costs required to expose or probe the underground utilities will be the responsibility of others.
- Included in this item: Establish survey control, location of permanent improvements along the site; cross sections and/or mapping generally at 50-foot intervals, contours on one-foot intervals; locations, common name and trunk diameter of trees over 6-inches in caliper; location of visible utilities and appurtenances; inverts of sanitary sewer and storm drain manholes and inlets; back-of-curb, gutter, driveways, and edge of pavements; fences; landscape areas; and mailboxes

**1.2. Surveying Services – Middle Portion Full Mapping**

- Survey area generally includes ROW to ROW of Lariat Trail from Riviera Drive to Circle View Drive.

Assumptions:

- Not included in this item: Final as-built survey of constructed improvements. Record drawings will be provided based on contractor notes during construction.
- Not included in this item: Species names of trees, trees less than 6-inches in diameter, right of entry, and subsurface utility engineering services (see Additional Services).

Deliverables:

- Field survey points and descriptions in CAD format.

## **2. GEOTECHNICAL ANALYSIS**

2.1. Through a qualified subcontractor, ENGINEER shall:

- Perform soil investigations for approximately five (5) test borings within the subject street alignments. Three (3) of the test borings will be drilled between Meadow Lakes Drive and Riviera Drive and the remaining two (2) test borings will be drilled between Circlevue Drive and the southern end of Lariat Trail.
- The test borings will be drilled to depths of fifteen (15) feet below the existing pavement grade. The existing pavements will be cored at selective locations in order to obtain accurate measurements of the existing pavement and base thicknesses.
- Perform laboratory tests and engineering analyses.
- Provide recommendations regarding pavement thickness based upon design traffic data provided by client.
- Pavement subgrade recommendations.
- Comments on the presence and effect of expansive soils on pavement construction will be provided. Alternative methods of reducing any anticipated shrink/swell movements associated with expansive clays will be included for pavement construction, if required.
- Recommendations for open-cut construction for the new utility lines.

Deliverables:

- Geotechnical report summarizing analyses and recommendations.

## **EXHIBIT D**

### **ADDITIONAL ENGINEERING SERVICES FOR LARIAT TRAIL PROJECT – MEADOW LAKES DRIVE TO RIVIERA DRIVE AND CIRCLE VIEW COURT TO DEAD END**

The scope of work for ADDITIONAL Engineering Services involves Subsurface Utility Engineering, TDLR/RAS Review, Bid Phase Services and Construction Phase Services. The scope of work for the Special Engineering Services is more generally described as follows:

#### **1. SUBSURFACE UTILITY ENGINEERING**

Through a qualified subcontractor, ENGINEER shall provide Subsurface Utility Engineering (SUE) Services in general accordance with the recommended practices and procedures described in ASCE Publication CI/ASCE 38-02 (Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data).

- Quality Level D (QL"D") – Information derived from existing utility records;
- Quality Level C (QL"C") – QL"D" information supplemented with information obtained by surveying visible above-ground utility features such as valves, hydrants, meters, manhole covers, etc.
- Quality Level B (QL"B") – Two-dimensional (x, y) information obtained through the application and interpretation of non-destructive surface geophysical methods. Also known as "designating" this quality level provides the horizontal position of subsurface utilities within approximately one foot.
- Quality Level A (QL"A") – Three dimensional (x, y, z) utility information obtained utilizing non-destructive vacuum excavation equipment to expose utilities at critical points which are then tied down by surveying. Also known as "locating", this quality level provides precise horizontal and vertical positioning of utilities within approximately 0.05 feet.

- 1.1. Perform QL "A" SUE at potential conflict locations to determine exact location and depth of utility. This will be performed as needed with locations to be determined during the design process

#### **2. EASEMENT/RIGHT-OF-WAY INSTRUMENT**

- 2.1. The Surveyor will prepare metes and bounds descriptions with accompanying map exhibit for drainage easement at the south end of Lariat Trail on an as needed basis.

### **3. SIDEWALK DESIGN FROM CIRCLEVIEW COURT TO RIVIERA DRIVE**

3.1. The CONSULTANT will provide plans sheets for 60% and Final Design for proposed sidewalks and ramps within the existing right-of-way on both the east and west side of Lariat Trail

### **4. TDLR/RAS REVIEW**

4.1. The CONSULTANT will coordinate and provide plans to a Registered Accessibility Specialist (RAS). The plans will be reviewed in accordance with Texas Accessibility Standards (TAS). The RAS will follow up after construction is complete to provide an inspection and complete TDLR forms.

### **5. PUBLIC MEETING**

5.1. The CONSULTANT will attend Public Meeting scheduled by the OWNER, will provide necessary exhibits, and be available to answer technical questions.

### **6. BID PHASE SERVICES**

6.1. Bid Advertisement:

- CONSULTANT shall prepare and submit to OWNER a draft Bid Advertisement for publishing by the OWNER.

6.2. Bidder Assistance:

- The CONSULTANT will develop and implement procedures for receiving and answering bidders' questions and requests for additional information. The procedures shall include a log of all significant bidders' questions and requests, and the response thereto. The CONSULTANT will provide technical interpretation of the contract bid documents and will prepare proposed responses to all bidders' questions and requests, in the form of addenda.
- Attend the prebid conference in support of the OWNER.
- Attend the bid opening in support of the OWNER.

6.3. Bid Analysis and Recommendation of Award:

- The CONSULTANT will tabulate and review all bids received for the construction project, assist the OWNER in evaluating bids, and recommend award of the contract.
- The CONSULTANT will assist the OWNER in determining the qualifications and acceptability of prospective contractors, subcontractors, and suppliers.
- The CONSULTANT shall make a recommendation of award to the OWNER.

6.4. Conformed Construction Documents:

- Upon award of a contract by the OWNER, the CONSULTANT shall assist with the execution, assembly and distribution of the construction contract documents for the Project.

## **7. CONSTRUCTION ADMINISTRATION**

### **7.1. Preconstruction Conference:**

- The CONSULTANT shall attend the preconstruction conference.

### **7.2. Site Visits:**

- The CONSULTANT shall visit the project site at appropriate intervals as construction proceeds to observe and report on progress. It is estimated that three (3) visits during construction will be made by the CONSULTANT.

### **7.3. Shop Drawing and Lab Report Review**

- The CONSULTANT shall review shop and erection drawings submitted by the contractor for compliance with design concepts. The CONSULTANT shall review laboratory, shop, and mill test reports on materials and equipment.

### **7.4. Instructions to Contractor**

- The Engineer shall provide necessary interpretations and clarifications of contract documents, review change orders and make recommendations as to the acceptability of the work, at the request of the OWNER.

### **7.5. Final Inspection**

- The Engineer shall attend final inspection of the Project with representatives of the OWNER and the construction contractor.

### **7.6. Record Drawings:**

- Prepare construction "Record Drawings" based upon mark-ups and information provided by the construction contractor(s). Submit one (1) set of the record drawings (with "record drawing stamp" bearing the signature of the Engineer and the date) to the OWNER on a CD-ROM disk or flash drive containing scanned 22"x34" black and white PDF images and all associated revised CAD files.

## **EXHIBIT E**

### **SERVICES TO BE PROVIDED BY THE CITY FOR LARIAT TRAIL PROJECT – MEADOW LAKES DRIVE TO RIVIERA DRIVE AND CIRCLE VIEW COURT TO DEAD END**

The CITY will provide the following services to the ENGINEER in the performance of the PROJECT upon request:

- I.** Provide any existing data the CITY has on file concerning the PROJECT, if available.
- II.** Provide any available As-Built plans for existing streets and drainage facilities, if available.
- III.** Provide any available As-Built plans for existing water and sanitary sewer mains, if available.
- IV.** Assist the ENGINEER, as necessary, in obtaining any required data and information from TxDOT and/or other local utility companies.
- V.** Provide standard details and specifications in digital format.
- VI.** Assist the ENGINEER by requiring appropriate utility companies to expose underground utilities within the Right-Of-Way, when required.
- VII.** Give prompt written notice to ENGINEER whenever CITY observes or otherwise becomes aware of any development that affects the scope or timing of the ENGINEER's services.



**EXHIBIT F**  
**COMPENSATION**  
**FOR**  
**LARIAT TRAIL PROJECT – MEADOW LAKES DRIVE TO RIVIERA DRIVE AND**  
**CIRCLE VIEW COURT TO DEAD END**

**I. COMPENSATION**

For and in consideration of the services to be rendered by the ENGINEER, the CITY shall pay, and the ENGINEER shall receive the compensation hereinafter set forth for the Design and Construction Phases of the work and additionally for Special Engineering Services and/or Additional Engineering Services that are in addition to the Basic Engineering Services. All remittances by CITY of such compensation shall either be mailed or delivered to the ENGINEER's home office as identified in the work authorization.

A. Compensation for the Basic Engineering Services shall be completed for lump sum fee not to exceed **\$100,165.00**.

B. Compensation for Special Engineering Services not covered by the Basic Engineering Services provided herein above shall be as follows:

Design Surveys: Lump Sum Fee not to exceed of **\$22,935.00**

Geotechnical Engineering: Lump Sum Fee not to exceed of **\$12,320.00**

C. Compensation for Additional Engineering Services not covered by Basic Engineering Services or Special Engineering Services provided herein shall be as follows:

Subsurface Utility Engineering QL "A". **3** locations at **\$2,200.00** per location for a maximum not to exceed Fee of **\$6,600.00**

Easement/Right-of-Way Instrument. **1** location for drainage easement: Maximum not to exceed Fee of **\$985.00**

Sidewalk Design from Circleview Court to Riviera Dr.: Maximum not to exceed Fee of **\$8,520.00**

TDLR/RAS: Maximum not to exceed Fee not to exceed of **\$2,040.00**

Public Meeting: Maximum not to exceed Fee not to exceed of **\$1,200.00**

Bid Phase Services: Maximum not to exceed Fee not to exceed of **\$6,360.00**

Construction Administration: Maximum not to exceed Fee of **\$8,130.00**

Payments to the ENGINEER for authorized Additional Engineering Services will be due monthly, upon presentation of monthly statement by the ENGINEER for such services.

## **II. AUDIT AND SCOPE CHANGE**

Cost budgets are set forth above and are subject to the audit provisions of this Agreement, Section XVII: "Right to Audit". It is also understood that the cost budgets are based upon ENGINEER's best estimate of work and level of effort required for the proposed scope of services. As the PROJECT progresses, it is possible that the level of effort and/or scope may differ up or down from that assumed. If there are no scope changes, the ENGINEER shall receive the full amount of lump sum and unit price fees, regardless of the cost. If at any time it appears that the cost budget may be exceeded, the ENGINEER shall notify the CITY as soon as possible in writing.

If there is a scope change, the ENGINEER shall notify the CITY as soon as possible in writing and shall include a revised scope of services, estimated cost, revised fee schedule, and a revised time of completion. Upon negotiation and agreement via a signed amendment by both parties, the cost budget, fee schedule, and total budget will be adjusted accordingly.

CITY shall not be obligated to reimburse the ENGINEER for costs incurred in excess of the cost budget. The ENGINEER shall not be obligated to perform on any change in scope of work or otherwise incur costs unless and until the CITY has notified the ENGINEER in writing that the total budget for Engineering Services has been increased and shall have specified in such notice a revised total budget which shall thereupon constitute a total budget for Engineering Services for performance under this Agreement.

A detailed scope of work, total budget, and schedule will be prepared by the ENGINEER and executed by the CITY if the ENGINEER is authorized to perform any Additional Engineering Service(s).

## **III. PAYMENT**

Payments to the ENGINEER will be made as follows:

### **A. Invoice and Time of Payment**

Monthly invoices will be issued by the ENGINEER for all work performed under this Agreement. Invoices are due and payable on receipt. Invoices will be prepared in a format approved by the CITY prior to submission of the first monthly invoice. Once approved, the CITY agrees not to require changes in the invoice format, but

reserves the right to audit. Monthly payment of the fee will be in proportion to the percent completion of the total work (as indicated in Exhibit B: "Basic Engineering Services").

Upon completion of services enumerated in Exhibit B: "Scope of Basic Engineering Services", the final payment of any balance will be due upon receipt of the final invoice.

**EXHIBIT G**

**FORM 1295**

**FOR**

**LARIAT TRAIL PROJECT – MEADOW LAKES DRIVE TO RIVIERA DRIVE AND**

**CIRCLE VIEW COURT TO DEAD END**

[Form 1295 is submitted as the following page]