

INVITATION TO BIDDERS

SEALED PROPOSALS addressed to Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County for construction of both the Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2 and the Paving Improvements for Laud Howell Parkway, Project 1, Phase 2, LJA Job No. NT852F-0285, will be received electronically via <https://bids.lja.com>, until 11:00 a.m., Friday, August 28, 2026 and then publicly opened and read aloud. Bidders must register on this website to submit an electronic bid. Contractors will electronically enter into the bid proposal, found at <https://bids.lja.com>, their proposed pricing and upload only the bid security. The contractors can bid on both contracts, but it is not required. Separate bid proposals shall be submitted for each project. Contracts will be awarded separately. Electronic bids do not include bids submitted by telegraphic or facsimile transmission. The bids will be publicly opened at the office of LJA Engineering, Inc., located at 6060 North Central Expressway, Suite 400, Dallas, Texas 75206.

Bidders may choose to attend the bid opening via audio conference. To join the audio conference, dial 1 (346) 202-6170 and enter conference ID number 189 187 4#.

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The Developer, Honey Creek Land Company, LLC, will be the Payor for the contract for the Owner.

Copies of the Plans and Specifications may be obtained from the Engineer for a non-refundable fee of \$50.00 per set. The plans, specifications and bid documents will be available at <https://bids.lja.com> on Friday, July 31, 2026. It is the downloader's responsibility to determine that a complete set of documents, as defined in the Instructions to Bidders are received. This website will be updated periodically with Addenda, Plan Holders List, additional reports or other information relevant to bidding the project.

Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County will hold a NON-MANDATORY pre-bid conference at 10:00 a.m. on Wednesday, August 12, 2026, at the office of LJA Engineering, Inc., located at 6060 North Central Expressway, Suite 400, Dallas, Texas 75206.

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Bid security in the form of bid bond or cashier's check payable to Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County in an amount not less than five percent (5%) of the Bid submitted, must accompany each Bid.

The requirements of Subchapter J, Chapter 552, Government Code, may apply to this Bid and/or Contract and bidder/contractor agrees that the Contract can be terminated if the bidder/contractor knowingly or intentionally fails to comply with a requirement of that subchapter.

Bidder/Contractor declares that it has not received from a governmental body a notice of noncompliance with a provision of Subchapter J, Chapter 552, Texas Government Code, or, if such notice has been received, bidder/contractor has taken adequate steps to ensure future compliance with such subchapter and has provided or upon request will provide documentation of same.

Advertisement Dates: Friday, July 31, 2026; Friday, August 7, 2026

EXHIBIT B
SCOPE OF WORK AND DURATIONS
BRIDGE

This contract is a **Stipulated Sum** contract. This Contractor is contracted for the entirety of the Laud Howell Parkway Project 1 Phase 2 **Bridge** scope of work per the Contract Documents. The scope listed below is intended to highlight the Work of this Contract and does not intend to list each item required.

Durations

Substantial Completion for Bridge:

_____ calendar days

Final Completion for Bridge:

_____ calendar days

Scope of Work

Substantial Completion for Bridge:

- Foundations (drilled shafts/piles) installed, load tested if required by design
- Bent caps and piers constructed
- Precast girders set, braced, and diaphragms complete
- Precast deck panels placed and cast-in-place closure pours complete
- Post-tensioning stressed and grouted (if applicable)
- Approach slabs installed
- Concrete strength verified at each critical stage (cylinder breaks)

Final Completion for Bridge:

- Bridge rail/parapet final finish and any coating complete
- Expansion joints installed and sealed
- Bearing pads/devices final inspection complete
- Waterproofing membrane and wearing surface/overlay complete
- Deck drains/scuppers installed and functional
- Final load rating and structural sign-off by engineer of record
- Punchlist items completed and resolved
- As-built surveys and all Final Acceptance Documents provided
- Final Acceptance by City of McKinney
- General clean-up

1. Contractor acknowledges that the Contract Documents are diagrammatic and are responsible for reviewing all the construction documents and notifying the Owner of any discrepancies or conflicts of interest.
2. All payment, performance, and maintenance bonds, as may be required by the City of McKinney (the "City") and/or the Honey Creek MMD 1.
3. Contractor acknowledges receipt of the Geotech report within the Contract Documents.
 - a. Contractor shall verify no aggregate greater than what is allowed is installed in any paving location.
4. Contractor shall coordinate with all subcontractors, Authority Having Jurisdictions ("AHJs"), Owner's 3rd Party Consultants, District Engineers, etc.
5. Contractor shall furnish all labor, material, and equipment to perform all the site surveying and staking for their scope of work. Points of control shall be provided by the Owner.
6. Prior to mobilization contractor shall review the existing grade for all areas to be paved and confirm acceptance and that grade was delivered within +/-0.1 feet.
7. No track out will be allowed. Contractor shall be responsible for street sweeping as it relates to their scope of work. If track out is not remedied immediately a tire wash must be installed, and utilized, by Contractor.
8. All concrete washouts per drawing details and AHJs requirements.

9. Contractor must maintain in working order all SWPPP in its working areas. Contractor shall furnish all labor, material, and equipment to perform maintenance of all SWPPP during their scope of work.
10. Contractor shall furnish all labor, material, and equipment to install the Bridge scope per the Contract Documents, including but not limited to:
- a. All drilled shaft foundations per Contract Documents
 - b. All cement stabilized backfill at drilled shaft foundations
 - c. All cast-in-place concrete substructure, including:
 - i. Abutments
 - ii. Bent caps (approx. 116.8 CY per structure).
 - iii. Columns (approx. 53.2–58.2 CY per structure).
 - b. All reinforcing steel for substructure and superstructure elements, including epoxy-coated dowels/bars where required per Contract Documents
 - c. All precast prestressed concrete girders (TX62), including furnishing, delivery, erection, bracing, and diaphragms.
 - d. All cast-in-place reinforced concrete bridge deck slabs
 - e. All approach slabs per Contract Documents.
 - f. All miscellaneous structural steel
 - g. All bridge traffic rail, TxDOT Type T402
 - h. All pedestrian rail (custom, modified per Contract Documents)
 - i. All sealed expansion joints, 4" (SEJ-M), including all sealant and appurtenances per manufacturer's specifications.
 - j. All stone riprap slope protection, 18" depth, at bridge ends/embankments
 - k. All dewatering required for foundation and substructure construction, at Contractor's means and methods, permits included (if applicable).
 - l. All coordination with Owner's 3rd party for concrete testing, including cylinder breaks, at frequency required by Contract Documents and AHJs' Standards, for all substructure, superstructure, and deck concrete placements.
 - m. Contractor to coordinate embedded conduit, sleeves, and junction boxes for bridge illumination with the electrical/illumination contractor prior to concrete placement, per approved shop drawings.
 - i. Contractor is responsible for verifying embed locations against illumination shop drawings prior to placement — no coring of structural elements will be allowed to correct a missed embed.
 - n. Contractor shall coordinate final bridge deck and approach slab elevations with the adjoining paving contractor to ensure a smooth transition at all tie-in points.
 - o. All curing of concrete per manufacturer's specifications and Contract Documents, including protection from traffic loading until design strength is achieved.
 - p. Mobilization, including all Contractor-furnished temporary facilities, falsework, and access required to construct both structures (Eastbound and Westbound).
 - q. Concrete finish shall be per AHJs' requirements.
 - r. All curves, radii, deltas, and slopes per the Contract Documents (confirm slopes are ADA and/or PROWAG-acceptable where applicable at approach slabs and pedestrian rail transitions).

11. Miscellaneous Requirements:

- a. Contractor shall provide all dewatering required to complete its work.
- b. All traffic control required for this scope of work. Contractor is not allowed to stack trucks on an adjacent roadways.
- c. Dumpsters. Dumpsters may not be overflowing. After one written warning from Owner, overflowing dumpsters will be pulled by Owner at Owner's sole discretion and at Contractor's sole expense.
- d. Portable toilets and handwash stations.

- e. Any fuel storage on site shall be stored in an approved container. No fuel shall be stored directly on the ground.
- f. Fire Extinguishers.
- g. Contractor will be provided with a designated area for a Connex, equipment, and material storage. Contractor is solely responsible for its own site security including cameras, security guards, and temporary fencing as they see fit.
 - i. Owner is not responsible for protection of materials or equipment from diversion, destruction, theft, and/or damage. If materials, paid for by Owner, are stolen, Contractor bears the sole expense for replacement of the stolen materials.
- h. Contractor shall utilize Procore for drawings, RFIs, and submittals to the Owner. Submittals to the AHJs, if required, must be submitted through the AHJs' standard processes and procedures.
- i. Contractor shall coordinate with the AHJs and Owner's 3rd Parties regarding all inspections and testing, and shall notify the Owner of any conflicts. Contractor shall notify Owner's 3rd Parties no less than 48 hours prior to the required inspection or testing.
 - i. If any test or inspection fails;
 - 1. Contractor must remediate such defective work and/or material immediately and
 - 2. Retesting shall continue until the results meet the applicable requirements and/or standards. All retesting expenses shall be borne solely by the Contractor. To the extent Owner pays any retesting expenses, Owner shall be entitled to deduct such cost from amounts due to Contractor.
- j. Contractor shall obtain a permit from the AHJs and pay all fees associated, if required.
- k. Contractor shall provide a complete submittal package as required, including, but not limited to;
 - i. Product Data
 - ii. Samples
 - iii. Shop Drawings
- l. Contractor shall protect existing work and is responsible for all repairs caused by its damages. Excludes damage by others.
- m. Contractor is responsible for all temporary hydrant meters and usage fees required to perform its Work.
- n. Contractor shall notify Owner in writing if Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site is of archeological or historical significance.
- o. Burning of any material shall only be permitted with written approval from Owner and AHJ. Any costs of burning, with or without approval, including damages, shall be at Contractor's sole expense.
- p. If Contractor hauls unsuitable material offsite for disposal, such costs shall be considered incidental and included in the Work.

12. Safety and Protection

- a. Contractor shall maintain a safe working environment in accordance with the latest OSHA standards and requirements as it relates to their work and the work of other trades around them.
- b. Contractor is responsible for executing all construction in an orderly and safe manner with due consideration for any existing structures, including any parts of the surrounding areas that are to remain. Barricade and cover as necessary to protect pedestrian, workmen, and adjacent properties.
- c. Contractor shall avoid any encroachment on adjacent properties. In the case that property is damaged, the Contractor shall repair and make good any damage to the Owner's property or neighboring properties caused by the Contractor.
- d. Contractor shall have a site-specific safety plan on site.
- e. 811 must be called and all utility locates must be called in and marked prior to start of Work.
- f. No Work is allowed within the area of an existing gas line until receiving written notice to proceed is

received from the pipeline management company.

- g. All measures required by pipeline management will be the responsibility of the Contractor. This includes, but is not limited to, pot holing and building up over existing lines.
- h. If the site is deemed unclean at any time by the Owner or AHJs, then this contractor shall participate in a composite clean up as deemed necessary to restore order.
- i. Upon completion, the Contractor shall remove all materials, equipment, and debris related to its Work and leave the site in a clean and orderly condition acceptable to the Owner.

13. Schedule

- a. Contractor shall allow for any costs associated with expediting and special freight for the delivery of their material and equipment to meet the requirements of the Contract Durations.
- b. Contractor acknowledges that the Owner reserves the right to phase the project and/or sequence of operations. No additional compensation will be paid for escalation or inflation for work installed within the Contract Durations.
- c. Contractor may be required to work overtime as necessary to meet the Contract Durations. When working overtime, it will be the Contractor's responsibility to provide and pay for anything related to the overtime operation, if necessary.
- d. Portions of the work may have to take place during "off-hours". The Contractor must include all overtime premium costs for the work to be performed during off hours.
- e. Contractor acknowledges that their work may require multiple mobilizations and has all mobilizations required per the Contract Durations.
- f. Contractor shall attend a weekly coordination meeting.

14. Closeout

- a. Contractor must be responsible for maintaining their work until acceptance by the Engineer and Owner. If damage by others is identified, the Owner and Engineer must be notified within 24 hours.
- b. Acceptance by the Engineer and Owner may be in the form of the Engineer or Owner allowing other trades into a work area.
- c. The contractor must maintain as-built drawings to be submitted to the Engineer and Owner at project completion. No changes or deviations to the contract documents will be accepted unless made through a formal RFI.
- d. Retainage will not be released until final acceptance of the work, receipt of the as-builts by both the Engineer and Owner, and written notification from the 3rd-party surveyor that grading is complete per the contract documents.
- e. All permits and inspections must be completed and closed out with the appropriate 3rd parties and AHJs.
- f. Closeout of all permits and inspections by the appropriate 3rd parties and AHJs will be a condition for the Contractor's receipt of final payment and retainage.
- g. The AHJ, Engineer, and Owner are the parties responsible for providing the final acceptance. Any items that are considered defective (not conforming with the contract documents) and/or items placed on a punch list shall be repaired at no cost to the Owner. Contractor shall begin to complete the punch list work within 2 working days of receipt of the punch list.
- h. Contractor shall leave the site in a clean and tidy manner as accepted by the Owner prior to demobilization.
- i. Any costs associated with remedying a failure by the Contractor to leave a site clean and tidy prior to demobilization, will be charged by Owner to Contractor.
- j. Warranty shall be for two (2) years after substantial completion.

HOLD HARMLESS AGREEMENT

Date: _____

To: LJA Engineering, Inc.

Re: Construction of the Bridge Improvements for
Laud Howell Parkway, Project 1, Phase 2

LJA Job No. NT852F-0285

Hold harmless agreement: We have requested and are receiving electronic media containing intermediate survey and design information, not intended for construction or design. We agree to hold LJA Engineering, Inc. harmless for any defects in this data, including all assumptions made from or using this preliminary data. We agree that it shall be our responsibility to reconcile this electronic data with the construction plans, recorded plats, and specifications, and that only the construction plans, recorded plats, and specifications shall be regarded as the contract documentation for this project. In addition, we agree not to modify this information in any way and we agree not to release this information to any other parties.

The undersigned acknowledges his/her receipt of the electronic information, concurrence with the above statement and that he/she is an officer of _____ with authority to sign this document.

Accepted By: _____

Name: _____

Title: _____

Company: _____

Date: _____



PRE-BID CONFERENCE ATTENDANCE SHEET

Owner: Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County

Project Name: Paving Improvements for Laud Howell Parkway, Project 1, Phase 2 and Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2

Job Number: NT852F-0285; NT852F-0285

Date: Wednesday, August 12, 2026

Time: 10:00 a.m.

Location: The office of LJA Engineering, Inc. located at 6060 North Central Expressway, Suite 400, Dallas, Texas 75206. Optional conference number 1(346) 202-6170; conference ID number 374 485 536#.

☐ Mandatory

☒ Non-Mandatory

ATTENDEE NAME

COMPANY NAME

Kay Grant
Suzanne Booth
Ishmael Machoka
Heather Conrad

Nathan Kennedy
David Delk
Ron Salame

LJA

Surya Tiragati

RPM Construction

Chance Moss

Tiseo Paving

Janet Durrin

Sinacola

Danny Krieg

~~Rebcon~~ Rebcon

Richard Triplett

GTI

Tanner Jump

Gilco Contracting



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ATTENDEE NAME

COMPANY NAME

Austin Daragoza

Ed Bell Construction

Scott Finney

Honey Creek Land
Company/RPG

Raquel Campos

DDM Construction

Mason Oliver

Urban Infra
Construction

Grayson Patak

Sinacola

Shane Seabolt

Honey Creek Land

Chris Johnson

McMahon Contracting



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☒ Non-Mandatory

ATTENDEE NAME

COMPANY NAME

Austin Baker

DDM Construction

Zach^{ch} Kessler

Urban Infra
Construction

**BID DOCUMENTS AND
TECHNICAL SPECIFICATIONS
FOR CONSTRUCTION OF THE
BRIDGE IMPROVEMENTS FOR LAUD HOWELL PARKWAY, PROJECT 1, PHASE 2
HONEY CREEK MUNICIPAL MANAGEMENT DISTRICT NO. 1 OF COLLIN COUNTY
CITY OF MCKINNEY
COLLIN COUNTY, TEXAS**

LJA JOB NO. NT852F-0285

JULY 2026

**LJA ENGINEERING, INC.
6060 NORTH CENTRAL EXPRESSWAY, SUITE 400
DALLAS, TEXAS 75206
469.621.0710**

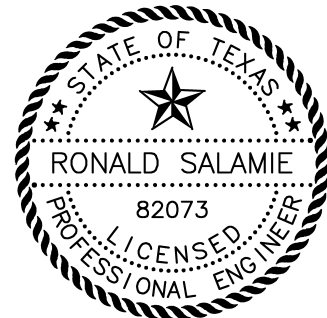
BID SET

**HONEY CREEK LAND COMPANY, LLC ON BEHALF OF
HONEY CREEK MUNICIPAL MANAGEMENT DISTRICT NO. 1 OF COLLIN COUNTY**

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Ronald Salamee

7.31.2026

**LJA ENGINEERING, INC.
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469.621.0710**

**CONSTRUCTION OF THE
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INSTRUCTIONS TO BIDDERS

IMPORTANT NOTICE: Bidder must read ALL Instructions. Failure to do so may result in a non-responsive Bid. Failure to do so does not release Bidder from the obligation to comply.

1. Submission of Bids

- 1.1 In accordance with the Plans and Specifications prepared by the ENGINEER, any Proposal received after the published time of the bid opening will be returned unopened.
- 1.2 The OWNER reserves the right to reject any or all Bids if the OWNER believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or other criteria established by OWNER.
- 1.3 Bidders shall submit bids electronically via <https://bids.lja.com>. Any bidder submitting an electronic bid is required to register at <https://bids.lja.com>. Electronic bids do not include bids submitted by telegraphic or facsimile transmission. Electronic bids shall be submitted electronically via <https://bids.lja.com> before the closing time indicated in the Invitation to Bidders. Bids which are not received by the time specified in the Invitation to Bidders will not be accepted. By submitting an electronic bid, the bidder agrees and represents that it has the authority to submit such a bid and that such bid constitutes a valid bid submitted in accordance with the Contract Documents without further signature or action by the bidder. Bid bonds may be submitted electronically through <https://bids.lja.com> in satisfaction of the bid Security requirements described herein; however, certified or cashier's checks in satisfaction of the Bid Security requirements must be enclosed in a sealed envelope, plainly identified on the outside with the contents, the bidder's name, and the job name and number and addressed and delivered as prescribed in the Invitation to Bidders for sealed bids.

If, upon being opened, an Electronic Bid is unreadable to the degree that conformance to the essential requirements of the Bid Invitation cannot be ascertained, the bid will be rejected, without liability to the District, or the Engineer, unless the bidder provides clear and convincing evidence: (a) of the content of the Electronic Bid as originally submitted; and (b) that the unreadable conditions of the Electronic Bid was caused solely by error or malfunction of the District, or Engineer's software or hardware, or other District, or Engineer mishandling.

Electronic bid submission is subject to electronic interference latency with can result in transmission delays. Bidders assume the risk of late transmission/submission and neither the District, nor the Engineer shall be held liable if an interested bidder is unable to submit a complete Electronic Bid prior to the published deadline due to technical issues or obstructions, regardless of cause or fault.

Any tampering with the electronic bidding system, the electronic bidding process, or bid documents by an interested bidder shall result in the bid of such bidder being rejected.

- 1.4 Written Bids may be submitted at the location and time indicated in the Invitation to Bidders and shall be enclosed in an opaque sealed envelope, marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted) and name and address of Bidder and accompanied by the Bid security and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it. Bids which are not received by the time and at the location specified in the Bidding Documents, will be returned unopened to the Bidder.

1.5 By submitting a Bid, each Bidder agrees to fully and forever waive and release any claim (known or unknown) it has or may have against the OWNER, DEVELOPER, ARCHITECT, and ENGINEER, and their respective attorneys, employees, consultants, representatives, agents, successors, assigns, officers, directors, and members arising under the statutes of Texas, tort, contract or otherwise; or out of or in connection with the: (i) administration, evaluation, or recommendation (or lack thereof) of any Bid; (ii) waiver of any requirements under the Bid Documents or the CONTRACT DOCUMENTS; (iii) acceptance or rejection of any bids; (iv) award of the Contract; and, (v) provision of references (positive or negative) in connection with any work performed by Bidder, and Bidder's contractors and subcontractors in connection with the Project and the CONTRACT DOCUMENTS, to which Bidder hereby consents and authorizes.

1.6 All work must conform to Federal, State and local governmental rules and criteria.

2. Copies of the Bidding Documents

2.1 Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Invitation to Bidders may be obtained at <https://bids.lja.com>. Payment of the deposit sum shall be made at <https://bids.lja.com> by credit card.

2.2 Copies of Bidding Documents are made available only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

2.3 Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER, nor ENGINEER assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.4 The Bidding Documents may include reports on the geotechnical, subsurface, physical or environmental conditions which contain information used by the ENGINEER, and OWNER. Neither the ENGINEER, nor OWNER are responsible for accuracy or completeness of any such information or data. Bidder shall have full responsibility for interpretation of the reports and use of the information for bidding and construction purposes.

3. Bid Security

3.1 Each Bid must be accompanied by Bid security made payable to OWNER in an amount of no less than five percent (5%) of the Bidder's maximum Bid price and in the form of certified or cashier's check or bid bond as specified in the Invitation to Bidders. The surety company providing the Bid Bond must conform to the same requirements for surety companies providing Performance and Payment Bonds as described in the Contractor Agreement. If a cashier's check is furnished, it is to be drawn on a bank in the county where the Project is located or counties bordering that county. The security is a guarantee that the successful Bidder will enter into the Contract and execute the required payment and performance and maintenance bonds.

3.2 The Bid security of Successful Bidder will be retained until such Bidder has executed the Agreement, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within seven (7) days after the Notice of Award, OWNER may annul the Notice of Award and the Bid security of that Bidder will be forfeited.

3.3 The Bid security of other Bidders whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of the seventh (7th) day after the Effective Date of the Agreement or the ninetieth (90th) day after the Bid opening, whereupon Bid security furnished by such Bidders will be returned. Bid security with Bids

which are not competitive will be returned within seven (7) days after the Bid opening.

4. Contract Documents

Contract Documents include the Agreement, Addenda, specifications and plans, the Bid Proposal, and any written modifications.

5. Successful Bidder

Successful Bidder if any, will be the responsible Bidder which in the Board's judgment will be most advantageous to the District and result in the best and most economical completion of the Project. (Texas Water Code 49.273)

6. Bid Proposal Form

- 6.1 The Bid Proposal Form is included with the Bidding Documents; additional copies may be obtained from the ENGINEER.
- 6.2 All blanks on the Bid Proposal Form must be completed by printing in ink or by typewriter.
- 6.3 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign), and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.
- 6.4 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature. Bids by limited partnerships must be executed by an authorized representative of the general partner on behalf of the general partner.
- 6.5 All names must be typed or printed in ink below the signature. The address (including County), telephone number, e-mail address (if available), and facsimile number for communications regarding the Bid must be shown.
- 6.6 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Proposal Form).
- 6.7 Evidence of authority to conduct business as an out-of-state corporation in the state where the Work is to be performed, shall be provided. State Contractor license number, if any, must also be shown.

7. Interpretations and Addenda

- 7.1 All questions about the meaning or intent of the Bidding Documents are to be directed to ENGINEER. As necessary, interpretations or clarifications will be issued by Addenda mailed or delivered to all parties having received the Bidding Documents. Questions received less than three working days prior to the date for opening of Bids may not be answered. Verbal discussions and answers are not binding.
- 7.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER, or ENGINEER.

8. Self Performing

As a condition of this Agreement, the CONTRACTOR is required to self perform at least 60 percent of the work (based on total contract price awarded, complete in place) with personnel directly employed by CONTRACTOR.

9. Subcontractors, Suppliers and Others

9.1 The apparent Successful Bidder shall submit to OWNER a list of all such Subcontractors, Suppliers and other persons and organizations.

9.2 OWNER reserves the right to reject a proposed subcontractor or supplier at its sole discretion. OWNER may request apparent Successful Bidder to submit an acceptable substitute without an increase in Bid price.

If apparent Successful Bidder declines to make any such substitution, OWNER may award the contract to another Bidder meeting the Bid requirements that proposes to use acceptable subcontractors, suppliers, and other persons and organizations. By declining to make requested substitutes, the apparent Successful Bidder will not sacrifice their Bid security.

9.3 No CONTRACTOR shall be required to employ any subcontractor, supplier, organization against whom CONTRACTOR has reasonable objection.

10. Examination of Contract Documents and Site

10.1 It is the responsibility of each Bidder before submitting a Bid:

10.1.1 To thoroughly examine the Contract Documents and other reports, tests, and drawings identified in the Bidding Documents. Bidder is instructed to read all Bidding and Contract Documents before completing the bid form. Bidder is advised that failure to read Contract Documents, including without limitation, the Contractor Agreement, does not relieve Bidder from compliance with these documents.

10.1.1.1 Copies of available reports, tests and drawings will be produced by OWNER for review by Bidder on request. OWNER and ENGINEER disclaim any responsibility for the accuracy, true location and extent of surface and subsurface investigations that have been prepared by others.

10.1.1.2 Bidder is responsible for any interpretation or conclusion drawn from any reports, tests, and drawings, or any such data, interpretations, opinions or information, and OWNER, and ENGINEER disclaim any responsibility for such interpretations by Bidders, e.g., without limitation, projecting soil-bearing values, rock profiles, soil stability and the presence, level and extent of underground water or underground facilities.

10.1.1.3 Bidder will be responsible for considering how said reports, tests and drawings may relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs performing the Work in accordance with the Contract Documents.

- 10.1.2 To visit the site to become familiar with and satisfy Bidder as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work;
 - 10.1.3 To consider Federal, State and local laws and regulations that may affect cost, progress, performance or furnishing of the Work;
 - 10.1.4 To correlate Bidder's knowledge and observations of the site with the Contract Documents and such other related reports, tests and drawings;
 - 10.1.5 To promptly notify ENGINEER of all conflicts, errors, ambiguities or discrepancies which Bidder has discovered in or between the Contract Documents and such other related documents.
- 10.2 On request, OWNER may provide each Bidder access to the site to conduct such examinations, investigations, explorations, tests and studies as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the site to its former conditions upon completion of such explorations, investigations, tests and studies.

11. Availability of Lands for Work, etc.

The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by CONTRACTOR in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by the CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by OWNER unless otherwise provided in the Contract Documents.

12. Substitute and "Or-Equal" Items

All Bids shall be based on work, materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Although the Drawings or Specifications may state a substitute or "or-equal" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, Bids shall not be based on any substitutions or as equal items. ENGINEER will not consider any application for substitute or as equal until after the Effective Date of the Agreement. The procedure for submission of any such application by CONTRACTOR and consideration by ENGINEER is set forth in the Contractor Agreement and may be supplemented in the Standard General Conditions.

13. Contract Time

The number of calendar days within which, or the dates by which, the Work is to be substantially completed and the Work is to achieve final completion are set forth in the Agreement.

14. Economic Disincentive for Late Completion of Work

The CONTRACTOR and the OWNER agree that time is of the essence of this Contract. The CONTRACTOR and the OWNER agree that the Agreement is based on completion of the Work by CONTRACTOR in the time specified in the Agreement. CONTRACTOR and the OWNER agree that for each and every calendar day the work or any portion thereof shall remain uncompleted after the expiration of the time limit set in the Contract, or as extended under the provisions for Extension of Time in this Contract, CONTRACTOR shall be liable to OWNER for an economic disincentive in an amount specified in the Agreement Conditions for such calendar day. The OWNER shall have the option to deduct and withhold said amount from any monies that the

OWNER owes the CONTRACTOR or to recover such amount from the CONTRACTOR or the Sureties on the CONTRACTOR's bond.

15. Modification and Withdrawal of Bids

- 15.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.
- 15.2 If, within twenty-four hours after Bids are opened, any Bidder files a duly signed, written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work to be provided under the Contract Documents.

16. Opening of Bids

Bids will be opened and read aloud publicly at the place where Bids are to be submitted. OWNER shall rank the Bidders within forty-five (45) days after opening the Bids. An abstract of the amounts of the base Bids and major alternatives (if any) will be made available to Bidders after the opening of Bids.

17. Bids to Remain Subject to Acceptance

- 17.1 All Bids will remain subject to acceptance for ninety (90) days after the day of the Bid opening, but OWNER may, in its sole discretion, release any Bid and return the Bid security prior to that date.

18. Award of Contract

- 18.1 If the contract is to be awarded, it will be awarded to the Successful Bidder as evaluated by OWNER. The Bid price shall include such amounts as the Bidder deems proper for overhead and profit.
- 18.2 OWNER reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, non-responsive, unbalanced or conditional Bids. OWNER also reserves the right to waive all irregularities and defects in the Bids and the bidding process, except time of submitting a Bid.
- 18.3 OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of any bid and to establish the responsibility, qualifications and financial ability of bidders, proposed subcontractors, suppliers and other persons and organizations to perform and furnish the Work in accordance with the CONTRACT DOCUMENTS to OWNER's satisfaction. OWNER may require Bidders to submit bank references and financial statements in connection with bid evaluation.
- 18.4 OWNER may also consider Bidder's (or Bidder's officers', partners', directors', affiliates') (i) prior dealings with OWNER or with any entity responsible for payment to Bidder under this Contract and (ii) the amount, size, number, cost and completion-status of any projects that Bidder currently has underway (including, without limitation, projects underway with OWNER or with any entity responsible for payment to Bidder under this Contract), and the amount, nature and quality of the manpower, materials and equipment available to bidder.
- 18.5 By submitting a Bid, each Bidder agrees to fully and forever waive and release any claim (known or unknown) it has or may have against the OWNER, DEVELOPER, ARCHITECT

and ENGINEER, and their respective attorneys, employees, consultants, representatives, agents, successors, assigns, officers, directors, and members arising under the statutes of Texas, tort, contract or otherwise; or out of or in connection with the: (i) administration, evaluation, or recommendation (or lack thereof) or any BID; (ii) waiver of any requirements under the Bid Documents or the CONTRACT DOCUMENTS; (iii) acceptance or rejection of any bids; (iv) award of the Contract; and (v) provision of references (positive or negative) in connection with any work performed by Bidder, and Bidder's contractors and subcontractors in connection with the Project and the CONTRACT DOCUMENTS, to which Bidder hereby consents and authorizes.

18.6 If the contract is to be awarded, OWNER will give the Successful Bidder Notice of Award within ninety (90) days after the day of the Bid opening.

19. Bonds

Contractor Agreement set forth OWNER's requirements, if any, as to Bonds. When the Successful Bidder delivers the executed Agreement to OWNER, it must be accompanied by the required payment and performance bonds.

20. Signing of Agreement

When OWNER gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within seven days thereafter CONTRACTOR shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER with the required Bonds.

21. Retainage

The amount of retainage is set forth in the Agreement.

22. Sales Tax

22.1 Applicable taxes, licenses, fees and other similar items are part of the cost of the work and it shall be CONTRACTOR's responsibility to familiarize itself with these costs and to observe and comply with the laws and regulations relating to the same. The prices, sums, rates and other charges set forth in the CONTRACTOR's bid shall cover and include all such costs.

22.2 The District is a Special District and political subdivision of the State of Texas. Materials and services utilized in the construction of the Project may be exempt from state and local sales and use taxes pursuant to Texas Tax Code § 151.309(5) and/or 34 Tex. Admin Code § 3.291(d). Contractor is responsible for compliance with all tax exemptions applicable to the Project. Owner will process all invoices submitted by Contractor to ensure the invoices comply with the District's tax-exempt status.

23. Insurance Requirements

CONTRACTOR shall maintain such insurance as specified in the Contractor Agreement.

24. Statement of Qualifications

The Bidder may be required to submit a detailed Statement of Qualifications on the form provided by the Engineer within five (5) working days of the bid opening to be considered for award of the bid.

25. Conflicts of Interest

Effective January 1, 2006, Chapter 176 of the Texas Local Government Code ("Chapter 176") mandates the disclosure of certain items by contractors doing business with or proposing to do business with local government entities, including municipal utility districts, road utility districts, road improvement districts, levee improvement districts, drainage districts, water control and improvement districts, bayou improvement districts, regional water authorities, fresh water supply districts, management districts, tax increment reinvestment zones, development authorities, etc.

Bidders should review Chapter 176 with their attorney and, if required, return the attached completed FORM CIQ with their Bid. The following is a list of the Board of Directors of Owner to facilitate Bidder's compliance with Chapter 176.

Board of Directors

Ricardo Soto – President
Rafael Parker – Vice President
Hector Alba – Secretary
Kiki Pennington - Assistant Secretary
Frank Stuart Browne - Assistant Secretary

26. Prevailing Wage Rate

"Chapter 2258 of the Texas Government Code provides that any political subdivision of the State of Texas shall ascertain the general prevailing wage rate received by the classes of workers employed on projects similar to this project and shall specify in the call for bids and in the Contract the minimum wage rates which shall be paid for each type of worker. This statute further provides that the Contractor or Subcontractors shall pay, as a penalty, to the Owner Sixty Dollars (\$60.00) for each worker employed for each calendar day or part of the day that the worker is paid less than the wage rates stipulated in the Contract. The Owner is authorized to withhold from the Contractor the amount of this penalty from any payment due under the Contract.

The statute likewise requires that the Contractor and subcontractors keep an accurate record of the names and occupations of all persons employed by them in the construction of the Project and to show the actual per diem wages paid to each worker. These records are open to the inspection of the Owner.

The Contractor is required to pay at least the minimum Prevailing Wage Rate Scale that applies to Collin County, Texas.

27. Tentative Schedule

Anticipated start dates:

- Grading start 09/2026
- Bridge start 09/2026
- Utilities start 10/2026
- Paving start 02/2027
- Lighting start 06/2027
- Landscaping start 06/2027

Final completions are anticipated around 07/2027 and Final Acceptance is anticipated to be 09/2027.

All times above are estimated and subject to change.

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

OFFICE USE ONLY

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. ☐

6 UNSWORN DECLARATION

My name is _____, and my date of birth is _____.

My address is _____, _____, _____, _____, _____.
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in _____ County, State of _____, on the _____ day of _____, 20____.
(month) (year)

Signature of authorized agent of contracting business entity
(Declarant)

ADD ADDITIONAL PAGES AS NECESSARY

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

FORM CIQ

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of vendor who has a business relationship with local governmental entity.

2 ☐ Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 Name of local government officer about whom the information is being disclosed.

Name of Officer

4 Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

Signature of vendor doing business with the governmental entity

Date

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at <http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm>. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

- (A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;
- (B) a transaction conducted at a price and subject to terms available to the public; or
- (C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

- (a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

- (2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds \$2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed;
or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than \$100 in the 12-month period preceding the date the officer becomes aware that:

- (i) a contract between the local governmental entity and vendor has been executed; or
- (ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

- (a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

- (a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

- (1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

- (2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.



BID PROPOSAL

Date: _____

Bid of _____

☐ a sole proprietorship

☐ a corporation organized and existing under the laws of _____

☐ a partnership consisting of _____

☐ a limited partnership

☐ a limited liability company organized under the laws of _____

☐ other _____

FOR: **CONSTRUCTION OF THE BRIDGE IMPROVEMENTS FOR LAUD HOWELL PARKWAY, PROJECT 1, PHASE 2**
HONEY CREEK MUNICIPAL MANAGEMENT DISTRICT NO. 1 OF COLLIN COUNTY
CITY OF MCKINNEY
COLLIN COUNTY, TEXAS
LJA JOB NO. NT852F-0285

TO: **Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin**
County
c/o LJA Engineering, Inc.
6060 N. Central Expressway, Suite 400
Dallas, TX 75206

BID PROPOSAL
CONSTRUCTION OF THE BRIDGE IMPROVEMENTS FOR LAUD HOWELL PARKWAY, PROJECT 1, PHASE 2
LJA JOB NO. NT852F-0285

Ladies and Gentlemen:

Pursuant to the foregoing Invitation and Instructions to Bidders, the undersigned bidder hereby proposes to do all the work for the unit prices bid to furnish all necessary superintendence, labor, machine, equipment, tools, materials, insurance and miscellaneous items, to complete all work according to the bids, as provided in the construction plan and contract documents, and clean up the site to the satisfaction of the Owner/Engineer, and bind himself on acceptance of this proposal to execute a contract and bonds for completing said project within the time stated for the following prices, to wit:

SECTION A – EASTBOUND BRIDGE						
ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL	
1.	MOBILIZATION	LS	1	_____	_____	
2.	CEMENT STABILIZED BACKFILL	LS	1	_____	_____	
3.	DRILL SHAFT (18 IN)	LS	1	_____	_____	
4.	DRILL SHAFT (42 IN)	LS	1	_____	_____	
5.	CLASS C CONCRETE (ABUTMENT)	LS	1	_____	_____	
6.	CLASS C CONCRETE (CAP)	LS	1	_____	_____	
7.	CLASS C CONCRETE (COLUMN)	LS	1	_____	_____	
8.	REINFORCED CONCRETE SLAB	LS	1	_____	_____	
9.	APPROACH SLAB	LS	1	_____	_____	
10.	PRESTRESSED CONCRETE GIRDER (TX62)	LS	1	_____	_____	
11.	RIPRAP (STONE PROTECTION)(18 IN)	LS	1	_____	_____	
12.	STRUCTURAL STEEL (MISC NON-BRIDGE)	LS	1	_____	_____	
13.	RAIL (TY T402)	LS	1	_____	_____	
14.	PEDESTRIAN RAIL (CUSTOM) MOD	LS	1	_____	_____	
15.	SEALED EXPANSION JOINT (4 IN)(SEJ-M)	LS	1	_____	_____	
16.	DEWATERING	LS	1	_____	_____	
SECTION A – EASTBOUND BRIDGE SUBTOTAL:				_____		

BID PROPOSAL
CONSTRUCTION OF THE BRIDGE IMPROVEMENTS FOR LAUD HOWELL PARKWAY, PROJECT 1, PHASE 2
LJA JOB NO. NT852F-0285

SECTION B – WESTBOUND BRIDGE						
ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL	
1.	MOBILIZATION	LS	1	_____	_____	
2.	CEMENT STABILIZED BACKFILL	LS	1	_____	_____	
3.	DRILL SHAFT (18 IN)	LS	1	_____	_____	
4.	DRILL SHAFT (42 IN)	LS	1	_____	_____	
5.	CLASS C CONCRETE (ABUTMENT)	LS	1	_____	_____	
6.	CLASS C CONCRETE (CAP)	LS	1	_____	_____	
7.	CLASS C CONCRETE (COLUMN)	LS	1	_____	_____	
8.	REINFORCED CONCRETE SLAB	LS	1	_____	_____	
9.	APPROACH SLAB	LS	1	_____	_____	
10.	PRESTRESSED CONCRETE GIRDER (TX62)	LS	1	_____	_____	
11.	RIPRAP (STONE PROTECTION)(18 IN)	LS	1	_____	_____	
12.	STRUCTURAL STEEL (MISC NON-BRIDGE)	LS	1	_____	_____	
13.	RAIL (TY T402)	LS	1	_____	_____	
14.	PEDESTRIAN RAIL (CUSTOM) MOD	LS	1	_____	_____	
15.	SEALED EXPANSION JOINT (4 IN)(SEJ-M)	LS	1	_____	_____	
16.	DEWATERING	LS	1	_____	_____	
SECTION B – WESTBOUND BRIDGE SUBTOTAL:				_____	_____	

BID PROPOSAL
CONSTRUCTION OF THE BRIDGE IMPROVEMENTS FOR LAUD HOWELL PARKWAY, PROJECT 1, PHASE 2
LJA JOB NO. NT852F-0285

SECTION C – MISCELLANEOUS ITEMS					
ITEM NO.	ITEM DESCRIPTION	UNIT	QTY.	UNIT PRICE	TOTAL
1.	PAYMENT AND PERFORMANCE BONDS (100%)	LS	1	_____	_____
2.	MAINTENANCE BONDS -BRIDGE (2 YR, 100%)	LS	1	_____	_____
SECTION C – MISCELLANEOUS ITEMS SUBTOTAL:				_____	_____

BID PROPOSAL
CONSTRUCTION OF THE BRIDGE IMPROVEMENTS FOR LAUD HOWELL PARKWAY, PROJECT 1, PHASE 2
LJA JOB NO. NT852F-0285

BID PROPOSAL SUMMATION

BASE BID	
SECTION A – EASTBOUND BRIDGE	\$
SECTION B – WESTBOUND BRIDGE	\$
SECTION C – MISCELLANEOUS ITEMS	\$
TOTAL AMOUNT BASE BID	\$

BID PROPOSAL
CONSTRUCTION OF THE BRIDGE IMPROVEMENTS FOR LAUD HOWELL PARKWAY, PROJECT 1, PHASE 2
LJA JOB NO. NT852F-0285

It is understood that in the event the successful bidder fails to enter into the Contract and to furnish a Performance Bond and Payment Bond in the amount of 100 percent of the Contract and for all parts of the work, as specified in the Instructions to Bidders, the Bidder will forfeit the Certified or Cashier's Check, OR Bid Bond, as provided in the Contract Documents.

The undersigned proposes, if awarded the Contract, to begin work as stipulated in the written Notice to Proceed issued by the Engineer and to achieve Substantial Completion of the Work within the time shown below:

Completion Days: _____

The undersigned proposes, if awarded the Contract, to begin work as stipulated in the written Notice to Proceed issued by the Engineer and to achieve Substantial Completion of the Work within the time shown below. **Substantial Completion calendar days are not to be calculated into the Final Completion calendar days total. Final Completion calendar days defined as the number of days required to complete the secondary milestone of the contract**:

Completion Days: _____

This bid proposal shall be considered part of the contract.

(Signature)

(Date)

(Company Name - Bidder)

(Typed Name)

(Address)

(Title)

(City)

(County)

(State)

(Zip)

(Attest)

(Phone)

(Seal, if Bidder is Corporation)

(E-mail)

BID PROPOSAL
CONSTRUCTION OF THE BRIDGE IMPROVEMENTS FOR LAUD HOWELL PARKWAY, PROJECT 1, PHASE 2
LJA JOB NO. NT852F-0285

ACKNOWLEDGMENT OF RECEIPT OF ADDENDUM (1/1)

ADDENDUM NO. 1		
	(Company Name)	(Signature and Date)
ADDENDUM NO. 2		
	(Company Name)	(Signature and Date)
ADDENDUM NO. 3		
	(Company Name)	(Signature and Date)
ADDENDUM NO. 4		
	(Company Name)	(Signature and Date)
ADDENDUM NO. 5		
	(Company Name)	(Signature and Date)
ADDENDUM NO. 6		
	(Company Name)	(Signature and Date)
ADDENDUM NO. 7		
	(Company Name)	(Signature and Date)
ADDENDUM NO. 8		
	(Company Name)	(Signature and Date)
ADDENDUM NO. 9		
	(Company Name)	(Signature and Date)
ADDENDUM NO. 10		
	(Company Name)	(Signature and Date)
ADDENDUM NO. 11		
	(Company Name)	(Signature and Date)

Contract #:

Attn: []

Attached you will find the Agreement for the referenced project. We are using DocuSign for electronic signature for all Agreements. Please review and sign where indicated.

In addition, the following are attached or within the Agreement:

1. Exhibit A – Schedule of Drawings
2. Exhibit B – Scope of Work and Durations
3. Exhibit C – Pay Application Instructions and Forms (Lien Waivers Included)
4. ~~Exhibit D – Project Schedule~~ Intentionally Deleted
5. Exhibit E – Insurance Requirements
6. Exhibit F – Form of Payment and Performance Bonds and Maintenance Bond

We require a current insurance certificate to be on file for any company that will be working on our project. No payments will be submitted without proof of insurance in the amount and form required by the Agreement.

Please be sure to follow the included Pay Application Instructions provided in your Agreement. Failure to follow the instructions may result in payment delays.

Please call me with any questions. I am looking forward to working with you on this project.

Sincerely,

Shane Seabolt, Development Manager

Contract #:

CONTRACTOR AGREEMENT

DATE:

CONTRACTOR: [] (Referred to herein as "Contractor")
[Contractor address]

Contact: []

Contractor's Authorized Representative: _____

OWNER: Honey Creek Land Company, LLC on behalf of the Honey Creek Municipal Management District No. 1 of Collin County (Referred to herein as "Owner")
400 S. Record Street
Suite 1200
Dallas, Texas 75202

Owner's Authorized Representative: Shane Seabolt

Collectively, Owner and Contractor shall be identified in this Agreement as "the Parties."

Honey Creek Municipal Management District No. 1 of Collin County, an independent political subdivision of the State of Texas and a municipal management district created and operating pursuant to Chapter 375, Texas Local Government Code, is sometimes referred to herein individually as the "District" and Honey Creek Land Company, LLC is sometimes referred to herein individually as the "Developer".

PROJECT: Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2

GENERAL DESCRIPTION OF WORK: Project includes the construction of two-650' bridges to convey six lanes of Laud Howell Parkway in Collin County, TX.

CONTRACT PRICE: The Contract Price shall be \$.00, subject to additions and deletions as provided in Article 4 of this Agreement.

RETAINAGE: 10.0%

ARCHITECT: _____ (Referred to herein as "Architect")

ENGINEER: LJA Engineering, Inc. (Referred to herein as "Engineer")

ATTACHMENTS:

- Exhibit A – Schedule of Drawings
- Exhibit B – Scope of Work and Durations
- Exhibit C – Pay Application Instructions and Forms (Lien Waivers Included)
- ~~Exhibit D – Anticipated Project Schedule (For Reference of Sequence)~~ Intentionally Deleted
- Exhibit E – Insurance Requirements
- Exhibit F - Form of Payment and Performance Bonds and Maintenance Bond

GENERAL PROVISIONS OF CONTRACTOR AGREEMENT

ARTICLE 1

The Contract Documents, Definitions and Scope of Work

1.1 The Contract Documents for this Contractor Agreement (the "Agreement") consist of the Agreement, including any exhibits or attachments thereto, drawings, plans, specifications, and any modifications, change orders or amendments issued in writing after the execution of this Agreement. The Contract Documents represent the entire agreement between the parties hereto and supersede any prior oral or written representations or agreements. The Contract Documents shall be available for inspection and copying at Owner's office. Contractor is familiar with the Contract Documents and the existing site/building conditions prior to the execution of this Agreement.

1.2 Contractor shall fully execute the work described in the Contract Documents (the "Work"). All Work shall be supervised, directed and performed in a good and workmanlike manner, exercising the degree of care, skill, and diligence in the performance of the Work in accordance with and consistent with industry standards for similar projects and consistent with the Contract Documents and in accordance with applicable law and the orders of all governing authorities having jurisdiction over the Work.

1.3 Owner's Authorized Representative for the purpose of any notice provisions is set forth on page two (2) of this Agreement. Changes to Owner's Authorized Representative must be in writing and signed by an officer of Owner. Owner's construction manager (if any) shall have authority to act on behalf of Owner relating to matters in the field but shall not be authorized to amend or revise any term of this Agreement or the Contract Documents or to release Contractor from any obligation arising under this Agreement or the Contract Documents without the written express approval of Owner's Authorized Representative. Contractor's Authorized Representative is set forth on page two (2) of this Agreement. It is also presumed that Contractor's on-site Project Manager and/or Superintendent are additional Contractor's Authorized Representatives.

1.4 Contractor acknowledges that it has read the Contract Documents and is familiar with such documents and agrees to comply with the requirements contained therein. Contractor represents that it is fully qualified to perform the Work and acknowledges that prior to the execution of this Agreement, it has: (a) by its own independent investigation ascertained and fully evaluated the Work and the conditions and difficulties involved in performing the Work; (b) verified all information furnished by Owner or others, satisfying itself as to the correctness and accuracy of that information; and (c) reviewed and accepted the information regarding the Owner's ability to pay for the Work as provided herein. Any failure by Contractor to independently investigate and become fully informed of the conditions and difficulties involved in performing the Work or the Owner's ability to pay for same will not relieve Contractor from its responsibilities hereunder. If any part of the Contractor's Work depends on the work of Owner or any other Subcontractor (as defined in Section 1.9 herein), Contractor shall inspect such work and promptly report to Owner in writing any defects or inadequate performance which adversely affects Contractor's Work. Failure to make such report within twenty-four (24) hours of Contractor's discovery of the defect or inadequate performance, whether such discovery is actual or constructive, shall be deemed a waiver of any claim relating to same. If there appear to be any defects, variations or discrepancies of dimensions, quantities or other matters set forth in the Contract Documents, Contractor shall promptly notify Owner of same in writing. Failure to provide such written notice within twenty-four (24) hours of the discovery of such defect, variation or discrepancy, whether such discovery is actual or constructive, shall be deemed a waiver of any claim related to the same. Additionally, regardless of measurements set forth in the drawings, plans and specifications, Contractor is responsible for performing all field measuring prior to performing labor and purchasing, fabricating, and installing materials. If there appears to be any discrepancy between the measurements set forth in the drawings, plans and specifications and the field measurements taken by Contractor, Contractor shall promptly notify Owner of the same in writing and request instructions on how to proceed from the Owner. Owner will provide written instructions on how to proceed in a timely manner. Should Contractor disregard any such discrepancies and proceed with the Work, Contractor will be responsible for all costs associated with Work performed and materials purchased, fabricated, and installed based on the incorrect measurements. In addition, Contractor will be responsible for all costs associated with the corrective work required per actual field measurements and Owner shall be relieved of any liability in connection therewith. Contractor warrants, represents, and agrees that all requisite approvals from the Owner as to its eligibility to serve as a Contractor as well as the approval of all materials and performance of the Work as required by the Contract Documents, are and will be substantiated upon request.

1.5 In the event of a conflict between any of the Contract Documents, the most stringent requirement shall control unless otherwise stated in writing by Owner. If Contractor commences any Work on the Project, including but not limited to mobilization, Contractor shall be deemed to have accepted all terms and conditions set forth in this Agreement.

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1.5.1 Contractor is aware that the Project may be subject to a development agreement entered into by Owner and a jurisdictional authority, prior to or after the execution of this Agreement. In the event of a conflict between any of the Contract Documents and a development agreement covering the Project, the most stringent requirement shall control unless otherwise stated in writing by Owner. If the Owner has entered into a Development Agreement, then Owner will provide to Contractor within seven (7) days upon request.

1.6 Owner reserves the absolute right to delete labor, materials, specifications, or any portion the Work from this Agreement. In such instance of deleted work, Owner will provide Contractor with a Change Order setting forth the deleted work and the amount to be deducted from the Contract Price. The amount to be deducted from the Contract Price shall be the greater of the amount specified for the Work on Contractor's bid or schedule of values or the amount Owner reasonably would be charged by a similarly situated, qualified contractor for the deleted work.

1.7 Notice to Proceed. Time being of the essence, Contractor agrees to begin the Work as soon as the Project is ready for such work, or in any event, within five (5) calendar days after being notified by Owner to proceed ("Notice to Proceed").

1.8 Project Management Software. Contractor agrees to comply with Owner's instructions for use of Owner's Project Management Software for functions including, but not limited to: document distribution and collaboration, invoicing, reporting, scheduling, insurance management, contract and change order processing, contact management, project communication, daily reporting and progress photos. Contractor shall be responsible for registering the initial setup, as well as for contacting Owner's Authorized Representative as needed for training to ensure compliance with Owner's requirements.

1.9 Subcontractor(s). The term Subcontractor, as used herein, shall mean a person or entity who has a contract with Contractor to perform a portion of the Work at the site. "Subcontractor" includes all sub-subcontractors and material and equipment suppliers of any tier and is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or an authorized representative of Subcontractor. The term "Subcontractor" does not include a separate contractor of Owner or the subcontractors of a separate contractor of Owner.

ARTICLE 2

Payments

2.1 Progress Payments: Payment shall be made monthly by Owner to Contractor as the Contractor's Work is performed in accordance with the following procedures:

2.1.1 On or before the 25th day of calendar month, Contractor shall submit to Owner an Application for Payment for all Work, completed through the date of the Contractor's Application for Payment including all documentation as hereinafter required. Owner, Architect and/or Engineer shall have the right to receive from Contractor such data, vouchers, receipts, invoices or other documents or information as they may require in order verifying the information contained in Contractor's Application for Payment Provided that the Contractor submits a complete and accurate Application for Payment and Owner, Architect and/ or Engineer approve the Contractor's Application for Payment, payment will be made to Contractor not later than forty-five (45) days after receipt of Application for Payment. If an Application for Payment is received by the Owner after the application date fixed above, payment of the amount approved shall be made by the Owner not later than forty-five (45) days after receipt of Application for Payment.

2.1.2 At Owner's sole discretion, invoices or estimates submitted after the submission date of any month or otherwise not in substantial conformance with the payment procedures set forth herein may be held by the Owner until the next submission date for processing and until Contractor substantially complies with such procedures; however, in no event shall Owner be required to pay any estimate invoice or application for payment that has been submitted by Contractor more than one hundred twenty (120) days after the Work was performed. Contractor acknowledges and agrees that Owner shall have no obligation to pay Contractor for Work performed or materials furnished unless Contractor strictly complies with the payment procedures contained herein and that Contractor's failure to strictly adhere to such procedures shall give rise to the Owner's right to withhold payment. Contractor further acknowledges and agrees that Owner's acceptance and payment of Contractor's previous Applications for Payment not in strict compliance with the payment procedures contained herein shall not be deemed as a waiver of such procedures, relieve Contractor of its obligation to strictly adhere to such procedures with each and every future Application for Payment, or prevent the Owner from withholding payment until Contractor strictly adheres to such payment procedures.

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2.1.3 To the extent that the Owner recognizes and accepts the Contractor's Application for Payment, Owner will pay Contractor the percent of Contractor's Application for Payment approved for payment by the Owner, less Retainage, provided that it shall not be incumbent on Owner to make payments in an amount that would not leave a sufficient balance to cover all obligations of Contractor for labor, materials, etc. furnished and not paid or to be furnished by Contractor under this Agreement. Owner shall have no obligation to cease withholding Retainage from Contractor.

2.1.4 Contractor shall not include any change orders, claims, or work orders, in any Application for Payment unless fully approved and signed by Owner's Authorized Representative and in accordance with Article 4 of this Contract.

2.1.5 Title for all materials and Work covered by an Application for Payment shall pass to the Owner when the materials are delivered to the site or when the Contractor is paid for such materials and Work, whichever is first. However, this provision shall not be considered as relieving Contractor from the sole responsibility for protection of and security for all materials and Work for which payments have been made, the restoration of any damaged work, the cost for replacement or damage of the materials due to theft, or the maintaining of insurance thereon which shall continue until Final Completion; nor shall it be considered as a waiver of the right of Owner to require fulfillment of all the terms of the Contract Documents. Should Owner elect to submit a claim for any theft or damage to the Work or stored materials to the Builder's Risk insurer, Contractor shall be responsible for the payment to Owner of the amount of the deductible. Owner may deduct such deductible from any amounts owed to Contractor. Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site. If progress payments are to be made on account of materials or equipment not incorporated in the Work but delivered and suitably stored on the site or at some other location agreed upon in writing, such payments shall be conditioned upon submission to Owner of bills of sale or other procedures reasonably satisfactory to Owner to establish Owner's title to such materials or equipment, or otherwise protect Owner's interest.

2.1.6 Each Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment. In addition to other required items, each Application for Payment shall be accompanied by the following documentation, statements, and information, all in form and substance reasonably satisfactory to the Owner and the Owner's lender(s) providing financing for the Project and in compliance with Applicable Law:

- .1 a statement, under oath, by Contractor that all bills or obligations incurred by Contractor, for which previous Applications for Payment have been submitted and paid by Owner, have been paid by Contractor, or, if some bill or obligation remains outstanding, the statement shall fully disclose the outstanding bill or obligation by stating the name of the person or entity to whom the bill or obligation remains outstanding, the amount of the outstanding bill or obligation, and the basis or reason why such bill or obligation has not been paid;
- .2 a duly executed Conditional Waiver and Release on Progress Payment, in the form required by Texas Property Code 53.284, from the Contractor, each Subcontractor regardless of tier waiving all such liens or claims for payment for the Work covered by the Application for Payment being submitted conditioned only upon receipt of payment;
- .3 a duly executed Unconditional Waiver and Release on Progress Payment, in the form a required by Texas Property Code 53.284, from Contractor and each Subcontractor regardless of tier s, regardless of tier waiving all liens or claims for payment for the Work covered by previously paid Applications for Payment;
- .4 an updated Schedule of Values; and
- .5 an updated Construction Schedule.

2.2 Final payment shall not be paid or become due to Contractor and the Project shall not be deemed to be finally complete until all of the following conditions precedent have occurred:

- .1 Contractor has fully performed all Work under the Contract Documents including completion of all punch list work by Contractor;
- .2 the Contractor has submitted and Owner and Architect/Engineer has approved the Contractor's Final Application for Payment;
- .3 Contractor has provided confirmation of approval of such completion by local government authorities, as evidenced by a certificate of occupancy, final inspection certificate, or other similar document when applicable;
- .4 Contractor has provided a Conditional Waiver and Release of Lien on Final Payment, in the form required by Texas Property Code 53.284, waiving the Contractor's constitutional and statutory mechanic's lien or any other claim for payment, conditioned only upon receipt of payment;

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- .5 Contractor has provided Conditional Waiver and Release of Lien on Final Payment documents, in the form required by Texas Property Code 53.284, from each Subcontractor regardless of tier waiving, upon receipt of final payment, any and all mechanic's liens or any other claim for payment. If any Subcontractor refuses to furnish such a release, Contractor shall furnish a surety bond reasonably acceptable Owner, and in compliance with applicable law, to indemnify Owner against such claim and lien;
- .6 Contractor has provided an Unconditional Waiver and Release of Lien on Progress Payment, in the form required by Texas Property Code 53.284, covering all previously paid applications for payment from Contractor and each Subcontractor, on the Project, regardless of tier;
- .7 Contractor has provided Owner copies of all required warranties and guarantees, as well as as-built drawings, test reports, etc. required by the Contract Documents; and
- .8 Contractor has provided Owner the Maintenance Bond required pursuant to Article 6 herein.

The Owner's final payment to the Contractor shall be made no later than forty-five (45) days of receipt of the final Application for Payment and after satisfaction of all of the conditions contained in Section 2.2 above. Within fourteen (14) days after receipt of final payment, Contractor shall provide Owner an Unconditional Waiver and Release on Final Payment in the form required by Texas Property Code 53.284 waiving any and all mechanic's liens or any other claim for payment.

2.3 Owner shall have the express right of setoff for any sums due Contractor under this Agreement against sums owed or claimed to be owed to Owner by Contractor under this Agreement or by operation of law. If Owner elects, at Owner's option, to pay sums to cover labor payrolls, freight, express or material bills which Contractor has failed to pay promptly when due, then Owner may deduct the amount of the payment, plus an administrative charge of ten percent (10%), from any amounts due or that may become due to Contractor. Owner maintains the absolute right, in its sole discretion, to issue joint checks made payable to the supplier, laborer or Subcontractor and Contractor or to issue checks directly to the Subcontractor of Contractor, any such payments constituting payment to Contractor under this Agreement. Payments otherwise due to Contractor may be withheld by Owner on account of (i) defective Work not remedied, (ii) third-party claims filed or evidence indicating probability of filing of claims unless security acceptable to the Owner is provided by the Contractor, (iii) failure of Contractor to make payments to its Subcontractors, , (iv) reasonable evidence that the Work cannot be completed for the balance then unpaid or within the Contract Duration set forth in this Agreement, (v) upon Owner's belief that it has incurred or is likely to incur damages due to Contractor's Work or lack of Work; or (vi) repeated failure to carry out the Work in accordance with the Contract Documents.

2.4 Where the term "Owner" is used in this Section 2.4, it is understood that such reference shall include Owner as well as any affiliated company, including, but not limited to, parent companies, other entities sharing common ownership with Owner, joint ventures, and other partnerships in which Owner has an interest related to this Project or the Project site. If any Subcontractor or other claimant under Contractor should file any claim, lien notice or affidavit or bond claim against the Project, the Owner, or a surety of the Project, Contractor shall immediately cause such lien, bond or claim to be released in full and Contractor shall provide Owner an original, recordable release or a bond to indemnify pursuant to Texas Property Code Section 53. 171 within three (3) days of demand of Owner. If Contractor should fail to provide such original, recordable release, Owner shall be authorized to take whatever action Owner deems necessary to remove such claim including, but not limited to, providing a bond to indemnify against the claim or paying the claim and Contractor shall be liable for all such costs including, but not limited to, bond premiums, interest, attorneys' fees and claims paid. The cost may, at Owner's option, be deducted from Contractor's remaining Contract balance, withheld from any payment due Contractor, or be payable on demand to Owner.

2.5 Contractor agrees to pay its Subcontractors (of every tier) and any of Contractor's employee not less than the scale of wages prescribed in the Contract Documents, or not less than the scale prescribed by law in case the Contract Documents provide no such scale. Contractor agrees to make payments at the times prescribed by the Contract Documents or by law. Should Contractor fail to observe this covenant, Owner shall have the option to proceed with termination pursuant to Article 7 of this Agreement. Contractor shall not assign or transfer this Agreement or any part or interest herein, including, but not limited to, the right to the proceeds therefrom without express written consent from Owner, such consent to be granted or withheld in Owner's sole discretion. Contractor and Owner agree that in any instance in which Owner may agree to any assignment of the proceeds of this Agreement, even if erroneous or inadvertent, Owner shall in no manner be liable to any assignee of Contractor in any amount in excess of net sums owing to Contractor hereunder, after deducting any amounts for which Contractor may be obligated or indebted to Owner, including, but not limited to, claims received by Owner from Contractor's Subcontractors or employees. Further, in such instance of assignment, Contractor waives any claims against Owner resulting from Owner's continued payment to the assignees of Contractor, notwithstanding any notice of termination of such assignment. By making an assignment of the proceeds of this Agreement, Contractor agrees to assume full liability for conveyance to assignees of any payments mistakenly, inadvertently or otherwise made or addressed to Contractor and Contractor agrees to indemnify, defend, and hold harmless Owner from any claim or cause of action of any assignee related to this Agreement.

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2.6 In taking action on the Contractor's Applications for Payment the Owner shall be entitled to rely on the accuracy and completeness of the information furnished by the Contractor, and such action shall not be deemed to be a representation that (1) the Owner has made a detailed examination, audit, or arithmetic verification, of the documentation submitted in accordance with this Section 5.1 or other supporting data; (2) that the Owner has made exhaustive or continuous on-site inspections; or (3) that the Owner has made examinations to ascertain how or for what purposes the Contractor has used amounts previously paid on account of the Contract.

ARTICLE 3

Obligations of Contractor

3.1 **Contractor Obligations.** The Contract price includes, and Contractor shall pay for all: labor, materials, tools, equipment, supplies, applicable taxes, transportation, storage facilities, offices, telephones, shop drawings, competent supervision, temporary facilities, and all other things necessary for performance of the Work covered by this Agreement. Contractor shall secure and pay for all permits and governmental fees, licenses, and inspections necessary for the proper execution and completion of Contractor's Work.

3.2 Contractor agrees and covenants that all monies received for performance of this Agreement shall first be used for, and that such sums constitute trust funds for, the payment of all labor and materials used in the Work. Contractor shall ensure that all of its Subcontractors and employees are timely paid all amounts due in connection with the Work. Nothing contained herein shall be construed as creating a third-party contractual relationship between a Subcontractor and Owner.

3.3 Contractor shall neither purchase materials nor incur other debts in Owner's name without Owner's prior written authorization.

3.4 Payment to Contractor is specifically agreed not to constitute or imply acceptance by Owner of any portion of Contractor's Work that fails to comply with the Contract Documents or is in any way unacceptable to Owner.

3.5 Owner may withhold amounts otherwise due under this Agreement to cover estimates of costs of liability Owner has incurred or may incur for which Contractor may be wholly or partially responsible under this Agreement. Owner hereby reserves the right to settle, in its sole and absolute discretion, any and all claims arising out of Contractor's Work. If there are not sufficient amounts due Contractor under this Agreement to cover all expenses related to the settlement of claims, Contractor shall pay Owner for such expenses immediately upon demand.

3.6 Contractor shall deliver to Owner copies of shop drawings, cuts, samples, material lists, and other submissions, including mock-ups and temporary structures required by Owner or the Contract Documents within sufficient time so as not to delay performance of the Project and within sufficient time for Owner to review the same within the time stated in the Contract Documents. Owner's review of any shop drawings, cuts, samples, material lists and other submissions, including mock-ups or temporary structures, shall not to any extent, under any circumstances, alter the requirements of the Contract Documents for quality, quantity, finish, dimension, design or configuration or constitute acceptance by Owner of any method, material or equipment not ultimately acceptable to Owner or relieve Contractor from responsibility for errors of any sort or from the necessity of furnishing any work required by the Contract Documents. By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

3.7 Each proposed substitution shall require the written approval in the form of a change order signed by the Owner before its incorporation into the Work. The Contractor shall submit requests for substitution as soon as practicable after the need for the substitution is determined to allow for adequate consideration of such request and to minimize delay in the progress of the Work. Owner shall promptly act on such request so as to also minimize delay in the progress of the Work.

ARTICLE 4

Changes, Extras and Delays

4.1 **Changes.** Contractor may be ordered in writing by Owner, without invalidating this Agreement, to make changes in the Work which is the subject of this Agreement (consisting of additions, deletions, or other provisions) with the Contract Price and the Contract

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Duration(s) being adjusted. However, in no event shall Contractor be entitled to an increase in the Contract Price or Contract Duration(s) greater than such amount or period which the Owner deems reasonable and appropriately justified under the terms this Agreement. Contractor, prior to the commencement of such changed or revised Work, shall submit promptly to Owner written copies of any claim or adjustment to the Contract Price and Contract Duration(s) for such revised Work in the manner consistent with the Contract Documents and a written Change Order shall be executed in accordance with the Contract Documents. No Change Order shall be valid unless Owner's Authorized Representative has signed and approved same.

4.1.1 If Contractor requests a proper written Change Order but there is a dispute as to any part of the change, including but not limited to, the price of and time to complete such changed Work, Owner shall be entitled to issue a written directive to Contractor to perform such change and Contractor shall be obligated to proceed with such change without either party admitting liability for the change or waiving its rights under this Agreement. Under no circumstances should the Contractor proceed with changed Work without written directive from the Owner. Contractor shall then file with the Owner within three (3) calendar days from the date of commencing performance of said Work, its written itemized estimate for the cost and time needed to perform the alleged extra Work or changes to be made. The itemized cost shall include, but not limited, actual timesheets with pay rates, material invoices and/or estimates, tools and the defined overhead and profit percentage. If Contractor fails to submit the itemized estimate for cost or time associated with the change as required herein, Contractor waives all claims associated with the change and agrees to perform the change at no additional cost or time.

4.1.2. In the event Owner, Architect and or Engineer make a request to the Contractor for design related or directive as a notice of change or change request. Contractor shall promptly, within seven (7) calendar days, provide the Owner with the estimated cost of the work along with a breakdown and itemization of cost. At a minimum, the breakdown must reflect all labor, materials, equipment, and contractor overhead and profit in the form of a fee as set forth below. Upon request by the Owner, additional breakdown or supporting documentation shall be provided. If contractor fails to provide requested documentation within seven (7) calendar days, then Owner may exercise its rights in the proceeding article 4.1.1.

4.1.3 Contractor shall be paid a fee of ten percent (10%) for services rendered in connection with an additive Change Order.

4.1.4 No course of conduct or dealings between the parties, nor express or implied acceptance of alterations or additions to the Work, nor refinement or further detailing of plans, drawings or specifications, and no claim that the Owner has been unjustly enriched by any alteration or addition to the Work, whether or not there is, in fact, any unjust enrichment to the Work, shall be the basis of any Claim to any increase in any amounts due under the Contract Documents or a change in any time period provided for in the Contract Documents and Contractor hereby releases and waives all claims for extras, changes or increases therein, unless such extras, changes and increases are specifically authorized by a written Change Order or written directive signed by Owner, in accordance with this Section 4.1.

4.1.5 Unless otherwise provided in the Change Order, agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the Work which is the subject of the Change Order, including but not limited to all direct and indirect costs associated with such change and any and all adjustments to the Contract Price and the Contract Duration(s). In the event a Change Order increases the Contract Price, Contractor shall include the Work covered by such Change Order in an Applications for Payment as if such Work were originally part of the Agreement. All Work affected by the change shall be included in the Change Order request. Agreement on a Change Order shall constitute a full and complete settlement for all of the direct and indirect costs and schedule extension that are associated with the scope of the Work identified within that Change Order. Consideration shall not be given at a later date for additional or indirect costs or time not made a part of the Change Order.

4.2 All unresolved claims, disputes, and other matters in question between Owner and Contractor of this Agreement shall be resolved in the manner provided in Article 14 herein.

4.3 Delays and Duration Extensions. If the progress of Contractor's Work is substantially delayed due to no fault or responsibility of the Contractor, then the Contract Duration(s) for Contractor's Work may be extended by Change Order if, in the sole discretion of Owner, the critical path of Contractor's work is delayed. However, if any party assesses a delay claim which is the total or partial responsibility of Contractor, Owner may assess the proportional amount of the delay claim against Contractor.

4.3.1 Contractor agrees to make any claim for extension of Contract Duration(s) to Owner within seven (7) calendar days of such occurrence of the event giving rise to the delay along with a request for a specific Contract Duration(s) extension. Any claim for extension of Contract Duration(s) not properly presented by Contractor within the written notice period is waived.

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4.3.2 Owner shall not be liable to Contractor for any damages (consequential, actual or otherwise) or additional compensation as a consequence of delays caused by events outside Owner's control unless Owner has recovered damages on behalf of Contractor from said person, it being understood and agreed by Contractor that apart from recovery from said person, Contractor's **SOLE AND EXCLUSIVE REMEDY FOR DELAY** caused by events outside Owner's control shall be an extension of the Contract Duration(s) under the guidelines and restrictions set forth herein. Owner shall have no duty or obligation to pursue any claim for delay damages from any third party on behalf of Contractor. Extension of Contract Duration(s) shall be Contractor's sole remedy for delay, inefficiencies or loss of productivity incurred as a result of delay, or as a result of schedule amendments.

4.3.3 In the event of any delay entitling Contractor to an increase in Contract Sum caused by Owner as set forth in 4.3.2 above, Contractor's recovery shall be limited to the increase, if any, of direct costs incurred by the Contractor in performing the Work as a result of that portion of delay or delays which cause the Contract Duration(s) to be extended. Direct costs do not include profit or any consequential damages, lost opportunity costs, impact damages, or other similar remuneration. The Owner's reasonable exercise of any of its rights or remedies under the Contract Documents, regardless of the extent or frequency, shall not under any circumstances be construed as interference with the Contractor's performance of the Work. Nothing contained herein shall prohibit recovery by Owner of liquidated damages for Contractor's delay pursuant to the Agreement. Contractor shall not be compensated nor given extensions of Contract Duration(s) for delays that are caused by Contractor or its Subcontractors of any tier.

4.3.4 In the event the Owner reasonably determines that the performance of the Work has not progressed in a continuous or expeditious manner or has not reached the level of completion required by the Contract Documents, the Owner may give notice to the Contractor and the Contractor shall have three (3) calendar days to take corrective measures necessary to expedite the progress of the Work, including, without limitation, providing additional overtime, additional manpower, equipment and facilities, and other similar measures all at Contractor's sole cost and expense. If, after three (3) calendar days' notice, Contractor shall fail to proceed to take corrective measures necessary to expedite the progress of the Work, Owner shall be entitled, but not obligated, to supplement Contractor's forces with others in order to expedite the Work and be entitled to deduct the cost of such supplemental work from amounts otherwise due to Contractor. This provision shall be in addition to and not in lieu of Owner's right to recover liquidated, actual and consequential damages in the event the Project is not completed in accordance with the Contract Durations.

4.4 Liquidated Damages. The time for completion of the Work is of the essence. Contractor agrees to perform its obligations with due diligence and within time limits established by the Contract Documents. The Contractor acknowledges and agrees that if the Contractor fails to complete any portion of the Work within the applicable Contract Duration set forth in **Exhibit B**, the Owner will sustain damages as a result of such failure. The exact amount of such damages will be difficult to ascertain. If Contractor fails to complete any portion of the Work in accordance with the applicable Contract Duration set forth in **Exhibit B**, Contractor shall pay to Owner the amount of **\$5,000.00 (five thousand dollars)** per day for each day beyond the Contract Duration(s). Liquidated damages for failure to timely complete portion(s) of the Work within the Contract Duration(s) shall be cumulatively assessed and added, and such cumulative assessment of liquidated damages shall not be considered a duplication of charges for liquidated damages or a penalty. Such liquidated damages are agreed to, not as a penalty, but as liquidated damages constituting a reasonable approximation of damages to the Owner in the event of delay in completion of the Work. Owner may deduct liquidated damages described in this Section from any unpaid amounts then or thereafter due the Contractor under this Agreement. Any liquidated damages not so deducted from any unpaid amounts due the Contractor shall be payable to the Owner at the demand of the Owner.

ARTICLE 5

Required Bonds

5.1 Payment and Performance Bonds.

5.1.1 Performance and Payment Bonds: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond.

5.1.2 Contractor shall furnish payment and performance bonds for the full amount of the Contract Price, including any and all Change orders, addendums or extras. Such bonds shall be in the form set forth in the bidding documents and attached to this Agreement as **Exhibit F**, and satisfactory to Owner, issued by a surety legally authorized to write such bonds in the state where the Project is located. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond. In the event Contractor fails to properly provide such requested bonds, Owner may terminate this Agreement and relet the Work to another Contractor and all Owner's costs and expenses incurred thereby, including, but not limited to, costs of delay, administrative costs and costs of the replacement Contractor and/or Subcontractor over and above Contractor's remaining Contract balance, shall be paid by Contractor.

5.2 Maintenance Bond.

5.2.1 Contractor shall furnish a Maintenance Bond in the form set forth in the bidding documents and attached to this Agreement as **Exhibit F**, in the amount of one hundred percent (100%) of the Contract Price in favor of the Owner, the District, and the City of McKinney for a period of two (2) years following final acceptance of the Work and shall be executed by an approved surety company authorized to do business in the State of Texas.

5.2.2 The Maintenance Bond shall be provided to Owner as a condition precedent to Contractor receiving final payment from Owner.

ARTICLE 6

Indemnification and Insurance

6.1 Indemnification.

6.1.1 GENERAL INDEMNITY. TO THE FULLEST EXTENT PERMITTED BY LAW, AND EXCEPT SET OUT IN SECTION 6.1.2 BELOW, CONTRACTOR SHALL INDEMNIFY, HOLD HARMLESS, AND DEFEND, OWNER, HONEY CREEK INVESTMENTS, LLC, BARCELONA 93, LTD., RPG HC, LLC, HCLC MASTER DEVCO, LLC, INTERNATIONAL BANK OF COMMERCE, AND THEIR AFFILIATED ENTITIES, PARTNERS, OFFICERS, DIRECTORS, MEMBERS, MANAGERS, SHAREHOLDERS, SUBSIDIARIES, PARENTS, AGENTS, REPRESENTATIVES, EMPLOYEES, SUCCESSORS, AND ASSIGNS (THE "INDEMNITEES" AND INDIVIDUALLY AN "INDEMNITEE"), FROM AND AGAINST ALL CLAIMS, SUITS, LIABILITY, FINES, DAMAGES, LOSSES, AND EXPENSES, INCLUDING BUT NOT LIMITED TO REASONABLE ATTORNEYS' FEES, ARISING OUT OF OR RESULTING FROM CONTRACTOR'S PERFORMANCE OF THE WORK OR OTHER ACTIVITIES OF CONTRACTOR OR ANY SUBCONTRACTOR PURSUANT TO THIS AGREEMENT, INCLUDING WITHOUT LIMITATION (1)THE VIOLATION OF ANY ORDINANCE, REGULATION, STATUTE, OR OTHER APPLICABLE LAW BY CONTRACTOR OR ANY SUBCONTRACTOR (OR ANY OF THEIR EMPLOYEES) OF ANY TIER; (2)ANY LIEN CLAIM ASSERTED BY ANY SUBCONTRACTOR OR SUPPLIER OF ANY TIER FOR WORK OR MATERIALS PROVIDED TO THE PROJECT, PROVIDED THAT OWNER IS NOT IN BREACH OF ITS PAYMENT OBLIGATIONS HEREUNDER; (3)BODILY INJURY OR DEATH OF ANY PERSON, OR PROPERTY DAMAGE (REAL, PERSONAL, TANGIBLE, OR INTANGIBLE), INCLUDING LOSS OF USE OF PROPERTY; BUT ONLY TO THE EXTENT CAUSED IN WHOLE OR IN PART BY ANY NEGLIGENT ACT OR OMISSION OF CONTRACTOR, ITS SUBCONTRACTORS, OR ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY CONTRACTOR OR ANY SUBCONTRACTOR OR ANYONE FOR WHOSE ACTS CONTRACTOR MAY BE LIABLE.

6.1.2 EMPLOYEE INJURY CLAIMS. IN ADDITION TO THE INDEMNIFICATION PROVIDED IN SECTION 6.1.1.1 ABOVE, CONTRACTOR SHALL INDEMNIFY, DEFEND, AND HOLD HARMLESS OWNER AND ALL

INDEMNITEES FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES (INCLUDING BUT NOT LIMITED TO REASONABLE ATTORNEYS' FEES AND COSTS), ARISING OUT OF, RESULTING FROM, OR ATTRIBUTABLE TO ANY CLAIM OF BODILY INJURY, SICKNESS, DISEASE, OR DEATH OF ANY EMPLOYEE OF CONTRACTOR, ANY SUBCONTRACTOR, OR ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY CONTRACTOR OR ANY OF ITS SUBCONTRACTORS, BROUGHT BY SUCH INJURED EMPLOYEE OR THE EMPLOYEE'S WORKERS COMPENSATION INSURANCE CARRIER (HEREINAFTER REFERRED TO AS AN "EMPLOYEE INJURY CLAIM"), EVEN TO THE EXTENT SUCH CLAIM, DAMAGE, LOSS, OR EXPENSE IS CAUSED OR IS ALLEGED TO BE CAUSED, IN WHOLE OR IN PART, BY THE SOLE OR CONCURRENT NEGLIGENCE OF OWNER OR ANY INDEMNITEE, IT BEING THE EXPRESSED INTENT OF THE OWNER AND CONTRACTOR THAT, IN SUCH EVENT, THE CONTRACTOR IS TO INDEMNIFY, HOLD HARMLESS, AND DEFEND THE OWNER AND INDEMNITEES FROM THE CONSEQUENCES OF THEIR OWN NEGLIGENCE, WHETHER IT IS OR IS ALLEGED TO BE THE SOLE OR CONCURRING CAUSE OF THE BODILY INJURY, SICKNESS, DISEASE, OR DEATH OF THE EMPLOYEE. THE INDEMNIFICATION OBLIGATIONS UNDER THIS SECTION SHALL NOT BE LIMITED BY ANY LIMITATION ON THE AMOUNT OR TYPE OF DAMAGES, COMPENSATION, OR BENEFITS PAYABLE BY OR FOR CONTRACTOR UNDER WORKERS COMPENSATION ACTS, DISABILITY BENEFIT ACTS, OR OTHER EMPLOYEE BENEFIT ACTS. CONTRACTOR SHALL PROCURE LIABILITY INSURANCE COVERING ITS OBLIGATIONS UNDER THIS SECTION.

6.1.3 The indemnification obligations under Section 6.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts, and shall extend to and include any actions brought by or in the name of any employee of Contractor or of any third party to whom Contractor may sublet any part of the Work.

6.1.4 The obligations contained in this Section 6.1 shall survive the expiration, completion, abandonment and/or termination of the Agreement and final completion of the Work and any other services to be provided pursuant to this Agreement but in no event shall survive beyond the term of the applicable Statute of Repose.

6.1.5 It is agreed with respect to any legal limitations now or hereafter in effect and affecting the validity or enforceability of the indemnification obligations under this Section 6.1 or the Additional Insured requirements of this Agreement such legal limitations are made a part of the contractual obligations and shall operate to amend the obligations to the minimum extent necessary to bring the provision into conformity with the requirements of such limitations, and as so modified, the obligations shall continue in full force and effect. Should any provision in this Agreement be held invalid, unenforceable, or contrary to public policy, law, statute, or ordinance, then the remainder of the provision, paragraph, Section and/or Agreement shall not be affected thereby and shall remain valid and fully enforceable.

6.1.6 Contractor's assumption of liability under this Section 6.1 is independent from, and not limited in any manner by, Contractor's insurance coverage or lack thereof. All amounts owed by Contractor to Owner or any Indemnitee as a result of this Section 6.1 shall be paid upon demand.

6.1.7 The above-referenced defense and indemnification obligations shall not require Contractor to defend and indemnify Architect or other design professionals (or their representatives, employees, agents, invitees and licensees) against claims arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications, unless required by the agreement between Owner and Consultant.

6.1.8 The indemnities agreed to herein are to be construed in compliance with the applicable law, including Chapter 151 of the Texas Insurance Code. If any one or more sections, clauses, sentences or parts of this Contract shall for any reason be questioned and adjudged invalid, such judgment shall not affect, impair or invalidate the remaining provisions of Contract, but shall be confined in its operations to the specific provisions so held invalid, and inapplicability or invalidity of any such section, clause, provision or part shall not be taken to affect or prejudice in any way the remaining part or parts of this Contract.

6.2 Insurance. Prior to starting the Work, Contractor shall procure and maintain in force the minimum insurance requirements set forth in Exhibit E. Contractor shall be responsible for any deductibles or self-insured retentions contained in the policies required in this Agreement and Exhibit E for itself and all additional insureds.

6.2.1 Contractor will require each of its Subcontractors regardless of tier to carry Commercial General Liability Insurance, Workers Compensation Insurance, Commercial Auto Liability and Employer's Liability as set forth in Exhibit E, together with

such other insurance that may also be required of Contractor and will require that the insurance be furnished prior to the commencement of any Work, or entering into any contracts with said lower tier Subcontractors, or approving contracts with any lower tier Subcontractor, whichever is earliest. **CONTRACTOR AGREES TO INDEMNIFY, DEFEND AND HOLD OWNER HARMLESS FOR ANY FAILURE OF ANY OF CONTRACTOR'S SUBCONTRACTORS, REGARDLESS OF TIER, S TO OBTAIN THE REQUIRED INSURANCE COVERAGES.**

6.2.2 The requiring of any and all insurance as set forth in this Agreement, is in addition to and not in any way in substitution for all the other protection provided under the Agreement, including Section. 6.1 and Section. 4.4.

6.2.3 In no event, shall any insurance policy of Contractor provide an exclusion for a specific type of construction or project if that type of construction or project is being provided by Contractor under the terms of this Agreement.

6.2.4 Waiver of Subrogation. Owner and Contractor waive all rights against each other and Owner, the Architect, separate contractors, and all other Subcontractors for loss or damage to the extent covered by Builder's Risk insurance.

6.2.5 The insurance provisions in this Agreement, including, but not limited to, any additional insured provisions, are intended to comply with Chapter 151 of the Texas Insurance Code and shall be read as broadly as permitted to satisfy that intent. It is agreed that with respect to any legal limitations now or hereinafter in effect and affecting the validity and enforceability of the additional insured obligations, such legal limitations are made a part of the additional insured obligations to the minimum extent to bring the insurance into conformity with the requirements of such limitations, and as so modified, the additional insured obligations shall continue in full force and effect.

ARTICLE 7

Scheduling, Time of Performance, Default and Owner's Remedies

7.1 TIME IS OF THE ESSENCE IN THIS AGREEMENT.

7.2 Schedule. Contractor shall perform the Work in accordance with durations referenced in Exhibit B "Scope of Work and Durations". Contractor shall cooperate with Owner in scheduling and performing the Work to avoid conflicts or interference with the work of other trades and to ensure an efficient Project. The Anticipated Project Schedule is for reference only and should be used as a baseline for the sequence of the work. The Contractor acknowledges at the time of execution of this Contract the dates referenced in the schedule are subject to change at no fault of the Owner. Contractor shall be liable to Owner for failure to adhere to Owner's schedule, including amendments, even if such schedule differs from schedules set forth in the Contract Documents or the time of completion called for in the Contract Documents. In agreeing to perform the Work in accordance herewith, Contractor has taken into account and made allowance for delays which should be reasonably anticipated or foreseeable, including, but not limited to, delays caused by rain and other inclement weather conditions. If requested by Owner, Contractor shall submit detailed schedules for the performance of this Work in a form acceptable to Owner, which shall comply with all scheduling requirements of the Contract Documents. Owner may, from time to time, in its sole discretion, make modifications and revisions to the schedules.

7.2.1 Owner's Right to Modify Project Schedule and Sequence. Contractor acknowledges that as construction progresses it may be necessary for Owner to change the sequential order and duration of the various activities, including those contemplated by this Agreement, to account for unanticipated delays, occurrences and other factors which act to alter Owner's original schedule. Owner may require Contractor, at no additional cost to Owner and in Owner's sole discretion, to prosecute Contractor's Work in such sequence as the progress of the other contractors and the project schedule reasonably dictates. It is expressly understood and agreed that the scheduling and sequencing of the Work is an exclusive right of Owner and that Owner reserves such right to reasonably reschedule and re-sequence Contractor's Work from time to time as the demands of the Project require without any additional cost or expense to be paid to Contractor.

7.2.2 Contractor shall carry on said Work promptly, efficiently and at a speed that will not cause delay in the progress of the Work. If, in the opinion of Owner, Contractor falls behind in the progress of the Work, Contractor may be directed to take such steps as deemed necessary to improve the rate of progress. These steps may include, without limitation, requiring Contractor to increase the number of shifts, personnel, overtime operations, days of work, equipment, or any other remedies the Owner, in its sole discretion, may deem necessary. Contractor shall submit to Owner, for Owner's approval, a schedule demonstrating how the required rate of progress necessary to meet the schedule will be implemented and monitored without additional cost to Owner or Owner.

7.2.3 Owner's Right to Accelerate/Overtime. Owner, if it deems necessary, may accelerate the Work of Contractor for Owner's convenience (and not due to Contractor falling behind schedule) by directing Contractor to work overtime and if so instructed, Contractor will work such overtime and, provided that Contractor is not in default under any of the provisions herein, including, but not limited to, the Contractor's duty to perform the Work in strict accordance with the most recent project schedule, Owner will pay Contractor for the actual proved incremental portion of such wages paid at rates which have been approved by Owner, plus taxes imposed by law on the incremental portion of such additional wages, plus worker's compensation, levies and liability insurance on such additional wages when required to be paid by Contractor. In no event, however, shall Contractor be entitled to any inefficiency, impact or other special or indirect charges or damages of any kind as a result of any acceleration or other schedule or sequence modifications.

7.3 Performance and Termination for Default. For purposes of this provision, Contractor's failure to perform shall include the failure of its Subcontractors (regardless of tier) to perform. If Contractor is, in Owner's opinion, behind schedule with the Work, Contractor shall, at its own expense, work such overtime as Owner may deem necessary to comply with the schedule and complete the Work. Contractor shall pay all extra costs resulting from its lack of diligence or failure to provide needed labor or materials to meet the schedule of Work. In the event Contractor is behind schedule, Owner shall be entitled to withhold payment pursuant to Section 2.3 herein. Should Contractor at any time (i) refuse or neglect to supply sufficient skilled workmen or material of proper quality, (ii) refuse to follow the plans, specifications or other Contract Documents, (iii) fail to pay for labor and materials for which it has received payment from the Owner, (iv) fail in any respect to prosecute the Work to be performed, (v) disregards applicable laws or the lawful orders of the authority with jurisdiction; (vi) becomes insolvent or makes a general assignment for the benefit of Contractor's creditors, or a trustee or receiver is appointed for Contractor or for any of its property; or (vii) fail in any other respect to materially comply with the terms of this Agreement, the Owner shall have the right, immediately upon written notice to Contractor to terminate Contractor's right to proceed in whole or in part. In such event, notwithstanding anything in this Agreement to the contrary, Contractor shall not be entitled to any further payments hereunder, whether due or not, and Owner shall have the right to retain the entire Contract balance, earned or not, due or yet to become due, until the final completion of the Project. The Owner may finish Contractor's Work by whatever method it may deem expedient and Contractor and its surety, if any, shall be liable to Owner for any cost occasioned thereby. Owner shall be entitled to deduct all costs as a result of Contractor's default from any and all funds withheld from Contractor, including, but not limited to, costs of completion, costs of supervision, costs of correction, all acceleration costs, attorneys' fees, architects' or engineers' fees, inspection or re-inspection charges, and clean-up and disposal costs. In the event the costs of completion exceed the Contract balance, the difference shall be immediately paid by Contractor to Owner and Owner shall have the express right to pursue a prejudgment garnishment action to freeze said funds. In the event the contract balance exceeds the costs of completion, Contractor shall be paid the difference but only to the extent Contractor has not been previously paid for such Work. Owner's administrative costs shall be included in the calculation of the costs of completion. Any termination or declaration of default under any portion of the Work shall not operate to discharge Contractor's obligations under the remaining portions of the Work.

7.4 Other Remedies for Default Other than Termination. Should Contractor (a) fail to correct, replace and/or re-execute faulty or defective Work and/or materials furnished under this Agreement; (b) fail to complete or diligently proceed with the Work within the time required by Owner; (c) fail to correct or repair any damage to the Work caused by Contractor, or those for whom it is responsible, or by virtue of Contractor's failure to protect its Work; (d) refuse or fail to provide sufficient properly skilled workers, adequate supervision or materials; or (e) otherwise be in default of any provision of this Agreement or the Contract Documents, then Owner, upon forty-eight (48) hours prior written notice to Contractor, shall have the right to correct, replace or otherwise remedy any such defect, deficiency or delayed performance by any reasonable and expedient means, including taking over or supplementing Contractor's Work and materials and employing such additional labor, equipment and materials as may be necessary to cure the default and achieve compliance with the Agreement and the Contract Documents. In such event, Owner may deduct and/or withhold from payments then or thereafter to become due Contractor the cost of correcting such deficiencies, plus overhead of fifteen percent (15%) to cover costs not readily ascertainable and not as a penalty. If payments then or thereafter due Contractor are not sufficient to cover such amount, Contractor and/or its surety, if any, shall promptly pay the difference to Owner.

7.5 Owner shall have the absolute right to terminate Contractor for convenience at any time during the course of this Agreement with a written notice of termination effective upon receipt by Contractor. In the event of termination for convenience Contractor shall be paid the reasonable value of the Work performed by Contractor prior to termination plus reasonable direct close-out costs, but in no event shall Contractor be entitled to unabsorbed overhead, anticipatory profit or damages of any kind or nature, direct or indirect, incidental, or consequential, or fee on Work not performed. Owner may, in its sole discretion, utilize its right to terminate Contractor for convenience, in lieu of compliance with the terms regarding a termination for default.

7.6 Not Used.

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7.7 In the event of termination of Contractor, Owner may take over any of Contractor's outstanding subcontracts and purchase orders and may take possession of all materials and supplies of Contractor which are on the Project site, in transit to, or specially manufactured for said Work for use in the completion of this Agreement. The Contractor shall include in each subcontract and purchase order a provision allowing such contingent assignment to Owner.

7.8 If Contractor should neglect, fail or refuse to perform any portion of its Work which affects the even flow progress of the Project or any work of any emergency nature, Owner shall have the right, after any form of reasonable notice to Contractor, if feasible, to perform such Work without prejudice to any other remedy it may have, and deduct the reasonable costs thereof from the Contract balance.

7.9 Not Used.

7.10 Collection of Amounts Owed to Owner. In the event that Contractor owes any amount to Owner, whether under this Agreement or otherwise, Contractor agrees to Owner's employment of whatever collection methods it deems reasonable and expedient, including, but not limited to, garnishment (pre and post judgment), sequestration, attachment or any other legal method. Contractor agrees to waive any and all bond requirements associated therewith. Contractor agrees to pay to Owner all costs of collection.

7.11 Conversion of Cause to Convenience. In the event Owner terminates Contractor for any cause under the terms of this Agreement and it is later determined by a court of competent jurisdiction, by arbitration or other similar proceeding that such termination for cause was not justified, then in such event such termination for cause shall automatically be converted to a termination for convenience under the terms of this Article.

7.12 Not Used.

7.13 Remedies Cumulative. No right or remedy of Owner contained in this Agreement is intended to be exclusive of any other right or remedy, but every such right or remedy shall be cumulative and shall be in addition to and not a limitation of any duties, obligations, rights and remedies provided herein or otherwise imposed or available by law.

ARTICLE 8

Compliance with Laws, Permits and Notices

8.1 Contractor shall give notices and comply with all laws, ordinances, rules, regulations, and orders of any public authority bearing on the performance of the Work under this Agreement including, but not limited to: The Occupational Safety and Health Act of 1970; Fair Labor Standards Act; building codes; federal, state and local tax laws; and Workers' Compensation Acts. In accordance with Section 6.1 herein, Contractor shall also indemnify, defend, and hold harmless Owner from any and all liability, damages, fines, and costs arising out of Contractor's failure to comply with all laws, regulations and ordinances applicable to the Work.

8.2 Without limiting the foregoing representations, conditions and covenants, Contractor specifically warrants and represents to Owner that Contractor is not at the present time employing on any project and will not in the future employ or knowingly allow any of its Subcontractors to employ or continue in its employment any individual who is not legally authorized to work in the United States of America, or otherwise commit any violation of the Immigration Reform and Control Act of 1986, the Immigration and Nationality Act or any other federal, state or local statute, rule or regulation relating to the employment of illegal aliens. Contractor shall as a condition to its being awarded this Contract and being permitted to perform and/or continue performance of the Work under the scope of this agreement, use due diligence to verify the work status of any and all individuals seeking employment with or by such Contractor, and shall maintain all records, documents and other means to verify that such individual is a citizen or national of the United States of America, an alien lawfully admitted for permanent residence, or an alien who is authorized under the Immigration Reform and Control Act of 1986 or by the Attorney General of the United States of America to be hired, recruited or referred for such employment and shall maintain such records for the period of time required by law. Contractor shall defend, indemnify and hold harmless Owner of and from any claims, demands, losses, damages or expenses that Owner may suffer or incur as a result of the failure on the part of Contractor to adhere to and comply with all the requirements of this provision, including any fines, penalties or other sanctions that may be levied or assessed against Owner, its agents, servants and employees by any governmental or regulatory agency or bureau.

8.3 Insofar as the Owner has any obligation for affirmative action or otherwise under applicable Equal Employment Opportunity Rules and Regulations and various other state and federal non-discrimination laws as they apply to the various forms of

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nondiscrimination in employment, and as they apply to the employment of handicapped persons, as well as that of Vietnam Era Veterans, then this obligation shall also extend to the employment practices of the Contractor.

ARTICLE 9

Protection of Work, Safety and Warranties

9.1 **Protection of Work.** Contractor shall effectively secure and protect its materials and Work at its sole expense and shall be solely responsible for the protection and safety of its materials, equipment and Work, whether or not installed and whether or not accepted by the Owner and/or the Owner. Contractor shall repair and/or replace, at the Owner's option and at Contractor's sole expense, any and all Work which is stolen, damaged or otherwise fails to comply with the Contract Documents, regardless of the cause of such theft or damage, notwithstanding any contrary provision of this Agreement and regardless of whether or not such damage or theft is covered by Builder's Risk Insurance or other insurance.

9.2 **Protection of Other's work.** In carrying out its Work, Contractor shall take any and all necessary precautions to properly protect the finished work of other trades and the Owner from damages caused by its operations. Contractor shall promptly reimburse Owner and any other contractor for damages caused to their materials and work caused by Contractor or anyone under its control or authority. Should Contractor fail to promptly pay for such damages, Owner is hereby authorized to withhold an amount to cover such damages from any payments that become due hereunder or any other amounts Owner may owe Contractor. If Contractor deems that the surface of work to which its Work is to be applied or affixed is unsatisfactory or unsuitable, written notification of said condition shall be given to Owner before proceeding or taking on remedial action, otherwise Contractor shall be fully and solely responsible and liable for any and all expense, loss, or damages resulting from said condition and Owner shall be relieved of all liability in connection therewith.

9.3 **Hazardous Materials.** In accordance with the Hazardous and Toxic Substance Act, Contractor must submit to Owner two (2) copies of Contractor's Hazard Communications Program and Material Safety Data Sheets for any hazardous chemicals Contractor may be using on the Project. Contractor is responsible for complying with all OSHA requirements included in the Hazardous and Toxic Substance Act, including, but not limited to, providing information to any workman on the Project who may request such information. Contractor is responsible for verifying that all information included within the Hazard Communications Program and Material Safety Data Sheets is current and in compliance with OSHA at all times.

9.3.1 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall give Owner advance notice thereof, and exercise utmost care and carry on such activities under supervision of properly qualified personnel.

9.4 **Safety.** Contractor shall take all necessary precautions for the safety of all persons on the Project and shall comply with all applicable provisions of federal, state and municipal safety laws and building codes to prevent accidents or injuries to persons or damage to property on or about or adjacent to the Project. Owner and Contractor agree that Owner does not owe a duty to ensure that Contractor performs its Work in a safe manner. Contractor acknowledges and agrees that Owner does not retain any actual or constructive control over the manner in which the Contractor performs its Work. Contractor agrees that it, and not Owner, shall be responsible for constant supervision and monitoring of all its employees and laborers. Further, Owner and Contractor agree that Owner shall not have responsibility for the direction of Contractor's safety or the safety of those under the Contractor's control. Issues specifically requiring Contractor's constant supervision and immediate correction in the case of unsafe conditions include, but are not limited to, cleaning of the Project site; wearing of hard hats and protective eyewear; keeping railings, barricades and covers in the proper place and in good repair; wearing all necessary protective equipment; keeping scaffolding and ladders in good repair and in proper use; using power tools properly grounded and in good repair, including electrical extension cords.

9.4.1 Contractor shall be responsible for any of its fines, penalties or charges by any regulatory body by reason of any violation of safety or health regulations in the performance of the Work. Contractor shall correct at its own expense any damage or disfigurement to work or property (whether or not located on the Site) resulting from the fault, neglect or omission of Contractor, any Subcontractor, or any other person or entity for whom any of them is legally responsible.

9.5 **Warranties.** Contractor warrants its Work to Owner under the Contract Documents Contractor warrants that its labor and materials will not be defective, will comply with the Contract Documents, will be new (unless the Contract Documents specifically state otherwise), and that the Work will be suitable for its intended use and will be constructed and installed in a good and workmanlike manner. Contractor's warranty shall apply to all Work and material performed by Contractor, unless the Contract Documents contain a

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stricter standard in which case the stricter standard shall control. Upon request of Owner, Contractor shall immediately honor all warranties and correct any defective Work or materials. In the event this Agreement is terminated for any reason, Contractor's warranties, guaranties and indemnities shall survive such termination and remain in full force and effect for the period of time prescribed in the Contract Documents.

9.5.1 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Substantial Completion of the Project. As part of the closeout submittals and as a condition to final payment Contractor shall furnish to Owner Certificates of Guarantee/Warranty in the name of Owner to cover all materials, equipment, and workmanship from the various manufacturers, suppliers, and Subcontractors individually who furnish or perform part of the Work as required by the Contract Documents.

ARTICLE 10

Defective Work

10.1 Contractor shall promptly amend, remedy, and make good any defective or non-complying materials and/or workmanship to the entire approval and acceptance of Owner representatives. Should Contractor refuse or neglect to proceed at once with the correction of rejected or defective materials and/or workmanship after receiving notice to do so, it is agreed that Owner may have the defects remedied or changes made at the sole expense of Contractor. Alternatively, should Owner so elect, Owner is hereby authorized to withhold any amount which Owner, in its sole discretion, deems necessary to cover such costs from the Contract balance or from any payment due or to become due to Contractor. In the alternative, Contractor shall pay Owner the costs of repairs upon demand of Owner. The remedies described above shall not be exclusive, but shall be in addition to all others provided by this Agreement and by law.

ARTICLE 11

Clean-up

11.1 Contractor shall clean up and remove from the site, on a daily basis or as and when directed by Owner, all rubbish and debris resulting from its Work. Also, Contractor shall clean up to the satisfaction of the Owner, the Owner, and their respective representatives, all dirt, grease, marks, and the like on the walls, ceilings, floors, fixtures, and all other surfaces on the Project deposited or placed thereon as a result of the execution of this Agreement. If Contractor refuses or fails to perform such cleaning as and when directed by Owner, the Owner shall have the right and power to proceed with said cleaning and Contractor will, upon demand, pay to Owner the actual cost of said labor, plus a reasonable percentage of such costs to cover supervision, insurance, overhead, and other costs. Should Owner so elect, Owner is hereby authorized, in the alternative, to withhold an amount to cover such cost from any payments that become due hereunder or any other amounts Owner may owe Contractor.

ARTICLE 12

Use of Owner's Equipment and Materials

12.1 The Contractor, its agents, employees, Subcontractors, or suppliers shall not use Owner's equipment without the express written permission from Owner. If Contractor makes use of Owner's equipment and/or materials, Contractor shall pay for such services unless otherwise provided in this Agreement.

ARTICLE 13

Restrictions on Assignments, Supervision and Cooperation with Others

13.1 It is expressly understood and agreed that Contractor's responsibilities and obligations under this Agreement are non-delegable personal services, and that the Contractor shall not assign responsibility for performance this Agreement or any part thereof without first obtaining written consent of Owner.

13.2 Contractor may not assign or attempt to assign any funds accrued or to be accrued under this Agreement without first obtaining the written consent of Owner and no such assignment shall be binding on Owner unless or until accepted in writing by Owner. Owner shall not be asked to execute or be obligated in any manner to honor any joint check agreement, factoring agreement, assignment of receivables or similar agreements. Contractor shall indemnify and hold Owner harmless from any and all claims arising out of any such

Contract #:

agreements. Owner has the right, but not the obligation, to honor a joint check agreement according to the terms set forth by Owner. Contractor agrees that it has sufficient financial resources to perform its obligations under this Agreement and that Owner's entering into joint check agreements is not necessary in order for Contractor to obtain materials from its suppliers.

ARTICLE 14

Disputes, Arbitration and Litigation

14.1 Litigation. All disputes shall be resolved in a court of competent jurisdiction in the county in which the Project is located. EACH PARTY HEREBY WAIVES ITS RIGHT TO A TRIAL BY JURY and consents to a trial before a judge in a court of competent jurisdiction in the county in which the Project is located.

14.2 Limitation on Damages. Notwithstanding anything contained herein or elsewhere in the Contract Documents to the contrary, the total amount of money recoverable from the Owner and the District on a claim for breach of contract is limited as set forth under Texas law. An award of damages may not include consequential damages (except as allowed pursuant to Tex. Local Gov't Code § 271.153(b)(1)), exemplary damages, or damages for unabsorbed home office overhead. Nothing in this Agreement shall be construed as a waiver of sovereign immunity; nor constitute or be construed as a waiver of any of the privileges, rights, defenses, remedies, or immunities available to Owner and District. The failure to enforce, or any delay in the enforcement, of any privileges, rights, defenses, remedies, or immunities available to the under this Agreement or under applicable law shall not constitute a waiver of such privileges, rights, defenses, remedies, or immunities or be considered as a basis for estoppel.

14.3 The law applicable to any arbitration or litigation concerning or relating to this Agreement shall be the laws of the State of Texas.

14.4 If Owner shall be required to employ an attorney to enforce any of the provisions of this Agreement, or to protect its interest in any matter arising hereunder, or to collect damages for the breach of the Agreement or to prosecute or defend any suit resulting therefrom, or to recover on any bond given by Contractor hereunder, Contractor and its surety, jointly and severally, agree to pay Owner for all reasonable costs, charges, expenses, expert fees and attorneys' fees expended or incurred in connection therewith.

14.5 Pending the resolution of any claim or dispute, Contractor shall continue to prosecute the Work which is the subject of this Agreement and Owner shall pay Contractor for all undisputed Work pursuant to this Agreement.

ARTICLE 15

Miscellaneous Provisions

15.1 Captions. Captions or Section headings included in this Agreement are for reference purposes only and shall not modify or limit the statements contained herein.

15.2 Interpretations. All words in this Agreement shall be deemed to include any number or gender as the context or sense of this Agreement requires. This Agreement shall, in the event of any dispute over its meaning or application, be interpreted fairly and reasonably and neither more strongly for nor against either party.

15.3 Notice. All notices required under this Agreement shall be sent via certified mail return receipt requested to the address set forth in the Agreement, via email to Owner's Authorized Representative, or via courier-receipted hand delivery to the office set forth in the Agreement. Verbal notification to Owner will not satisfy the notice requirements herein. To the extent any notice provision of this Agreement violates applicable law in that it is too strict or restrictive, the provision shall be automatically modified to the standards mandated by the applicable law and shall not be void.

15.4 Severability. In the event one or more of the provisions of this Agreement or any application thereof shall be invalid, unenforceable, or illegal, including, but not limited to, any attempted waiver of Chapter 56 of the Texas Business and Commerce Code, the validity, enforceability and legality of the remaining provisions and any other application thereof shall not in any way be impaired thereby.

15.5 Entire Agreement and Amendment. This Agreement contains and includes the entire understanding of the parties. Any oral agreements, prior proposals, understandings, and correspondence are hereby superseded by this Agreement. In addition, Contractor

Contract #:

waives any claim for fraudulent inducement with respect to this Agreement. This Agreement may be amended only by an instrument in writing signed by the Authorized Representative of the parties hereto.

15.6 Labor Disputes. Owner has no control nor seeks any control over the labor relations policy of Contractor; however, Contractor agrees that if pickets are established by local unions at the job site, that its employees will either cross those picket lines or enter the job site through a different entrance. Contractor agrees to establish a separate entrance to the job site as directed by Owner. Failure of Contractor to man the job with a sufficient number of skilled workmen during a labor dispute shall not be a defense to Owner's remedies under Article 7 or Article 10 under this Agreement. Contractor agrees that Owner may take all remedies provided in Article 7 or Article 10 of this Agreement should Contractor delay the job as the result of a labor dispute of any nature.

15.7 Samples, Submittals and Use of Materials. All samples that are required to be approved shall be submitted by Contractor in accordance with the Contract Documents. Shop drawings and submittals, if required, shall be submitted by Contractor in sufficient quantities and, after approval, Contractor shall furnish final copies for field use as may be requested by Owner. Any and all required certificates, tests, test reports, and the like shall be furnished by Contractor upon Owner's request. In the event that labor only is furnished by Contractor, Contractor agrees to use Owner's materials without waste and agrees to reimburse Owner for any material ruined or damaged on account of its negligence or carelessness. Material furnished by Owner shall be considered as delivered to Contractor when placed at the curb line of the building on the job site in which it is to be used or any other place designated by Owner. Quantities of material used daily shall be reported to Owner.

15.8 Independent Owner. Contractor shall be an independent contractor under this Agreement and shall assume all of the rights, obligations and liabilities applicable to it as such independent contractor hereunder and any provision in the Agreement which may appear to give Owner the right to direct Contractor as to the details of doing the work or as to the exercise of a measure of control over the Work shall be deemed to mean that Contractor shall follow the desires of Owner in the results only.

15.9 Privity. Contractor shall not interfere with Owner's relationship with the Architect or with other Contractors in privity with Owner. Contractor shall not deal directly with the Owner or Architect without prior written authorization from Owner. All Work for this Project performed by Contractor shall be processed and handled exclusively by and through Owner.

15.10 Contractor acknowledges and understands that notwithstanding anything in this Agreement to the contrary, the District is not the Owner under the Contract Documents and shall have no obligation to make payments to Contractor for all or any portion of the Work performed under this Agreement or any portion of the Contract Price, including any Change Orders associated with the Work or the Agreement. Contractor further acknowledges and understands that the District shall have no obligation to pay any damages arising out of or in any way related to the Work or the Contract Documents. Contractor agrees to look solely to the Developer for payment on account of the Work in an aggregate amount not to exceed the Contract Price, plus Change Orders approved by the Owner and the Board of Directors of the District. Failure by Developer to make such payments to the Contractor shall constitute a default by Developer and shall entitle the Contractor to all rights and remedies against the Developer arising under the Contract Documents for a default in payment of sums due the Contractor pursuant to the Contract Documents; provided, however, the District shall have no obligation for payment of sums due or to become due under the approved Applications for Payment or any part of the Contract Price.

15.10.1 Notwithstanding the foregoing, for purposes of convenient administration of this Agreement, the District may from time to time make payments due the Contractor pursuant to this Agreement from funds available to the District; provided, however, no such payment by the District will obligate the District to make further payments due the Contractor or pursuant to this Agreement unless and until District has accepted a written assignment of Developer's obligations hereunder and a copy of the executed assignment is delivered to the Contractor.

15.10.2 Contractor acknowledges and understands that the Developer, not the District, is responsible to provide Contractor access to the Site, rights-of-way for access to and from the Site, and such other lands that are designated for use of the Contractor in the Drawings and Specifications.

15.10.3 Right to Cure. Contractor acknowledges and understands that for any Developer breach of the Contract Documents, before exercising any remedy available to Contractor under the Contract Documents, Contractor must give written notice to the Developer and the District at the addresses set forth on page two (2) of the Agreement. Such written notice shall specify the alleged breach and the steps necessary to cure the alleged breach. Developer and/or the District shall have the right and power, within thirty (30) days after receipt of such

Contract #:

notice, to cure or cause the breach to be cured, if it so elects, before Contractor exercises any of its remedies under the Contract Documents.

15.11 The District shall be a third-party beneficiary of the Contract Documents and shall have the right to directly enforce its rights under the Contract Documents, including, but not limited to, any actions for indemnity and breach of warranty, express or implied. Notwithstanding the District's status as a third-party beneficiary, the District shall have no obligations and no financial responsibility to Contractor arising from this Agreement or the Contract Documents. All such obligations and responsibility shall remain with Owner exclusively.

Agreed and Accepted:

Contractor: _____

Owner: **Honey Creek Land Company, LLC**

Signature: _____

Signature: _____

Printed Name: _____

Printed Name: Seth Carpenter

Title: _____

Title: Vice President

Date: _____

Date: _____

District: Honey Creek Municipal Management District
No. 1 of Collin County

Signature: _____

Printed Name: Ricardo Soto

Title: President

Date: _____

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**EXHIBIT A
SCHEDULE OF DRAWINGS**

Contract #:

**CONSTRUCTION OF THE
BRIDGE IMPROVEMENTS FOR LAUD HOWELL PARKWAY, PROJECT 1, PHASE 2
HONEY CREEK MUNICIPAL MANAGEMENT DISTRICT NO. 1 OF COLLIN COUNTY
CITY OF MCKINNEY
COLLIN COUNTY, TEXAS**

LJA JOB NO. NT852F-0285

LIST OF DRAWINGS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	SHEET INDEX
3.	GENERAL NOTES
4.	GENERAL NOTES
5.	PROJECT LAYOUT
6.	TYPICAL SECTIONS
7.	TYPICAL SECTIONS - ROUNDABOUTS
8.	REMOVAL PLAN - START - 21+00
9.	REMOVAL PLAN - 21+00 - 43+00
10.	REMOVAL PLAN - 43+00 - 65+00
11.	REMOVAL PLAN - 65+00 - 87+00
12.	REMOVAL PLAN - 87+00 - 109+00
13.	REMOVAL PLAN - 109+00 - 131+00
14.	REMOVAL PLAN - 131+00 - 142+00
15.	TREE SURVEY PLAN - START - 21+00
16.	TREE SURVEY PLAN - 21+00 - 43+00
17.	TREE SURVEY PLAN - 43+00 - 65+00
18.	TREE SURVEY PLAN - 65+00 - 87+00
19.	TREE SURVEY PLAN - 87+00 - 109+00
20.	TREE SURVEY PLAN - 109+00 - 131+00
21.	TREE SURVEY PLAN - 131+11 - 142+00
22-32.	TREE SURVEY TABLES
33-45.	PAVING PLAN & PROFILE - LAUD HOWELL PARKWAY
46.	PAVING PLAN & PROFILE - CR 1107 CONNECTIONS
47.	PAVING PLAN & PROFILE - CR 201 CONNECTION
48.	ROUNDABOUT AT TAYLOR BURK - PAVING PLAN
49.	PAVING PLAN & PROFILE - ROUNDABOUT APPROACHES RB1A & RB1C
50.	PAVING PLAN & PROFILE - ROUNDABOUT APPROACHES RB1B & RB1D
51.	PAVING PLAN & PROFILE - ROUNDABOUT APPROACHES RB1E & RB1G
52.	PAVING PLAN & PROFILE - ROUNDABOUT APPROACHES RB1F & RB1H

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- 53-54. ROUNDABOUT AT TAYLOR BURK - GEOMETRIC CONTROL PLAN
- 55. ROUNDABOUT AT TAYLOR BURK - CONTOUR MAP
- 56. ROUNDABOUT AT TAYLOR BURK - FASTEST PATH - INTERIM
- 57. ROUNDABOUT AT TAYLOR BURK - FASTEST PATH - THROUGH
- 58. ROUNDABOUT AT TAYLOR BURK - FASTEST PATH - RIGHT
- 59. ROUNDABOUT AT TAYLOR BURK - FASTEST PATH - LEFT
- 60. ROUNDABOUT AT TAYLOR BURK - INTERIM TURN PATHS
- 61-62. ROUNDABOUT AT TAYLOR BURK - TURN PATHS
- 63-67. ROUNDABOUT AT TAYLOR BURK - SIGHT DISTANCE
- 68. ROUNDABOUT AT HARDIN - PAVING PLAN
- 69. PAVING PLAN & PROFILE - ROUNDABOUT APPROACHES RB2A & RB2C
- 70. PAVING PLAN & PROFILE - ROUNDABOUT APPROACHES RB2B & RB2D
- 71. PAVING PLAN & PROFILE - ROUNDABOUT APPROACHES RB2E & 2B2G
- 72. PAVING PLAN & PROFILE - ROUNDABOUT APPROACHES RB2F & RB2H
- 73. PAVING PROFILE - CENTRAL ISLANDS
- 74-75. ROUNDABOUT AT HARDIN - GEOMETRIC CONTROL PLAN
- 76. ROUNDABOUT AT HARDIN - CONTOUR MAP
- 77. ROUNDABOUT AT HARDIN - FASTEST PATH - INTERIM
- 78. ROUNDABOUT AT HARDIN - FASTEST PATH - THROUGH
- 79. ROUNDABOUT AT HARDIN - FASTEST PATH - RIGHT
- 80. ROUNDABOUT AT HARDIN - FASTEST PATH - LEFT
- 81. ROUNDABOUT AT HARDIN - INTERIM TURN PATHS
- 82-83. ROUNDABOUT AT HARDIN - TURN PATHS
- 84-88. ROUNDABOUT AT HARDIN - SIGHT DISTANCE
- 89. GRADING PLAN - START - 21+00
- 90. GRADING PLAN - 21+00 - 43+00
- 91. GRADING PLAN - 43+00 - 65+00
- 92. GRADING PLAN - 65+00 - 87+00
- 93. GRADING PLAN - 87+00 - 109+00
- 94. GRADING PLAN - 109+00 - 131+00
- 95. GRADING PLAN - 131+00 - 142+00
- 96-126. CROSS SECTIONS
- 127. EXISTING DRAINAGE AREA MAP
- 128. OVERALL INTERIM DRAINAGE AREA MAP
- 129-131. INTERIM DRAINAGE AREA MAP
- 132. OVERALL ULTIMATE DRAINAGE AREA MAP
- 133-135. ULTIMATE DRAINAGE AREA MAP
- 136. INTERIM DRAINAGE AREA SUMMARY
- 137-138. ULTIMATE DRAINAGE AREA SUMMARY
- 139. INLET & DITCH CALCULATIONS

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140-142.	STORM DRAIN CALCULATIONS
143.	HYDRAULIC CALCS - RIPRAP CALCS
144.	OVERALL STORM LAYOUT
145.	STORM DRAIN PLAN & PROFILE - SD17 & LAT 17A4
146.	STORM DRAIN PLAN & PROFILE - CULVERT 1
147.	STORM DRAIN PLAN & PROFILE - SD1 - START - 10+50
148.	STORM DRAIN PLAN & PROFILE - SD1 - 10+50 - END
149.	STORM DRAIN PLAN & PROFILE - CULVERT 2
150.	STORM DRAIN PLAN & PROFILE - LATS 2A1, 2B1, & 2C1
151.	STORM DRAIN PLAN & PROFILE - CULVERT 3
152.	STORM DRAIN PLAN & PROFILE - LATS 3A, 3B1, & 3B2
153.	STORM DRAIN PLAN & PROFILE - CULVERT 4
154.	STORM DRAIN PLAN & PROFILE - CULVERT 4A
155.	PLAN & PROFILE - CULVERT 4 UPSTREAM STRUCTURAL WALL
156.	PLAN & PROFILE - CULVERT 4 DOWNSTREAM STRUCTURAL WALL
157.	STORM DRAIN PLAN & PROFILE - SD18 & SD4A
158.	STORM DRAIN PLAN & PROFILE - SD4B, LAT 4B5, & LAT 4B6
159.	STORM DRAIN PLAN & PROFILE - CULVERT 5
160.	STORM DRAIN PLAN & PROFILE - LATS 5A1, 5A2, 5B1, & 5C1
161.	STORM DRAIN PLAN & PROFILE - CULVERT 6
162.	STORM DRAIN PLAN & PROFILE - SD6 & LAT 6A2
163-164.	STORM DRAIN PLAN & PROFILE - SD15
165.	STORM DRAIN PLAN & PROFILE - SD15 & LAT OFF-15A
166.	STORM DRAIN PLAN & PROFILE - CULVERT 15
167.	STORM DRAIN PLAN & PROFILE - SD16
168.	STORM DRAIN PLAN & PROFILE - CULVERT 7
169.	STORM DRAIN PLAN & PROFILE - SD7
170.	STORM DRAIN PLAN & PROFILE - SD8
171-177.	STORM DRAIN PLAN & PROFILE - LATERAL PROFILES
178-180.	WATER PLAN & PROFILE - WL1
181.	WATER PLAN & PROFILE - WL SLEEVE 1, WL2, & WL6
182.	WATER PLAN & PROFILE - WL3, WL4, & WL SLEEVE 5
183-189.	PAVEMENT MARKING & SIGNAGE PLAN
190.	ROUNDBOUT AT TAYLOR BURK - SIGNAGE PLAN
191.	ROUNDBOUT AT TAYLOR BURK - STRIPING PLAN
192.	ROUNDBOUT AT HARDIN - SIGNAGE PLAN
193.	ROUNDBOUT AT HARDIN - STRIPING PLAN
194.	ROUNDBOUTS AT LAUD HOWELL - SIGNAGE SCHEDULE
195-197.	EROSION CONTROL PLAN - LAUD HOWELL PARKWAY
198-200.	EROSION CONTROL DETAILS

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201-203.	PAVING DETAILS
204.	TRENCH & EMBANKMENT DETAILS
205-207.	WATER DETAILS
208-209.	STORM DETAILS
210.	TXDOT DETAILS - FW-0, SW-0, & PW
211.	TXDOT DETAILS - SCC-3 & 4 & SCC-5 & 6
212.	TXDOT DETAILS - SCC-9 & MC-10-16
213.	TXDOT DETAILS - SCC-MD, MCC-MD, & STACKED MANHOLE
214.	TXDOT DETAILS - PRD-13
215-216.	PAVEMENT MARKING & SIGNAGE DETAILS
217.	TXDOT DETAILS - BC(1)-21 & BC(2)-21
218.	TXDOT DETAILS - BC(3)-21 & BC(4)-21
219.	TXDOT DETAILS - BC(5)-21 & BC(6)-21
220.	TXDOT DETAILS - BC(7)-21 & BC(8)-21
221.	TXDOT DETAILS - BC(9)-21 & BC(10)-21
222.	TXDOT DETAILS - BC(11)-21 & BC(12)-21
223.	TXDOT DETAILS - TCP(1-1)-18 & TCP(1-2)-18
224.	TXDOT DETAILS - TCP(1-3)-18 & TCP(1-4)-18
225.	TXDOT DETAILS - TCP(1-5)-18 & TCP(1-6)-18
226.	TXDOT DETAILS - TCP(2-1)-18 & TCP(2-2)-18
227.	TXDOT DETAILS - TCP(2-3)-23 & TCP(2-4)-18
228.	TXDOT DETAILS - TCP(2-5)-18 & TCP(2-6)-18
229.	TXDOT DETAILS - TCP(2-7)-23 & TCP(2-8)-23
230.	TXDOT DETAILS - TCP(3-1)-13 & TCP(3-2)-13
231.	TXDOT DETAILS - TCP(3-3)-14 & TCP(3-4)-13
232.	TXDOT DETAILS - TCP(3-5)-18
233.	TXDOT DETAILS - WZ(RCD)-13 & WZ(TD)-17
234.	TXDOT DETAILS - TRF & T222
B-1.	HONEY CREEK EB BRIDGE LAYOUT (1 OF 2)
B-2.	HONEY CREEK EB BRIDGE LAYOUT (2 OF 2)
B-3.	EB & WB TYPICAL SECTION
B-4.	EB ESTIMATED QUANTITIES
B-5.	EB ABUTMENT NO. 1 & 6
B-6.	EB ABUTMENT NO. 1 & 6 DETAILS
B-7.	EB INTERIOR BENTS NO. 2 - 5
B-8.	EB FRAMING PLAN (1 OF 2)
B-9.	EB FRAMING PLAN (2 OF 2)
B-10.	EB PRESTRESSED CONCRETE GIRDER UNIT 1
B-11.	EB PRESTRESSED CONCRETE GIRDER UNIT 2

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B-12.	EB BRIDGE PRESTRESSED CONCRETE I-GIRDER DESIGNS
B-13.	HONEY CREEK WB BRIDGE LAYOUT (1 OF 2)
B-14.	HONEY CREEK WB BRIDGE LAYOUT (2 OF 2)
B-15.	WB ESTIMATED QUANTITIES
B-16.	WB ABUTMENT NO. 1 & 6
B-17.	WB ABUTMENT NO. 1 & 6 DETAILS
B-18.	WB INTERIOR BENTS 2 - 5
B-19.	WB FRAMING PLAN (1 OF 2)
B-20.	WB FRAMING PLAN (2 OF 2)
B-21.	WB PRESTRESSED CONCRETE GIRDER UNIT 1
B-22.	WB PRESTRESSED CONCRETE GIRDER UNIT 2
B-23.	PRESTRESSED CONCRETE I-GIRDER DESIGNS
B-24.	42" RAILING W/ THICKENED CONCRETE EDGE
B-25.	BRIDGE APPROACH SLAB
B-26.	BRIDGE LIGHTING DETAILS (1 OF 2)
B-27.	BRIDGE LIGHTING DETAILS (2 OF 2)
B-28.	CEMENT STABILIZED ABUTMENT BACKFILL (1 OF 2)
B-29.	CEMENT STABILIZED ABUTMENT BACKFILL (2 OF 2)
B-30.	COMMON FOUNDATION DETAILS (1 OF 2)
B-31.	COMMON FOUNDATION DETAILS (2 OF 2)
B-32.	FOUNDATION NOTES
B-33.	CONTINUOUS SLAB DETAILS
B-34-35.	PRESTRESSED CONCRETE I-GIRDER DETAILS
B-36.	ELASTOMERIC BEARING AND GIRDER END DETAILS (1 OF 3)
B-37.	ELASTOMERIC BEARING AND GIRDER END DETAILS (2 OF 3)
B-38.	ELASTOMERIC BEARING AND GIRDER END DETAILS (3 OF 3)
B-39.	MISCELLANEOUS SLAB DETAILS (1 OF 2)
B-40.	MISCELLANEOUS SLAB DETAILS (2 OF 2)
B-41.	SHEAR KEY DETAILS
B-42.	THICKENED SLAB END DETAILS
B-43.	PRESTRESSED CONCRETE PANEL (1 OF 4)
B-44.	PRESTRESSED CONCRETE PANEL (2 OF 4)
B-45.	PRESTRESSED CONCRETE PANEL (3 OF 4)
B-46.	PRESTRESSED CONCRETE PANEL (4 OF 4)
B-47.	PRESTRESSED CONC PANEL FABRICATION DETAILS
B-48.	PERMANENT METAL DECK FORMS (1 OF 2)
B-49.	PERMANENT METAL DECK FORMS (2 OF 2)
B-50.	SHOULDER DRAIN AT END OF BRIDGE RAIL (1 OF 2)
B-51.	SHOULDER DRAIN AT END OF BRIDGE RAIL (2 OF 2)
B-52.	SEALED EXPANSION JOINT TYPE M

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B-53.	STONE RIPRAP (1 OF 2)
B-54.	STONE RIPRAP (2 OF 2)
B-55.	TRAFFIC RAIL (1 OF 3)
B-56.	TRAFFIC RAIL (2 OF 3)
B-57.	TRAFFIC RAIL (3 OF 3)
S-1.	RETAINING WALL PLAN & PROFILE
S-2.	RETAINING WALL DETAILS (1 OF 2)
S-3.	RETAINING WALL DETAILS (2 OF 2)
S-4.	CULVERT 4A DETAILS
L1.	PROPOSED ILLUMINATION LAYOUT - LAUD HOWELL PWKY AT TAYLOR BURK DR
L2.	PROPOSED ILLUMINATION LAYOUT - LAUD HOWELL PKWY BRIDGE
L3.	PROPOSED ILLUMINATION LAYOUT - LAUD HOWELL PKWY AT HARDIN BLVD
L4.	STANDARD DETAIL DRAWINGS - ED(1)-25
L5.	STANDARD DETAIL DRAWINGS - ED(3)-25
L6.	STANDARD DETAIL DRAWINGS - ED(4)-25
L7.	STANDARD DETAIL DRAWINGS - ED(5)-25
L8.	STANDARD DETAIL DRAWINGS - ED(6)-25
L9.	STANDARD DETAIL DRAWINGS - ED(9)-25
L10.	STANDARD DETAIL DRAWINGS - RID(1)-20
L11.	STANDARD DETAIL DRAWINGS - RID(2)-20
L12.	STANDARD DETAIL DRAWINGS - RIP(1)-20
L13.	STANDARD DETAIL DRAWINGS - RIP(2)-19
L14.	STANDARD DETAIL DRAWINGS - RIP(3)-19
L15.	STANDARD DETAIL DRAWINGS - RIP(4)-19
L16-17.	STANDARD DETAIL DRAWINGS - BL-D
L18.	STANDARD DETAIL DRAWINGS - 7005M

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**EXHIBIT B
SCOPE OF WORK AND DURATIONS**

Contract Durations:

EXHIBIT B
SCOPE OF WORK AND DURATIONS
BRIDGE

This contract is a **Stipulated Sum** contract. This Contractor is contracted for the entirety of the Laud Howell Parkway Project 1 Phase 2 **Bridge** scope of work per the Contract Documents. The scope listed below is intended to highlight the Work of this Contract and does not intend to list each item required.

Durations

Substantial Completion for Bridge:

_____ calendar days

Final Completion for Bridge:

_____ calendar days

Scope of Work

Substantial Completion for Bridge:

- Foundations (drilled shafts/piles) installed, load tested if required by design
- Bent caps and piers constructed
- Precast girders set, braced, and diaphragms complete
- Precast deck panels placed and cast-in-place closure pours complete
- Post-tensioning stressed and grouted (if applicable)
- Approach slabs installed
- Concrete strength verified at each critical stage (cylinder breaks)

Final Completion for Bridge:

- Bridge rail/parapet final finish and any coating complete
- Expansion joints installed and sealed
- Bearing pads/devices final inspection complete
- Waterproofing membrane and wearing surface/overlay complete
- Deck drains/scuppers installed and functional
- Final load rating and structural sign-off by engineer of record
- Punchlist items completed and resolved
- As-built surveys and all Final Acceptance Documents provided
- Final Acceptance by City of McKinney
- General clean-up

1. Contractor acknowledges that the Contract Documents are diagrammatic and are responsible for reviewing all the construction documents and notifying the Owner of any discrepancies or conflicts of interest.
2. All payment, performance, and maintenance bonds, as may be required by the City of McKinney (the "City") and/or the Honey Creek MMD 1.
3. Contractor acknowledges receipt of the Geotech report within the Contract Documents.
 - a. Contractor shall verify no aggregate greater than what is allowed is installed in any paving location.
4. Contractor shall coordinate with all subcontractors, Authority Having Jurisdictions ("AHJs"), Owner's 3rd Party Consultants, District Engineers, etc.
5. Contractor shall furnish all labor, material, and equipment to perform all the site surveying and staking for their scope of work. Points of control shall be provided by the Owner.
6. Prior to mobilization contractor shall review the existing grade for all areas to be paved and confirm acceptance and that grade was delivered within +/-0.1 feet.
7. No track out will be allowed. Contractor shall be responsible for street sweeping as it relates to their scope of work. If track out is not remedied immediately a tire wash must be installed, and utilized, by Contractor.
8. All concrete washouts per drawing details and AHJs requirements.

9. Contractor must maintain in working order all SWPPP in its working areas. Contractor shall furnish all labor, material, and equipment to perform maintenance of all SWPPP during their scope of work.
10. Contractor shall furnish all labor, material, and equipment to install the Bridge scope per the Contract Documents, including but not limited to:
- a. All drilled shaft foundations per Contract Documents
 - b. All cement stabilized backfill at drilled shaft foundations
 - c. All cast-in-place concrete substructure, including:
 - i. Abutments
 - ii. Bent caps (approx. 116.8 CY per structure).
 - iii. Columns (approx. 53.2–58.2 CY per structure).
 - b. All reinforcing steel for substructure and superstructure elements, including epoxy-coated dowels/bars where required per Contract Documents
 - c. All precast prestressed concrete girders (TX62), including furnishing, delivery, erection, bracing, and diaphragms.
 - d. All cast-in-place reinforced concrete bridge deck slabs
 - e. All approach slabs per Contract Documents.
 - f. All miscellaneous structural steel
 - g. All bridge traffic rail, TxDOT Type T402
 - h. All pedestrian rail (custom, modified per Contract Documents)
 - i. All sealed expansion joints, 4" (SEJ-M), including all sealant and appurtenances per manufacturer's specifications.
 - j. All stone riprap slope protection, 18" depth, at bridge ends/embankments
 - k. All dewatering required for foundation and substructure construction, at Contractor's means and methods, permits included (if applicable).
 - l. All coordination with Owner's 3rd party for concrete testing, including cylinder breaks, at frequency required by Contract Documents and AHJs' Standards, for all substructure, superstructure, and deck concrete placements.
 - m. Contractor to coordinate embedded conduit, sleeves, and junction boxes for bridge illumination with the electrical/illumination contractor prior to concrete placement, per approved shop drawings.
 - i. Contractor is responsible for verifying embed locations against illumination shop drawings prior to placement — no coring of structural elements will be allowed to correct a missed embed.
 - n. Contractor shall coordinate final bridge deck and approach slab elevations with the adjoining paving contractor to ensure a smooth transition at all tie-in points.
 - o. All curing of concrete per manufacturer's specifications and Contract Documents, including protection from traffic loading until design strength is achieved.
 - p. Mobilization, including all Contractor-furnished temporary facilities, falsework, and access required to construct both structures (Eastbound and Westbound).
 - q. Concrete finish shall be per AHJs' requirements.
 - r. All curves, radii, deltas, and slopes per the Contract Documents (confirm slopes are ADA and/or PROWAG-acceptable where applicable at approach slabs and pedestrian rail transitions).

11. Miscellaneous Requirements:

- a. Contractor shall provide all dewatering required to complete its work.
- b. All traffic control required for this scope of work. Contractor is not allowed to stack trucks on an adjacent roadways.
- c. Dumpsters. Dumpsters may not be overflowing. After one written warning from Owner, overflowing dumpsters will be pulled by Owner at Owner's sole discretion and at Contractor's sole expense.
- d. Portable toilets and handwash stations.

- e. Any fuel storage on site shall be stored in an approved container. No fuel shall be stored directly on the ground.
- f. Fire Extinguishers.
- g. Contractor will be provided with a designated area for a Connex, equipment, and material storage. Contractor is solely responsible for its own site security including cameras, security guards, and temporary fencing as they see fit.
 - i. Owner is not responsible for protection of materials or equipment from diversion, destruction, theft, and/or damage. If materials, paid for by Owner, are stolen, Contractor bears the sole expense for replacement of the stolen materials.
- h. Contractor shall utilize Procore for drawings, RFIs, and submittals to the Owner. Submittals to the AHJs, if required, must be submitted through the AHJs' standard processes and procedures.
- i. Contractor shall coordinate with the AHJs and Owner's 3rd Parties regarding all inspections and testing, and shall notify the Owner of any conflicts. Contractor shall notify Owner's 3rd Parties no less than 48 hours prior to the required inspection or testing.
 - i. If any test or inspection fails;
 - 1. Contractor must remediate such defective work and/or material immediately and
 - 2. Retesting shall continue until the results meet the applicable requirements and/or standards. All retesting expenses shall be borne solely by the Contractor. To the extent Owner pays any retesting expenses, Owner shall be entitled to deduct such cost from amounts due to Contractor.
- j. Contractor shall obtain a permit from the AHJs and pay all fees associated, if required.
- k. Contractor shall provide a complete submittal package as required, including, but not limited to;
 - i. Product Data
 - ii. Samples
 - iii. Shop Drawings
- l. Contractor shall protect existing work and is responsible for all repairs caused by its damages. Excludes damage by others.
- m. Contractor is responsible for all temporary hydrant meters and usage fees required to perform its Work.
- n. Contractor shall notify Owner in writing if Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site is of archeological or historical significance.
- o. Burning of any material shall only be permitted with written approval from Owner and AHJ. Any costs of burning, with or without approval, including damages, shall be at Contractor's sole expense.
- p. If Contractor hauls unsuitable material offsite for disposal, such costs shall be considered incidental and included in the Work.

12. Safety and Protection

- a. Contractor shall maintain a safe working environment in accordance with the latest OSHA standards and requirements as it relates to their work and the work of other trades around them.
- b. Contractor is responsible for executing all construction in an orderly and safe manner with due consideration for any existing structures, including any parts of the surrounding areas that are to remain. Barricade and cover as necessary to protect pedestrian, workmen, and adjacent properties.
- c. Contractor shall avoid any encroachment on adjacent properties. In the case that property is damaged, the Contractor shall repair and make good any damage to the Owner's property or neighboring properties caused by the Contractor.
- d. Contractor shall have a site-specific safety plan on site.
- e. 811 must be called and all utility locates must be called in and marked prior to start of Work.
- f. No Work is allowed within the area of an existing gas line until receiving written notice to proceed is

received from the pipeline management company.

- g. All measures required by pipeline management will be the responsibility of the Contractor. This includes, but is not limited to, pot holing and building up over existing lines.
- h. If the site is deemed unclean at any time by the Owner or AHJs, then this contractor shall participate in a composite clean up as deemed necessary to restore order.
- i. Upon completion, the Contractor shall remove all materials, equipment, and debris related to its Work and leave the site in a clean and orderly condition acceptable to the Owner.

13. Schedule

- a. Contractor shall allow for any costs associated with expediting and special freight for the delivery of their material and equipment to meet the requirements of the Contract Durations.
- b. Contractor acknowledges that the Owner reserves the right to phase the project and/or sequence of operations. No additional compensation will be paid for escalation or inflation for work installed within the Contract Durations.
- c. Contractor may be required to work overtime as necessary to meet the Contract Durations. When working overtime, it will be the Contractor's responsibility to provide and pay for anything related to the overtime operation, if necessary.
- d. Portions of the work may have to take place during "off-hours". The Contractor must include all overtime premium costs for the work to be performed during off hours.
- e. Contractor acknowledges that their work may require multiple mobilizations and has all mobilizations required per the Contract Durations.
- f. Contractor shall attend a weekly coordination meeting.

14. Closeout

- a. Contractor must be responsible for maintaining their work until acceptance by the Engineer and Owner. If damage by others is identified, the Owner and Engineer must be notified within 24 hours.
- b. Acceptance by the Engineer and Owner may be in the form of the Engineer or Owner allowing other trades into a work area.
- c. The contractor must maintain as-built drawings to be submitted to the Engineer and Owner at project completion. No changes or deviations to the contract documents will be accepted unless made through a formal RFI.
- d. Retainage will not be released until final acceptance of the work, receipt of the as-builts by both the Engineer and Owner, and written notification from the 3rd-party surveyor that grading is complete per the contract documents.
- e. All permits and inspections must be completed and closed out with the appropriate 3rd parties and AHJs.
- f. Closeout of all permits and inspections by the appropriate 3rd parties and AHJs will be a condition for the Contractor's receipt of final payment and retainage.
- g. The AHJ, Engineer, and Owner are the parties responsible for providing the final acceptance. Any items that are considered defective (not conforming with the contract documents) and/or items placed on a punch list shall be repaired at no cost to the Owner. Contractor shall begin to complete the punch list work within 2 working days of receipt of the punch list.
- h. Contractor shall leave the site in a clean and tidy manner as accepted by the Owner prior to demobilization.
- i. Any costs associated with remedying a failure by the Contractor to leave a site clean and tidy prior to demobilization, will be charged by Owner to Contractor.
- j. Warranty shall be for two (2) years after substantial completion.

Contract #:

EXHIBIT C
PAY APPLICATION INSTRUCTIONS AND FORMS

Reference **Article 2** of this Agreement for payment terms.

All Applications for Payment must be submitted through Developer's online project management portal (the "PM Portal"). Payment applications are due on or before the 25th day of each month.

Upon execution of this Agreement, Contractor shall submit via the PM Portal a detailed Schedule of Values for the Work which shall be reviewed and approved by Owner. The approved Schedule of Values shall be used to review all Applications for Payments.

All Applications for Payment must comply with Article 2 including provision of lien waivers as required therein.

If these payment procedures are not followed it may result in delay in payment.

PROGRESS ESTIMATE

Project: Construction of the Bridge Improvements
for Laud Howell Parkway, Project 1,
Phase 2
Honey Creek Municipal Management
District No. 1 of Collin County
City of McKinney
Collin County, Texas

LJA Job No. NT852F-0285 Estimate No. _____
For Period From: _____ to _____
Notice to Proceed Date: _____
Contract Completion Date: _____
Approved Time Extensions: _____
Revised Contract Completion Date: _____

Contract Date: _____

Original Contract Amount: \$ _____

Revised Contract Amount: \$ _____

Final Contract Amount: \$ _____

TOTAL AMOUNT WORK

DONE TO DATE: \$ _____

Less Late Start Amount: (\$ _____)

Less Amount Retained: (\$ _____)

Less Previous Payments: (\$ _____)

Less Economic Disincentives: (\$ _____)

Less Liquidated Damages: (\$ _____)

AMOUNT DUE

CONTRACTOR: \$ _____

Owner: Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of
Collin County

Contractor: _____

CERTIFICATE OF THE CONTRACTOR OR HIS DULY AUTHORIZED REPRESENTATIVE

To the best of my knowledge, I certify that all items, quantities and prices of work and materials shown on the face of this estimate are correct; that all work has been performed and materials supplied in full accordance with the terms and conditions of the corresponding construction contractual documents between the Owner and the Contractor, including all changes authorized thereto; that the foregoing is a true and correct statement of the contract amount up to and including the last day of the period covered by this estimate and that no part of the "AMOUNT DUE CONTRACTOR" has been received.

I further certify that all just and lawful bills against the below named Contractor, for labor, material and expendable equipment employed in the performance of said contract have been paid in full accordance with the Contract requirements.

Contractor

Signature

Date

Title

CERTIFICATE OF ENGINEER'S REPRESENTATIVE

I certify that a qualified project representative was present on the project on a periodic basis to observe construction and that all materials and work included in this statement have been performed in general accordance with the construction plans and specifications and authorized changes thereto. I further certify that I have verified this estimate and that, to the best of my knowledge and belief, it is a true and correct statement of work performed and materials supplied by the Contractor, that the amount due him is correct and just.

PROJECT MANAGER: _____ DATE: _____

OWNER'S ACCEPTANCE: _____ DATE: _____

FORM 1: CONDITIONAL WAIVER FOR PROGRESS PAYMENTS

* * * * *

CONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT

Project: Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2

Job No.: NT852F-0285

On receipt by the signer of this document of a check from Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County / Honey Creek Land Company, LLC (maker of check) in the sum of \$_____ payable to _____ (payee or payees of check) and when the check has been properly endorsed and has been paid by the bank on which it is drawn, this document becomes effective to release any mechanic's lien right, any right arising from a payment bond that complies with a state or federal statute, any common law payment bond right, any claim for payment, and any rights under any similar ordinance, rule, or statute related to claim or payment rights for persons in the signer's position that the signer has on the property of Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County / Honey Creek Land Company, LLC (owner) located at Collin County, Texas (location) to the following extent: Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2 (job description).

This release covers a progress payment for all labor, services, equipment, or materials furnished to the property or to Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County / Honey Creek Land Company, LLC (person with whom signer contracted) as indicated in the attached statement(s) or progress payment request(s), except for unpaid retention, pending modifications and changes, or other items furnished.

Before any recipient of this document relies on this document, the recipient should verify evidence of payment to the signer.

The Signer warrants that the signer has already paid or will use the funds received from this progress payment to promptly pay in full all of the signer's laborers, subcontractors, materialmen, and suppliers for all work, materials, equipment, or services provided for or to the above referenced project in regard to the attached statement(s) or progress payment request(s).

(Company Name)

By: _____
(Signature)

Title: _____

Date: _____

FORM 2: UNCONDITIONAL WAIVER FOR PROGRESS PAYMENTS

* * * * *

NOTICE: THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. IT IS PROHIBITED FOR A PERSON TO REQUIRE YOU TO SIGN THIS DOCUMENT IF YOU HAVE NOT BEEN PAID THE PAYMENT AMOUNT SET FORTH BELOW. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE FORM.

UNCONDITIONAL WAIVER AND RELEASE ON PROGRESS PAYMENT

Project: Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2

Job No.: NT852F-0285

The signer of this document has been paid and has received a progress payment in the sum of \$_____ for all labor, services, equipment, or materials furnished to the property or to Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County / Honey Creek Land Company, LLC (person with whom signer contracted) on the property of Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County / Honey Creek Land Company, LLC (owner) located at Collin County, Texas (location) to the following extent: Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2 (job description). The signer therefore waives and releases any mechanic's lien right, any right arising from a payment bond that complies with a state or federal statute, any common law payment bond right, any claim for payment, and any rights under any similar ordinance, rule, or statute related to claim or payment rights for persons in the signer's position that the signer has on the above referenced project to the following extent: Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2 (job description).

This release covers a progress payment for all labor, services, equipment, or materials furnished to the property or to Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County / Honey Creek Land Company, LLC (person with whom signer contracted) as indicated in the attached statement(s) or progress payment request(s), except for unpaid retention, pending modifications and changes, or other items furnished.

The signer warrants that the signer has already paid or will use the funds received from this progress payment to promptly pay in full all of the signer's laborers, subcontractors, materialmen, and suppliers for all work, materials, equipment, or services provided for or to the above referenced project in regard to the attached statement(s) or progress payment request(s).

(Company Name)

By: _____
(Signature)

Title: _____

Date: _____

FORM 3: CONDITIONAL WAIVER FOR FINAL PAYMENT

* * * * *

CONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT

Project: Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2

Job No.: NT852F-0285

On receipt by the signer of this document of a check from Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County / Honey Creek Land Company, LLC (maker of check) in the sum of \$_____ payable to _____ (payee or payees of check) and when the check has been properly endorsed and has been paid by the bank on which it is drawn, this document becomes effective to release any mechanic's lien right, any right arising from a payment bond that complies with a state or federal statute, any common law payment bond right, any claim for payment, and any rights under any similar ordinance, rule, or statute related to claim or payment rights for persons in the signer's position that the signer has on the property of Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County / Honey Creek Land Company, LLC (owner) located at Collin County, Texas (location) to the following extent: Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2 (job description).

This release covers the final payment to the signer for all labor, services, equipment, or materials furnished to the property or to Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County / Honey Creek Land Company, LLC (person with whom signer contracted).

Before any recipient of this document relies on this document, the recipient should verify evidence of payment to the signer.

The signer warrants that the signer has already paid or will use the funds received from this final payment to promptly pay in full all of the signer's laborers, subcontractors, materialmen, and suppliers for all work, materials, equipment, or services provided for or to the above referenced project up to the date of this waiver and release.

(Company Name)

By: _____
(Signature)

Title: _____

Date: _____

FORM 4: UNCONDITIONAL WAIVER FOR FINAL PAYMENT

* * * * *

NOTICE: THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. IT IS PROHIBITED FOR A PERSON TO REQUIRE YOU TO SIGN THIS DOCUMENT IF YOU HAVE NOT BEEN PAID THE PAYMENT AMOUNT SET FORTH BELOW. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL RELEASE FORM.

Project: Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2

Job No.: NT852F-0285

The signer of this document has been paid in full for all labor, services, equipment, or materials furnished to the property or to Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County / Honey Creek Land Company, LLC (person with whom signer contracted) on the property of Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County / Honey Creek Land Company, LLC (owner) located at Collin County, Texas (location) to the following extent: Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2 (job description). The signer therefore waives and releases any mechanic's lien right, any right arising from a payment bond that complies with a state or federal statute, any common law payment bond right, any claim for payment, and any rights under any similar ordinance, rule, or statute related to claim or payment rights for persons in the signer's position.

The signer warrants that the signer has already paid or will use the funds received from this final payment to promptly pay in full all of the signer's laborers, subcontractors, materialmen, and suppliers for all work, materials, equipment, or services provided for or to the above referenced project up to the date of this waiver and release.

(Company Name)

By: _____
(Signature)

Title: _____

Date: _____

EXHIBIT E INSURANCE REQUIREMENTS

Pursuant to Section 6.2 of the Agreement, Contractor will procure and maintain, and require that its Subcontractors procure and maintain, the insurance coverages set forth in this Exhibit under forms of policies satisfactory to Owner with the policy limits set forth below. Contractor shall be required to maintain such coverages for the full term of the Agreement and for any longer completed operations periods discussed in this Exhibit. “Owner,” “Indemnatee,” “Indemnitees,” “Contractor,” and “Subcontractor” shall each have the meanings set forth in the Agreement

Insurance	Contractor Limits	Subcontractor Limits
Worker’s Compensation	Statutory	Statutory
Employer’s Liability Insurance:		
Bodily Injury by Accident (accident)	\$1,000,000	\$1,000,000
Bodily Injury by Disease (policy limit)	\$1,000,000	\$1,000,000
Bodily Injury by Disease (each employee)	\$1,000,000	\$1,000,000
Commercial General Liability (“CGL”)	\$1,000,000 each occurrence \$2,000,000 annual general aggregate \$2,000,000 products-completed operations aggregate	\$1,000,000 each occurrence \$2,000,000 annual general aggregate \$2,000,000 products-completed operations aggregate
Automobile Liability	\$1,000,000 each accident	\$1,000,000 each accident
Excess Liability	\$5,000,000 each occurrence \$5,000,000 aggregate	\$2,000,000 each occurrence \$2,000,000 aggregate
Aircraft (if applicable)	\$1,000,000 each occurrence \$1,000,000 aggregate	
Pollution Liability	\$1,000,000 each occurrence \$1,000,000 aggregate	Required for Subcontractors with a scope that requires the handling of hazardous materials or demolition: \$1,000,000 each occurrence \$1,000,000 aggregate
Professional Liability	\$1,000,000 each claim \$1,000,000 annual aggregate	Required for Subcontractors providing design or consulting services: \$1,000,000 each claim \$1,000,000 annual aggregate
Builder’s Risk	Full Replacement Value of the Work	

1. WORKERS COMPENSATION INSURANCE/EMPLOYER’S LIABILITY. Worker’s Compensation coverage with occupational disease coverage in compliance with the statutory limits required under Texas law and Employer’s Liability coverage with limits as set forth above. The alternate employer endorsement (WC 00 03 01 A) shall be attached showing Owner in the schedule as the alternate employer.

2. COMMERCIAL GENERAL LIABILITY INSURANCE. Commercial General Liability coverage (“CGL”) shall be provided on ISO occurrence form CG 00 01 (or a substitute form providing equivalent coverage). The CGL insurance

general aggregate limit shall apply separately to this Project and Contractor shall provide evidence of same through ISO Endorsement CG 25 03 05 09. This policy shall provide for full separation of insureds and shall not include any insured v. insured exclusions or limitations. CGL insurance shall cover liability including, but not limited to, liability arising from premises, operations, independent contractors, products-completed operations, property damage, and personal injury and death resulting therefrom. Contractor shall provide a copy of the GL Schedule of Forms and Endorsement page(s) of the policy to verify the coverages required, that the Endorsements required by these insurance requirements are included, and that none of the prohibited exclusions exist in the policy. This insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs maintained by Owner. Contractor and all Subcontractors shall maintain CGL insurance with coverage as specified in this Exhibit until the expiration of the statute of repose under Texas law. There shall be no endorsement or modification of the CGL policy limiting the scope of, or excluding coverage for explosion, collapse, or underground property damage.

3. AUTOMOBILE LIABILITY INSURANCE. Automobile Liability coverage shall cover liability arising out of any auto (including owned, hired, and non-owned autos) used in connection with the Work on the Project. Automobile Liability coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.

4. EXCESS LIABILITY INSURANCE. Excess Liability insurance shall be excess of the CGL, Automobile Liability, and Employer's Liability insurance on a "following form" basis. This policy shall be excess over and be no less broad than the CGL, Automobile Liability, and Employer's Liability as described in these insurance requirements, including but not limited to the required additional insured status, designated project(s) and/or location(s), general aggregate, waiver of subrogation, notice of cancellation, and prohibited exclusions or limitations. Continuing excess coverage shall include liability coverage for damage to the insured's completed work. Contractor shall maintain this coverage until the expiration of the statute of repose under Texas law.

5. AIRCRAFT LIABILITY INSURANCE. Contractor shall provide evidence of this coverage if the use of an aircraft of any kind is used for this Project. There shall be no 'per seat' limitation.

6. PROFESSIONAL LIABILITY INSURANCE. Professional Liability coverage will insure from and against all negligent acts, errors, and omissions in the professional services performed by Contractor, its agents, representatives, employees, and Subcontractors. Upon execution of the Agreement and at every date of renewal of that policy, the Contractor shall cause a Certificate of Insurance to be issued. Professional Liability coverage shall provide full prior acts coverage or a retroactive date not later than the date the services are first performed by or for Contractor in connection with the Project. This insurance shall be maintained until all claims arising out of the Work are barred by applicable statutes of limitation or repose.

7. POLLUTION LIABILITY INSURANCE. Contractor's Pollution Liability policy shall cover a pollution event or release on the Project site resulting from the Contractor's or any Subcontractor's activities under and during the term of this Agreement and for completed operations and shall include the activities of Contractor and Subcontractors. The annual aggregate shall apply separately to this Project. Contractor's Pollution Liability coverage shall include mold, mold remediation, bacteria, naturally occurring hazardous substances, and diminution in value resulting from mold as it pertains to work performed by the Contractor or its Subcontractors. Contractor shall maintain Pollution Liability insurance as specified in this Exhibit until the expiration of the statute of repose under Texas law.

8. BUILDER'S RISK AND CONTRACTOR'S EQUIPMENT POLICY. Contractor shall purchase and maintain until final payment builder's risk insurance upon the Work on an "all-risk" completed value from, in the amount of the Work's full insurable replacement cost with a deductible amount not more than \$50,000 per occurrence. Such insurance shall be evidenced by the kind of policy which does not have to be adjusted or reported upon periodically but shall provide constant insurance at full 100% of all insurable values as they are created during construction by performance of this Agreement. The insurance shall apply on a replacement cost basis. . The insurance shall be written to cover all risks of physical loss,

and shall insure at least against the perils of fire, lightning, explosion, windstorm or hail, smoke, aircraft or vehicles, riot or civil commotion and extended coverage including flood and shall include coverage for physical loss or damage including, without duplication of coverage, theft, vandalism, terrorism and malicious mischief, collapse, false-work, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Contractor's services and expenses required as a result of such insured loss. The insurance shall also cover portions of the Work located away from the Project Site but intended for use at the Project Site and shall also cover portions of the Work in transit. Builder's Risk Insurance shall provide, by endorsement or otherwise, that the insurance will remain in full force and effect until the Project is finally complete and fully accepted by the Owner. Owner, Contractor, Engineer, and all Subcontractors shall be included as insureds on this policy. The insurance shall be specific as to coverage and not considered as contributing insurance with any permanent insurance maintained on the premises. If not covered under the "all-risk" insurance or otherwise provided herein, Contractor shall purchase and maintain similar property insurance on portions of the Work stored on and off the Site or in transit when such portions of the Work are to be included in an Application for Payment.

Property insurance obtained for the Project may not cover all equipment, tools, apparatus, machinery, scaffolding, hoists, forms, staging, shoring and similar items commonly referred to as construction equipment, which may be on the site and the capital value of which is not included in the Work. Any insurance policy covering Contractor's or any Subcontractor's equipment against loss by physical damage shall include an endorsement waiving the insurer's right of subrogation against the Owner. SHOULD CONTRACTOR OR ANY SUBCONTRACTOR CHOOSE TO SELF INSURE THIS RISK, IT IS EXPRESSLY AGREED THAT CONTRACTOR AND ANY SUBCONTRACTOR HEREBY WAIVE ANY CLAIM FOR DAMAGE OR LOSS TO SAID EQUIPMENT IN FAVOR OF THE OWNER AND ALL INDEMNITEES. CONTRACTOR WILL OBTAIN SIMILAR WAIVERS IN FAVOR OF OWNER AND INDEMNITEES FROM ANY SUBCONTRACTOR ELECTING TO SELF-INSURE THIS RISK.

9. INSURANCE REQUIRED OF SUBCONTRACTORS. Each Subcontractor must provide CGL, Automobile Liability, Worker's Compensation, Employer's Liability, Professional Liability (if applicable), Pollution Liability (if applicable), and Excess/Umbrella coverage with limits as set forth in the table above. The limits of such insurance may be adjusted in accordance with the nature of each Subcontractor's operations but, if such adjustment is requested, it must be submitted to Owner for approval before the Subcontractor enters into an agreement or any work commences under the agreement in question. The policies procured by Subcontractors must satisfy all conditions set forth in these insurance requirements, except those in Paragraphs 5 regarding Aircraft Liability coverage, which is Contractor's responsibility.

10. GENERAL TERMS FOR ALL INSURANCE POLICIES. All insurance coverages (including those of Subcontractors) must be placed with carriers acceptable to Owner, licensed to do business in Texas, and having an A.M. Best's Guide rating of A-VII or better. The insurance coverages shall be written on an occurrence basis (except Professional Liability) and shall be primary and not excess insurance vis-à-vis any coverage, any self-insurance, or other policy of insurance maintained by Owner or its parent or related entities. Certificates of insurance and additional insured endorsements required herein shall provide that the policies shall be primary without right of contribution from any insurance carried by Owner. Each policy, other than Worker's Compensation/Employer's Liability and Professional Liability, shall contain a severability of interest clause stating "*it is agreed that the insurance afforded by this policy shall apply separately to each insured against whom claim is made or suit is brought except with respect to the limits of the company's liability.*" Each policy shall provide for full separation of insureds and include no insured v. insured limitations or exclusions.

11. ADDITIONAL INSURED STATUS. Owner, Honey Creek Land Company, LLC, Republic Property Group Ltd., McKinney Ranch, Ltd., all Indemnitees, and their officers, directors, agents, and employees shall be included as additional insureds on each CGL policy procured by Contractor and all Subcontractors hereunder using the following ISO Additional Insured Endorsement forms: Form CG 20 10 11/85 or a combination of CG 20 10 (or CG 20 33 or CG 20 38) and CG 20 37 (or CG 20 39 or CG 20 40) forms with edition dates of 10/01 . Such parties shall be included as additional

insureds on all other policies procured by Contractor and its Subcontractors except Worker's Compensation/Employer's Liability and Professional Liability by endorsements approved by Owner.

12. WAIVER OF SUBROGATION. Each policy of insurance, except Contractor's Professional Liability policy, must contain an endorsement to the effect that the issuer waives any claim or right of subrogation to recover against Owner and Indemnitees and their officers, directors, agents, and employees.

13. EVIDENCE/PROOF OF INSURANCE. Evidence of the insurance coverage required to be maintained by Contractor and Subcontractors under this Exhibit, represented by certificates of insurance issued by the insurance carriers and a copy of the CGL policy with all endorsements, must be furnished to Owner before commencement of the Work (or, with respect to Subcontractors, before such Subcontractor begins its portion of the Work) and as coverage renews. Certificates of Insurance shall evidence the above-referenced coverages and shall enumerate, among other things, the additional insured status of Owner and the other parties identified above. The insurance policies shall provide or be endorsed to include a requirement for each insurer to give Owner notice at least thirty (30) days prior to any cancellation. Certificates of Insurance shall be provided to Owner.

14. FAILURE TO PROVIDE POLICIES. In the event of any failure by Contractor to comply with the insurance requirements included in this Exhibit, Owner may, without in any way compromising or waiving any right or remedy at law or in equity, on written notice to Contractor, purchase such insurance, and deduct the cost of such insurance from Contractor's compensation, provided that Owner shall have no obligation to do so and if Owner shall do so, Contractor shall not be relieved of or excused from the obligation to obtain and maintain such insurance amounts and coverages.

15. DEDUCTIBLES, RETENTIONS & EXCLUSIONS. Insurance deductibles shall be paid by Contractor without reimbursement by Owner and shall not be paid as part of the Contract Sum. Notwithstanding the foregoing, Owner shall pay the deductible under the Owner's Builder's Risk policy unless the loss at issue is caused by any act or omission of Contractor, its Subcontractors, or anyone subject to their control, in which case Contractor shall pay the deductible. That deductible shall not be reimbursed by Owner or part of the Contract Sum. Any Difference in Conditions premiums, costs, or deductibles shall be borne exclusively by the Contractor. Any under-insurance, self-insurance, self-insured retentions (SIR), deductibles, and exclusions in coverage in the insurance policies required under this Exhibit to the extent applicable, shall be assumed by, for the account of and at the sole risk of Contractor and Subcontractors except as provided herein with respect to the Owner's Builder's Risk deductible.

16. ENFORCEABILITY OF REQUIREMENTS. None of the requirements contained herein as to types, limits, or Owner's approval of insurance coverage to be maintained by Contractor is intended to and shall not in any manner limit, qualify, or quantify the liabilities and obligations assumed by Contractor under the Agreement or otherwise provided by law. All insurance coverages required by the Agreement, as amended by Owner, shall be written in strict conformance with these requirements to provide complete and full coverage to Owner for Contractor's and Subcontractors' operations and completed operations. If coverages and/or specified endorsements are not available due to a change in Texas law, Contractor shall secure equivalent coverages, which shall be subject to approval by Owner. To the extent any provision of these insurance requirements is held to be void, voidable, invalid, or unenforceable, the remainder of these insurance requirements shall not be affected thereby and shall remain valid and fully enforceable.

17. RATES. Allowable premium costs of Contractor-required insurance will be included in the Contract Sum. Insurance rates are fixed for the duration of the Project. The insurance costs shall be paid by Owner at the start of the Project with Contractor's first payment application. For Change Orders, appropriately adjusted insurance costs shall be included in the first pay application following the approval of each Change Order.

Contract #:

EXHIBIT F

FORM OF PAYMENT AND PERFORMANCE BONDS AND MAINTENANCE BOND

[See attached]

Contract #:

**JOINT OBLIGEE RIDER
CONTRACTOR'S PERFORMANCE BOND AND PAYMENT BOND**

WHEREAS, _____ ("Principal") has entered into that certain Construction Agreement with **Honey Creek Municipal Management District No. 1 of Collin County** ("Obligee" and/or "District"), hereinafter referred to as the "Contract" dated the ____ day of _____, 20__ for Construction of the Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2 (the "Project"); and

WHEREAS, Principal, and _____ as Surety (hereinafter referred to as "Surety"), made, executed, and delivered to Obligee their joint and several Performance Bond and a Payment Bond (collectively, the "Bonds");

WHEREAS, Honey Creek Land Company, LLC ("Developer") and District have entered into an agreement whereby, among other provisions, Developer has agreed to administer the payments and assume all payment obligations under the Contract;

WHEREAS, Developer is the owner of the real property on which the improvements are to be constructed, more particularly described as follows (the "Property"):

Approximately 5 Acres out of M Hart survey, Abstract No 371 in Collin County Texas ;

WHEREAS, Developer has agreed to convey the Project to District after completion of the construction of the Project; and

WHEREAS, the Obligee requested Principal and its Surety to join with the Obligee in execution and delivery of this Rider, and they have agreed to do so upon the conditions herein stated.

NOW, THEREFORE, in consideration of One Dollar and other good and valuable consideration, receipt of which is hereby acknowledged, the undersigned hereby agree as follows:

The Bonds as aforesaid shall be and are hereby amended as follows:

1. The Developer is hereby added to the Bonds as a Joint Obligee.
2. The aggregate liability of the Surety under said Bonds to Obligee and the Joint Obligee, as their interests may appear, is limited to the penal sums of the Bonds.
3. Surety's obligation to perform hereunder is included within its obligations under the Bonds to which this rider is attached.
4. All rights and remedies under the Bonds with regard to the Obligee shall be determined in accordance with the provisions, conditions, and limitations of Chapter 2253, Texas Government Code, and, as it concerns Joint Obligee, in accordance with the provisions, conditions, and limitations of Chapter 53 of the Texas Property Code, to the same extent as if they were copied at length herein.
5. Except as herein modified, said Bonds shall be and remain in full force and effect.

Contract #:

No right of action shall accrue hereunder to or for the use of any person, firm, or corporation other than the Obligee and the Joint Obligee named herein.

Signed and sealed this ____day ___, 20__.

Principal: _____

By: _____
Its: _____

Surety: _____

By: _____
Its: Attorney-in-Fact

Obligee: **HONEY CREEK MUNICIPAL MANAGEMENT
DISTRICT NO. 1 OF COLLIN COUNTY**

By: _____
Its: President

Joint Obligee: **HONEY CREEK LAND COMPANY, LLC**

By: _____
Its: Vice President

Contract #:

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, Principal, and _____, Surety herein, a corporation duly organized under the laws of the State of _____, and authorized to issue surety bonds in the State of Texas, are held and firmly bound unto **Honey Creek Municipal Management District No. 1 of Collin County** ("District" and/or "Obligee") in the sum of _____ **NO/100 (\$ _____)** for the payment of which sum we will bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has entered into a certain written contract, hereinafter referred to as the "Contract", with Obligee, dated the ____ day of _____, 20__, to construct Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2 at City of McKinney, Collin County (the "Project"), which Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein;

WHEREAS, Honey Creek Land Company, LLC ("Developer") and District have entered into an agreement whereby, among other provisions, Developer has agreed to administer the payments and assume all payment obligations under the Contract;

WHEREAS, the Developer is the owner of the real property on which the improvements are to be constructed, more particularly described as follows (the "Property"):

Approximately 5 Acres out of M Hart survey, Abstract No 371 in Collin County Texas ;
and

WHEREAS, Developer has agreed to convey the Project to District after completion of the construction of the Project.

NOW, THEREFORE, the condition of this obligation is such, if the said Principal shall faithfully construct the improvements as provided in the Contract in accordance with the plans, specifications, and contract documents and shall fully indemnify and save harmless Obligee and Developer from all costs and damage which Obligee and/or Developer may suffer by reason of Principal's default, including liquidated damages assessed pursuant to the Contract, and reimburse and repay Obligee and/or Developer all outlay and expense which Obligee and/or Developer may incur in making good such default, then this obligation shall be void; otherwise to remain in full force and effect.

Whenever Principal shall be, and declared by Obligee or Developer to be, in default under the Contract, Obligee and/or Developer, having performed Obligee's obligations thereunder, may call upon the Surety who shall promptly remedy the default and:

1. Complete the Contract in accordance with the terms and conditions; or
2. Obtain a bid or bids for completion of the Contract in accordance with its terms and conditions, and, upon determination by Surety of the lowest responsible bidder, arrange for a contract between such bidder and Obligee, and make available

Contract #:

as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which Surety may be liable hereunder, the amounts set forth in the first paragraph hereof plus all change orders approved pursuant to the Contract. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable by Oblige to Principal under the Contract and any amendments thereto, less the amount properly paid by Oblige to Principal.

Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of this Contract or to the work to be performed thereunder, or the plans, specifications, or drawings accompanying the same, shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract, or to the work to be performed thereunder.

Surety expressly agrees to be bound to, and shall have the right to participate in, any mandatory dispute resolution procedures required in the Contract therein incorporated with regard to any claim asserted against this Bond.

This Bond is given pursuant to the provisions of Chapter 2253 of the Texas Government Code and Chapter 53 of the Texas Property Code, as amended, and any other applicable statutes of the State of Texas. If any legal action be filed upon this Bond, exclusive venue shall lie in ____ County, State of Texas.

IN WITNESS WHEREOF, this instrument has been executed by the duly authorized representatives of the Principal and the Surety.

Signed and sealed this ____ day of _____, 20__.

Principal:

By: _____

Its: _____

Surety: _____

By: _____

Its: Attorney-in-Fact

APPROVED:

Obligee: Honey Creek Municipal Management District
No. 1 of Collin County

By: _____

Its: _____

[Attach Power of Attorney for Surety's Attorney-in-Fact.]

Contract #:

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

That _____, as Principal, and _____, a corporation organized and existing under the laws of the State of _____, as Surety, are held firmly bound unto [DISTRICT NAME] ("Obligee" or "District") in the amount of _____ (Dollars) (\$_____) for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents:

WHEREAS, Principal has entered into a certain written contract, hereinafter referred to as the "Contract", with Obligee, dated the ____ day of _____, 20__, to construct Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2 at City of McKinney, Collin County (the "Project"), which Contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein;

WHEREAS, Honey Creek Land Company, LLC ("Developer") and District have entered into an agreement whereby, among other provisions, Developer has agreed to administer the payments and assume all payment obligations under the Contract;

WHEREAS, the Developer is the owner of the real property on which the improvements are to be constructed, more particularly described as follows (the "Property"):

Approximately 5 Acres out of M Hart survey, Abstract No 371 in Collin County Texas ; and

WHEREAS, Developer has agree to convey the Project to District after completion of the construction of the Project.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall well and faithfully make payment to each and every claimant for labor, subcontracts, materials, and specially fabricated materials performed or furnished under or by virtue of said contract and duly authorized normal and usual extras thereto (not to exceed 15% of said contract price for the construction of the improvements), then this obligation shall be void; otherwise to remain in full force and effect; labor, subcontracts, materials and specially fabricated materials shall be construed in accordance with Sections 53.001, *et seq.* of the Texas Property Code, as amended.

PROVIDED, HOWEVER, that the District and Developer having required the said Principal to furnish this bond in order to comply with the provisions of Chapter 53 of the Texas Property Code and Chapter 2253 of the Texas Government Code, as applicable, all rights and remedies under this bond shall be determined in accordance with the provisions, conditions, and limitations of said statutes to the same extent as if they were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument on the ____ day of _____, 20____.

Contract #:

Principal: _____

By: _____

Its: _____

Surety: _____

By: _____

Its: Attorney-in-Fact

Obligee Approved: HONEY CREEK MUNICIPAL MANAGEMENT DISTRICT
NO. 1 OF COLLIN COUNTY

By: _____

[Attach Power of Attorney for Surety's Attorney-in-Fact ***To be provided by surety.***]

[Attach Statutory Surety Identification / Complaint Notice. To be provided by surety.]

Contract #:

MAINTENANCE BOND

STATE OF TEXAS §
 §
COUNTY OF COLLIN §

KNOW ALL MEN BY THESE PRESENTS:

THAT _____, a corporation organized and existing under the laws of the State of _____ and fully authorized to transact business in the State of Texas, whose address is _____ (hereinafter referred to as "PRINCIPAL" or "CONTRACTOR"), and _____ (hereinafter referred to as "SURETY"), a corporation organized under the laws of the State of _____ and authorized under the laws of the State of Texas to act as SURETY on bonds for principals, are held and firmly bound unto the **CITY OF MCKINNEY, TEXAS** (hereinafter referred to as "CITY" or "CITY OBLIGEE") in the penal sum of \$ _____ [100% of Final Contract Amount] in lawful money of the United States, for the payment whereof, the said PRINCIPAL and SURETY bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents:

WHEREAS, the PRINCIPAL has entered into a certain written Contract with **HONEY CREEK LAND COMPANY, LLC** ("OWNER") on behalf of the McKinney dated the ____ day of _____ 20____, to which said Contract is hereby referred to and made a part hereof and as fully and to the same extent as if copied at length herein (hereinafter referred to as the "CONTRACT") for the construction of Infrastructure and site work including: Construction of the Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2 (hereinafter referred to as the "PROJECT").

WHEREAS, pursuant to that certain Development Agreement Between OWNER and THE CITY, OWNER is responsible to construct the PROJECT;

NOW, THEREFORE, the condition of this obligation is such, that the bond guarantees the full and proper maintenance and repair of the Work herein contracted to be done and performed for a period of two (2) year(s) from the date of final acceptance of the Work under the CONTRACT and PRINCIPAL will repair any and all defects in the work occasioned by or resulting from defects in materials furnished by, or workmanship of, the PRINCIPAL in performing the work covered by the CONTRACT including but not limited to: all necessary backfilling that may arise on account of sunken conditions in ditches, or otherwise, and do and perform all necessary Work and repair any defective condition growing out of or arising from the improper laying or construction of same, or on account of any braking of same caused by said CONTRACTOR in construction of same, or on account of any defect arising in any of said Work laid or constructed by said CONTRACTOR or on account of improper excavation or backfilling, it being understood that the purpose of this section is to cover all defective conditions arising by reason of defective materials, Work or labor performed by said CONTRACTOR, then this obligation shall be void; otherwise, to remain in full force and effect; and in case said CONTRACTOR shall fail to do so, it is agreed that the OWNER may do said Work and supply such materials and charge the same against said CONTRACTOR and SURETY on this obligation. Provided further, that if any legal action be filed on this Bond, venue shall lie in Collin County, Texas.

PROVIDED HOWEVER, that said SURETY, for value received, stipulates and agrees that the bond shall automatically be increased by the amount of any change order or supplemental agreement which increases the CONTRACT price with or without notice to the SURETY, and that no change, extension of time, alteration, or addition to the terms of the CONTRACT, or to the Work performed thereunder, or the plans, specifications, or drawings accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the CONTRACT or to the Work to be performed thereunder.

The undersigned and designated agent is hereby designated by SURETY herein as the agent resident to whom any requisite notice may be delivered and on whom service of process may be had in matters arising out of such suretyship.

Contract #:

IN WITNESS WHEREOF, the said **PRINCIPAL** and **SURETY** have signed and sealed this instrument on this the _____ day of _____, 20____.

WITNESS

PRINCIPAL

Printed/Typed Name: _____

Title: _____

Company: _____

Address: _____

WITNESS

SURETY

Printed/Typed Name: _____

Title: _____

Company: _____

Address: _____

The Resident Agent of the **SURETY** for delivery of notice and service of process is:

Name: _____

Address: _____

Phone Number: _____

Note: Date of Bond must NOT be prior to date of Contract.

MAINTENANCE BOND

STATE OF TEXAS

§

§

COUNTY OF COLLIN

§

KNOW ALL MEN BY THESE PRESENTS:

THAT _____, a corporation organized and existing under the laws of the State of _____, and fully authorized to transact business in the State of Texas, whose address is _____ of the City of _____, County of _____, State of _____, (hereinafter referred to as "PRINCIPAL"), and _____ (hereinafter referred to as "SURETY"), a corporation organized under the laws of the State of _____ and authorized under the laws of the State of Texas to act as SURETY on bonds for principals, are held and firmly bound unto Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County (hereinafter referred to as "OWNER" or "OWNER OBLIGEE") and Honey Creek Municipal Management District No. 1 of Collin County (hereinafter referred to as "DISTRICT" or "DISTRICT OBLIGEE") in the penal sum of \$ _____ [100% of Final Contract Amount] in lawful money of the United States, for the payment whereof, the said PRINCIPAL and SURETY bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents:

WHEREAS, the PRINCIPAL has entered into a certain written Contract with OWNER dated the day of _____ 20____, to which said Contract is hereby referred to and made a part hereof and as fully and to the same extent as if copied at length herein (hereinafter referred to as the "CONTRACT") for the construction of Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2 (hereinafter referred to as the "PROJECT").

WHEREAS, OWNER is the owner of the real property on which the improvements are to be constructed more particularly described as follows:

Approximately 5 Acres out of M Hart survey, Abstract No 371 in Collin County Texas

WHEREAS, pursuant to that certain Development Agreement Between Owner and **Honey Creek Municipal Management District No. 1 of Collin County**, OWNER is responsible to construct the PROJECT;

NOW, THEREFORE, the condition of this obligation is such, that the bond guarantees the full and proper maintenance and repair of the Work herein contracted to be done and performed for a period of two (2) year(s) from the date of final acceptance of the Work under the CONTRACT and PRINCIPAL will do all necessary backfilling that may arise on account of sunken conditions in ditches, or otherwise, and do and perform all necessary Work and repair any defective condition growing out of or arising from the improper laying or construction of same, or on account of any braking of same caused by said CONTRACTOR in construction of same, or on account of any defect arising in any of said Work laid or constructed by said CONTRACTOR or on account of improper excavation or backfilling, it being understood that the purpose of this section is to cover all defective conditions arising by reason of defective materials, Work or labor performed by said CONTRACTOR, then this obligation shall be void; otherwise, to remain in full force and effect; and in case said CONTRACTOR shall fail to do so, it is agreed that the OWNER may do said Work and supply such materials and charge the same against said CONTRACTOR and SURETY on this obligation. Provided further, that if any legal action be filed on this Bond, venue shall lie in Collin County, Texas.

PROVIDED HOWEVER, that said SURETY, for value received, stipulates and agrees that the bond shall automatically be increased by the amount of any change order or supplemental agreement which increases the Contract price with or without notice to the SURETY, and that no change, extension of time, alteration, or addition to the terms of the Contract, or to the Work performed thereunder, or the plans, specifications, or drawings accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the Work to be performed thereunder.

The undersigned and designated agent is hereby designated by SURETY herein as the agent resident to whom any requisite notice may be delivered and on whom service of process may be had in matters arising out of such suretyship.

IN WITNESS WHEREOF, the said PRINCIPAL and SURETY have signed and sealed this instrument on this the __day of _____, 20____.

WITNESS

PRINCIPAL

Printed/Typed Name: _____

Title: _____

Company: _____

Address: _____

WITNESS

SURETY

Printed/Typed Name: _____

Title: _____

Company: _____

Address: _____

The Resident Agent of the SURETY for delivery of notice and service of process is:

Name: _____

Address: _____

Phone Number: _____

Note: Date of Bond must NOT be prior to date of Contract

Owner's Special Conditions

1. Statutory Requirements: Terrorist Organizations. Design-Builder represents that neither it nor any of its parent company, wholly- or majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or Section 2270.0201, Texas Government Code, and posted on any of the following pages of such officer's internet website:
<https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf>,
<https://comptroller.texas.gov/purchasing/docs/iran-list.pdf>, or
<https://comptroller.texas.gov/purchasing/docs/fto-list.pdf>.

The foregoing representation is made to comply with Section 2252.152, Texas Government Code. The Design-Builder understands "affiliate" to mean any entity that controls, is controlled by, or is under common control with the Design-Builder and exists to make a profit.

2. Statutory Requirements: Israel Boycott. In *Amawi v. Pflugerville Independent School District* (1:18-cv-01091), the United States District Court for the Western District of Texas issued a preliminary injunction (the "NBI Injunction") preventing the defendants named therein from enforcement of Texas Government Code §2270.001 et. seq, or any "No Boycott of Israel" clause in any state contract. On May 7, 2019, H.B. 793, 86th Texas Legislature, Regular Session, became law, amending Texas Government Code, §2270.001 et. seq. On May 10, 2019, the Texas Attorney General filed a Motion to Stay the NBI Injunction with the United States Court of Appeals for the Fifth Circuit. In light of the foregoing recent developments, the following representation is provided by the Design-Builder to avoid any uncertainty regarding the authority of the Owner to enter into this Agreement.

Design-Builder hereby verifies that it and its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, do not boycott Israel and will not boycott Israel during the term of this Agreement. The foregoing verification is made solely to comply with Section 2270.002, Texas Government Code, and to the extent such Section does not contravene applicable Federal law. As used in the foregoing verification, 'boycott Israel' means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes. The Design-Builder understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the Design-Builder and exists to make a profit."

3. Statutory Requirements: Form 1295. Submitted herewith is a completed Form 1295 generated by the Texas Ethics Commission's (the "TEC") electronic filing application in accordance with the provisions of Section 2252.908 of the Texas Government Code and the rules promulgated by the TEC (the "Form 1295"). The Parties understand and agree that, with the exception of information identifying the Owner and the contract identification number, neither the Owner nor its consultants are responsible for the information contained

in the Form 1295; that the information contained in the Form 1295 has been provided solely by the Owner; and, neither the Owner nor its consultants have verified such information.

4. Statutory Requirements: Energy Company Boycott. Design-Builder hereby verifies that it and its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, do not boycott energy companies and will not boycott energy companies during the term of this Agreement. As used in the foregoing verification, “boycott energy companies” shall mean, without an ordinary business purpose, refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations with a company because the company (A) engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuel-based energy and does not commit or pledge to meet environmental standards beyond applicable federal and state law; or (B) does business with a company described by (A) above. The Design-Builder understands “affiliate” to mean an entity that controls, is controlled by, or is under common control with the Design-Builder within the meaning of SEC Rule 133(f), 17 C.F.R. §230.133(f), and exists to make a profit.
5. Statutory Requirements: Firearm and Ammunition Discrimination. Design-Builder hereby verifies that it and its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, do not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of this Agreement against a firearm entity or firearm trade association. As used in the foregoing verification, ‘discriminate against a firearm entity or firearm trade association’ (A) means, with respect to the firearm entity or firearm trade association, to (i) refuse to engage in the trade of any goods or services with the firearm entity or firearm trade association based solely on its status as a firearm entity or firearm trade association, (ii) refrain from continuing an existing business relationship with the firearm entity or firearm trade association based solely on its status as a firearm entity or firearm trade association, or (iii) terminate an existing business relationship with the firearm entity or firearm trade association based solely on its status as a firearm entity or firearm trade association and (B) does not include (i) the established policies of a merchant, retail seller, or platform that restrict or prohibit the listing or selling of ammunition, firearms, or firearm accessories and (ii) a company’s refusal to engage in the trade of any goods or services, decision to refrain from continuing an existing business relationship, or decision to terminate an existing business relationship (aa) to comply with federal, state, or local law, policy, or regulations or a directive by a regulatory agency or (bb) for any traditional business reason that is specific to the customer or potential customer and not based solely on an entity’s or association’s status as a firearm entity or firearm trade association. As used in the foregoing verification, (b) ‘firearm entity’ means a manufacturer, distributor, wholesaler, supplier, or retailer of firearms (i.e., weapons that expel projectiles by the action of explosive or expanding gases), firearm accessories (i.e., devices specifically designed or adapted to enable an individual to wear, carry, store, or mount a firearm on the individual or on a conveyance and items used in conjunction with or mounted on a firearm that are not essential to the basic function of the firearm, including detachable firearm magazines), or ammunition (i.e., a loaded cartridge case, primer, bullet, or propellant powder with or without a projectile) or a sport shooting range (as defined by Section

250.001, Texas Local Government Code), and (c) 'firearm trade association' means a person, corporation, unincorporated association, federation, business league, or business organization that (i) is not organized or operated for profit (and none of the net earnings of which inures to the benefit of any private shareholder or individual), (ii) has two or more firearm entities as members, and (iii) is exempt from federal income taxation under Section 501(a), Internal Revenue Code of 1986, as an organization described by Section 501(c) of that code. The Design-Builder understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the Design-Builder within the meaning of SEC Rule 133(f), 17 C.F.R. §230.133(f), and exists to make a profit.

All representations made in these Owner's Special Conditions shall survive expiration or earlier termination of the construction contract until the applicable statute of limitations has run.

MEMORANDUM OF CONTRACT

KNOW ALL MEN BY THESE PRESENTS:

HONEY CREEK LAND COMPANY, LLC ("Developer") on behalf of the **HONEY CREEK MUNICIPAL MANAGEMENT DISTRICT NO. 1 OF COLLIN COUNTY** ("District") and _____ (the "Contractor") entered into a certain agreement (the "Contract") dated as of _____, for the construction of those certain improvements commonly identified as Construction of the Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2, located in Collin County, Texas, being more particularly described in Exhibit "A" attached hereto and incorporated fully herein.

Under the terms of the Contract, Contractor shall construct such improvements described therein for a *stipulated sum* of _____ Dollars (\$_____), payable as the work is performed in accordance with the terms of the Contract. Further, under the terms of the Contract, Contractor is required to furnish a payment bond to **HONEY CREEK LAND COMPANY, LLC** and **HONEY CREEK MUNICIPAL MANAGEMENT DISTRICT NO. 1 OF COLLIN COUNTY** as obligee in conformance with the requirements of Chapter 53 of the Texas Property Code and Chapter 2253 of the Texas Government Code, which bond is attached hereto and incorporated fully herein.

This Memorandum of Contract does not alter, amend or modify the Contract, but is executed solely for the purpose of serving as the memorandum of contract in compliance with the provisions of Subchapter I, Chapter 53 of the Texas Property Code.

EXECUTED as set forth below.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

Honey Creek Land Company, LLC

By: _____

STATE OF TEXAS §
COUNTY OF _____ §

This instrument was acknowledged before me on _____, 20__, by Seth Carpenter, the
_____ of _____, a limited liability company, on
behalf of said limited liability company.

NOTARY PUBLIC, State of Texas

(Notary's Printed Name)
My Commission Expires: _____

**HONEY CREEK MUNICIPAL
MANAGEMENT DISTRICT NO. 1 OF
COLLIN COUNTY**

By: _____

STATE OF TEXAS §
COUNTY OF _____ §

This instrument was acknowledged before me on _____, 20__, by Ricardo Soto, the
_____ of _____, a political subdivision of the state of
Texas, on behalf of said district.

NOTARY PUBLIC, State of Texas

(Notary's Printed Name)
My Commission Expires: _____

AFTER RECORDING RETURN TO:

c/o Winstead, P.C.
2728 North Harwood Street, Suite 500
Dallas, Texas 75201

TECHNICAL SPECIFICATIONS FOR CONSTRUCTION

DOCUMENTS AND SPECIFICATIONS APPLICABLE TO CONTRACT

- A. This contract and project are governed by the following published specifications, except as modified by the Supplementary Conditions and in the construction drawings:
 - I. The most current version of the City of McKinney Construction Standards and Details, City of McKinney, Texas.
 - II. The most current version of the North Central Texas Council of Governments (NCTCOG) "Standard Specifications for Public Works Construction."

If an item is covered by multiple standards and/or specifications, City of McKinney Construction Standards and Details shall take precedence over NCTCOG if it provides stricter guidance.

- B. Complete specifications from NCTCOG may be purchased at the office at North Central Texas Council of Governments, 616 Six Flags Drive, Suite 200, Arlington, Texas 76005. The specifications applicable to each pay item are indicated in the callout for the pay item. If not shown, then applicable published specifications in either of these documents may be followed at the discretion of the Contractor. If a specification is not provided, if there is an apparent conflicting requirement, or if a specification is unclear, the Contractor shall notify the Engineer immediately and request clarification prior to commencing with the Work.

APPENDIX

STATEMENT OF QUALIFICATIONS

Bidder shall submit the Statement of Qualifications to the Engineer. All questions must be answered and the data given must be clear and comprehensive. This Statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit additional information.

1. Submitted By: _____

2. Principal office, address and telephone number: _____

3. How many years has your Organization been in business as a Contractor? _____
If less than five years, identify all principals or officers of your Organization that have been in business as a Contractor for five years, the name of the prior Organization for each principal or officer.

4. How many years has your Organization been in business under its present name?

5. If your Organization is a corporation, answer the following:
Date of incorporation: _____
State of incorporation: _____
President's name: _____
Vice President's name(s): _____

Secretary's name: _____
Treasurer's name: _____
Other Officers: _____
6. If your Organization is a partnership, answer the following:
Date of Organization: _____
Type of partnership (if applicable): _____
Name(s) of general partners(s): _____

7. If your Organization is individually owned, answer the following:
- Date of Organization: _____
- Name of Owner: _____
8. Has your Organization ever failed to complete any work awarded to it? _____
- If yes, submit details identifying the Project, the Owner and explaining fully the failure and the circumstances.
- Has your Organization ever been awarded a bonus for early completion of work? _____ Yes
_____ No. If yes, give details of job and incentives.
9. Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your Organization or its officers? _____ If yes, attach details for each.
10. Has your Organization ever filed any lawsuits or requested arbitration with regard to construction contracts within the last five years? _____ If yes, attach details for each.
11. Other than lawsuits or arbitrations explained in 9 or 10 above, has your Organization ever been a party to a lawsuit or arbitration with regard to construction contracts within the last five years? _____ If yes, attach details for each.
12. Within the last five years, has any officer or principal of your Organization ever been an officer or principal of another Organization when it failed to complete a construction contract or was a party to a lawsuit or arbitration? _____ If yes, please attach details for each.
13. Has your Organization ever been assessed liquidated damages or an economic disincentive on any project? _____ Provide explanation of contract, circumstances and manner addressed by your Organization.
14. On a separate sheet, list the major contracts your Organization has completed in the past two years, giving the name of the project, owner, engineer, contract amount, date of completion and percentage of work performed by your Organization.
15. On a separate sheet, list the major contracts (over \$1,000,000) your Organization has in progress, giving the name of the project, owner, engineer, contract amount, percent complete, start date and scheduled completion date.
16. State the average annual dollar amount of work performed by your Organization during the last five years.
- _____
17. Attach statements of background and experience of the principle members of your Organization, including the officers and the person who may be the superintendent and project manager for this Contract.
18. Identify recent projects similar in type and size to this Contract. List the names and phone numbers of references for each if not previously noted above. _____
- _____
- _____
19. List all projects completed or started by your Organization within the last two (2) years listing the owner, a contact reference, superintendent in charge and indicate whether you were the general or a sub contractor. State what jurisdictions provided and/or required inspections and observed the work performed. _____
- _____
- _____

20. Attach a list of equipment your Organization owns which is available for this contract.
21. Bonding Capacity: _____
Name of bonding company: _____
Name of principal being bonded: _____
Name, address and telephone number of agent/broker: _____

22. If requested by Engineer or Owner, attach a financial statement, the name of the Organization preparing the statement and whether the statement is audited.
23. Is the attached financial statement for the identical Organization named on page five?

24. If not, explain the relationship and financial responsibility of the Organization whose financial statement is provided (e.g., parent-subsiary). _____

25. Attach copies of Certificates of Good Standing from the Secretary of State's Office for the company, corporation or entity.

[EXECUTION PAGE TO FOLLOW]

The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information requested by the ENGINEER, (Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County) The Owner, or their agents, collectively, in verification of the recitals comprising this Statement of Bidders Qualifications.

Dated this _____ day of _____, 2026.

Bidder _____

By _____

Title _____

STATE OF _____

COUNTY OF _____

Subscribed and sworn to before me this _____ day of _____, 2026, did appear _____ of _____ and affix the above noted signature.

Notary Public: _____

Printed Name: _____

My Commission Expires: _____ (Seal)

_____, being duly sworn, deposes and says that the answers to the foregoing questions and all statements therein contained are true and correct and sufficiently complete so as not to be misleading.

Signature

Date

Title

Subscribed and sworn to before me this _____ day of _____, 2026

(Seal)

Notary Public: _____

Printed Name: _____

My Commission Expires: _____

HOLD HARMLESS AGREEMENT

Date: _____

To: LJA Engineering, Inc.

Re: Construction of the Bridge Improvements for
Laud Howell Parkway, Project 1, Phase 2

LJA Job No. NT852F-0285

Hold harmless agreement: We have requested and are receiving electronic media containing intermediate survey and design information, not intended for construction or design. We agree to hold LJA Engineering, Inc. harmless for any defects in this data, including all assumptions made from or using this preliminary data. We agree that it shall be our responsibility to reconcile this electronic data with the construction plans, recorded plats, and specifications, and that only the construction plans, recorded plats, and specifications shall be regarded as the contract documentation for this project. In addition, we agree not to modify this information in any way and we agree not to release this information to any other parties.

The undersigned acknowledges his/her receipt of the electronic information, concurrence with the above statement and that he/she is an officer of _____ with authority to sign this document.

Accepted By: _____

Name: _____

Title: _____

Company: _____

Date: _____

REQUEST FOR EXTENSION OF TIME

Project: Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2

Owner: Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County

Attention: _____ Date: _____

LJA Job No.: NT852F-0285

To Whom it May Concern:

We request extension of completion time on our contract in the amount of _____ Calendar / Working Days specified as follows: (Please circle day of the month).

Month: _____ Year: _____

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Reasons for Request: _____

Contractor

Signature

_____ Recommend approval for extension of _____ calendar/working days.	
_____ Recommend disapproval. (See following comments)	

Reviewed By: _____	Date: _____
Project Representative	
Approved By: _____	Date: _____
Project Manager	

AFFIDAVIT OF BILLS PAID
(TO BE FILED WITH FINAL PAY ESTIMATE ONLY)

STATE OF TEXAS §

COUNTY OF _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____ representing Contractor under the following Contract:

Owner: Honey Creek Land Company, LLC on behalf of Honey Creek Municipal Management District No. 1 of Collin County

Contractor: _____

Date: _____

Project: Construction of the Bridge Improvements for Laud Howell Parkway, Project 1, Phase 2

LJA Job No. NT852F-0285

The undersigned was by me duly sworn and now states upon oath:

1. The improvements required by the Contract have been erected and completed in full compliance with the Contract and the agreed plans and specifications for the Contract.

2. All bids and claims for materials furnished and labor performed on the Contract have been paid. There are no outstanding unpaid bills or legal claims for labor performed or materials furnished upon the job.

3. This Affidavit is being made by the undersigned realizing that it is in reliance upon the truthfulness of the statements contained in this Affidavit that final and full settlement of the balance due on the Contract is being made, and in consideration of the disbursement of funds by Owner, the undersigned expressly gives and releases all liens, claims and rights to assert a lien on said premises and agrees to indemnify and hold Owner safe and harmless from and against all losses, damages, costs, and expenses of any character whatsoever, specifically including court costs, bonding fees and attorney fees, arising out of, or in any way relating to, claims for unpaid labor or material used or associated with construction of improvements under the Contract.

By: _____

Name: _____

Title: _____

STATE OF TEXAS §

COUNTY OF _____ §

Subscribed and sworn before me, the undersigned authority, on this the ____ day _____, 20____.

Notary Public in and for the State of Texas



CERTERRA
RONE ENGINEERING

Materially Better™

Geotechnical Engineering Report

Laud Howell Parkway

Client Name: Republic Property Group

Project Name: Laud Howell Parkway

Project Number: 14-250116-0

Date: August 25, 2025

August 25, 2025

Mr. Seth Carpenter
Senior Vice President of Development
Honey Creek Land Company, LLC
400 South Record Street, Suite 1200
Dallas, Texas 75202

**Re: Geotechnical Engineering Report
Laud Howell Parkway
McKinney, Texas
Project No. 14-250116-0**

Dear Mr. Carpenter:

Certerra, Rone Engineering Services, LLC (Certerra) is pleased to submit the Geotechnical Engineering Report for the above referenced project. The geotechnical services Certerra performed for this study were carried out in general accordance with Certerra Proposal No. 14-250116-P, dated February 6, 2025.

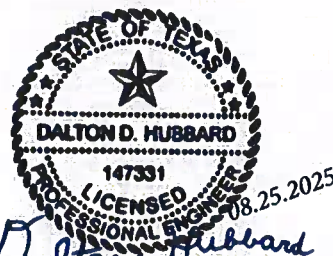
This report presents engineering analyses and recommendations for site grading and pavements with respect to known project and site characteristics. Detailed results of our field exploration and laboratory testing are provided in the appendix of the report.

We appreciate the opportunity to be of service to you on this project. We look forward to providing additional Geotechnical Engineering and Construction Materials Testing services as the project progresses through the final design and construction phases. Please contact us if you have any questions or if we can be of further assistance.

Sincerely,
Certerra, Rone Engineering Services, LLC



Izaiah Balderas
Geotechnical Engineer
E: ibalderas@roneengineers.com
T: 214.630.9745



Dalton D. Hubbard, P.E.
Senior Geotechnical Engineer

Texas Engineering Firm License No. F-1572

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APPENDIX A

Vicinity Map

Geology Map

Boring Location Diagram

Boring Logs

Key To Classifications and Symbols

Unified Soil Classification System

Swell Test Results

Sulfate Test Results

WinPAS Printouts

Lime Series Test Results

Plate

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APPENDIX B

Field Operations

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B.1

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APPENDIX C

Important Information About This Geotechnical Engineering Report

Page

C.1

GEOTECHNICAL ENGINEERING REPORT

1. PROJECT INFORMATION

1.1 Project Description

The project will consist of developing a new throughfare through the planned Wildwood mixed use development in McKinney, Texas. The throughfare will be 19,400 feet in length +/- and will be identified as Laud Howell Parkway. We understand that the project will include one single span bridge of about 500 feet in length and two box culvert crossings. Laud Howell Parkway is a G6D Greenway Arterial per the City of McKinney, Texas. A tabular summary of known site information is provided in **Table 1** below.

Table 1: Site Information

Item	Description
Location	Approximately 1/2 of a mile northwest of North Central Expressway in McKinney, Texas. The proposed roadway will extend Laud Howell Parkway at the intersection of Trinity Falls Parkway to be used in the new development of the planned Wildwood Community.
Existing Conditions	The greater site is undeveloped land with scattered trees that overlay the proposed road locations.
Topography	Based on google earth, the site generally peaks near the western edge of the development and slopes gently to the east. Elevations range from 731 to 573.
Geologic Setting	Alluvium and Terrace deposits (Qt) overlying the Austin Chalk formation.

Site vicinity and geology maps are attached as **Plates A.1** and **A.2**, respectively in **Appendix A** of this report. Boring locations relative to the site plan are shown on the **Boring Location Diagram, Plate A.3**.

2. PURPOSES AND SCOPE OF STUDY

The principal purposes of this study are to evaluate the general subsurface conditions at the project site and to develop geotechnical recommendations for the design and construction of the pavements and subgrades. For these purposes, the study was conducted in the following phases:

- Borings were drilled and sampled, to evaluate the subsurface conditions at the boring locations and to obtain soil and rock samples.
- Laboratory tests were conducted on selected samples recovered from the borings to evaluate the pertinent engineering characteristics of the foundation soils and rock.
- Engineering analyses were performed using field and laboratory data to develop subgrade and pavement design recommendations.
- On-site soils were evaluated for potential sources of fill materials required for the project.

As the Geotechnical Engineer of Record serving this project, it is recommended that a Certerra engineer provide assistance during the design phase to verify the intent of the geotechnical recommendations have been satisfied.

3. FIELD INVESTIGATION AND LABORATORY TESTING

Appropriate public sources were contacted to clear selected sample locations of any known buried utilities. The boring locations were generally defined in the field by Certerra Engineering personnel using site benchmarks, landmarks, maps, and aerial photographs of the site. The site was cleared by the Certerra prior to field investigation.

These locations were not accurately located by a registered surveyor. The locations are generalized for mapping purposes and are accurate only to the extent implied by the technique used in their determination.

Subsurface conditions were evaluated by completing a total of 41 borings with the use of a truck-mounted drill rig in June and July, which were advanced across proposed pavement locations to depths of approximately 20 to 40 feet below existing grades per City of McKinney design requirements, as no grading plans for the future paving had been provided. Bridge Borings B-21 through B-22 were drilled to a depth of 50 feet below existing elevations. The approximate boring locations are shown on **Plate A.3, Boring Location Diagram**.

Sample depth, description of soils, and classification (based on the Unified Soil Classification System) are presented on the **Boring Logs, Plates A.4 through A.44**. Keys to terms and symbols used on the logs are also included in **Appendix A**.

Laboratory tests were performed on selected samples recovered from the borings to confirm visual classification and determine the pertinent engineering properties of the materials encountered, and to assess strata and in-situ consolidation states. Swell tests were performed on selected soil samples, and results will be presented in **Appendix A**. Descriptions of the procedures used in the field and laboratory phases of this study are presented in **Appendix B**.

4. GENERAL SITE CONDITIONS

4.1 Site Geology

Based on the subsurface conditions encountered at the boring locations and the Geologic Atlas of Texas, Dallas Sheet (published by the Bureau of Economic Geology), the site appears to be located within the Terrace Deposits Formation (Qt) overlying the Austin Chalk formation (Kau). The USGS Mineral Resources On-Line Spatial Data reference contains the following description of the referenced formations:

Terrace Deposits (Qt)

Terrace deposits are geologically recent, and developed as flood waters have scoured some formations, then deposited the transported soils downstream as the flood waters have receded. Sand, silt, clay, and gravel in various proportions, with gravel are more predominant in older, higher terrace deposits. Locally, calcium carbonate-cemented quartz sand, silt, clay, and gravel are intermixed and interbedded. Low terraces of major rivers are capped by 2 to 4 meters (6 to 13 feet) of clayey sand and silt. Sandy gravel on higher terraces varies somewhat in composition from river to river. Gravel commonly is rounded to angular limestone and chert pebbles and cobbles, some boulders, and sparse igneous pebbles along the Brazos River in places.

Austin Chalk Formation (Kau)

The Austin Chalk Formation in north and central Texas is predominantly a light gray massively bedded chalk with some interbeds and partings of calcareous clay. The middle part is typically thin-bedded marl with interbeds of massive chalk, hard lime mudstone, and some soft chalk. It generally weathers white, and marine megafossils are scarce.

4.2 Subsurface Soil Conditions

The results of the field and laboratory testing have been used to develop a generalized subsurface profile of the project site. The strata identified in the borings are described below:

- **Stratum I:** generally consisted of dark brown to light tan fat clay (CH), lean clay (CL) and clayey sands (SC) soils with varying amounts of limestone fragments, grey sands, and calcareous nodules, which extends from the ground surface to between approximately 7 feet to at least the maximum depths explored

- **Stratum II:** where encountered, generally consists of weathered and unweathered tan and gray limestone which extend from 7 feet to at least the maximum depths explored of 50 feet.

Hand penetrometer values varied from 0.5 to more than 4.5 tons per square foot (tsf) in the cohesive soils. A summary of subgrade properties encountered in the borings is provided in the table below.

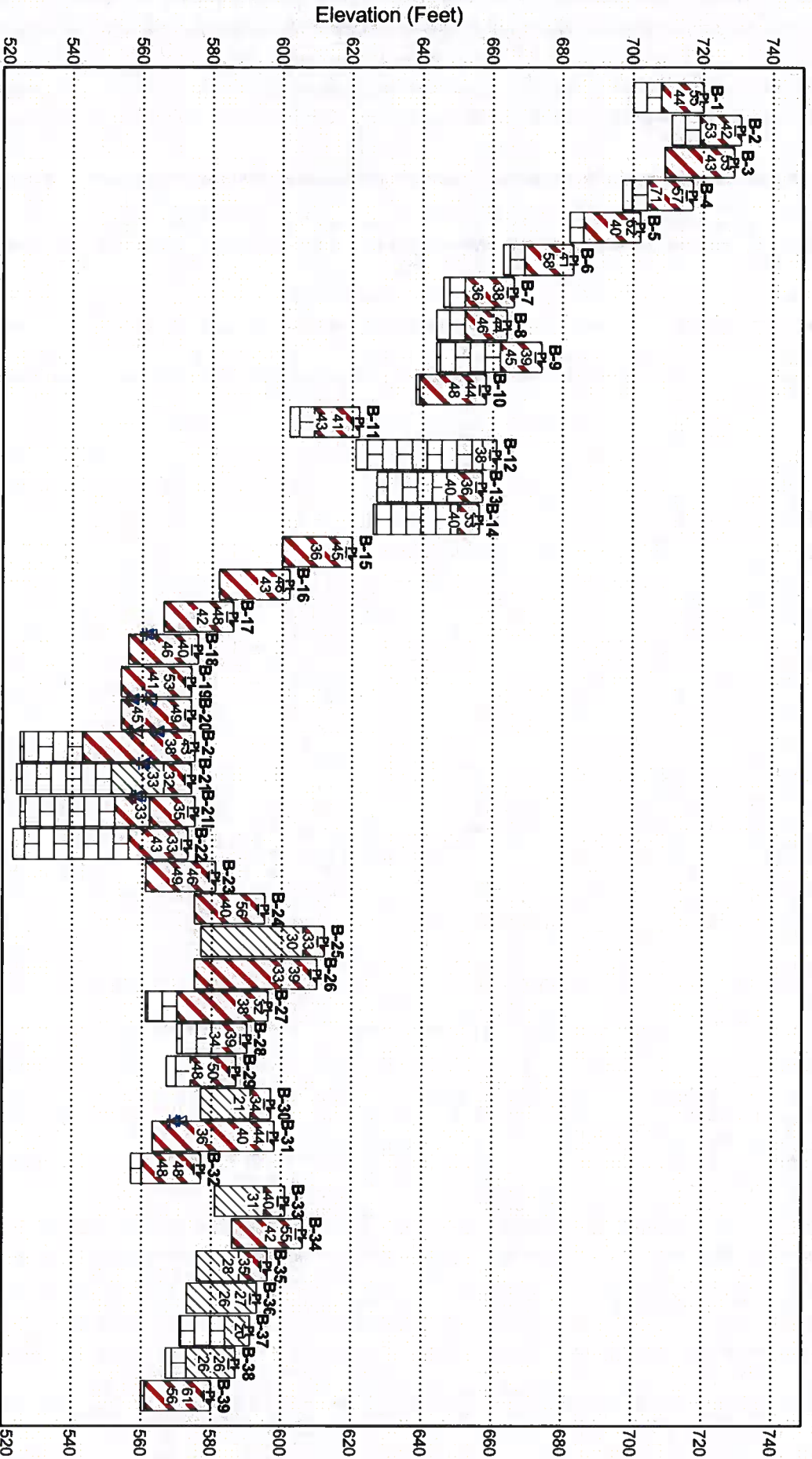
Table 2: Soil Property Range

In Situ Soil Property	Full Range
Estimated Specific Gravity, (G_s)	2.66 - 2.69
% Fines (-#200)	62 - 99
Liquid Limit (LL)	37 - 92
Plasticity Index (PI)	20 - 70
Dry-Density (pcf)	68 - 187
Water Content (w)	2 - 49
Range of Water Content Increase Potential (+ Δw)	1 - 22

The Logs of Boring should be reviewed for specific information at individual boring locations. The transition between material types may vary between borings and be gradual and indistinct. Variations will occur and should be expected across the site. A generalized subsurface profile of the conditions encountered in the borings is included in **Figure 1**. The approximate cross section location is shown in **Plate A.3**.

West

East



Distance Along Baseline (Feet)

Water Observations
While Drilling
At Completion

GENERALIZED SUBSURFACE PROFILE

Figure 1

Laud Howell Parkway
and McKinney Falls
McKinney, Texas



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4.3 Groundwater

The borings were advanced using continuous flight augers and intermittent sampling methods. The borings were monitored during and immediately after drilling for the presence of water seepage. Groundwater was encountered in six of the borings and levels encountered are summarized in **Table 3**.

Table 3: Groundwater Levels Encountered

Boring Number	Water Measurements (feet)	
	During Drilling	At Completion
B-18	15	16
B-20	13	18
B-21	18	12
B-21a	15	15
B-21b	17	18
B-31	28	30

These observations were made during the field exploration, as indicated on the Boring Logs. A geo-hydrologic assessment of the vadose zone or upper groundwater was not conducted. As such, the study did not include monitoring of upper groundwater levels or perched water conditions. A geo-hydrologic study can be conducted upon request to assess the sources and variation of in-situ moisture content in the vadose zone and groundwater beneath the site, and how different site development alternatives can manage or alter those dynamics by plan or affect.

In general, groundwater levels and moisture content in the vadose zone vary climatically and seasonally depending on topography, land usage, surface hydrology, subsurface hydrogeology, proximity to bodies of water, etc. The rate and extent of these variations depend on many variables including subsurface stratigraphy, soil strata properties, capillary sources, consolidation states, soil structure, capillary strength, thermal cover, and surface infiltration and evapotranspiration rates.

4.4 Soluble Sulfates

Test results indicate sulfate levels measured less than 100 to 680 parts per million (ppm), indicating negligible to low sulfate levels. An isolated location at B-19 shows levels of 2,987 ppm. Soluble sulfate levels are generally considered high when they exceed approximately 3,000 parts per million (ppm). The soluble sulfate test results are summarized in **Appendix A**.

5. ANALYSIS OF SITE

5.1 Geotechnical Analysis

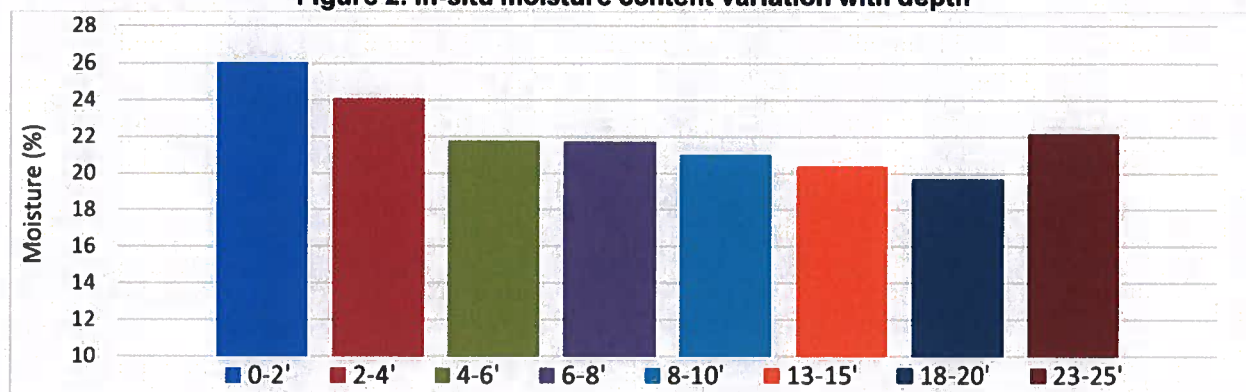
Founding subgrades and foundation fill elements are critical components of any infrastructure foundation. Designs for the proposed pavements have been evaluated with the following engineering criteria:

- Bearing capacity of the in-situ subsurface soils
- Settlement potential of the in-situ subsurface soils
- Volume change (shrink-swell) potential of the in-situ subsurface soils

The rate and magnitude of subgrade volume change is controlled by wetting and drying cycles. Volume change potential is affected by moisture change potential, clay mineralogy, material density, soil structure, hydrogeologic environment, and confining pressure to swell pressure ratios. Moisture change potential, material density, and soil structure can be modified and/or controlled; and clay content, hydrogeologic environment and confining pressure can be managed to limit volume change as necessary for each foundation alternative. These are key factors when evaluating the ground modification elements for various foundation alternatives. The primary provisions for managing the hydrogeologic environment are long-term stabilization of subgrade moisture levels, and management of desiccation risk.

Preliminary geo-hydrologic assessment of the vadose zone indicates moisture sources to be surface water infiltration, with additional perched water potential atop deep limestone. A persistent source of groundwater does not appear to be present across the site. Capillary rise can be an integral part of maintaining and stabilizing moisture levels in foundation subgrades. Surface water sources were not assessed but the site is generally level, and the presence of vegetation across the sight indicates the ability to store surface water from rainfall, leading to higher sampled moisture contents. A complete geo-hydrologic study was not conducted. The sources of upper groundwater and phreatic surfaces were not assessed or monitored, so the potential for sources of capillary rise to diminish at times was not assessed, nor the potential for moisture changes to vary throughout the year. The average soil moisture profile across the site at the time of sampling is presented below.

Figure 2: In-situ moisture content variation with depth



Foundation systems for structures associated with roadways often require ground modification within the vadose zone. Each ground modification element includes provisions for limiting moisture content variation and preparing for its effects. The effects of, and potential for, moisture variation within and below the ground modification elements of each foundation alternative were factored in this analysis.

The following considerations were evaluated for foundation alternatives, if needed for this project:

- Need and extent of subgrade replacement / recompaction,
- Management and tolerance of in-situ conditions below ground modification depths,
- Grade raise elements,
- Strength and stability requirements of foundation fill elements; and,
- Subgrade stabilization options.

5.2 Subsurface Volume Change Potential

Direct measurement of swell pressures and soil expansion under the anticipated stress conditions is the most reliable way to account for the factors that dictate volume change potential of clay formations and assess swell-shrink conditions within the vadose zone.

These analyses indirectly account for clay mineralogy, clay content, clay mix, soil structure, compaction states, and stress states. Estimating swelling pressures with depth best enables determination of ground modification needs for optimal foundation design. Measurement of swell potential allows determination of ground modification requirements for pavement design per the City of McKinney Design Manual. Swell test details are included in **Appendix A**.

Swell tests were run using an overburden stress of 200 psf per City of McKinney Pavement and Subgrade Design Requirement 3.3.A.1. Results generally indicate low to moderate swell potential. Swell potentials ranged from approximately 0.0 to 8.5 percent, averaging 1.7 percent, corresponding to a Potential Vertical Rise (PVR) of about 3 inches based on existing grades. Swell potential tests are summarized in **Appendix A**.

For supplemental reference, PVR calculations were also conducted in general accordance with the Texas Department of Transportation (TxDOT) Test Method Tex-124-E as another means of assessing untreated swell potential. This method is empirical, assumption-based, generalized, and based on the Atterberg Limits and moisture content of the subsurface soils at the time of the investigation. This procedure was applied for a 20-foot-deep vadose zone in a dry moisture condition as per City of McKinney Engineering standards, and the estimated PVR is approximately 7 inches.

Finally, Table 3-1 from McKinney's Pavement and Subgrade Design Requirements give minimum reconstruction depths per road classification. For a G6D classification, the minimum MC Depth based on an average swell value of less than 2 percent is given as 0 – 48 inches, at the direction of the geotechnical engineer.

Based on these analyses, the following parameters are quantified for pavement design, using the more conservative of the values above:

Table 4: Untreated Subgrade Movement Potential

Strata	Design Depth (feet)	Swell Potential (percent)	Vertical Movement Potential (Untreated) (inches)	Minimum Ground Modification Depth (feet)
Fat Clay	20	1.7	3-7	4

With these parameters, net uplift pressures and vertical movement potential at grade can be established in evaluation of ground modification alternatives and foundation design.

6. SITE PREPARATION FOR CONSTRUCTION

6.1 General

Remove existing foundations, abandoned structures, deleterious materials, site debris, abandoned utilities and all other manmade features, and relocate utilities as required by the work and in accordance with the Plans and Specifications.

6.2 Existing Surface Grades

Clear and grub all tree stumps and root systems as required by the work except where trees or shrubs must be maintained according to the design drawings. Except as otherwise specified or indicated in the drawings or specifications, all materials resulting from clearing and grubbing operations shall be properly disposed.

Clear all vegetation and strip at least the upper layer of topsoil as required to remove all roots and organic matter from all work areas of the site. Remove any undocumented fill from structural areas. In no case shall any spoil or

other unsuitable material resulting from clearing, grubbing, and stripping operations be utilized within the earthworks or fill materials or permanently placed onsite except where authorized by the Engineer.

6.3 Excavations

Every attempt should be made to limit the extreme wetting or drying of the subsurface soils because swelling and shrinkage of these soils will result. Standard construction practices for providing good surface water drainage should be used. All grading should provide positive drainage away from the paving and should prevent water from collecting near the edge of pavements.

Dewatering or other groundwater control measures is not anticipated. However, perched water could be encountered over or within any existing bedrock. Also, ditches or swales should be provided to carry the run-off water both during and after construction. Landscape areas should be watered moderately, without allowing the clay soils to become too dry or too wet.

Backfill for utility lines should consist of site-excavated soil. If the backfill is too dense or too dry, it will swell, and a mound will form along the trench line. If the backfill is too loose or too wet, it will settle, and a depression will form along the trench line. Backfill should be compacted as recommended in the **"Site Preparation and Fill Placement"** section of this report.

6.4 Subgrade Treatments to Reduce Soil Movement

When considering the various treatment options, it is important to keep in mind that the subsurface conditions which resulted in the calculated PVR values may not be uniformly present beneath the pavements. Some allowance for variable support should be incorporated in the design.

In order to reduce the PVR and potential differential movement to more tolerable levels, moisture treatment of the pavement subgrades is recommended. Moisture treatment of clays is performed to increase the moisture of the clays to a level that reduces their ability to absorb additional water that could result in post-construction heave in these soils. The preparation of a uniform fill beneath the pavements is a crucial aspect of the moisture conditioning approach to site development. If the subgrade is not treated uniformly, differential movements could occur.

The subgrade should be excavated to the respective required depth below the final pavement subgrade elevation. Following excavation of the active clays, the removed clays can be replaced with moisture and density control and covered with plastic sheeting. Any deleterious materials or rock fragments greater than 4 inches in diameter encountered within the soils should be removed. The subgrade to receive moisture-conditioned clay should be scarified to a depth of 6 inches and compacted to 92 to 96 percent of the material's standard Proctor dry density (ASTM D698) at a moisture content at least 4 percent above optimum (min +4%). In order to achieve a uniform soil moisture profile, the moisture treated soils should be placed in maximum 8-inch loose lifts and compacted to a similar density and moisture content.

The reworked clays should extend at least one foot outside the back of curb (BOC). Some post-construction drying and settlement of the fill should be expected.

Moisture conditioned clay subgrade should be monitored and tested on a full-time basis by Rone to confirm conditions are as anticipated and to confirm the fill is suitable and placed with the proper moisture content and degree of compaction. Density tests should be performed on each lift of reworked clay. The treated subgrade materials are prone to drying out after the treatment process is complete and should be kept moist prior to slab concrete placement.

6.5 Site Preparation and Fill Placement

For any adjustments in pavement elevations all areas to be filled should be disced or bladed until uniform and free from large clods. Soils should be brought to the recommended moisture content and compacted as indicated in the Fill Placement Criteria table below. All fill placed within the proposed pavement areas should consist of moisture conditioned soils or select fill.

Table 5: Fill Placement Criteria

Item	Description	Plasticity Requirement	Compaction Standard	Density Requirement	Moisture Requirement
On-site soils	General grading	None	ASTM D698	95% to 100% of maximum dry density	Optimum moisture to 4% above optimum moisture
Imported general fill	General grading	LL < 60	ASTM D698	95% to 100% of maximum dry density	Optimum moisture to 4% above optimum moisture
Moisture Treated Fill	Structural fill	None	ASTM D698	92% to 96% of maximum dry density	At least 4% above optimum moisture
Select fill (soils)	Structural fill	$7 \leq PI \leq 20$; $LL \leq 35$	ASTM D698	95% to 100% of maximum dry density	Optimum moisture to 4% above optimum moisture
Utility line backfill	Utility Line Backfill	LL < 60	ASTM D698	95% to 100% of maximum dry density	At least 2% above optimum moisture
Lime treated subgrade	Structural Fill, Pavement Support	PI ≤ 20	ASTM D698	95% to 100% of maximum dry density	At or above optimum moisture
Flexible Base	Structural fill	None	ASTM D698	95% to 100% of maximum dry density	At or above optimum moisture

6.6 Select Fill or Flexible Base

Select fill or flexible base, if utilized, should consist of material meeting the criteria recommended above. The fill should have a moisture content within the specified range, be placed in loose lifts less than 9 inches thick and compacted as indicated.

The fill material should be placed in level, uniform layers that have a compacted moisture content and density conforming to the recommendations in this report. Each layer should be thoroughly mixed during spreading to provide uniformity within the layer. The loose lift thickness should not exceed 9 inches.

6.7 Density Tests

Field density tests should be performed by the geotechnical engineer or his representative. Density tests should be taken on each lift of the compacted material below the disturbed surface at a minimum rate of 1 test every 10,000

square feet. If the materials fail to meet the specified moisture and/or density, the course should be reworked as necessary to obtain the specified criteria.

Proper moisture content and compaction must be maintained until placement of the overlying lift, or construction of overlying flatwork. Failure to maintain the moisture content and compaction could result in excessive soil movement that can have a detrimental effect on structures supported on or above the fill. The contractor should provide some means to control the moisture content and compaction (such as water hoses, water trucks, etc.). Maintaining subgrade moisture and compaction is always critical, but will require extra effort during warm, windy, and/or sunny conditions. Density and moisture testing is recommended to provide some indication that adequate earthwork is being performed; however, the quality of the fill is the sole responsibility of the contractor. Satisfactory testing is not a guarantee of the quality of the contractor's earthwork operations.

6.8 Site Grading

Site grading operations should be performed in accordance with the recommendations provided in this report. Grading plans and construction operations should strive to achieve positive drainage around all sides of the proposed structures. Inadequate drainage around structures supported on-grade will likely cause excessive vertical movement to occur.

6.9 Utility Backfill

On-site clayey soils may be used as backfill. These materials should be placed in maximum 6-inch lifts following the guidelines presented in **Table 6: Fill Placement Criteria** above. Compacted clay fill will typically settle approximately 1 to 2 percent of the fill height, especially when lift thickness is not adequately controlled. This should be considered when designing any structures, pavements, retaining walls, or utilities that will be supported on, above, or within utility backfill materials.

6.10 Construction Observations

In any geotechnical study, the design recommendations are based on a limited amount of information about the subsurface conditions. In the analysis, the geotechnical engineer must assume the subsurface conditions at the site are similar to the conditions encountered in the borings; however, during construction, anomalies in the subsurface conditions are often revealed. The potential for the presence of varied geologic formations and significantly different support conditions at this site, which could result in changes in our design recommendations, increases the risk of damaging soil movements at this site. It is recommended that Certerra be retained to observe earthwork and foundation construction and perform materials evaluation and testing during the construction phase of the project.

This enables the geotechnical engineer to stay abreast of the project and to be readily available to evaluate unanticipated conditions, to conduct additional tests if required and, when necessary, to recommend alternative solutions to unanticipated conditions.

We recommend that construction phase observation and materials testing commence by the project geotechnical engineer at the outset of the project. Experience has shown that the most suitable method for procuring these services is for the owner to contract directly with the project geotechnical engineer. This results in clear, direct lines of communication among the owner, the owner's design engineers, and the geotechnical engineer.

7. BRIDGE FOUNDATION STRUCTURE

The proposed bridge should be supported on straight-sided drilled shafts bearing in competent limestone, anticipated to be contacted 17 to 32 feet below existing elevations in the proposed bridge area.

7.1 Straight Sided Drilled Shafts

A straight-sided drilled shaft foundation system is recommended for use to support the proposed structures. The shafts should bear in unweathered limestone, generally encountered in the borings at depths of approximately 17 to 32 feet below the existing ground surface. Drilled shafts may be designed based on the recommendations below.

Table 6: Drilled Shaft Recommendations

Building	Bridge
Bearing Stratum	Unweathered gray limestone
Approximate Depth to Bearing Stratum (feet) (elev.)	17 – 32
Minimum Penetration Into the Bearing Stratum (feet)	2
Allowable End Bearing (psf) ¹	43,000
Allowable Skin Friction (psf) ²	6,000

1. At or below the minimum penetration into the bearing stratum
2. For portions of the shaft below the minimum penetration

Foundation settlements for drilled shafts constructed as described above are estimated to be on the order of ½-inch or less.

The uplift forces on the drilled shafts due to swelling of the active clay soils can be approximated using a uniform uplift pressure of 1,800 psf acting over the perimeter of the shaft to a depth of 12 feet below the final pad elevation. The uplift pressure may be reduced to 800 psf for portions of the shaft within engineered fill, and may be neglected within select fill. The shafts should contain sufficient full length reinforcing steel to resist uplift forces. The uplift forces can be resisted by the dead load on the shafts plus the allowable skin friction resistance in the portion of the shaft below the minimum penetration depth, or below the bottom of the casing (if needed), whichever is deeper.

For constructability, we recommend a minimum shaft diameter of 18 inches. Adjacent shafts should have a minimum center-to-center spacing of 3 shaft diameters (based on the larger shaft). Reduced shaft spacing could result in reduced shaft capacity for both uplift forces and gravity forces. Rone should be contacted to review reduced shaft spacing on a case-by-case basis.

7.2 Lateral Design for Drilled Shafts

Lateral load analysis should be performed for drilled shafts subjected to horizontal loads. Drilled shafts will provide lateral load capacity from the passive soil resistance developed on the side of the shafts. The lateral load analysis can be performed using computer programs such as L-PILE. The upper 5 feet of soils should be neglected for lateral support. The following parameters can be used for the L-PILE analysis.

Table 7: L-PILE Input Parameters

Material Description	p-y Curve Model	c_u (psf)	ϵ_{50}	k (pci)	Unit Weight (pcf)
Controlled Fill	stiff clay w/o free water	2,000	0.007	800	125
Native Clay	stiff clay w/o free water	2,000	0.007	750	120

Material Description	Q_u (psf)	k-rm	E (psi)	Unit Weight (pcf)
Tan Weathered Limestone	100	0.0005	20,000	130
Gray Limestone	500	0.0003	105,000	140

For lateral loads, the reduction factors (p-multipliers) presented in "Drilled Shafts: Construction Procedures and Design Methods" published by the Federal Highway Administration (FHWA) are recommended for use. The reduction factors depend on their relative position within the group. Only two positions (front and back row) are identified, as research has shown that all shafts or piles in or behind the second row of in-line groups behave similarly.

Table 8: Lateral Load Group Factors

Shaft Spacing (Diameters)	Reduction Factors	
	Front Row	Back Row (s)
3	0.90	0.50
4	0.95	0.65
5	1.00	0.80

It should be noted that factors of safety are not generally applied to the lateral load analysis. A performance criterion, or "limit state" is usually considered.

7.3 Design and Construction Factors for Drilled Shafts

The geotechnical engineer or senior project manager should be onsite at the beginning of drilled shaft operations to initiate observation and testing procedures and confirm the intent of the geotechnical recommendations contained in this report. The construction of all drilled shafts should be observed by experienced geotechnical personnel to document conformance with project documents and confirm the following:

- shafts are plumb and within the acceptable tolerance
- groundwater seepage, when encountered, is correctly handled
- sides of shaft are not sloughing or caving
- minimum penetration into the bearing strata or below the bottom of the casing
- bearing surface is clean
- proper concrete mix design and slump
- proper removal of casing

Groundwater was encountered in borings and may be encountered during drilled shaft excavation. The risk of encountering groundwater seepage is increased during or after periods of precipitation. We don't anticipate casing but in case water is encountered during shafts exactions casing will be necessary for successful installation of drilled

shaft foundations. The need for casings should be determined during construction based on the conditions encountered during the shaft excavations. Reinforcing steel cages and concrete should be placed in the shafts immediately after the excavation has been completed, dewatered, cleaned and observed. Complete installation of individual shafts should be accomplished the same day they are excavated. Prolonged air exposure or inundation of the bearing surface could deteriorate the bearing material.

If casing is used, a full head of concrete should be maintained within the casing during removal. In no case should water be allowed to infiltrate the concrete of the shaft. Vibratory casing removal is recommended and is required for friction shafts. Complete installation of a shaft should be accomplished at least 48 hours before beginning another excavation located within four shaft diameters, center-to-center. If groundwater is encountered, it will be displaced during concrete placement. A sump may be excavated immediately adjacent to each shaft to collect displaced water.

Concrete should have a slump of 6 to 8 inches and the concrete mix design should allow for sufficient working time. The concrete should not be allowed to strike the casing sidewall or steel reinforcement during placement. Submersible pumps may be required to control seepage; the concrete must be placed using a tremie if groundwater cannot be kept at a depth of 1 inch or less during concrete placement. Mushrooming of the drilled shafts should not be allowed in the upper 15 feet of the shaft since this condition will result in an increase in uplift forces acting on the shaft. Rone should be contacted for further evaluation and recommendations if excessive groundwater seepage or caving occurs.

8. PAVEMENTS

This report includes recommendations for rigid pavements. When designing proposed pavement sections for driveways, subgrade conditions must be considered, along with expected traffic use/frequency, pavement type, and design period. For this project, traffic loading and frequency conditions were estimated for various conditions as no specific traffic information was provided. The following information was used in our analysis based on requirements for a G6D thoroughfare classification set forth in the City of McKinney pavement design manual:

- design life of 30 years
- k-value of 100 pci for subgrade consisting of clay soils, and 150 pci for lime-treated soil
- reliability of 90 percent
- initial serviceability, p_o , of 4.5 and a terminal serviceability, p_t , of 2.5
- load transfer coefficient of 2.9
- drainage coefficient of 1.0
- minimum concrete flexural strength (modulus of rupture) at 28 days of 620 psi E at 28 days of 5,000,000 psi

8.1 Rigid Pavement Design

The pavement thickness determinations were performed in accordance with the "1993 AASHTO Guide for the Design of Pavement Structures" guidelines. Based on the City of McKinney Design Manual, with an ADT of 38,000, zero percent growth, two percent trucks, six lanes with a 0.7 lane distribution factor, the minimum design ESAL is about 7,800,000, and the minimum calculated concrete thickness given all the parameters listed is 10 inches.

The concrete minimum 28-day compressive strength should be selected based on the expected traffic. As a minimum, reinforcing steel should consist of #3 bars spaced at a maximum of 18 inches on center in each direction.

Pavement recommendations are based on the estimated loading conditions and commonly accepted design procedures that should provide satisfactory performance for the design life of the pavement. Concrete pavement should have between 4 and 6 percent entrained air. Hand-placed concrete should have a maximum slump of 5

inches. A sand-leveling course should not be permitted beneath pavements. All steel reinforcement, dowel spacing/diameter and pavement joints should conform to applicable city standards. Additional sampling for sulfates should be completed once final grades are achieved. If sulfate levels exceed action levels per McKinney requirements, double lime application could be required. However, at this time sulfate risk appears low.

Saw cutting should be performed in specified locations to control cracking due to shrinkage. Saw cutting should begin as soon as the concrete has obtained enough strength to keep from raveling, but before cracks can be initiated internally. Saw cut depths generally range from $\frac{1}{4}$ to $\frac{1}{3}$ of the pavement thickness, but should be performed as directed by the civil engineer.

8.2 Pavement Base Course

Lime treatment of the pavement subgrade can enhance the performance of the pavement system, particularly in areas that are subjected to heavy loading during construction. In accordance with McKinney requirements an 8-inch-deep lime treated subgrade is required for G6D classification. A 9 percent lime series value was calculated to reach a minimum PI of 20. Per the McKinney Design Manual, minimum of 10 percent lime is required to a depth of 8 inches (60 lb/sy).

Additional sulfate testing is recommended during construction. In areas with sulfates over 3,000 ppm, double lime application should be anticipated as outlined in the City of McKinney's Technical Specifications for lime application methods. A variance may be requested from McKinney if sulfate levels are excessive allowing the use of flexible base in lieu of lime treatment.

The treated subgrade should extend a minimum of 2 feet outside the curb line. This will improve the edge support of the pavement and reduce the edge effect associated with shrinkage during dry periods. Sand or other granular fill should not be used as a leveling course beneath the pavement, as these more porous materials increase water migration beneath the pavement, causing heave and strength loss of the subgrade.

8.3 Pavement Construction and Maintenance Recommendations

It is crucial that the moisture content and compaction be maintained until the concrete is placed. Maintenance should include regular observation to identify and seal cracks. A flexible joint material should be used to seal cracks as they degrade, which can occur during the design life of pavements.

9. SITE COMPLETION AND MAINTENANCE

9.1 Site Grading and Drainage

The geotechnical design for this project accounts for hydrogeologic and hydrologic conditions and intends to provide for best efforts to maintain moist subgrade conditions after construction. Site grading and drainage plans should support this intention where possible. Site grading and drainage should be efficient in paved areas and less efficient in lawn and landscape areas.

9.2 Landscaping and Irrigation

Subgrade moisture shall be maintained around the pavement perimeters after construction, and during landscaping and subsequent construction.

10. STUDY CLOSURE

The analyses, conclusions and recommendations contained in this report are based on site conditions as they existed at the time of the field exploration and further on the assumption that the exploratory borings are representative of the subsurface conditions throughout the site with little variance from what was encountered within the borings advanced during this phase of investigation. If different subsurface conditions from those encountered

in our borings are observed or appear to be present in excavations, Certerra must be advised promptly so that these conditions can be evaluated, and our recommendations can be reassessed as may be necessary. If there is a substantial lapse of time between submission of this report and the start of the work at the site, if conditions have changed due either to natural causes or to construction operations at or adjacent to the site, or if structure locations, structural loads or finish grades are changed, Certerra should be promptly informed and retained if necessary if the changed conditions warrant review and reassessment. A substantial lapse of time may be considered as short as a particularly hot, dry period, typically about a month in summer, if the subgrade is left unprotected, or up to one full calendar year if the subgrade is reconditioned and protected as recommended herein.

It is important that Certerra be retained to assist in design reviews or review those portions of the plans and specifications that pertain to earthwork and foundation systems for this particular project to ensure the plans and specifications are consistent with the recommendations provided in this report. It is also advised that Certerra provide construction material testing and monitoring services during construction to ensure that the recommendations provided are interpreted correctly and implemented effectively.

This report has been prepared for the exclusive use of the client and their designated agents for specific applications to design and construction of this project. We have exercised a degree of care ordinarily exercised under similar conditions by reputable members of our profession practicing in the same or similar locality. No warranty, expressed or implied, is made or intended.

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APPENDIX A

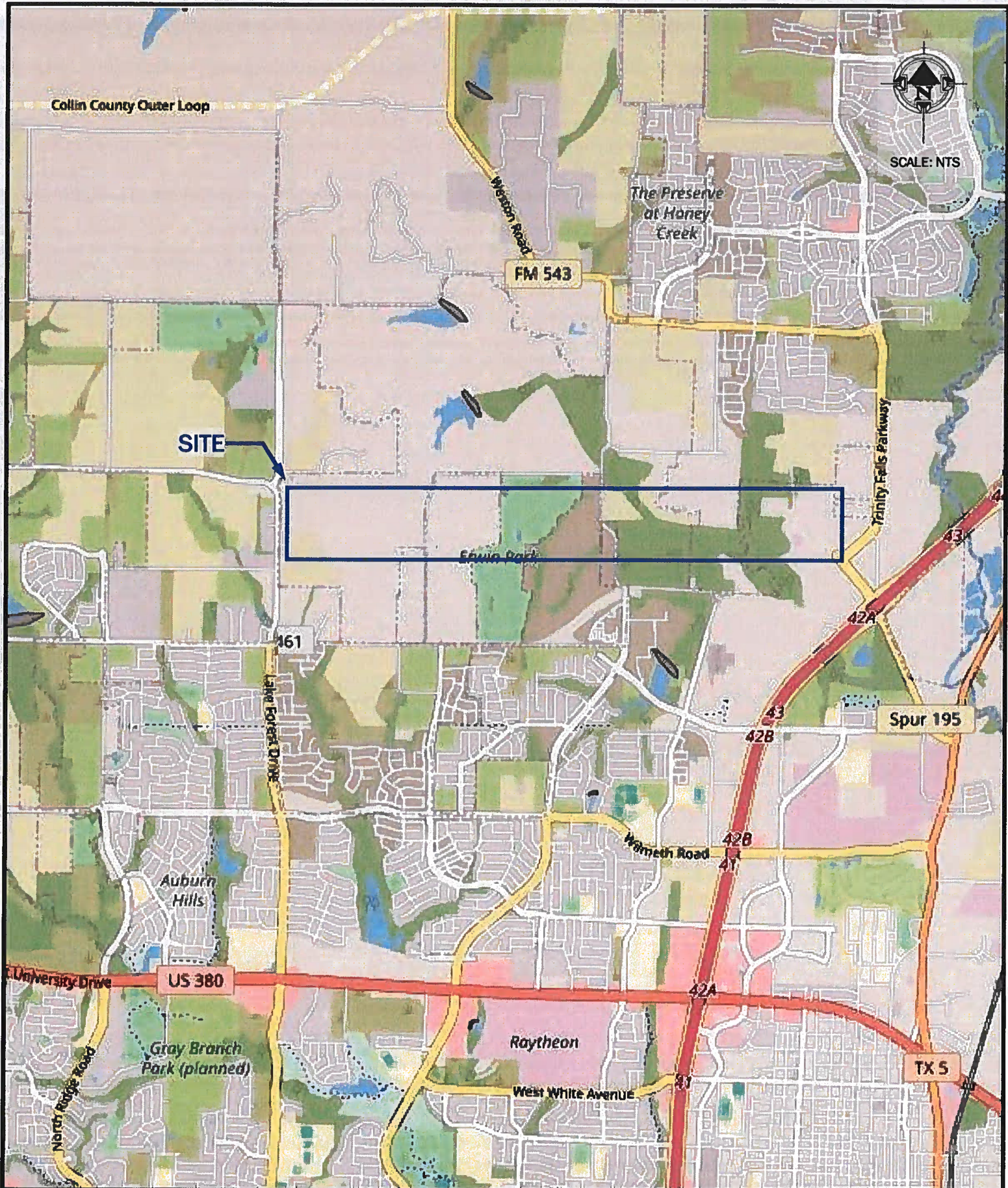
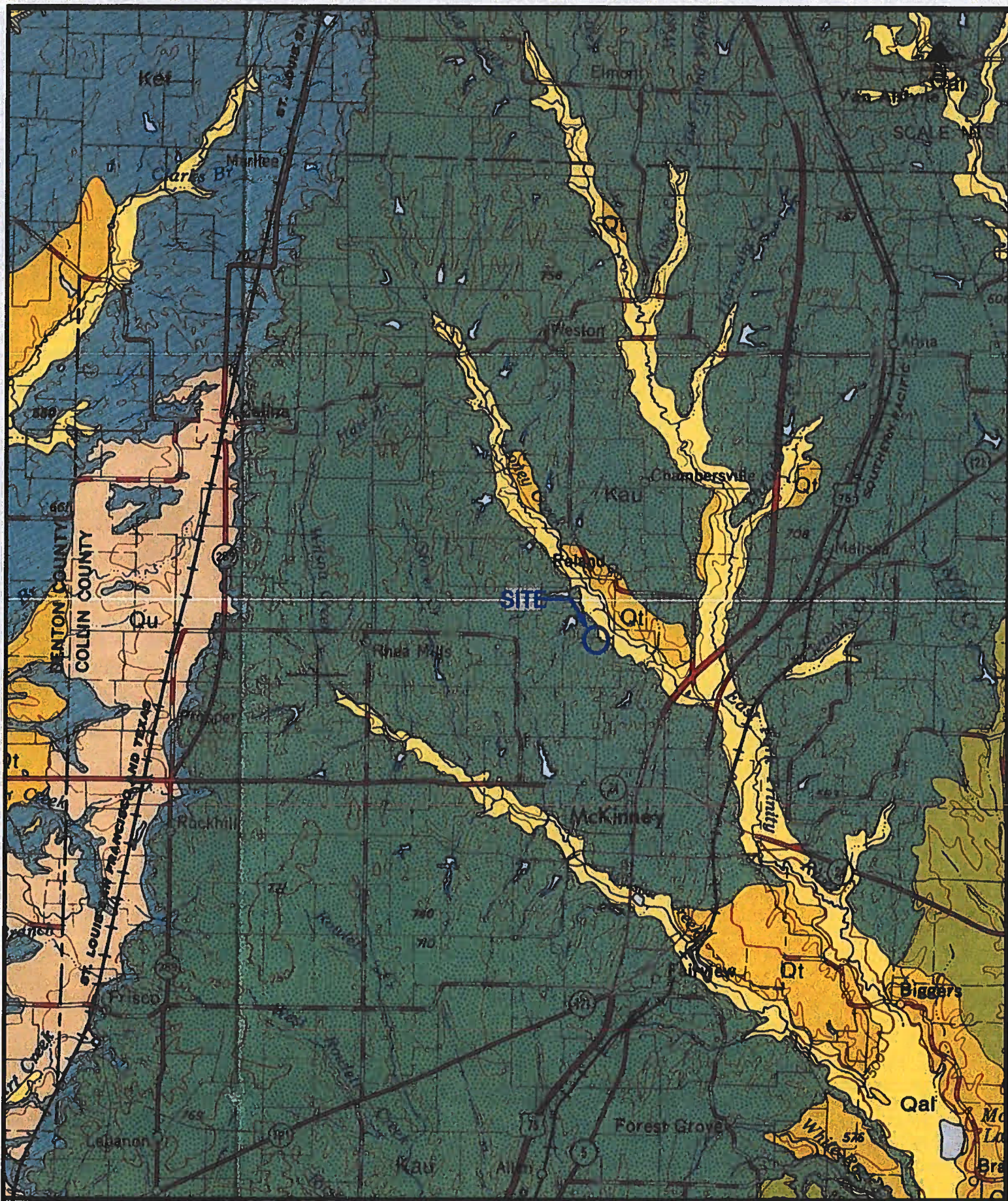


Plate A.1
VICINITY MAP

Laud Howell Parkway
Laud Howell Pkwy. And McKinney Falls
McKinney, Texas

PROJECT NO: 14-250116-0	
DRAWN BY: GA	DATE: 6/4/2025
APPROVED BY: IB	DATE: 8/22/2025



**Plate A.2
GEOLOGY MAP**

Laud Howell Parkway
Laud Howell Pkwy. And McKinney Falls
McKinney, Texas

PROJECT NO: 14-250116-0

DRAWN BY: GA

DATE: 06/06/2025

APPROVED BY: IB

DATE: 8/22/2025



CERTEERRA
RONE ENGINEERING

Plate A.3
BORING LOCATION DIAGRAM

Loud Howell Parkway
Loud Howell Pkwy. and McKinney Falls
McKinney, Texas

PROJECT NO: 14-250116-0

DRAWN BY: GA

DATE: 07/23/2025

APPROVED BY: IB

DATE: 8/22/2025



CERTEERRA
RONE ENGINEERING

Plate A.3a

BORING LOCATION DIAGRAM

Laud Howell Parkway
Laud Howell Pkwy- and McKinney Falls
McKinney, Texas

PROJECT NO: 14-250116-0

DRAWN BY: GA

DATE: 07/23/2025

APPROVED BY:

DATE:



CERTEERRA
RONE ENGINEERING

Plate A.3b

BORING LOCATION DIAGRAM

Laud Howell Parkway
Laud Howell Pkwy- and McKinney Falls
McKinney, Texas

PROJECT NO: 14-250116-0

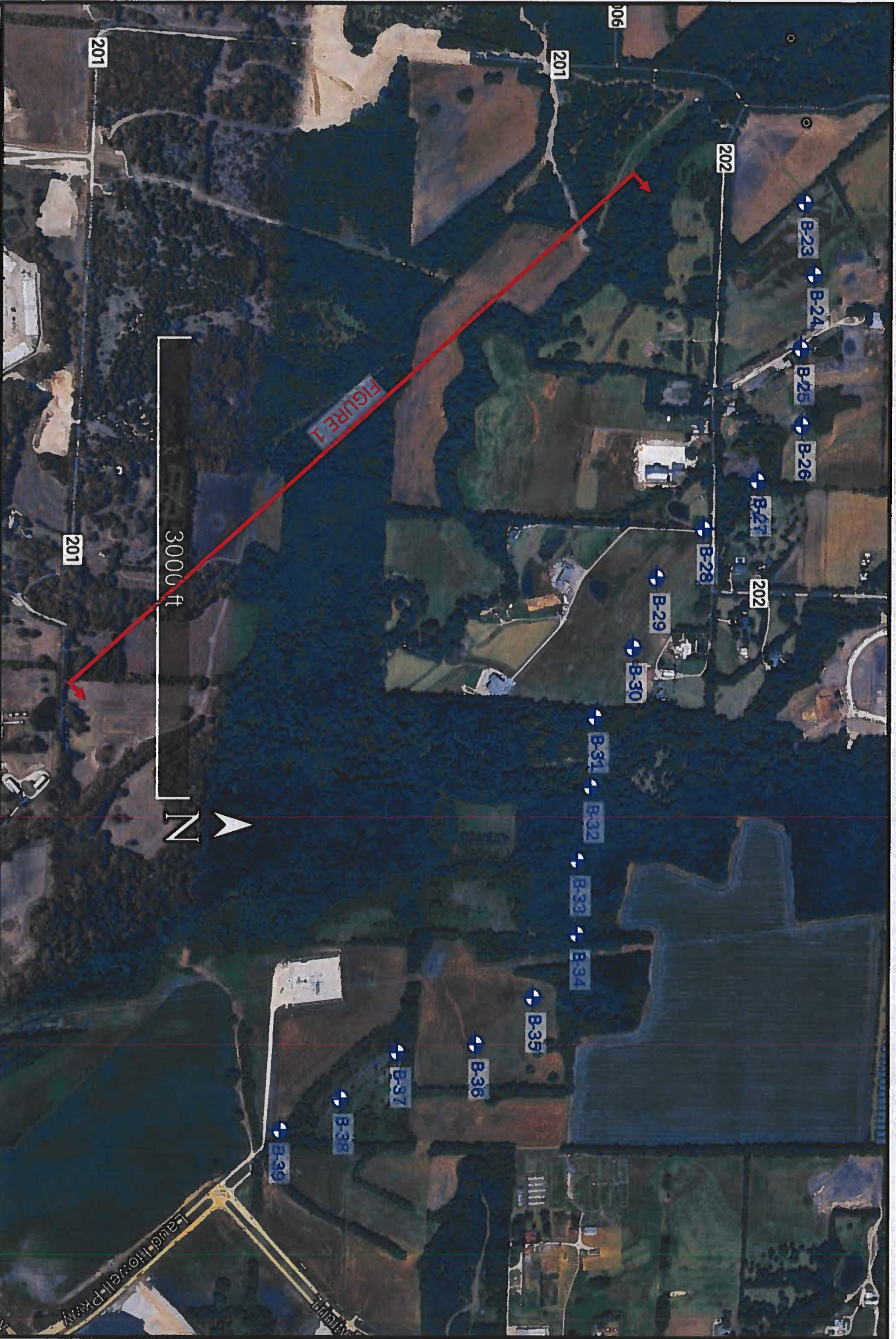
DRAWN BY: GA

DATE: 07/23/2025

APPROVED BY:

DATE:





CERTEERRA
RONE ENGINEERING

Plate A.3c
BORING LOCATION DIAGRAM

Laud Howell Parkway
Laud Howell Pkwy- and McKinney Falls
McKinney, Texas

PROJECT NO: 14-250116-0

DRAWN BY: GA

DATE: 07/23/2025

APPROVED BY:

DATE:

Log		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas													
Boring Location		Latitude 33.26077° N		Water Level Observations (feet)		Date 6-3-25											
		Longitude -96.67923° W		While Drilling Not Observed At Completion Not Observed End of Day Not Measured													
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description				Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf	
Approximate Surface Elevation = 720.0 feet																	
				FAT CLAY (CH) - brown, with calcareous nodules						3.00	97	80-25-55	32	2.1	83		
										3.50			26		97	4,000	
5				- tan, gray						4.5+	95	66-22-44	23	1.6	102		
				- with ferrous staining						4.5+			23				
										4.00			19				
			708.0	LIMESTONE - gray													
									50/1" 50/4"				17				
			700.0	Boring Terminated at Approximately 20 Feet						50/1" 50/1/2"				16			
20																	
Material boundaries are approximate; in situ, transitions may be gradual.																	

Driller: Nick- Total Depth

Drilling Method: Continuous Flight Augers

Plate A.4

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-3		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas									
Boring Location													
Latitude 33.26058° N		Water Level Observations (feet)		Date 6-3-25									
Longitude -96.67608° W		While Drilling		Not Observed									
		At Completion		Not Observed									
		End of Day		Not Measured									
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description	Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 729.0 feet					LL-PL-PI				
				FAT CLAY (CH) - brown, with calcareous nodules			2.75	98	92-39-53	38	1.5	75	
							4.00			24			
5				- tan, gray			4.5+	97	66-23-43	22	1.2	96	
				- with ferrous staining			3.75			21			
				- trace fissite fragments		24-30-34 N=64				19			
10													
							4.5+			33			
15													
							4.5+			19			
20			709.0	Boring Terminated at Approximately 20 Feet									
Material boundaries are approximate; in situ, transitions may be gradual.													

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

Log B-4		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26016° N		Water Level Observations (feet) While Drilling: Not Observed At Completion: Not Observed End of Day: Not Measured				Date 6-3-25								
Longitude -96.67446° W														
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 717.0 feet										
				FAT CLAY (CH) - brown, with calcareous nodules				2.75			37			
								3.25	95	84-27-57	30	2.4	88	
5								2.25			31		93	3,200
				- tan, gray				4.5+			27			
10								4.5+	96	92-21-71	20	1.9	111	
				- with ferrous staining										
704.0														
				LIMESTONE - gray										
15								50/1" 50/1/2"			17			
20								50/3/4" 50/1/2"			16			
				Boring Terminated at Approximately 20 Feet										
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
 Drilling Method: Continuous Flight Augers

Log B-5		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas									
Boring Location													
Latitude 33.25953° N		Water Level Observations (feet)		Date 6-3-25									
Longitude -96.67299° W		While Drilling Not Observed											
		At Completion Not Observed											
		End of Day Not Measured											
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description	Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits LL-PL-PI	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
Approximate Surface Elevation = 702.0 feet													
				FAT CLAY (CH) - dark brown, with calcareous nodules			2.00	96	91-29-62	49	0.7	68	
				- brown			2.00			37			
5				- light brown, tan, with ferrous staining			4.5+	96	63-23-40	28	1.2	96	
							4.5+			20			
10							4.5+			22			
							4.5+			22			
15													
			686.0	LIMESTONE - gray									
20			682.0	Boring Terminated at Approximately 20 Feet			50 3/4" 50 1/2"			18			
Material boundaries are approximate; in situ, transitions may be gradual.													

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-7		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas										
Boring Location														
Latitude 33.25993° N		Water Level Observations (feet)		Date 6-19-25										
Longitude -96.66970° W		While Drilling		Not Observed										
		At Completion		Not Observed										
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 666.0 feet										
5				FAT CLAY (CH) - dark brown				3.00			35			
							4.00	92	56-18-38	21	1.9	102		
							2.00			19				
							4.50			30				
10							4.50	92	55-19-36	18	2.5	112		
15				LIMESTONE - dark gray			50 1/4"				18			
							50 1/4"							
20				Boring Terminated at Approximately 20 Feet			50 1/4"				15			
							50 1/4"							
Material boundaries are approximate; in situ, transitions may be gradual.														

Driller: Jared
Drilling Method: Continuous Flight Augers

Log		Project No. B-8		14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas										
Boring Location				Latitude 33.26067° N		Water Level Observations (feet)		Date 6-19-25								
				Longitude -96.66835° W		While Drilling										
						At Completion		Not Observed								
						End of Day		Not Measured								
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description				Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 664.0 feet												
				FAT CLAY (CH) - dark brown						3.00	94	69-25-44	25	2.9	95	
										3.50			24			
5										4.00	90	69-23-46	24	1.8	116	
										4.50			21		107	6,800
										4.50			17			
			652.0	LIMESTONE - gray												
15										50/2" 50/3/4"			13			
										50/1 1/4" 50/1/2"			13			
20			644.0	Boring Terminated at Approximately 20 Feet												
Material boundaries are approximate; in situ, transitions may be gradual.																

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-9		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas																
Boring Location				Latitude 33.26102° N Longitude -96.66674° W				Water Level Observations (feet) While Drilling: Not Observed At Completion: Not Observed End of Day: Not Measured				Date 6-3-25								
Depth, ft.	Symbol	Sample Type	Elevation, ft.					Stratum Description Approximate Surface Elevation = 674.0 feet				Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
5				FAT CLAY (CH) - brown, tan - with calcareous nodules - tan, gray, with ferrous staining						4.00				26						
									3.00	93	60-21-39	25	0.8	136						
									2.00			22								
									4.5+	91	67-22-45	23	2.2	103						
									4.5+			24		103	6,200					
10				LIMESTONE - gray																
15																				
20																				
25																				
30				Boring Terminated at Approximately 30 Feet Material boundaries are approximate; in situ, transitions may be gradual.																

Driller: Nick- Total Depth
 Drilling Method: Continuous Flight Augers

Log B-10		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas												
Boring Location																
Latitude 33.26178° N		Water Level Observations (feet)		Date 6-18-25												
Longitude -96.66527° W		While Drilling At Completion End of Day		Not Observed Not Observed Not Measured												
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description Approximate Surface Elevation = 658.0 feet				Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits LL-PL-PI	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				FAT CLAY (CH) - dark brown - tan						1.50			28			
										1.00	95	63-19-44	26	1.8	91	
5										2.00			21			
										2.50	92	68-20-48	21	2.8	100	
										4.00			23			
10																
										4.00			22			
15																
			639.0													
			638.0	LIMESTONE - gray					50/2 ¾"				19			
20				Boring Terminated at Approximately 20 Feet												
Material boundaries are approximate; in situ, transitions may be gradual.																

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Tyler
Drilling Method: Continuous Flight Augers

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-11		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas											
Boring Location				Latitude 33.26207° N Longitude -96.66377° W				Water Level Observations (feet) While Drilling: Not Observed At Completion: Not Observed End of Day: Not Measured				Date 6-18-25			
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description	Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf		
				Approximate Surface Elevation = 622.0 feet											
5	FAT CLAY (CH) - dark brown - tan			FAT CLAY (CH) - dark brown - tan			4.00			25					
								4.5+			20				
								4.5+	91	60-19-41	14	8.5	106		
								4.5+			17				
								4.5+	97	67-24-43	18	0.3	95		
10															
			609.0	LIMESTONE - gray											
15								50/1 3/4" 50/1"			16				
20			602.0	Boring Terminated at Approximately 20 Feet											
								50/1 1/4" 50/1 1/2"			15				
Material boundaries are approximate; in situ, transitions may be gradual.															

Driller: Tyler
 Drilling Method: Continuous Flight Augers

Log B-12		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26217° N		Water Level Observations (feet)		Date 6-18-25										
Longitude -96.66212° W		While Drilling Not Observed												
		At Completion Not Observed												
		End of Day Not Measured												
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 661.0 feet										
			657.0	FAT CLAY (CH) - dark brown				4.5+			26			
5			654.0	WEATHERED LIMESTONE - tan			21-35-49 N=84	3.50	96	63-25-38	18	1.4	104	
				LIMESTONE - gray			50/1 3/4" 50/1 1/4"				17			
10							50/1 1/2" 50/1 1/2"				13			
15							50/1 3/4" 50/1 1/4"				14			
20							50/1 1/2" 50/1 1/4"				13			
25							50/1" 50/1 1/2"				13			
30							50/1 1/2" 50/1 1/4"				14			
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Tyler
Drilling Method: Continuous Flight Augers

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Plate A.15a

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-12		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas									
Boring Location				Latitude 33.26217° N Longitude -96.66212° W				Water Level Observations (feet) While Drilling Not Observed		Date 6-18-25			
								At Completion Not Observed					
End of Day Not Measured													
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description	Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 661.0 feet									
35						50/1" 50/¾"				14			
40			621.0	Boring Terminated at Approximately 40 Feet		50/1 ½" 50/1 ½"				15			
Material boundaries are approximate; in situ, transitions may be gradual.													

Driller: Tyler
 Drilling Method: Continuous Flight Augers

Log B-13		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26191° N		Water Level Observations (feet)		Date 6-20-25										
Longitude -96.66043° W		While Drilling		Not Observed										
		At Completion		Not Observed										
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 657.0 feet										
5			647.0	FAT CLAY (CH) - dark brown				3.50			24			
				- light brown				4.50	92	63-27-36	27	1.0	85	
								4.5+			23			
								4.50	92	65-25-40	25	0.9	187	
								4.50			18			
10				LIMESTONE - gray										
15														
20														
25														
30														
			627.0	Boring Terminated at Approximately 30 Feet Material boundaries are approximate; in situ, transitions may be gradual.										

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Jared
Drilling Method: Continuous Flight Augers

Plate A.16

Log B-14		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26214° N		Water Level Observations (feet)		Date 6-20-25										
Longitude -96.65872° W		While Drilling		Not Observed										
		At Completion		Not Observed										
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 656.0 feet										
				FAT CLAY (CH) - dark brown				4.50	94	59-26-33	25	2.6	96	
				- light brown				4.5+	94	66-26-40	25	2.4	100	
5			650.0				13-19-25 N=44				20			
			648.0	WEATHERED LIMESTONE - tan										
				LIMESTONE - gray										
10							50 1/4" 50 1/4"				15			
15							50 1/2" 50 1/4"				15			
20							50 1/4" 50 1/4"				28			
25							50 1/4" 50 1/4"				26			
30			626.0				50 1/2" 50 1/4"				29			
				Boring Terminated at Approximately 30 Feet Material boundaries are approximate; in situ, transitions may be gradual.										

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Jared
Drilling Method: Continuous Flight Augers

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-15		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas										
Boring Location				Water Level Observations (feet) While Drilling: Not Observed At Completion: Not Observed End of Day: Not Measured				Date 6-20-25						
Latitude 33.26213° N Longitude -96.65700° W														
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description	Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits LL-PL-PI	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf	
				Approximate Surface Elevation = 620.0 feet										
				FAT CLAY (CH) - dark brown			4.50			29				
				- brown, with calcareous nodules			4.50	93	71-26-45	28	2.7	95		
5							4.50			20				
							4.50			20				
				- light brown			4.50	95	55-19-36	21	2.8	103		
10														
							4.50			19				
							4.50			19				
20			600.0	Boring Terminated at Approximately 20 Feet										
Material boundaries are approximate; in situ, transitions may be gradual.														

Driller: Jared
 Drilling Method: Continuous Flight Augers

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-16		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas																
Boring Location																				
Latitude 33.26265° N		Water Level Observations (feet) While Drilling: Not Observed At Completion: Not Observed End of Day: Not Measured		Date 6-20-25																
Longitude -96.65541° W																				
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description				Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf				
				Approximate Surface Elevation = 602.0 feet																
	FAT CLAY (CH) - dark brown			- light brown						4.50	94	75-27-48	30	2.7	88					
	FAT CLAY (CH) - dark brown																			
	FAT CLAY (CH) - dark brown																			
5	FAT CLAY (CH) - dark brown													4.50	94	63-20-43	22	1.4	106	
	FAT CLAY (CH) - dark brown													4.50			20		107	7,400
	FAT CLAY (CH) - dark brown													4.50			21			
10	FAT CLAY (CH) - dark brown																			
	FAT CLAY (CH) - dark brown													4.50			19			
	FAT CLAY (CH) - dark brown																			
15	FAT CLAY (CH) - dark brown																			
	FAT CLAY (CH) - dark brown																			
	FAT CLAY (CH) - dark brown																			
20	FAT CLAY (CH) - dark brown		582.0	Boring Terminated at Approximately 20 Feet																
Material boundaries are approximate; in situ, transitions may be gradual.																				

Driller: Jared
 Drilling Method: Continuous Flight Augers

Log B-17		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas									
Boring Location													
Latitude 33.26295° N		Water Level Observations (feet)		Date 6-20-25									
Longitude -96.65378° W		While Drilling											
		At Completion		Not Observed									
		End of Day		Not Measured									
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description	Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits LL-PL-PI	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 586.0 feet									
				FAT CLAY (CH) - dark brown			4.00			26			
							4.00	95	70-22-48	27	2.5	91	
5							4.00			21			
							4.00	94	60-18-42	21	1.1	106	
							4.50			21			
10				- light brown, light gray, occasional sandy seams									
							4.50			23			
15													
							4.50			25			
20			566.0	Boring Terminated at Approximately 20 Feet									
Material boundaries are approximate; in situ, transitions may be gradual.													

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Jared
Drilling Method: Continuous Flight Augers

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-18		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas													
Boring Location				Latitude 33.26369° N Longitude -96.65233° W				Date 7-22-25									
Water Level Observations (feet) While Drilling ▽ 15 At Completion ▼ 16 End of Day Not Measured																	
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description Approximate Surface Elevation = 576.0 feet				Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf	
				FAT CLAY (CH) - dark brown, with calcareous nodules - tan, gray, with ferrous staining				▽ ▼		2.25			26				
										1.75	97	62-22-40	31	0.5	86		
5										2.50			28				
										2.50	97	66-20-46	27				
10										3.00			26				
15										1.50			37				
20			556.0	Boring Terminated at Approximately 20 Feet						1.25			34				
Material boundaries are approximate; in situ, transitions may be gradual.																	

Driller: Tyler
 Drilling Method: Continuous Flight Augers

Log B-19		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas									
Boring Location													
Latitude 33.26417° N		Water Level Observations (feet)		Date 7-22-25									
Longitude -96.65071° W		While Drilling		Not Observed									
		At Completion		Not Observed									
		End of Day		Not Measured									
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description	Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 574.0 feet					LL-PL-PI				
				FAT CLAY (CH) - dark brown			2.25			29			
							2.50			30			
5				- with calcareous nodules			2.25	98	72-19-53	27	0.2	91	1,600
							2.50			25			
10							2.25	85	63-22-41	25	0.0	99	
				- tan, gray, with ferrous staining									
							2.00			26			
							2.25			28			
20			554.0	Boring Terminated at Approximately 20 Feet									
Material boundaries are approximate; in situ, transitions may be gradual.													

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Tyler
Drilling Method: Continuous Flight Augers

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-20		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas												
Boring Location				7-22-25												
Latitude 33.26486° N		Water Level Observations (feet)														
Longitude -96.64916° W		End of Day														
While Drilling		At Completion		Date												
13		18		7-22-25												
Not Measured																
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description				Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 574.0 feet												
				FAT CLAY (CH) - dark brown						2.00			27			
										1.50	96	71-22-49	32			
5										1.00			34			
				- brown, gray						2.50			30			
										3.25			22			
10				- trace ferrous staining												
								▽								
										2.75	94	66-21-45	25	0.0	105	
15																
								▽								
										2.50			25			
20			554.0	Boring Terminated at Approximately 20 Feet												
Material boundaries are approximate; in situ, transitions may be gradual.																

Driller: Tyler
Drilling Method: Continuous Flight Augers

Log B-21		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas									
Boring Location													
Latitude 33.26487° N		Water Level Observations (feet) While Drilling  18 At Completion  12 End of Day Not Measured		Date 6-24-25									
Longitude -96.64738° W													
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description	Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 575.0 feet									
				FAT CLAY (CH) - dark brown, brown			2.75	92	61-18-43	22	0.5	107	
							3.25			26			
5				- tan, with ferrous staining			2.00	89	57-19-38	25	0.4	96	
				- trace gravel			4.5+			27			
				- with calcareous nodules			4.5+			20			
10													
							3.25			22			
15													
							3.00			25		103	3,400
20													
							3.00			26			
25													
							3.50			20			
30													

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
 Drilling Method: Continuous Flight Augers

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Log B-21		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26487° N		Water Level Observations (feet)		Date 6-24-25										
Longitude -96.64738° W		While Drilling  18												
		At Completion  12												
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 575.0 feet						LL-PL-PI				
			543.0	LIMESTONE - gray										
35							50 1/2" 50 1/4"				18			
40							50 1/2" 50 1/4"				23			
45							50 1/2" 50 1/4"				23			
50			525.0	Boring Terminated at Approximately 50 Feet			50 1/2" 50 1/4"				26			
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

Log B-21a		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26506° N		Water Level Observations (feet)		Date 6-27-25										
Longitude -96.64687° W		While Drilling  15												
		At Completion  15												
		End of Day Not Measured												
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 574.0 feet										
				FAT CLAY (CH) - brown				3.25			23			
								2.75			21			
5								3.00	78	50-18-32	22	1.7	98	
								2.75			21			
			566.0	LEAN CLAY (CL) - brown with sand				2.50	80	49-16-33	23	0.5	96	
10														
								1.00			25			
15														
				- grayish brown				0.50			38			
20														
														
			551.0	LIMESTONE - gray, occasional shale seams										
25								50/1 1/4"			26			
								50/3/4"						
														
														
								50/1"			25			
30								50/1 1/2"						
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Lalo
Drilling Method: Continuous Flight Augers

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Plate A.25a

Log B-21a		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26506° N		Water Level Observations (feet)		Date 6-27-25										
Longitude -96.64687° W		While Drilling  15												
		At Completion  15												
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 574.0 feet										
35							50 3/4" 50 1/2"				25			
40							50 3/4" 50 1/4"				24			
45							50 1/2" 50 1/4"				27			
50			524.0				50 1/2" 50 1/4"				24			
						Boring Terminated at Approximately 50 Feet								
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Lalo
Drilling Method: Continuous Flight Augers

Plate A.25b

Log B-22		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26519° N		Water Level Observations (feet)		Date 6-24-25										
Longitude -96.64551° W		While Drilling Not Observed												
		At Completion Not Observed												
		End of Day Not Measured												
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits LL-PL-PI	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 573.0 feet										
				FAT CLAY (CH) - dark brown, brown				3.25			25			
				- with calcareous nodules				2.00	75	51-18-33	19	0.7	112	
5								2.50			18			
				- tan, with ferrous staining				4.5+	96	64-21-43	21	1.3	100	
10								4.5+			20			
15											17		111	6,600
			556.0	LIMESTONE - gray										
20								50 1/4" 50/0"			17			
25								50 1/4" 50/0"			16			
30								50 1/4" 50/0"			16			

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

Material boundaries are approximate; in situ, transitions may be gradual.

Continued Next Page

Plate A.27a

Log B-22		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas										
Boring Location														
Latitude 33.26519° N		Water Level Observations (feet)			Date 6-24-25									
Longitude -96.64551° W		While Drilling		Not Observed										
		At Completion		Not Observed										
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 573.0 feet						LL-PL-PI				
35							50 1/2" 50 1/4"				16			
40							50 3/4" 50 1/2"				13			
45							50 1/4" 50 0"				15			
50			523.0	Boring Terminated at Approximately 50 Feet			50 1/4" 50 0"				10			
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

Log B-23		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26516° N		Water Level Observations (feet)		Date 6-24-25										
Longitude -96.64373° W		While Drilling		Not Observed										
		At Completion		Not Observed										
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 581.0 feet										
				FAT CLAY (CH) - dark brown, with calcareous nodules				3.00			17			
								3.00			30			
5				- brown				3.00	94	67-21-46	26	2.2	87	
								3.50			24			
				- trace ferrous staining				3.25	92	68-19-49	24	1.3	97	
10														
				- gray				3.25			27			
15														
				- trace fissite fragments				3.50			19			
20			561.0	Boring Terminated at Approximately 20 Feet										
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-24		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas											
Boring Location				Latitude 33.26535° N Longitude -96.64207° W				Water Level Observations (feet) While Drilling: Not Observed At Completion: Not Observed End of Day: Not Measured				Date 6-23-25			
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description	Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf		
				Approximate Surface Elevation = 595.0 feet											
				FAT CLAY (CH) - dark brown, with calcareous nodules			2.75			36					
									3.25			28		95	4,000
5				- brown, with ferrous staining					2.75	90	77-21-56	27	0.8	92	
									3.25			27			
10				- tan					3.00	88	60-20-40	24	0.8	96	
15									2.75			26			
20			575.0				2.75			26					
				Boring Terminated at Approximately 20 Feet											
Material boundaries are approximate; in situ, transitions may be gradual.															

Driller: Nick- Total Depth
 Drilling Method: Continuous Flight Augers

Log B-25		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26507° N		Water Level Observations (feet)		Date 6-23-25										
Longitude -96.64047° W		While Drilling At Completion End of Day		Not Observed Not Observed Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits LL-PL-PI	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 612.0 feet										
5			606.0	FAT CLAY (CH) - brown, tan				4.5+			19			
				- with ferrous staining				4.5+	87	51-18-33	17	1.8	111	
				LEAN CLAY (CL) - tan with calcareous nodules				4.5+			13			
								4.5+	84	45-15-30	16	1.8	110	
10								4.5+			19			
15								3.50			23			
20								2.25			23			
25								2.25			25			
30								1.50			27			
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

Continued Next Page

Log B-25		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas											
Boring Location															
Latitude 33.26507° N		Water Level Observations (feet)		Date 6-23-25											
Longitude -96.64047° W		While Drilling		Not Observed											
		At Completion		Not Observed											
		End of Day		Not Measured											
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description			Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 612.0 feet							LL-PL-PI				
35			577.0	Boring Terminated at Approximately 35 Feet					2.00			24			
Material boundaries are approximate; in situ, transitions may be gradual.															

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

Plate A.30b

Log B-26		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26513° N		Water Level Observations (feet)		Date 6-23-25										
Longitude -96.63879° W		While Drilling		Not Observed										
		At Completion		Not Observed										
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description Approximate Surface Elevation = 610.0 feet		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				FAT CLAY (CH) - dark brown, brown				3.00			24			
				- with calcareous nodules				3.00			25			
5				- tan, with ferrous staining				4.00	95	57-18-39	21	0.6	102	
								3.50			20			
10								2.75	99	53-20-33	24	1.0	105	
15								2.00			28			
20								2.25			25			
25				- gray, with ferrous staining				3.00			24			
30								4.50			22			

Material boundaries are approximate; in situ, transitions may be gradual.

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-26		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26513° N		Water Level Observations (feet)		Date 6-23-25										
Longitude -96.63879° W		While Drilling		Not Observed										
		At Completion		Not Observed										
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 610.0 feet						LL-PL-PI				
35			575.0	Boring Terminated at Approximately 35 Feet				4.50			21			
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-27		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location				Date 6-23-25										
Latitude 33.26426° N		Water Level Observations (feet)												
Longitude -96.63754° W		While Drilling At Completion End of Day												
		Not Observed Not Observed Not Measured												
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description	Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf	
				Approximate Surface Elevation = 596.0 feet										
5				FAT CLAY (CH) - dark brown, with calcareous nodules - brown, with ferrous staining			4.50	89	53-21-32	18	4.4	109		
							2.25			22				
							1.75	88	56-18-38	23	0.7	98		
							2.00			26				
							3.00			25				
10														
15					- tan, with ferrous staining			1.25			25			
20							1.00			36				
25							4.5+			26				
25.0				LIMESTONE - gray										
30							50 3/4"			21				
							50 1/2"							
Material boundaries are approximate; in situ, transitions may be gradual.														

Driller: Nick- Total Depth
 Drilling Method: Continuous Flight Augers

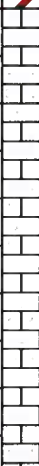
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Plate A.32a

Log B-27		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26426° N		Water Level Observations (feet)		Date 6-23-25										
Longitude -96.63754° W		While Drilling		Not Observed										
		At Completion		Not Observed										
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 596.0 feet						LL-PL-PI				
35			561.0	Boring Terminated at Approximately 35 Feet			50 1/2"				23			
Material boundaries are approximate, in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

Log B-28		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas												
Boring Location																
Latitude 33.26324° N		Water Level Observations (feet)		Date 6-20-25												
Longitude -96.63640° W		While Drilling														
		At Completion		Not Observed												
		End of Day		Not Measured												
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits LL-PL-PI	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf		
				Approximate Surface Elevation = 590.0 feet												
5			580.0	FAT CLAY (CH) - dark brown, light brown				2.00			34					
										1.00	95	57-18-39	27	0.6	90	
										4.50			21		106	3,600
										4.50	95	58-24-34	20	1.6	111	
10			570.0	LIMESTONE - gray				4.00			18					
										50 1/2"			16			
										50 1/4"						
15			570.0													
										50 1/2"			14			
										50 1/4"						
20			570.0	Boring Terminated at Approximately 20 Feet												
Material boundaries are approximate; in situ, transitions may be gradual.																

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

Log B-29		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.26232° N		Water Level Observations (feet)		Date 6-20-25										
Longitude -96.63522° W		While Drilling												
		At Completion		Not Observed										
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 587.0 feet										
				FAT CLAY (CH) - dark brown										
				- light brown, with calcareous nodules										
574.0				LIMESTONE - gray										
567.0				Boring Terminated at Approximately 20 Feet										
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-31		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas										
Boring Location														
Latitude 33.26116° N		Water Level Observations (feet)			Date 6-27-25									
Longitude -96.63223° W		While Drilling  28												
		At Completion  30												
		End of Day Not Measured												
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 598.0 feet						LL-PL-PI				
				FAT CLAY (CH) - brown, tan, with calcareous nodules				4.5+			20			
								4.00	98	66-22-44	21	2.6	99	
5				- with ferrous staining				4.25			21			
								3.00	97	60-20-40	2	1.8	101	
10								2.75			23			
				- tan, with ferrous staining										
15								4.5+			25			
														
20								2.75	95	55-19-36	24	0.5	99	
														
25				- occasional sandy seams				2.25			28			
														
30								2.00			28			
														
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

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Plate A.36a

Log B-31		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas									
Boring Location													
Latitude 33.26116° N		Water Level Observations (feet)		Date 6-27-25									
Longitude -96.63223° W		While Drilling  28											
		At Completion  30											
		End of Day Not Measured											
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description	Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits LL-PL-PI	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 598.0 feet									
35			563.0	- gray			4.5+			18			
				Boring Terminated at Approximately 35 Feet									
Material boundaries are approximate; in situ, transitions may be gradual.													

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Nick- Total Depth
Drilling Method: Continuous Flight Augers

Plate A.36b

Log B-32		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas										
Boring Location														
Latitude 33.26106° N		Water Level Observations (feet)		Date 6-27-25										
Longitude -96.63064° W		While Drilling		Not Observed										
		At Completion		Not Observed										
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 577.0 feet										
				FAT CLAY (CH) - brown, tan				4.00			17			
				- with calcareous nodules				2.75			22		103	3,800
				- with ferrous staining				3.25	93	66-18-48	23	0.7	100	
								3.50			23			
				- trace gravel				4.5+	79	67-19-48	21	0.6	101	
				- tan										
								4.5+			22			
			560.0	LIMESTONE - gray										
			557.0					50 1/4"			13			
				Boring Terminated at Approximately 20 Feet										
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

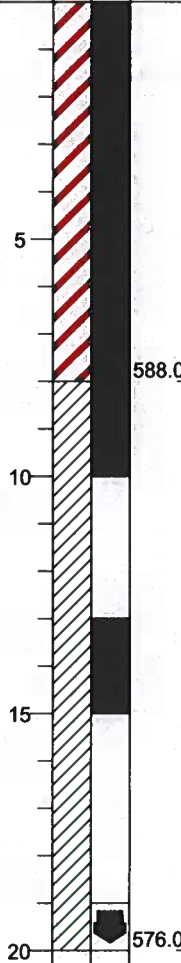
Log B-33		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas											
Boring Location				Latitude 33.26080° N Longitude -96.62900° W				Water Level Observations (feet)		Date 6-27-25					
								While Drilling						Not Observed	
								At Completion						Not Observed	
				End of Day		Not Measured									
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf	
				Approximate Surface Elevation = 601.0 feet											
5			595.0	FAT CLAY (CH) - brown - tan, with ferrous staining				4.5+			28				
								4.5+	85	61-21-40	20	2.2	103		
								4.25			17				
				LEAN CLAY (CL) - tan, with calcareous nodules				4.50	76	47-16-31	18	0.3	111		
10								4.5+			18				
								4.5+			17				
15															
20			581.0					4.5+			19				
				Boring Terminated at Approximately 20 Feet											
Material boundaries are approximate; in situ, transitions may be gradual.															

Driller: Nick- Total Depth
 Drilling Method: Continuous Flight Augers

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Log B-34		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas									
Boring Location				Latitude 33.26079° N Longitude -96.62740° W				Water Level Observations (feet) While Drilling: Not Observed At Completion: Not Observed End of Day: Not Measured		Date 6-25-25			
Depth, ft.	Symbol	Sample Type	Elevation, ft.					Stratum Description	Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits LL-PL-PI
				Approximate Surface Elevation = 606.0 feet									
5				FAT CLAY (CH) - dark brown - occasional sandy seams - brown			4.50			24			
					4.50	98	83-28-55	30	3.0	87			
					4.50			22					
					4.50	89	61-19-42	18	2.2	108			
10					4.50			18					
					4.50			13					
					4.50			14					
20			586.0	- tan Boring Terminated at Approximately 20 Feet									
Material boundaries are approximate; in situ, transitions may be gradual.													

Driller: Ray
 Drilling Method: Continuous Flight Augers

Log B-35		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Falls McKinney, Texas										
Boring Location														
Latitude 33.25994° N		Water Level Observations (feet)		Date 6-25-25										
Longitude -96.62610° W		While Drilling		Not Observed										
		At Completion		Not Observed										
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 596.0 feet										
				FAT CLAY (CH) - dark brown				4.00			20			
				- light brown				4.00			20			
5								3.25	84	55-20-35	22	1.1	100	
								1.00			25		99	2,600
				LEAN CLAY (CL) - tan to gray, occasional shale seams				0.75	85	48-20-28	25	0.0	95	
10														
								0.25			25			
15														
20														
				Boring Terminated at Approximately 20 Feet										
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Ray
Drilling Method: Continuous Flight Augers

Log B-36		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas										
Boring Location														
Latitude 33.25886° N		Water Level Observations (feet)		Date 6-25-25										
Longitude -96.62511° W		While Drilling		Not Observed										
		At Completion		Not Observed										
		End of Day		Not Measured										
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf
				Approximate Surface Elevation = 593.0 feet										
				LEAN CLAY (CL) - light brown, occasional sandy seams				3.50			18			
								2.50	80	42-15-27	18	1.6	108	
5								1.50			20			
								3.00	62	43-17-26	16	0.0	108	
								1.50			19			
				- tan, occasional shale seams				4.50			20			
				- gray										
20			573.0	Boring Terminated at Approximately 20 Feet				50 1/2"			22			
								50 1/4"						
Material boundaries are approximate; in situ, transitions may be gradual.														

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Ray
Drilling Method: Continuous Flight Augers

Plate A.41

Log B-38		Project No. 14-250116-0		Laud Howell Parkway Laud Howell Pkwy. and McKinney Fallas McKinney, Texas											
Boring Location															
Latitude 33.25639° N		Water Level Observations (feet)		Date 6-25-25											
Longitude -96.62398° W		While Drilling		Not Observed											
		At Completion		Not Observed											
		End of Day		Not Measured											
Depth, ft.	Symbol	Sample Type	Elevation, ft.	Stratum Description		Water Level Observations	SPT or TCP	Penetrometer Reading, tsf	Passing No. 200 Sieve %	Atterberg Limits	Moisture Content %	Swell %	Dry Unit Weight, pcf	Unconfined Compression, psf	
				Approximate Surface Elevation = 587.0 feet											
				LEAN CLAY (CL) - brown, occasional sandy seams				4.50			16				
5				- tan				3.50	76	43-17-26	18	1.0	100		
									3.00			21			
									0.50	78	43-17-26	24	0.0	92	
10									0.50			29		100	800
				LIMESTONE - gray, occasional shale seams			50 1/2"				19				
15							50 1/4"								
20							50 1/4"				27				
				Boring Terminated at Approximately 20 Feet											
Material boundaries are approximate; in situ, transitions may be gradual.															

This boring log should not be considered valid if separated from the remainder of the geotechnical report.

Driller: Ray
Drilling Method: Continuous Flight Augers

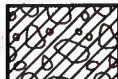
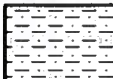
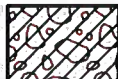
SOIL OR ROCK TYPES			
 Undocumented Fill	 Well-Graded Sand (SW)		
 Lean Clay (CL)	 Clayey Sand (SC)	DRILLING AND SAMPLING METHODS	
 Gravelly Lean Clay (CL)	 Well-Graded Gravel (GW)	 Shelby Tube	
 Fat Clay (CH)	 Marl	 Split Spoon	
 Gravelly Fat Clay (CH)	 Weathered Shale	 Texas Cone Pen	
 Clayey Gravel (GC)	 Shale	 CFA	
 Silt (ML)	 Weathered Limestone		 HSA
 Poorly-Graded Sand (SP)	 Limestone		 Rock Core
TERMS DESCRIBING CONSISTENCY, CONDITION, AND STRUCTURE OF SOIL			
Fine Grained Soils (More than 50% Passing No. 200 Sieve)			
Consistency	Penetrometer Reading, (tsf)	Unconfined Compression, (psf)	
Very Soft	< 0.5	< 1000	
Soft	0.5 to 1.0	1000 to 2000	
Firm	1.0 to 2.0	2000 to 4000	
Hard	2.0 to 4.0	4000 to 8000	
Very Hard	> 4.0	> 8000	
Coarse Grained Soils (More than 50% Retained on No. 200 Sieve)			
Penetration Resistance (Blows / Foot)	Descriptive Item	Relative Density	
0 to 4	Very Loose	0 to 20%	
4 to 10	Loose	20 to 40%	
10 to 30	Medium Dense	40 to 70%	
30 to 50	Dense	70 to 90%	
Over 50	Very Dense	90 to 100%	
Soil Structure			
Calcareous	Contains appreciable deposits of calcium carbonate; generally nodular		
Slickensided	Having inclined planes of weakness that are slick and glossy in appearance		
Laminated	Composed of thin layers of varying color or texture		
Fissured	Containing cracks, sometimes filled with fine sand or silt		
Interbedded	Composed of alternated layers of different soil types, usually in approximately equal proportions		
TERMS DESCRIBING PHYSICAL PROPERTIES OF ROCK			
Hardness and Degree of Cementation			
Very Soft or Plastic	Can be remolded in hand; corresponds in consistency up to hard in soils		
Soft	Can be scratched with fingernail		
Moderately Hard	Can be scratched easily with knife; cannot be scratched with fingernail		
Hard	Difficult to scratch with knife		
Very Hard	Cannot be scratched with knife		
Poorly Cemented or Friable	Easily crumbled		
Cemented	Bound together by chemically precipitated material; Quartz, calcite, dolomite, siderite, and iron oxide are common cementing materials.		
Degree of Weathering			
Unweathered	Rock in its natural state before being exposed to atmospheric agents		
Slightly Weathered	Noted predominantly by color change with no disintegrated zones		
Weathered	Complete color change with zones of slightly decomposed rock		
Extremely Weathered	Complete color change with consistency, texture, and general appearance approaching soil		
KEY TO CLASSIFICATION AND SYMBOLS			

PLATE A.45

Major Divisions		Grp. Sym.	Typical Names	Laboratory Classification Criteria		
Coarse - Grained Soils (more than half of the material is larger than No. 200 Sieve size)				Determine percentages of sand and gravel from grain size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows: Less than 5 percent.....GW,GP,SW,SP More than 12 percent.....GM,GC,SM,SC 5 to 12 percent.....Borderline cases requiring dual symbols	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4: $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
					Not meeting all gradation requirements for GW	
					Liquid and Plastic limits below "A" line or P.I. greater than 4	Liquid and plastic limits plotting in hatched zone between 4 and 7 are borderline cases requiring use of dual symbols
					Liquid and Plastic limits above "A" line with P.I. greater than 7	
					$C_u = \frac{D_{60}}{D_{10}}$ greater than 6: $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3	
					Not meeting all gradation requirements for SW	
					Liquid and Plastic limits below "A" line or P.I. less than 4	Liquid and plastic limits plotting between 4 and 7 are borderline cases requiring use of dual symbols
					Liquid and Plastic limits above "A" line with P.I. greater than 7	

SWELL TEST RESULTS

Laud Howell Parkway
Laud Howell Pkwy. and McKinney Fallas
McKinney, Texas
Rone Project Number: 14-250116-0

Boring	Depth (feet)	Liquid Limit	Plastic Limit	Plasticity Index	Initial MC (%)	Final MC (%)	Load (psf)	Swell (%)
B-1	1	80	25	55	32	35	125	2.1
B-1	5	66	22	44	23	26	625	1.6
B-2	3	64	22	42	23	26	375	1.3
B-2	7	78	25	53	32	35	875	2.2
B-3	1	92	39	53	37	39	125	1.5
B-3	5	66	23	43	21	25	625	1.2
B-4	3	84	27	57	29	32	375	2.4
B-4	9	92	21	70	20	25	1125	1.9
B-5	1	91	29	62	41	44	125	0.7
B-5	5	63	23	40	29	32	625	1.2
B-6	1	66	25	41	26	30	125	1.9
B-6	5	87	29	58	32	36	625	3.9
B-7	3	56	18	38	22	24	375	1.9
B-7	9	55	19	36	19	22	1125	2.5
B-8	1	69	25	44	25	29	125	2.9
B-8	5	69	23	47	23	25	625	1.8
B-9	3	60	21	39	23	24	375	0.8
B-9	7	67	22	46	22	25	875	2.2
B-10	3	63	19	44	25	30	375	1.8
B-10	7	68	20	48	23	26	875	2.8
B-11	5	60	19	41	15	24	625	8.5
B-11	9	67	24	43	18	23	1125	0.3
B-12	3	63	25	38	18	24	375	1.4
B-13	3	63	27	36	27	29	375	1.0
B-13	7	65	25	41	19	24	875	0.9
B-14	1	59	26	33	25	29	125	2.6

SWELL TEST RESULTS

Laud Howell Parkway
Laud Howell Pkwy. and McKinney Fallas
McKinney, Texas
Rone Project Number: 14-250116-0

Boring	Depth (feet)	Liquid Limit	Plastic Limit	Plasticity Index	Initial MC (%)	Final MC (%)	Load (psf)	Swell (%)
B-14	3	66	26	40	26	30	375	2.4
B-15	3	71	26	45	25	28	375	2.7
B-15	9	55	19	36	21	24	1125	2.8
B-16	1	75	27	47	30	34	125	2.7
B-16	5	63	20	43	22	23	625	1.4
B-17	3	70	22	48	28	31	375	2.5
B-17	7	60	18	41	21	23	875	1.1
B-18	3	62	22	40	31	33	375	0.5
B-18	7	66	20	46	27	28	875	0.4
B-19	5	72	19	53	28	29	625	0.2
B-19	9	63	22	41	25	26	1125	0.0
B-20	3	71	22	49	32	34	375	0.8
B-21	1	61	18	43	25	26	125	0.5
B-21	5	57	19	38	24	26	625	0.4
B-21a	5	50	18	32	22	25	625	1.7
B-21a	9	49	16	33	19	27	1125	0.5
B-21b	3	55	20	34	29	32	375	1.1
B-21b	14	53	20	33	35	35	1750	0.0
B-22	3	51	18	33	21	22	375	0.7
B-22	7	64	21	43	28	30	875	1.3
B-23	5	67	21	46	21	25	625	2.2
B-23	9	68	19	48	23	24	1125	1.3
B-24	5	77	21	56	28	29	625	0.8
B-24	9	60	20	40	25	27	1125	0.8
B-25	3	51	18	33	17	20	375	1.8
B-25	7	45	15	30	16	19	875	1.8

SWELL TEST RESULTS

Laud Howell Parkway
Laud Howell Pkwy. and McKinney Fallas
McKinney, Texas
Rone Project Number: 14-250116-0

Boring	Depth (feet)	Liquid Limit	Plastic Limit	Plasticity Index	Initial MC (%)	Final MC (%)	Load (psf)	Swell (%)
B-26	5	57	18	39	20	22	625	0.6
B-26	9	53	20	34	22	24	1125	1.0
B-27	1	53	21	32	21	23	125	4.4
B-27	5	56	18	38	23	25	625	0.7
B-28	3	57	18	39	28	29	375	0.6
B-28	7	58	24	34	21	24	875	1.6
B-29	5	68	18	50	24	26	625	1.5
B-29	9	65	17	48	26	28	1125	0.5
B-30	3	52	18	33	19	20	375	1.6
B-30	7	37	16	22	21	22	875	0.4
B-31	3	66	22	44	21	24	375	2.6
B-31	7	60	20	39	22	28	875	1.8
B-31	19	55	19	36	24	25	2375	0.5
B-32	5	66	18	47	24	25	625	0.7
B-32	9	67	19	48	22	25	1125	0.6
B-33	3	61	21	40	22	26	375	2.2
B-33	7	47	16	31	17	19	875	0.3
B-34	3	83	28	55	30	34	375	3.0
B-34	7	61	19	42	19	22	875	2.2
B-35	5	55	20	35	22	24	625	1.1
B-35	9	48	20	28	26	27	1125	0.0
B-36	3	42	15	27	18	19	375	1.6
B-36	7	43	17	25	18	20	875	0.0
B-37	1	42	22	20	14	19	125	2.2
B-38	3	43	17	27	18	19	375	1.0
B-38	7	43	17	26	25	26	875	0.0

SWELL TEST RESULTS

Laud Howell Parkway
Laud Howell Pkwy. and McKinney Falls
McKinney, Texas
Rone Project Number: 14-250116-0

Boring	Depth (feet)	Liquid Limit	Plastic Limit	Plasticity Index	Initial MC (%)	Final MC (%)	Load (psf)	Swell (%)
B-39	5	83	22	61	28	31	625	2.5
B-39	9	80	24	56	22	29	1125	6.6

SOLUBLE SULFATE TEST RESULTS

Laud Howell Parkway
Laud Howell Pkwy. and McKinney Falls
McKinney, Texas
Rone Project Number: 14-250116-0

Boring	Depth (feet)	Sulfates (ppm)
B-1	2-4	<100
B-2	0-2	<100
B-3	2-4	<100
B-4	6-8	<100
B-5	2-4	<100
B-6	2-4	<100
B-7	6-8	320
B-8	2-4	<100
B-9	4-6	407
B-13	0-2	<100
B-14	0-2	<100
B-15	4-6	<100
B-16	2-4	<100
B-17	4-6	<100
B-19	2-4	2,987
B-21	6-8	<100
B-21a	18-20	<100
B-21b	8-10	<100
B-22	8-10	680
B-23	2-4	<100
B-24	0-2	<100
B-25	4-6	<100
B-26	2-4	540
B-27	2-4	<100
B-28	0-2	<100
B-29	2-4	<100

SOLUBLE SULFATE TEST RESULTS

Laud Howell Parkway
Laud Howell Pkwy. and McKinney Falls
McKinney, Texas
Rone Project Number: 14-250116-0

Boring	Depth (feet)	Sulfates (ppm)
B-30	4-6	<100
B-31	13-15	407
B-32	2-4	<100
B-33	4-6	<100
B-34	0-2	<100
B-35	2-4	<100
B-36	0-2	<100
B-37	0-2	<100
B-38	4-6	<100
B-39	2-4	<100

WinPAS

Pavement Thickness Design According to

1993 AASHTO Guide for Design of Pavements Structures

American Concrete Pavement Association

Rigid Design Inputs

Project Name: Laud Howell Parkway

Route: Laud Howell Parkway

Location: McKinney, Texas

Owner/Agency: Honey Creek Land Company LLC

Design Engineer:

Rigid Pavement Design/Evaluation

Concrete Thickness	9.50 inches	Load Transfer Coefficient	2.90
Total Rigid ESALs	7,869,676	Modulus of Subgrade Reaction	150 psi/in.
Reliability	90.00 percent	Drainage Coefficient	1.00
Overall Standard Deviation	0.35	Initial Serviceability	4.50
Flexural Strength	620 psi	Terminal Serviceability	2.50
Modulus of Elasticity	5,000,000 psi		

Modulus of Subgrade Reaction (k-value) Determination

Resilient Modulus of the Subgrade	0.0
Unadjusted Modulus of Subgrade Reaction	0
Depth to Rigid Foundation	0.00
Loss of Support Value (0,1,2,3)	0.0

Modulus of Subgrade Reaction	150 psi/in.
------------------------------	-------------

WinPAS 12

Pavement Thickness Design According to

1993 AASHTO Guide for Design of Pavements Structures

American Concrete Pavement Association

ESAL Determination by Traffic Factor

Project Name: Laud Howell Parkway
Route: Laud Howell Parkway
Location: McKinney, Texas
Owner/Agency: Honey Creek Land Company LLC
Design Engineer:

Traffic Factor

Estimated Rigid Thickness	9.00 inches
Estimated Structural Number	0.0
Terminal Serviceability	2.5
Design Life	30 years
Annual Growth Rate	0.00 percent
Traffic Input by	Day

Traffic Input by

Total Traffic 2-way	
Design Lane Distribution	70.00 percent
Directional Distribution	50.00 percent

ESAL Determination by Traffic Input

Traffic Input As

Average Daily Traffic (ADTT)	0.00
> Average Daily Traffic (ADT)	38,000.00
% of Heavy trucks	2.00

ESAL Traffic Factors

Rigid ESAL/Truck	2.70
Flexible ESAL/Truck	0.00

Total Rigid ESAL	7,869,676
Total Flexible ESAL	0

Client: Dallas Geo**Report No.:**
Project No.: 14-250116-0
Date of Service: 6/4/2025
Report Date: 7/8/2025**Project:** Laud Howell Pkwy**Services:** Perform Lime Series

Report of Test

On this date a Certerra representative arrived on site as scheduled to collect a sample of material for a Lime Series evaluation.

Basis:Unit Weight of Soil: 100 lbs/ft³**Requirements:**

Maximum Plasticity Index (PI) of:	20
Percentages of Lime used (increments):	2%
Add additional 1 percent lime when PI meets requirement:	No
Was pH testing performed:	No
Was Sulfate testing performed:	Yes

Data:

Sample Location:

Sample Description:

Lime Added	Liquid Limit	Plastic Limit	Plasticity Index	pH
0%	77	22	55	NA
5%	65	38	27	NA
7%	62	40	22	NA
9%	61	41	20	NA
11%	60	42	18	NA
13%	59	43	16	NA

Recommendation:

9 % lime with the following options:

6 inch depth requires 41 lbs/sq. yd.

8 inch depth requires 54 lbs/sq. yd.

Sulfates (ppm): <100ppm.

Additional Comments:**Lab Manager:** Mary Sowers

LIMITATIONS: The test results presented herein were prepared based upon the specific samples provided for testing. We assume no responsibility for variation in quality (composition, appearance, performance, etc.) or any other feature of similar subject matter provided by persons or conditions over which we have no control. Our letters and reports are for the exclusive use of the clients to whom they are addressed and shall not be reproduced except in full without the written approval of Rone Engineering Services, LLC.

Geotechnical Report for Roadways Checklist

Project Name: Laud Howell Parkway

Geotechnical Engineer/Firm: Certerra

Report Date: 8/25/2025

Date Received: _____

Note: Any N/A response shall include a written explanation with adequate justification, as deemed necessary by the Director of Engineering.

COMPLETE	N/A	
☒	☐	1. SECTION 3.1 GENERAL
☒	☐	A. Include the <i>Summary of Geotechnical Recommendations Form</i>
☒	☐	B. Description of Project
☒	☐	C. Location of Project
☒	☐	D. Roadway type and classification
☒	☐	E. Grading plan and summary
☒	☐	F. Discussion of underground utilities within the Project limits
COMPLETE	N/A	2. SECTION 3.2 EXISTING SURFACE/SUBSURFACE INVESTIGATION
☒	☐	A. Discussion of existing surface/subsurface conditions that may affect subgrade and pavement design or performance (i.e. vegetation, terrain, existing structures, existing pavement, etc.)
☒	☐	B. Discussion of geological conditions that may impact subgrade and pavement design or performance. Specify formation.
☒	☐	C. Surface/subsurface conditions with logs - Sampling techniques - Description of soil and rock encountered, including lab test details - Discussion of water and groundwater conditions - Discussion of seasonal variations in moisture content - Atterberg limits (ASTM D 4318) - Percent Passing the No. 200 sieve (ASTM D 1140)
☒	☐	D. All standards used in field and laboratory testing shall be identified. Any deviations to standard procedures shall be discussed.
COMPLETE	N/A	3. SECTION 3.3 SUBSURFACE DESIGN
☒	☐	A. Expansive Soils Evaluation - Percent swell calculation and test results - Effect of cut/fills (i.e. long-term soil uplift in cut areas; settlement overburden pressure effects in fill areas) - Identify soil movement estimates at each boring location - Explanation of anomalous variations within the soil profile and between borings (i.e., Atterberg limits, PI, sulfates, clay to rock, etc.)
☒	☐	B. Soil Moisture Conditioning - Discussion of swell test results summary - Recommended depth of moisture conditioning - Address transition between zones of varying depth - Discussion of possible variations during construction and mitigation thereof - Discussion of techniques to maintain moisture in soil

Geotechnical Report for Roadways Checklist

- Discussion of methods to test soil moisture conditioning during construction (i.e. a second geotechnical investigation/re-evaluation may be required to specifically address soil moisture prior to lime operations)
- Address street trees

COMPLETE N/A
☒ ☐

4. SECTION 3.4 SUBGRADE DESIGN

A. Subgrade Stabilization

- Typical subgrade type
- Explanation of anomalous soil conditions anticipated and discussion of potential variations to consider
- Construction techniques to implement
- Effects of rock/rock fragments encountered during construction and recommendations to abate

☒ ☐

B. Soluble Sulfates

- Identify soluble sulfate test results; summarize results and discuss variations
- Discussion of techniques during construction to mitigate sulfate-induced heaving
- Sulfate retesting during construction

COMPLETE N/A
☒
☒
☒

5. SECTION 3.5 PAVEMENT DESIGN

- A. Identify roadway type(s) and classifications(s)
- B. Identify deviations from Pavement Design Input Values (Re: **Table 3-2**)
- C. Identify recommended pavement section

COMPLETE N/A
☒
☒
☒
☐
☐
☒
☐

6. APPENDIX

- A. Geological Map
- B. Boring Locations
- C. Boring Logs
- D. Grading Plan (for non-linear projects)
- E. Cut vs. fill by station number (for linear projects)
- F. Printout from WinPAS pavement design software program
- G. Proposed typical section with dimensions showing pavement thickness, subgrade type and thickness, moisture conditioning depth, and location of moisture barrier. If applicable, location of proposed trees and root barriers shall be shown.

Geotechnical Engineer Signature: _____

Date: 08.25.2025



Summary of Geotechnical Recommendations Form

Project Name: Laud Howell Parkway

Geotechnical Engineer/Firm: Certerra

Report Date: 8/25/2025

Date Received: _____

Geotechnical Engineer must fill out this form completely, and submit with the Report. A proposed typical section detail must be provided.

1. DESIGN INPUT VALUES:

Thoroughfare Classification(s): G6D

Formation: Terrace Deposits / Austin Chalk

PI Range: 20-70

Pavement Design Input Value Deviation(s): N/A

2. DESIGN RECOMMENDATIONS:

Moisture Conditioning Depth (inches): 48 *If yes, include plan layout depicting limits*

Lime Thickness (inches): 8

Lime Application Rate (calculated): 9 + 1% = 10
lab value minimum required

Lime Application Rate (design value): 10

Alternate Subgrade (Y/N): N *If yes, describe*

Sulfates over 6,000 ppm (Y/N): N *If yes, double lime application required*

Concrete Thickness (inches): 10

Miscellaneous Items and Notes:

Geotechnical Engineer Signature: Dalton Hubbard

Date: 08.25.2025

FIELD EXPLORATION

Subsurface conditions were defined by 41 borings located as shown on the **Boring Location Diagram, Plate A.3**. The borings were completed at locations identified in the field by Certerra personnel. The borings were advanced between sample intervals using continuous flight auger drilling procedures. Field and laboratory test results, sample depth, description, and soil classification based on the Unified Soil Classification System are shown on the **Logs of Boring**. Keys to the symbols and terms used on the logs are presented in **Appendix A**.

Relatively undisturbed samples of cohesive soils were obtained using nominal 3-inch diameter tube samplers at the locations shown on the Logs of Boring. The tube sampler consists of a steel tube with a sharp cutting edge connected to a head equipped with a ball valve threaded for rod connection. The tube is pushed into the soil by the hydraulic pulldown of the drilling rig. The soil specimens were extruded from the tube in the field, logged, tested for consistency with a hand penetrometer, sealed and packaged to limit loss of moisture.

The consistency of cohesive soil samples was evaluated in the field using a calibrated hand penetrometer. In this test, a ¼ inch diameter piston is pushed into a relatively undisturbed sample at a constant rate to a depth of approximately ¼ inch. The results of these tests are presented at the respective sample depths on the Logs of Boring. When the capacity of the penetrometer is exceeded, the value is tabulated as 4.5+.

Groundwater observations during and at completion of drilling are shown on the Logs of Boring. Upon completion, the boreholes were backfilled with auger cuttings to the ground surface.

LABORATORY TESTING

Laboratory tests were performed on selected samples retrieved from the borings to evaluate the engineering characteristics of the subsurface materials, and to provide data for developing engineering design parameters. The subsurface materials recovered during the field exploration were described by an engineering geologist or senior staff member in the field and/or the laboratory and were later refined based on results of the laboratory tests performed.

Classification Tests

All recovered soil samples were classified and described, in part, using the Unified Soil Classification System (USCS). Visual classification of soils was verified by index testing, including natural moisture content determinations, Atterberg limits determinations, and gradation tests (percent passing the No. 200 U.S. Standard Sieve). All testing was performed in general accordance with applicable American Society for Testing and Materials (ASTM) procedures as follows:

Test	ASTM Standard Number
Atterberg Limits	D4318
Percentage of Particles Passing the No. 200 Sieve	D1140
Moisture Content	D2216
Dry Unit Weight	D2167
Unconfined Compressive Strength – Soil	D2166
Swell Test	D4546, Method B
Soluble Sulfate Concentration	TEX-145-E

Swell Test

In the swell test, a sample is placed in a consolidometer and subjected to the estimated overburden pressure. The sample is then inundated with water and allowed to swell. Moisture contents are determined both before and after completion of the test. Test results are recorded as the percent swell, with initial and final moisture content. Detailed swell test results are tabulated in Appendix A.

Unconfined Compression Strength Test - Soil

In the unconfined compression test, a cylindrical specimen is subjected to axial load at a constant rate of strain until failure occurs. Strengths determined by this test are tabulated at their respective sample depths on the logs of boring. Results of natural moisture content and dry unit weight determinations are also tabulated at the respective sample depths on the logs.

Soluble Sulfate Concentration Tests

In this test, a small sample is dried, crushed, and ground, and then shaken or stirred into a container of distilled water and allowed to soak at least 12 hours. After soaking, the solution is stirred again, and the soil is filtered from the water. A sulfate test tablet is dissolved into a small amount of the filtered water, and the amount of light passing through the resulting solution is measured using a colorimeter to determine sulfate content.