

ENGINEERING SERVICES AGREEMENT

THIS IS AN AGREEMENT made as of _____ between the LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT (**OWNER**) and **HDR Engineering, Inc.** (**CONSULTANT**). **OWNER** intends to proceed with the **Citation Boulevard Phase III-B Engineering Design Services (KYTC - Letter Agreement #3 LPA-Master Agreement #2022-01-7)**, as described in the attached Scope of Services document. The basic services will include a topographic and cadastral surveying; preparation of preliminary & final design plans and construction drawings, bid documents, easement descriptions and right-of-way drawings. It also includes all work associated with preparing permit applications to facilitate the construction. The services are hereinafter referred to as the "Project".

OWNER and **CONSULTANT** in consideration of their mutual covenants herein agree with respect to the performance of professional engineering services by **CONSULTANT** and the payment for those services by **OWNER** as set forth below.

CONSULTANT shall provide professional consulting services for **OWNER** in all phases of the Project to which this Agreement applies, serve as **OWNER'S** professional engineering representative for the Project as set forth below and shall give professional consultation and advice to **OWNER** during the performance of services hereunder.

SECTION 1 - BASIC SERVICES OF CONSULTANT

1.1. General

CONSULTANT shall perform professional services as hereinafter stated that include customary planning and civil engineering services, and customary surveying services incidental thereto.

1.2. Final Design Phase

After written authorization to proceed with the design, **CONSULTANT** shall:

1.2.1. On the basis of the "Scope of Services" per attached Exhibit A, conduct field surveys and gather other necessary data or information, prepare final design documents consisting of final design drawings, specifications and estimate of probable cost.

1.2.2. Prepare such documents, design data and permit applications as may be required to obtain approvals of such governmental authorities as have jurisdiction over design criteria applicable to the Project, or jurisdiction over existing natural elements that will be impacted by construction and assist the **OWNER** in obtaining such approvals by negotiations with appropriate authorities.

1.2.3. Furnish copies of the design documents to **OWNER** and to any utilities that could potentially be impacted, at approximately 60 percent completion and again at 90 percent complete. After **OWNER'S** detailed review, attend conference with **OWNER** to discuss **OWNER'S** comments.

1.2.4. Advise **OWNER** of any adjustments to the latest estimate of probable Project cost caused by changes in extent or design requirements of the Project or construction costs and furnish a revised estimate of probable Project cost based on the Drawings and Specifications.

1.2.5. Prepare for review and approval by **OWNER**, required Local Public Agency (LPA) documents, contract agreement forms, general conditions and supplementary conditions, bid forms, invitations to bid, instructions to bidders, addenda and other related documents.

1.2.6. Furnish copies as indicated in the Scope of Services of the above documents and present them in person to **OWNER**. After **OWNER'S** detailed review, attend conference with **OWNER** to discuss **OWNER'S** comments.

NOTE: The duties and responsibilities of **CONSULTANT** during Right of Way and Final Design phases are amended and supplemented as indicated in Exhibit A "SCOPE OF SERVICES"

1.3. Bidding Phase

After written authorization to proceed with the Bidding Phase, **CONSULTANT** shall:

1.3.1. Finalize all documents, including addenda, in a format suitable for reproduction and distribution to bidders and deliver originals to the location directed by **OWNER**.

1.3.2 Assist **OWNER** in evaluating bids or proposals by prime contractors.

1.3.3. Consult with and advise **OWNER** as to the acceptability of subcontractors and other persons and organizations proposed by the prime contractors (hereinafter called "Contractors") for those portions of the work as to which such acceptability is required by the bidding documents.

1.3.4. Consult with and advise **OWNER** as to the acceptability of substitute materials and equipment proposed by Contractor(s) when substitution prior to the award of contracts is allowed by the bidding documents.

SECTION 2 - EXTRA WORK BY CONSULTANT

2.1. The **OWNER** may desire to have the **CONSULTANT** perform work or render services in connection with this Project other than provided by the expressed intent of this Agreement. Such work shall be considered as "Extra Work", subject to a change order, supplemental to this Agreement, setting forth the character and scope thereof and the compensation therefore. Work under such change order shall not proceed until the **OWNER** gives written authorization and the Consultant mutually agrees to provide such services. Should the **OWNER** find it desirable to have previously satisfactorily completed and accepted plans or parts thereof revised, the **CONSULTANT** shall make such revisions as directed, in writing, by the **OWNER**. This work shall be considered as "Extra Work" and shall be paid as such.

- 2.2. All "Extra Work" is subject to prior written authorization of **OWNER** and necessary appropriations made by the Urban County Council.

SECTION 3 - OWNER'S RESPONSIBILITIES

OWNER shall:

- 3.1. Provide criteria and information as to **OWNER'S** requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations.
- 3.2. Assist **CONSULTANT** by placing at his disposal available information pertinent to the Project.
- 3.3. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by **CONSULTANT**, and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of **CONSULTANT**.
- 3.4. Designate in writing a person to act as **OWNER'S** representative with respect to the services to be rendered under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define **OWNER'S** policies and decisions with respect to materials, equipment, elements and systems pertinent to **CONSULTANT'S** services.
- 3.5. Give written notice to **CONSULTANT** whenever **OWNER** observes or otherwise becomes aware of any development that affects the scope or timing of **CONSULTANT'S** services, or any defect in the work of Contractor(s).
- 3.6. Furnish, or direct **CONSULTANT** to provide, necessary Extra Work as stipulated in Section Two (2) of this Agreement or other services as required.

SECTION 4 - PERIOD OF SERVICES

- 4.1. Time is of the essence. However it is understood that Consultant must use sound professional practices.
- 4.2. The provisions of this Section Four and the various rates of compensation for **CONSULTANT'S** services provided for elsewhere in this Agreement have been agreed to in anticipation of the orderly and continuous progress of the Project through completion.

If delays result by reason of acts of the **OWNER** or approving agencies, which are beyond the control of the **CONSULTANT**, an extension of time for such delay will be considered. If delays occur, the **CONSULTANT** shall within 30 days from the date of the delay apply in writing to the **OWNER** for an extension of time for such reasonable period as may be mutually agreed upon between the parties, and if approved, the Project schedule shall be revised to reflect the extension. Such extension of time

to the completion date shall in no way be construed to operate as a waiver on the part of the **OWNER** of any of its rights in the Agreement. Section 6.5, under **DISPUTES**, of this Agreement, shall apply in the event the parties cannot mutually agree upon an extension of time.

In the event that the overall delay resulting from the above described causes is sufficient to prevent complete performance of the Agreement within six (6) months of the time specified therein, the Agreement fee or fees shall be subject to reconsideration and possible adjustment. Section 6.5 of this Agreement shall apply in the event the parties cannot mutually agree upon an adjustment of fee.

SECTION 5 - PAYMENTS TO CONSULTANT

5.1 Methods of Payment for Services of CONSULTANT

5.1.1 For Basic Services

OWNER shall pay **CONSULTANT** for Basic Services rendered a fee not exceeding \$ 248,401.00 .

5.1.2. For Extra Work

"Extra Work" shall be paid for by the **OWNER** on the basis of a fixed fee, the amount of which shall be determined by negotiation. The **OWNER** shall have the right to negotiate alternate methods of payment for "Extra Work" if the **OWNER** determines that the fixed fee basis is not feasible. In the event the **OWNER** and the **CONSULTANT** are unable to agree upon the amount of payment for "Extra Work", then the amount of such payment shall be determined as set forth in Section 6.5, "DISPUTES" of this Agreement.

5.2. Times of Payment

5.2.1. CONSULTANT shall submit monthly statements for Basic Services and Extra Work rendered. The Statements will be based upon **CONSULTANT'S** estimate of the proportion of the total services actually completed at the time of billing. **OWNER** shall respond to **CONSULTANT'S** monthly statements within thirty (30) days, either denying payment or making payment.

5.3. Other Provisions Concerning Payments

5.3.1. In the event the Agreement is terminated by the **OWNER** without fault on the part of the **CONSULTANT**, the **CONSULTANT** shall be paid for the work performed or services rendered an amount bearing the same ratio to the total Agreement fee as the amount of work completed or partially completed and delivered to the **OWNER** is to the total amount of work provided for herein, as determined by mutual agreement between the **OWNER** and the **CONSULTANT**.

5.3.2. In the event the services of the **CONSULTANT** are terminated by the **OWNER** for fault on the part of the **CONSULTANT**, the **CONSULTANT** shall be paid reasonable value of the work performed or services rendered and delivered, and the amount to be paid shall be determined by the **OWNER**.

5.3.3. In the event the **CONSULTANT** shall terminate the Agreement because of gross delays caused by the **OWNER**, the **CONSULTANT** shall be paid as set forth in Section 5.3.1 above.

SECTION 6 - GENERAL CONSIDERATIONS

6.1. Termination

6.1.1. The obligation to provide further services under this Agreement may be terminated by either party upon seven (7) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party and the failure of the party to cure within that 7 day period..

6.1.2. The **OWNER** reserves the right to terminate the Agreement at any time upon seven (7) days written notice to the **CONSULTANT**.

6.2. Ownership and Reuse of Documents

All documents, including Drawings and Specifications, prepared by the **CONSULTANT** pursuant to this Agreement shall be delivered to and become the property of the **OWNER**. The **OWNER** shall have the right to reuse same without restriction or limitation, but without liability or legal exposure to **CONSULTANT**.

6.3. Legal Responsibilities and Legal Relations

6.3.1. The **CONSULTANT** shall familiarize himself with and shall at all times comply with all federal, state and local laws, ordinances, and regulations which in any manner affect the services of this Agreement.

6.3.2. In performing the services hereunder, the **CONSULTANT** and its **CONSULTANTS**, employees, agents and representatives shall not be deemed or construed to be employees of **OWNER** in any manner whatsoever. The **CONSULTANT** shall be acting as an independent contractor. The **CONSULTANT** shall not hold itself out as, nor claim to be, an officer or employee of **OWNER** by reason hereof and shall not make any claim, demand or application to or for any right or privilege applicable to an officer or employee of **OWNER**. The **CONSULTANT** shall be solely responsible for any claims for wages or compensation by **CONSULTANT'S** employees, agents and representatives, including **CONSULTANTS**, and shall save and hold **OWNER** harmless therefrom.

6.3.3. The parties hereto agree that causes of actions between the parties shall be governed by Kentucky law, and venue shall lie in a court of competent jurisdiction in Fayette County, Kentucky.

6.4. Successors and Assigns

6.4.1. **CONSULTANT** binds itself and his partners, successors, executors, administrators, assigns and legal representatives to this Agreement in respect to all covenants, agreements and obligations of this Agreement. **CONSULTANT** shall not assign any interest, obligation or benefit in this Agreement nor transfer any interest in the same, whether by assignment or novation, without prior written consent of **OWNER**.

6.4.2. The **CONSULTANT** shall not subcontract more than fifty percent (50%) of the work, based upon dollar value, to be provided under this Agreement. The **CONSULTANT** shall obtain written approval prior to subletting or assigning any services contained in this Agreement, and consent to sublet or assign any part of this Agreement shall not be construed to relieve the **CONSULTANT** of any responsibility for compliance with the provisions of this Agreement.

6.4.3. Nothing herein shall be construed to give any rights or benefits hereunder to anyone other than **OWNER** and **CONSULTANT**.

6.5. Disputes

Except as otherwise provided in this Agreement, any dispute concerning the amount of payment due the **CONSULTANT** or any dispute concerning any question of fact of any act to be performed under this Agreement, which is not disposed of by agreement between the Urban County Engineer's Office and the **CONSULTANT**, shall be submitted to the Commissioner, Department of Planning, Preservation and Development, Lexington-Fayette Urban County Government for review. The decision of the Commissioner as to the determination of such dispute shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, capricious, arbitrary or so grossly erroneous as necessarily to imply bad faith. Pending a final decision of a dispute hereunder, the **CONSULTANT** shall proceed diligently with the performance of the Agreement in accordance with the directions of the **OWNER**.

6.6. Accuracy of CONSULTANT'S Work

The **CONSULTANT** shall be required to perform this Agreement in accordance with the degree of ordinary and reasonable skill and care usually exercised by professional engineers prevailing at the time, place and under similar conditions as the services hereunder are rendered.

The **CONSULTANT** shall be responsible for the accuracy of all work, within the limits of the paragraph above, even though Drawings and Specifications have been accepted by the **OWNER**, and upon notice to the **CONSULTANT**, shall make any necessary revisions or corrections resulting from errors and/or omissions on the part of the **CONSULTANT**, and if due to causes within the **CONSULTANT**'s reasonable

control without additional compensation. By submission of reports, soils and subsurface information, quantities estimates, calculations and Drawings and Specifications to the **OWNER**, the **CONSULTANT** has made a representation that the information is accurate within the limits of the paragraph above. Failure on the part of **CONSULTANT** to provide the expected level of accuracy, as described above, may be grounds for the **OWNER** to disqualify **CONSULTANT** from consideration for future **CONSULTANT** engineering contracts.

It is not the intent of this contract to have the **CONSULTANT** size or evaluate the capacity of the Sanitary Sewer Piping System or the Storm Sewer Piping System.

6.7. Security Clause

The **CONSULTANT** certifies that he shall not at any time release or divulge any information concerning the services covered by this Agreement to any person or any public or private organization except the **OWNER** without prior approval of the **OWNER** unless required by law, subpoena or other administrative or court order.

6.8. Access to Records

The **CONSULTANT** and any subconsultant shall maintain all books, documents, papers, and accounting records for time based and reimbursable expenses, and make such materials available at their respective offices at all reasonable times during the contract period and for three years from the date of final payment under the contract for inspection by the **OWNER**, and copies thereof shall be furnished if requested. Failure to maintain such records for three years after the date of final payment may be grounds for the **OWNER** to disqualify the **CONSULTANT** from consideration for future **CONSULTANT** engineering contracts.

6.9. Resident Services During Construction.

The **OWNER** will furnish a Resident Project Inspector.

6.10. Required Risk Management Provisions.

6.10.1 GENERAL

The **CONSULTANT** understands and agrees that the Risk Management Provisions of this contract define the responsibilities of the **CONSULTANT** to the **ENTITY**.

As used in these Risk Management Provisions, the terms "**CONSULTANT**" and "**ENTITY**" shall be defined as follows:

a. **CONSULTANT** means the **CONSULTANT** and its employees, agents, servants, owners, principals, licensees, assigns and subcontractors of any tier.

b. **ENTITY** means the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, boards, consultants, assigns, volunteers and successors in interest.

6.10.2 INDEMNITY

6.10.2.1 It is understood and agreed by the parties that **CONSULTANT** hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of **CONSULTANT** or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "**CONSULTANT**") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby. **CONSULTANT** shall indemnify, save, hold harmless and defend **ENTITY** from and against any and all liability, damages and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees, for any damage due to death or injury to any person or injury to any property (including the loss of use resulting therefrom) to the extent arising out of, pertaining to or relating to the negligence, recklessness or willful misconduct of **CONSULTANT** in the performance of this agreement.

6.10.2.2 Prior to and including the contract commencement date, owner shall have the right to examine and inspect the job sites, at any time during reasonable business hours. **ENTITY** reserves the right to have its own engineers inspect the job sites for environmental compliance, but such right shall in no event relieve **CONSULTANT** of its obligations hereunder.

6.10.3 FINANCIAL RESPONSIBILITY

The **CONSULTANT** understands and agrees that the **CONSULTANT** shall, prior to final acceptance of the **CONSULTANT'S** bid and the commencement of any work, demonstrate the ability to provide for compliance with the Indemnity Agreement and other provisions of this Contract.

6.10.4 INSURANCE REQUIREMENTS

6.10.4.1 Required Insurance Coverages

CONSULTANT shall procure and maintain for the duration of the Contract, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the **CONSULTANT**. Any/all insurance shall be written on an "occurrence form" for limits not less than those specified below or as required by law, whichever is greater (except for the Professional Liability Insurance). Below are minimum insurance requirements set to protect the **ENTITY** interest in this agreement. However, it does not limit the **CONSULTANT**'s liability and necessary additional limits of coverage are at the **CONSULTANT**'s discretion.

6.10.4.1.1 Professional Liability providing coverage of at least \$1 million per claim, \$2 million aggregate.

a. Endorsement that coverage shall not be, canceled by either party, except after thirty (30) days' prior written notice, to Lexington-Fayette Urban County Government, 200 East Main Street, Lexington, Kentucky 40507.

6.10.4.1.2 Commercial General Liability Insurance providing coverage at least as broad as Insurance Services Office Form CG-0001 (10/01) with:

a. Combination of primary and umbrella coverage limits of not less than \$2,000,000 per occurrence for bodily injury and property damage.

b. Business Interruption Coverage must be included.

c. Endorsements naming as additional insured "The Lexington-Fayette Urban County Government, its elected and appointed officials, employees, agents, boards, consultants, assigns, volunteers and successors in interest."

d. Endorsement that coverage shall not be, canceled by either party except after thirty (30) days' prior written notice, to Lexington-Fayette Urban County Government, 200 East Main Street, Lexington, Kentucky 40507

6.10.4.1.3 Comprehensive Automobile Liability Insurance providing coverage at least as broad as Insurance Service Office Form Number CA 0001 (10/01), code 1 "any auto" with:

a. Combined Single Limits not less than \$1,000,000 per occurrence.

b. Endorsement naming as additional insured "The Lexington-Fayette Urban County Government, its elected and

appointed officials, employees, agents, Boards, consultants, assigns, volunteers and successors in interest."

c. Endorsement that coverage shall not be, canceled by either party, except after thirty (30) days' prior written notice by certified mail, return receipt requested, to Lexington-Fayette Urban County Government, 200 East Main Street, Lexington, Kentucky 40507.

6.10.4.1.4 Worker's Compensation Insurance as required by the Kentucky Revised Statutes, and Employer Liability Coverage with:

a. Endorsement that coverage shall not be, canceled by either party, except after thirty (30) days' prior notice by certified mail, return receipt requested to Lexington-Fayette Urban County Government, 200 East Main Street, Lexington, Kentucky 40507.

6.10.4.2 Acceptability of Insurers

Insurance is to be placed with insurers with a rating classification of no less than Excellent (A or better) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide.

6.10.4.3. Notice of Coverage Renewals for Expiration

After insurance has been approved by **ENTITY**, evidence of renewal of an expiring policy must be submitted to **ENTITY**, at the Division of Law, 200 East Main Street Lexington, Kentucky 40507 and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

6.10.4.4. Self-Insured Programs

IF **CONSULTANT** INTENDS TO SUBMIT SELF-INSURANCE PLAN FOR BID, THIS MUST BE FORWARDED TO LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, Suite 925, 200 East Main Street, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO BID OPENING DATE. Self-insurance programs, deductibles, and self-insured retention in insurance policies are subject to separate approval by Lexington-Fayette Urban County Government, upon review of evidence of **CONSULTANT'S** financial capacity to respond to claims. Any such programs or retention must provide **ENTITY** with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance coverages. If

CONSULTANT satisfies any portion of the insurance requirements through deductibles, self-insurance programs, or self-insured retention, **CONSULTANT** agrees to provide Lexington-Fayette Urban County Government, the following data prior to the final acceptance of bid and the commencement of any work:

- a.** **CONSULTANT's** latest audited financial statement, including auditor's notes;
- b.** Any records of any self-insured trust fund plan or policy related accounting statements;
- c.** Actuarial funding reports or retained losses;
- d.** **CONSULTANT'S** Risk Management Manual or a description of **CONSULTANT'S** self-insurance and risk management program;
- e.** A claim loss run summary for the previous five (5) years.
- f.** Self Insured Associations will be considered.

6.10.4.5. Verification of Coverage

Within thirty (30) days following signing of Contract, **CONSULTANT** agrees to furnish **ENTITY** with all applicable Certificates of Insurance; and **CONSULTANT** shall provide **ENTITY** copies of all bonds and make available for review upon request any insurance policies, including all endorsements.

6.10.4.6. Right to Review, Audit and Inspect

CONSULTANT understands and agrees that **ENTITY** may review, audit and inspect any and all of **CONSULTANT'S** records and operations to insure compliance with these Insurance Requirements in addition to any other proof of insurance required to obtain a license to perform the job stated herein.

6.10.5 SAFETY AND LOSS CONTROL

6.10.5.1 **CONSULTANT** agrees to adhere to and comply with William-Steiger Act, enacted December, 1970, and all other federal, state and local safety health, sanitation and environmental laws, regulations and ordinances. The **CONSULTANT** shall provide all safeguards, safety devices and protective equipment, and take any other action necessary to protect the life, health and safety and property of all persons on the job site, the public and the owner.

6.10.5.2 The current Kentucky Occupational Safety and Health Standards of the Construction Industry 29 CFR Part 1926 adopted by 803 KAR 2:400 and the Kentucky Occupational Safety and Health Standard for General Industry 29 CFR Part 1910 as adopted by KAR 2:300, and as promulgated by the Kentucky Occupational Safety and Health Standards Board and as amended or modified, are

hereby incorporated into and made an integral part of the Contract with full compliance the responsibility solely of the **CONSULTANT**.

6.10.5.3. The **CONSULTANT** understands and agrees that the **ENTITY** shall be permitted but not obligated, to inspect the work place, operations, machinery and equipment involved in this contract and review and audit any and all **CONSULTANT'S** records and documents as deemed necessary by the **ENTITY** to assure compliance with any and all of the provisions of this Contract and maximize the protection of the **ENTITY**. Safety on the job, however, remains solely the responsibility of the **CONSULTANT**.

6.10.6 DEFINITION OF DEFAULT

CONSULTANT understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default under this Contract. **CONSULTANT** also agrees that **ENTITY** may elect as its option any single remedy or penalty or any combination of remedies and penalties, as available, including but not limited to purchasing insurance and charging **CONSULTANT** for any such insurance premiums purchased, or suspending or terminating this Contract.

CONSULTANT understands and agrees that the Risk Management provisions of this Contract define its responsibilities and those of its employees, agents, owners, principals, licensees, assigns, and subcontractors of any tier to the **ENTITY**, its elected and appointed officials, employees, agents, boards, consultants, assigns, volunteers and successors in interest.

6.10.7 RIGHT TO REVIEW, AUDIT AND INSPECT

CONSULTANT understands and agrees that upon reasonable notice **ENTITY** may review, audit, and inspect any and all of the **CONSULTANT'S** records and operations relative to the **SERVICES** performed under this Agreement to assure compliance with the Risk Management provisions of the Agreement.

SECTION 7 - EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this contract, the **CONSULTANT** agrees as follows:

- 7.1.** **CONSULTANT** agrees to comply with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Executive Order 11063, and with Executive Order 11246 as amended by Executive Order 11375 and 12086.
- 7.2** **CONSULTANT** will not discriminate against any employee or applicant for employment because of race, religion, color, national origin, sex, age, disability or other handicap. The **CONSULTANT** shall take affirmative action to insure that applicants are employed, and

that employees are treated during their employment, without regard to their race, religion, color, national origin, sex, age, disability or other handicap. **CONSULTANT** will take affirmative action to insure that all employment practices include, but are not limited to, the following: employment, hiring, upgrading, demotion, transfer, recruitment, recruitment advertising, layoff, termination, rates of pay or other forms of compensation, and selection of training, including apprenticeships. The **CONSULTANT** agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this non-discrimination clause.

7.3 A Compliance with Civil Rights Act of 1964. During the performance of this AGREEMENT, the **CONSULTANT** agrees as follows:

- A. **CONSULTANT** will comply with the regulations relative to nondiscrimination in federally assisted programs of the U.S. Department of Transportation (Title 49, Code of Federal Regulations, Part 21, hereinafter referred to as the REGULATIONS), which are herein incorporated by reference and made a part of this AGREEMENT.
- B. Nondiscrimination: The **CONSULTANT** with regard to the work performed by it after award and prior to completion of the AGREEMENT work will not discriminate on the ground of race, color, or national origin in the selection and retention of subcontractors including procurement of materials and leases of equipment. The **CONSULTANT** will not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the REGULATIONS, including employment practices when the AGREEMENT covers a program set forth in Appendix B of the REGULATIONS.
- C. Solicitations for Subcontractors, including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiations made by the **CONSULTANT** for work to be performed under a subcontract including procurement of materials or equipment, each potential subcontractor or supplier shall be notified by the **CONSULTANT** or the **CONSULTANT'S** obligations under this AGREEMENT with the REGULATIONS relative to nondiscrimination on the ground of race, color, or national origin.
- D. Information and Reports: the **CONSULTANT** will provide all information and reports required by the REGULATIONS, or orders and instructions issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the GOVERNMENT to be pertinent to ascertain compliance with such REGULATIONS orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the **CONSULTANT** will so certify to the GOVERNMENT as appropriate, and shall set forth what efforts it has made to obtain the information.

E. Sanctions for Noncompliance: In the event of the **CONSULTANT'S** noncompliance with the nondiscrimination provisions of this AGREEMENT, the GOVERNMENT will impose such contract sanctions as it may determine to be appropriate, including but not limited to:

- 1) Withholding payment to the **CONSULTANT** under the AGREEMENT until the **CONSULTANT** complies; and/or
- 2) Cancellation, termination or suspension of the AGREEMENT, in whole or in part.

7.4 It is the policy of the U.S. Department of Transportation that disadvantaged business enterprises as defined in 49 CFR Part 23 shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal funds under this AGREEMENT. Consequently the DBE requirements of 49 CFR Part 23 apply to this AGREEMENT.

7.5 The **CONSULTANT** or its subcontractors agree to ensure that disadvantaged business enterprises as defined in 49 CFR Part 23 have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds provided under this AGREEMENT. In this regard the **CONSULTANT** or subcontractors shall take all necessary and reasonable steps in accordance with 49 CFR Part 23 to ensure that disadvantaged business enterprises have the maximum opportunity to compete for and perform contracts. The **CONSULTANT** and the subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of U. S. DOT – assisted contracts.

The **CONSULTANT** will make every effort to located DBEs to purchase materials and services for use in this AGREEMENT. The **CONSULTANT** shall document the steps it has taken to obtain DBE participation, including, but not limited to the following:

- A. The names, addresses, and telephone numbers of DBEs that were contacted;
- B. A description of the information provided to DBEs regarding the type of work to be performed.

SECTION 8 - SPECIAL PROVISIONS, EXHIBITS AND SCHEDULES

8.1. This Agreement is subject to the following provisions.

Pursuant to subparagraph 3.4 of this Agreement, **OWNER** has assigned Andrew Grunwald (the "**OWNER'S** Agent"), as the authorized agent of **OWNER**, to monitor, direct and review the performance of work of the **CONSULTANT**. Documents, data, reports and all matters associated with carrying out this Agreement shall be addressed to the **OWNER'S** Agent or his designee. Questions by the **CONSULTANT** regarding interpretations of the terms, provisions and requirements under this

Agreement shall be addressed to the **OWNER'S** Agent or his designee. The **CONSULTANT** shall look only to the **OWNER'S** Agent or his designee for direction in its performance under this Agreement; no other direction shall be binding upon **OWNER**. **OWNER** shall respond to written requests by **CONSULTANT** within thirty (30) days.

8.2. The following Exhibits are attached hereto and incorporated herein, as a part of this Agreement:

- 8.2.1.** Exhibit A - "Scope of Services" (10 pages).
- 8.2.2.** Exhibit B - "LFUCG & KYTC - Engineering Services Fee" (39 Pages)
- 8.2.3.** Exhibit C - "Certificate of Insurance" (____ Pages).

8.3. This Agreement (consisting of pages 1 to 15 inclusive), together with the Exhibits and schedules identified above constitutes the entire Agreement between **OWNER** and **CONSULTANT** and supersedes all prior written or oral understandings. This Agreement and said Exhibits and schedules may only be amended, supplemented, modified or canceled by a duly executed written instrument.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement as of the day and year first above written.

OWNER:

Lexington-Fayette Urban County Government

200 East Main Street

Lexington, Kentucky 40507

The Honorable Linda Gorton – Mayor

CONSULTANT:

HDR Engineering, INC

2517 Sir Barton Way

Lexington, Kentucky 40509

Area Manager

EXHIBIT A

SCOPE OF SERVICES

Citation Boulevard Phase III-B Project
Scope of Service - Design and Surveying

**Scope of Services
Design and Surveying Services**

**Transportation Project:
Citation Boulevard Phase III-B
February 22, 2022**

The Scope of Services includes topographic and cadastral surveying; preparation of preliminary & final design plans and construction drawings, bid documents, easement descriptions and right-of-way drawings (if required). Design funding for the project is through the Lexington-Fayette Urban County Government.

Project Description

The Lexington Fayette Urban County Government (LFUCG) through its Division of Engineering (DOE), intends to hire a Consultant to complete a full design including construction plans, right of way plans, specifications, bid documents, easement descriptions and plats (if required) for the specified limits as generally shown on the attached project location map in Attachment A.

Project Backgrounds

Citation Boulevard, originally named Viley Road, was studied in the early to mid-1990's and a roadway corridor/alignment was established with the *Design Study Report VILEY ROAD Leestown to Russell Cave Road (January 1996)*. The corridor/alignment was accepted by the LFUCG, KYTC and the FHWA with an *Environmental Assessment* resulting in a *Finding of no Significant Impact (May 1998)*. As of 2017 Section I - Newtown Pike to Georgetown Road and Section II - Leestown Road to Georgetown Road have been design and constructed. Section III will be from Newtown Pike to Russell Cave Road with a connection made to Winburn Drive.

Currently being design is Section III-A. This section begins where Citation Boulevard currently ends, after crossing Newtown Pike, approximately 1,300 feet to the proposed intersection of Winburn Drive. Winburn Drive will be extended from where it ends at Winburn Middle School, approximately 2,000 feet to the proposed intersection.

This Scope of Services will be for the design Section III-B. This section begins at the intersection of Citation Boulevard and Winburn Drive and will be approximately 2,500 feet to the intersection of Russell Cave Road and Radcliffe Road.

The development of this project has been a cooperative effort of the Federal Highway Association, the Kentucky Transportation Cabinet and the Lexington-Fayette Urban County Government. Funding has come from all three agencies as well as through private development. The LFUCG will be utilizing Coronavirus Response and Relief Supplemental Appropriation Appropriations Act, 2021 (CRRSSA) funding for the Design of Citation Boulevard Phase III-B.

Scope of Services

1. Pre-Design Conference and Review of Existing Information

- 1.1. Meet with DOE staff to discuss the project requirements and proposed Scope of Work. The meeting shall include a project site visit.
- 1.2. Review all project related information as provided by DOE. Obtain available LFUCG GIS data for the area, mapping including parcel lines, aerial photography, and existing infrastructure. The most recent aerial photography for the project area licensed by LFUCG will be made available to the Consultant.

2. Field Survey and Related Research

- 2.1. The Consultant shall perform sufficient field survey to be confident in his design. Sufficient field survey should be done to confirm, at a minimum:
 - a) Topography;
 - b) Existing sidewalks, edge of roadway, entrances, turn lane configurations, etc.
 - c) Storm and sanitary sewers, and related structures (horizontal and vertical);
 - d) Location of overhead and underground utilities, including poles or towers ownership information;
 - e) Significant site improvements, such as fences, retaining walls, flag poles, yard lights, etc.;
 - f) Location and identification of significant trees and vegetation;
 - g) Cross sections taken at 50-foot intervals, at driveways, steps, retaining walls and as otherwise needed;
 - h) Location of existing corner monuments and R/W markers;
 - i) Temporary benchmarks for use during construction, set outside of construction limits (minimum of 8);
 - j) Location of all existing easements in the project area; and
 - k) Staking associated with easement acquisition and establishing street centerline prior to bidding for construction.

The elevations of utilities, sewers, and other critical items shall be verified during the field survey. Such verification shall be carefully coordinated with the appropriate parties (e.g., utility companies, LFUCG). If digging operations, permission, etc. are necessary in certain instances it shall be the responsibility of the Consultant to see to it that they are performed properly and to get appropriate approvals. All surveyed data will conform to the LFUCG's Policy for Digital Submission using State Plane coordinates and NAD-83 KY N 1601 and NAVD 1988.

- 2.2. Research all deeds, plats and other property records to identify property lines, right-of-ways and easements.
- 2.3. Perform boundary surveys and set corner pins (or offsets) as necessary to define the physical limits of properties for which fee simple purchase for right-of-way must be acquired.

3. Preliminary Design

- 3.1. Develop a set of Preliminary Plans to fully convey the intent of the construction. The plans may include, but are not limited to the following items:
 - a) Plan and profile depicting existing and proposed conditions (all features identified in the survey shall be shown on the plans);
 - b) Existing and proposed topography;
 - c) Typical roadway/sidewalk sections depicting existing and proposed conditions;
 - d) Alignments and grades for approach roads and turn lanes as needed;
 - e) Proposed limits of disturbance;
 - f) Location of property lines with all owners/lessees and street addresses shown;
 - g) Existing and proposed right-of-way lines and easements;
 - h) Sanitary and storm sewer plan and profile as needed if project will impact these features;
 - i) Stream sections, situation survey and necessary channel changes; culvert sizing and inlet/outlet design;
 - j) Quantities Table (to be consistent with the bid schedule);
 - k) A Traffic Management Plan, consistent with KYTC guidelines;
 - l) A plan for street lighting, signage and striping; and
 - m) A plan for erosion control.

Preliminary Plans shall be so identified. The Consultant shall deliver two paper copies to the DOE and one paper copy to each utility company.

- 3.2. Design services shall include coordination with the Kentucky Division of Water Floodplain Management Section and FEMA, as needed, to comply with all applicable regulations and to document that no portion of the project is within a FEMA floodway. Design services may include but not be limited to obtaining a Stream Construction Permit and 401 Water Quality Certification.
- 3.3. Prepare a Preliminary Design Technical Memorandum documenting the following:
 - a) Preliminary Plans;
 - b) Identification of all known utility conflicts and proposed solutions;
 - c) List of impacted properties and property owners;

- d) List of required easements and road right-of-way taking and apparent encroachments (Determination of land rights shall be limited to recorded easements and right-of-way; prescriptive easements will not be considered.);
 - e) List of required permits and respective agencies from which the permit(s) will be secured;
 - f) List of agencies that will require notifications and/or approvals; and
 - g) Preliminary Opinion of Construction Costs.
- 3.4. A public meeting to solicit input shall be held, by consultant, at a location capable of providing public review and interaction. The consultant shall organize the event, prepare any/all exhibits, take notes and record comments, provide answers to the comment and provide documentation in the form of meeting report.
- 3.5. Meet with the DOE to review the Preliminary Design Technical Memorandum. Consultant shall be responsible for meeting agendas, handouts, and meeting summaries.

4. Final Plans, Specifications, and Bid Documents

- 4.1. Upon completion of the Preliminary Plans, the Consultant shall incorporate all significant comments into a revised (Final) plan set and submit three paper copies to the LFUCG DOE.
- 4.2. Final Plans shall build upon the completed and approved information in the Preliminary Plans. In addition to the components of the Preliminary Plans, Final Plans shall also include but not be limited to:
- a) Cross sections at 50-foot stationing, all driveways, all step locations, and all retaining walls. Cross sections shall generally extend 30 feet from proposed curb face or to the front of the house, whichever is closer; however, longer coverage may be needed in some locations;
 - b) If needed: Right-of-Way strip maps and summary sheets;
 - c) Coordinate Control Plan; and
 - d) Site-specific Detail Sheets as needed.

5. Design Criteria

5.1. Drawing Scales, Units, and Unit Conversion

All quantities measured, calculated, and specified shall be in English units (e.g., feet, pounds).

All drawings and sheets shall conform to the follow scales:

- a. Plan Sheets 1" = 20'

- | | |
|--------------------------|---|
| b. Profile sheets | 1" = 20' horizontal
1" = 2' vertical |
| c. Cross sections sheets | 1" = 5' horizontal
1" = 5' vertical |

Note: Combined Plan/Profile sheets are preferred.

5.2. All designs and plans must be approved by the LFUCG DOE. The following shall apply:

- a. Drawing files shall be prepared using or shall be converted to AutoCAD and will be transmitted to the Urban County Government upon request. The formatting specifics shall be determined during the contract negotiation process.
- b. Unless otherwise stated, design shall incorporate LFUCG Standard Drawings (latest edition), and KYTC 2012 Standard Drawings in that order of preference.
- c. Intersection improvements are to be ADA compliant. Design shall comply with the AASHTO green book, the Manual of Uniform Traffic Control Devices and, to the extent practicable, the AASHTO Roadside Design Guide.
- d. The preparation of an Erosion and Sediment Control (ESC) Plan including a Storm Water Pollution Prevention Plan (SWPPP) integrating the non-structural and structural practices and procedures of the Stormwater Manual is a requirement for all construction projects and is the responsibility of the Contractor. However, Consultant shall prepare a generalized plan. The ESC Plan as developed through preliminary and final plans, as well as the SWPPP will be reviewed and approved by LFUCG DOE.
- e. Where applicable, consultant shall prepare a Traffic Management Plan consistent with KYTC guidelines.

6. Detailed Cost Opinions

The Consultant shall prepare a detailed opinion of probable construction cost at completion of the preliminary and final design stages of the project. Line items for construction costs shall be consistent with the Quantities Table in the drawing set and the Bid Schedule in the Form of Proposal. The construction cost opinion shall also be accompanied by separate cost opinions for utility relocation, and total right-of-way/easement acquisition, if necessary.

7. Easement and Right-of-Way Acquisition

Every effort shall be made to avoid the need to acquire private property. However, should it be inevitable, plats shall be prepared as required for acquisition of right-of-way, and they shall meet all requirements of the Lexington-Fayette Urban County Government Subdivision Regulations, Department of Law; the LFUCG DOE Digital Submission Policy; and the *KYTC Highway Design Manual*.

Permanent and temporary easements shall be drawn to sufficient scale to be clear and distinguishable, and such drawings shall meet the requirements of the Lexington-Fayette Urban County Government DOE.

The Consultant shall set corner pins (or offsets) as necessary to define the physical limits of all properties which must be acquired in fee simple. Consultant shall provide a legal description for each right-of-way and easement taking.

LFUCG will conduct negotiations with property owners for acquisitions of easements and right-of-way.

8. Environmental Assessment

An Environment Assessment concluding with a Findings of no Significant Impact was completed on this project. However, the Consultant shall prepare supporting documentation, such as maps, plans, etc., as needed. Any environmental subconsultant, if required, will not be the responsibility of the Consultant.

9. Public Interface

The Consultant shall attend meetings with elected officials, affected residents, owners and businesses. If requested to do so, the Consultant will lead the meetings. The Consultant shall provide all necessary exhibits and prepare minutes of all meetings they attend.

10. Utility Company Coordination

There are numerous utilities within the limits of these projects. The Consultant will meet and coordinate with all affected utility companies as necessary, with the goal of minimizing disturbance to utilities and underground lines. Consultant shall obtain utility location data for purposes of mapping, and shall determine which parcel easements/acquisitions if any should be expedited to facilitate timely relocation of utilities.

11. Bid Phase

The Consultant shall provide all bid documents to a private plan room/printing service (to be identified) for distribution to potential bidders. The Consultant shall be responsible for

keeping a permanent record of all individuals or companies that purchase bid documents through the private printer.

The Consultant's scope shall include assisting with Bid Administration. At minimum, this includes responding to technical questions during the bid period, preparing addenda, reviewing and approving alternates, attending pre-bid meeting, attending bid opening, preparing and certifying a tabulation of bid prices, evaluating bids received, and submitting a recommendation of award.

12. Construction Phase

The Lexington-Fayette Urban County Government will provide construction inspection. However, the Consultant shall be available to advise in matters of intent during construction. The Consultant shall also review and approve shop drawings.

13. Schedule and Completion

The Consultant shall meet deadlines as provided in the following schedule. Calendar days are counted from the date that a written Notice to Proceed is received by the Consultant. Exact times of meetings shall be arranged by the Consultant; locations of meetings shall be at either the site of proposed improvements or at the DOE office, as deemed appropriate.

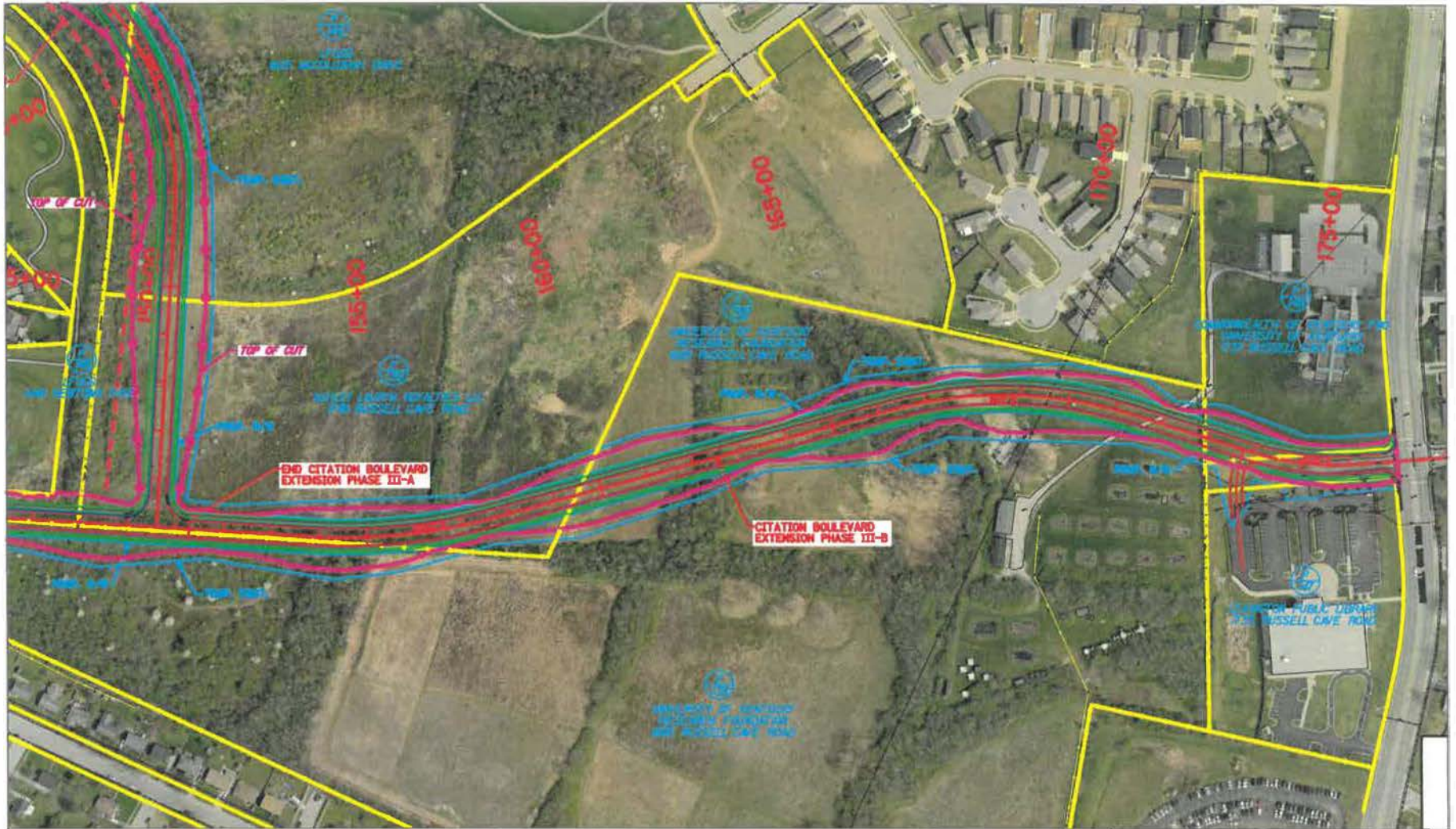
Meeting to review design intent	20 days
Submit preliminary plans; provide to utilities	120 days
Meeting to review preliminary plans/contact utilities	145 days
Submit revised preliminary plans	160 days
Submission of final plans	245 days
Meeting to review final plans	250 days
Submission of completed final plans	300 days
Preparation of ROW/easement plats and descriptions	305 days

14. Miscellaneous

All preliminary plans and accompanying documents are subject to review by the Lexington-Fayette Urban County Government Division of Engineering, Division of Water Quality and Division of Traffic Engineering. Documents may also be subject to review by the Kentucky Department of Highways and the Federal Highway Administration. The Consultant shall be responsible for addressing comments from and requirements of these agencies into all documents.

The Consultant shall also be responsible for preparing paperwork and documents as required for Local Public Agency (LPA) Project funding.

Consultant shall attend periodic progress meetings with the Division of Engineering and/or Kentucky Department of Highways and must submit a written monthly status report detailing work in the past month, and anticipated work in the upcoming month. This report must be submitted in written format as well as in an electronic format acceptable by the DOE.



ATTACHMENT — A

LEXINGTON — FAYETTE URBAN COUNTY GOVERNMENT



LEXINGTON

DIVISION OF ENGINEERING

CITATION BOULEVARD
PHASE III-B
Winburn Dr. to Russell Cave Rd

EXHIBIT B

LFUCG & KYTC - Engineering Service Fee Proposal

November 2022



Andy Beshear
GOVERNOR

TRANSPORTATION CABINET

200 Mero Street
Frankfort, Kentucky 406 01

Jim Gray
SECRETARY

November 18, 2022

LETTER AGREEMENT NO. 3

Kelly Meyer
HDR Engineering, Inc.
2517 Sir Barton Way
Lexington, KY 40509

Subject: Statewide Local Public Agency (LPA) Services
Fayette County - Citation Boulevard
Item No. 07-0447.00

Dear Kelly Meyer:

WHEREAS, on November 8, 2021, the Transportation Cabinet, DEPARTMENT of Highways (hereinafter referred to as the "Department") and HDR Engineering, Inc. (hereinafter referred to as the "Consultant"), entered into a Master Agreement whereby the Consultant would provide various Statewide Local Public Agency (LPA) Services at the request of the Department. The work to be performed by the Consultant shall be administered by the LFUCG (hereinafter referred to as the "LPA") with oversight by the Department.

WHEREAS, under the terms of Master Agreement No. 2022-01-7, PON2 625 2200001027 the Department now desires that the Consultant perform the following items of work on the above subject Project.

STATEMENT OF WORK


This Project provides for final design services on Citation Boulevard in Fayette County, Kentucky.

NOW, THEREFORE, in consideration of the aforesaid premises, the Department and the Consultant agree as follows:

1. Comply with the terms, conditions and provisions as set out in the above referenced Master Agreement (No. 2022-01-7).

2. The Department's Project Manager issued the Consultant with Notice to Proceed on this Letter Agreement No. 3 on September 19, 2022.
3. Consultant's proposal and scope of work are made a part of this Letter Agreement No. 3.
4. The Department will not directly reimburse the Consultant for any work as a result of this Letter Agreement. The LPA will reimburse the Consultant through a separate arrangement between the LPA and the Consultant. The Department will reimburse the LPA in accordance with a separate contract between the Department and the LPA.
5. It is expected that the Consultant will complete all work by September 22, 2023.
6. Funding: 12CV C35 D625 FD52 1550 C034 E143
Federal #: 000STP3003364
State Program #: 1493801D
County/Route: Fayette/Citation Boulevard
7. The maximum amount payable under this Letter Agreement No. 3 is \$248,401.00. Letter Agreement No. 3 increases the total amount for Master Agreement (No. 2022-01-7) to \$533,059.00.

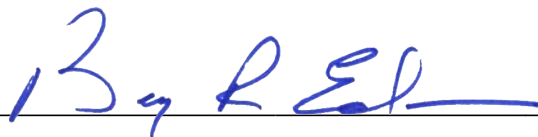
Sincerely,


James Ballinger, PE
State Highway Engineer

ACCEPTED:

HDR Engineering, Inc.

By: _____



Date: _____ November 22, 2022

**Please sign and return this Letter Agreement to the Division of Professional Services.
Funding will not be encumbered for reimbursement without return of a signed Letter Agreement.**

HDR Engineering, Inc.
District 7, Fayette Co.



LFUCG & KYTC Engineering Services Fee Proposal

**Citation Boulevard Phase III-B
Fayette County**

Statewide LPA General Services - LA-2

Agreement No. 2022-01-7

PON2652200001027

November 11, 2022

Prepared by:
HDR Engineering, Inc.
2517 Sir Barton Way
Lexington, Kentucky 40509



November 11, 2022

Mr. Eric Pelfrey, P.E., Director
Division of Professional Services
Kentucky Transportation Cabinet
200 Mero Street, Third Floor
Frankfort, KY 40622

RE: Citation Boulevard Phase III-B
Fayette County, Kentucky
Statewide LPA General Services – LA-2
Agreement No. 2022-01-7
PON26252200001027

Dear Mr. Pelfrey:

Please find enclosed our scope and fee proposal for providing engineering and related services for the subject project.

HDR will be utilizing Geotechnology, Inc. as a sub-consultant to perform geotechnical drilling services. HDR will be performing oversight of the drilling operations, lab testing, and engineering analysis with reports.

The project Contract Scoping Meeting was held with Andrew Grunwald with LFUCG on March 15, 2022. Services to be provided generally include field survey, utility coordination, roadway engineering design, meetings, and geotechnical service for the next section of Citation Boulevard from Winburn Drive to Russell Cave Road.

Sincerely,

Ben R. Edelen, PE
Senior Vice President/Area Manager

CC: Adrian Wells



TO: Mr. Eric Pelfrey, P.E., Director
Division of Professional Services
Department of Highways
200 Mero Street – Third Floor
Frankfort, KY 40622

FROM: Ben Edelen, PE, PLS
Project Manager

DATE: November 11, 2022

SUBJECT: HDR Engineering, Inc.
Fayette County
Citation Boulevard Phase III-B
Statewide LPA General Services – LA-2
Agreement No. 2022-01-7
PON26252200001027
Negotiation Minutes

Dear Mr. Pelfrey,

The following people have been involved in the negotiation process for this project:

Andrew Grunwald	LFUCG
Ben Edelen	HDR
Jim Guinn	HDR

Negotiations were held by e-mail and phone conversations. General comments from the meetings included:

- 3/15/2022 – HDR and LFUCG met to review scope for Phase III-B.
- 6/22/2022 – HDR submitted Phase III-B fee proposal to Andrew Grunwald.
- 7/11/2022 – Negotiated amounts were submitted by LFUCG.
- 7/14/2022 – Negotiated amounts were approved by consultant.
- 9/30/2022 – Fee Proposal submitted to KYTC.

HDR's production man-hours, and LFUCG production man-hours are summarized below:

Production Hour Summary:	HDR Team	LFUCG	Negotiated
Survey	435	335	335
Utility Coordination	24	24	24
Right of Way Plans	230	230	230
Final Plans	603	603	603
Meetings	76	76	76
Public Involvement	10	10	10
QA/QC	12	12	12
Totals	1390	1290	1290

Proposed Project Schedule:

Milestone	Date	Milestone Billing
Notice to Proceed	9/19/2022	
Joint Inspection Held	4/21/2023	80%
Submit Check Prints to Plan Processing	7/28/2023	95%
Submit Final Plans	9/22/2023	100%

Please let myself or Jim Guinn know if you have any questions or need additional information.

Sincerely,

Acknowledged:

Ben R. Edelen, PE
 Vice President/Area Manager
 HDR Engineering, Inc.

 LFUCG



KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF PROFESSIONAL SERVICES
ENGINEERING AND RELATED SERVICES FEE PROPOSAL

TC 40-2
 Rev. 12/2017
 Page 1 of 1

SECTION 1: PROJECT INFORMATION

DATE:	Nov 16, 2022	COUNTY:	Fayette	ITEM #:	7-447
PROJECT:	Citation Boulevard Phase III-B				
DESC:					

SECTION 2: BUDGET INFORMATION

FEE CONSIDERATIONS	PROPOSED MAN HOURS	NEGOTIATE MAN HOURS	AVERAGE RATE	ESTIMATED COST
Survey	435	335	\$ 42.96	\$ 14,391.60
Preliminary Line and Grade	0	0	\$ 63.94	\$ -
Utility Coordination	24	24	\$ 63.94	\$ 1,534.56
Environmental	0	0	\$ 53.90	\$ -
Right-of-Way Plans	230	230	\$ 63.94	\$ 14,706.20
Final Plans	603	603	\$ 63.94	\$ 38,555.82
Meetings	76	76	\$ 78.35	\$ 5,954.60
Public Involvement	10	10	\$ 79.17	\$ 791.70
QA/QC	12	12	\$ 79.17	\$ 950.04
				\$ -
TOTAL PRODUCTION HOURS & PAYROLL	1390	1290	\$ 59.60	\$ 76,884.52

OVERHEAD (154.88 %)	\$ 119,078.74
PROFIT (15.00 %)	\$ 29,394.49
COST OF MONEY (0.13 %)	\$ 100.26


DIRECT COSTS	AMOUNT
Mileage	\$ 1,881.00
Meals	\$ 400.00
Survey Crew Travel Time	\$ -
Printing	\$ 500.00
Miscellaneous	\$ -
TOTAL DIRECT COSTS	\$ 2,781.00

SUBCONSULTANTS	AMOUNT
Geotechnology, Inc. (Drilling & Lab)	\$ 7,449.00
HDR Geotechnical (Engineering)	\$ 12,712.60
TOTAL SUBCONSULTANTS	\$ 20,161.60

TOTAL FEE	\$ 248,401
------------------	-------------------

*Rounded to the nearest dollar

SECTION 3: SIGNATURE

FIRM NAME HDR Engineering, Inc.		SIGNED BY Ben Edelen, PE	
	Area Manager	11/16/2022	
CONSULTANT SIGNATURE	TITLE	DATE	
PROFESSIONAL SERVICES SIGNATURE	TITLE	DATE	

**TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
CLASSIFICATIONS AND DETERMINATION OF AVERAGE RATES**

COUNTY
PROJECT
UPN
ITEM NO.

Fayette
Citation Boulevard Phase III-B
0
7-447

DATE 11/11/2022

Position	7/2/2022 Rate	Escalated Rate 3.372%	% Classification	Cost
Survey				
Principal Project Manager	\$ 89.91	\$ 92.94	10%	\$ 9.29
Land Surveyor	\$ 49.11	\$ 50.77	45%	\$ 22.84
Survey Technician	\$ 23.26	\$ 24.04	45%	\$ 10.82
Average Rate			100%	\$ 42.96
Preliminary Line and Grade				
Area Manager	\$ 110.91	\$ 114.65	5%	\$ 5.73
Principal Project Manager	\$ 89.91	\$ 92.94	10%	\$ 9.29
Project Manager Sr.	\$ 76.93	\$ 79.52	20%	\$ 15.90
Project Manager/Sr. Proj Eng.	\$ 58.82	\$ 60.80	25%	\$ 15.20
Project Engineer	\$ 45.11	\$ 46.63	25%	\$ 11.66
Designer Sr.	\$ 42.44	\$ 43.87	10%	\$ 4.39
Designer	\$ 34.04	\$ 35.19	5%	\$ 1.76
Average Rate			100%	\$ 63.94
Utility Coordination				
Area Manager	\$ 110.91	\$ 114.65	5%	\$ 5.73
Principal Project Manager	\$ 89.91	\$ 92.94	10%	\$ 9.29
Project Manager Sr.	\$ 76.93	\$ 79.52	20%	\$ 15.90
Project Manager/Sr. Proj Eng.	\$ 58.82	\$ 60.80	25%	\$ 15.20
Project Engineer	\$ 45.11	\$ 46.63	25%	\$ 11.66
Designer Sr.	\$ 42.44	\$ 43.87	10%	\$ 4.39
Designer	\$ 34.04	\$ 35.19	5%	\$ 1.76
Average Rate			100%	\$ 63.94
Environmental				
Area Manager	\$ 110.91	\$ 114.65	5%	\$ 5.73
Principal Project Manager	\$ 89.91	\$ 92.94	10%	\$ 9.29
Environmental Project Manager Sr.	\$ 64.79	\$ 66.97	5%	\$ 3.35
Environmental Project Manager	\$ 52.89	\$ 54.67	25%	\$ 13.67
Environmental Planner	\$ 46.67	\$ 48.24	25%	\$ 12.06
Environmental Scientist	\$ 23.50	\$ 24.29	15%	\$ 3.64
Designer Sr.	\$ 42.44	\$ 43.87	10%	\$ 4.39
Designer	\$ 34.04	\$ 35.19	5%	\$ 1.76
Average Rate			100%	\$ 53.90
Right Of Way Plans				
Area Manager	\$ 110.91	\$ 114.65	5%	\$ 5.73
Principal Project Manager	\$ 89.91	\$ 92.94	10%	\$ 9.29
Project Manager Sr.	\$ 76.93	\$ 79.52	20%	\$ 15.90
Project Manager/Sr. Proj Eng.	\$ 58.82	\$ 60.80	25%	\$ 15.20
Project Engineer	\$ 45.11	\$ 46.63	25%	\$ 11.66
Designer Sr.	\$ 42.44	\$ 43.87	10%	\$ 4.39
Designer	\$ 34.04	\$ 35.19	5%	\$ 1.76
Average Rate			100%	\$ 63.94
Final Plans				
Area Manager	\$ 110.91	\$ 114.65	5%	\$ 5.73
Principal Project Manager	\$ 89.91	\$ 92.94	10%	\$ 9.29
Project Manager Sr.	\$ 76.93	\$ 79.52	20%	\$ 15.90
Project Manager/Sr. Proj Eng.	\$ 58.82	\$ 60.80	25%	\$ 15.20
Project Engineer	\$ 45.11	\$ 46.63	25%	\$ 11.66
Designer Sr.	\$ 42.44	\$ 43.87	10%	\$ 4.39
Designer	\$ 34.04	\$ 35.19	5%	\$ 1.76
Average Rate			100%	\$ 63.94
Meetings				
Area Manager	\$ 110.91	\$ 114.65	5%	\$ 5.73
Principal Project Manager	\$ 89.91	\$ 92.94	20%	\$ 18.59
Project Manager Sr.	\$ 76.93	\$ 79.52	45%	\$ 35.79
Project Manager/Sr. Proj Eng.	\$ 58.82	\$ 60.80	30%	\$ 18.24
Average Rate			100%	\$ 78.35
Public Involvement				
Area Manager	\$ 110.91	\$ 114.65	10%	\$ 11.47
Principal Project Manager	\$ 89.91	\$ 92.94	20%	\$ 18.59
Project Manager Sr.	\$ 76.93	\$ 79.52	35%	\$ 27.83
Project Manager/Sr. Proj Eng.	\$ 58.82	\$ 60.80	35%	\$ 21.28
Average Rate			100%	\$ 79.17
QA/QC				
Area Manager	\$ 110.91	\$ 114.65	10%	\$ 11.47
Principal Project Manager	\$ 89.91	\$ 92.94	20%	\$ 18.59
Project Manager Sr.	\$ 76.93	\$ 79.52	35%	\$ 27.83
Project Manager/Sr. Proj Eng.	\$ 58.82	\$ 60.80	35%	\$ 21.28
Average Rate			100%	\$ 79.17
Structures Design				
Area Manager	\$ 110.91	\$ 114.65	5%	\$ 5.73
Principal Project Manager	\$ 89.91	\$ 92.94	10%	\$ 9.29
Project Manager Sr.	\$ 76.93	\$ 79.52	20%	\$ 15.90
Project Manager/Sr. Bridge Eng.	\$ 68.91	\$ 71.23	20%	\$ 14.25
Bridge Engineer	\$ 38.95	\$ 40.26	10%	\$ 4.03
Bridge EIT	\$ 31.57	\$ 32.63	10%	\$ 3.26
Designer Sr.	\$ 42.44	\$ 43.87	20%	\$ 8.77
CAD Technician Sr.	\$ 47.05	\$ 48.64	5%	\$ 2.43
Average Rate			100%	\$ 63.67

Escalated rate increase based on midpoint of project. Maximum allowed salary increase is 4.68%.

- Notice to Proceed 9/19/2022
- Midpoint of Project 3/22/2023
- Final Plans 9/22/2023

- Audited Rates as of: 7/2/2022
- Midpoint of Project 3/22/2023
- Days (7/2/2022 to Midpoint) = 263

263 Days ÷ 365 =	0.721 Years
0.721 Years x 4.68% per year	3.372% = Escalation Rate

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	<u>Fayette</u>	PROJECT TYPE	<u>New Roadway</u>
ROUTE	<u>Citation Boulevard Phase III-B</u>	CONSULTANT	<u>HDR Engineering, Inc.</u>
DESC	<u>Final Design</u>	REVIEWED BY	
ITEM NO.	<u>7-447</u>	PREPARED BY	<u>Edelen, Guinn</u>
		DATE	<u>11/11/2022</u>

SURVEY

No.	ITEM	CREW	UNIT	AMOUNT	HRS/UNIT	HOURS
RECONNAISSANCE						
1	Control - (existing)	1	Mile	0.5	4	2
2	Utilities - (data gathering, identification & contact)	1	No.	4	2	8
3	Drainage - (sink holes, streams, pipes, etc.)	1	Mile	0.5	2	1
CONTROL						
4	Horizontal	2	Mile	0.5	8	8
5	Vertical	2	Mile	0.5	5	5
6	Process data	1	Mile	0.5	2	1
PLANIMETRIC SURVEY						
7	Planimetric location <i>(specify complete, pickup or update)</i>	2	Mile	0.5	16	16
8	Subsurface Utility Engineering, Quality Levels C & D	1	Mile	0.5	8	4
9	Subsurface Utility Engineering, Quality Level B	1	LS			0
10	Subsurface Utility Engineering, Quality Level A	1	LS			0
11	Process data	1	Mile	0.5	2	1
TERRAIN SURVEY						
12	DTM data collection <i>(Items 11-18 not required if used)</i>	2	Acre	15	5	150
13	Verify terrain model accuracy	2	Mile			0
14	Tie-ins	2	No.			0
15	Drainage situations survey (Bridge)	2	No.			0
16	Drainage situations survey (Culvert)	2	No.			0
17	Drainage pipe section (non-situation size)	2	No.			0
18	Flood plain data	2	No.			0
19	Railroad Surveys	2	No.			0
20	Additional necessary DTM data <i>(specify pickup or update)</i>	2	Acre	25	0.5	25
21	Process data	1	Mile	0.5	4	2
ESTABLISH PROPERTY LINES & OWNERSHIP						
22	Contact & Interview Property Owners	1	Parcel	4	0.5	2
23	Field tie property lines/corners	2	Parcel	4	2	16
STAKING						
24	Stake centerlines, approaches, detours	2	Mile			0
25	Stake core holes - structures <i>(unit is per structure)</i>	2	No.			0
26	Stake core holes - roadway <i>(unit is per core hole)</i>	2	No.	7	1	14
SURVEY MISCELLANEOUS						
27	Determine roadway elevations (Crown and EP)	2	Mile			0
28	Stake Easement Acquisitions Prior t Bidding	2	Parcel	4	2	16
29	Set Property Corner Pins for R/W Acquisition	2	Parcel	4	8	64
SURVEY TOTAL						335

PRODUCTION-HOUR WORKSHEET (revised 7/14)			
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PRELIMINARY LINE AND GRADE

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
30	Computer setup	LS			0
31	Prepare existing manuscripts	Mile			0
32	Establish approximate property lines and ownership	Parcel			0
33	Study and develop typical sections	No.			0
34	Study and develop horizontal alignments	Mile			0
35	Study and develop vertical alignments	Mile			0
36	Create and evaluate proposed roadway models	Mile			0
37	Design entrances	No.			0
38	Pre-size pipes (all alternates)	No.			0
39	Pre-size culverts (all alternates)	No.			0
40	Pre-size bridges (all alternates)	No.			0
41a	Conduct Traffic Engineering Analysis (Basic; Highway Capacity Manual	Intersection			0
41b	Conduct Traffic Engineering Analysis (Advanced; Micro-simulation)	Intersection			0
42	Study and development of interchange	No.			0
43	Study and development of intersection	No.			0
44	Study and develop maintenance of traffic plan	LS			0
45	Plot/print copies of plans for team meeting and inspections	LS			0
46	Calculate preliminary quantities and develop cost estimates	Alt.			0
47	Revise plans and estimates	LS			0
48	Preliminary Right of Way with taking areas	Parcel			0
49	Prepare Design Executive Summary	LS			0
50	Develop/document "Avoidance Alternatives to Water Related Impacts"	LS			0

PRELIMINARY LINE & GRADE MISCELLANEOUS

51					0
52					0
53					0
54					0
55					0

PRELIMINARY LINE AND GRADE TOTAL **0**

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PRODUCTION-HOUR WORKSHEET (revised 7/14)			
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UTILITY COORDINATION

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
56	Utility Coordination Meeting	2	No.	2	4	16
57	Develop Utility Relocation Layout Sheets (1"=200')		Mile			0
58	Develop Utility Relocation Plans (1"=50')		Mile			0
UTILITY COORDINATION MISCELLANEOUS						
59	Correspondence with Utilities for Location of Existing Facilities		LS	1	8	8
UTILITY COORDINATION TOTAL						24

RIGHT OF WAY PLANS

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS	
60	Deed research	Parcel	4	1	4	
61	Establish property and ownership	Parcel	4	2	8	
62	Calculate Right of Way	Parcel	4	2	8	
63	Prepare legal descriptions	Parcel	4	2	8	
64	Complete Right of Way summary sheet	Parcel	4	0.5	2	
65	Generate Right of Way strip map (<i>scale 1" = xxx'</i>)	Sheet	1	8	8	
66	Prepare Right of Way Plans Submittal	LS	1	8	8	
67	Right of Way revisions after Right of Way submittal	LS	1	40	40	
R/W PLANS MISCELLANEOUS						
68	Deed Research for Existing Alignments	LS			0	
69	Prepare Legal Descriptions for Right of Way transfer (Plats)	Parcel	4	32	128	
70	Existing Easement Lines	LS	1	16	16	
71						
72						
RIGHT OF WAY PLANS TOTAL						230

PRODUCTION-HOUR WORKSHEET (revised 7/14)

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FINAL PLAN PREPARATION

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
80	Computer setup	LS	1	4	4
81	Update existing topography and terrain model	Mile	0.5	8	4
82	Refine alignments (horizontal & vertical)	Mile	0.5	12	6
83	Develop pavement design	No.	1	2	2
84	Finalize templates & transitions	No.	2	4	8
85	Develop final roadway model	Mile	0.5	120	60
86	Develop proposed design	Mile	0.5	120	60
87	Generate plan sheets <i>(scale 1" = xxx')</i>	Sheet	5	8	40
88	Generate profile sheets <i>(scale 1" = xxx')</i>	Sheet	5	8	40
89	Detail cross sections <i>(scale 1" = xxx')</i>	No.	54	0.5	27
90	Design entrances	No.	3	2	6
91	Revise roadway plans from soils report	Mile	0.5	4	2
DRAINAGE					
92	Develop pipe sections (< 54")	No.	18	4	72
93	Develop drainage system map	Mile	0.5	16	8
94	Develop drainage situation (bridge)	No.			0
95	Develop drainage situation (culvert)	No.			0
96	Develop blue line stream channel change (=> 200')	No.			0
97	Drainage analysis (entrance pipes)	No.			0
98	Drainage analysis (A <= 200 acres)	No.	2	4	8
99	Drainage analysis (200 acres < A < 1.0 sq. mile)	No.			0
100	Drainage analysis (A => 1.0 sq. mile) level 1 analysis	No.			0
101	Drainage analysis (A => 1.0 sq. mile) level 2 analysis	No.			0
102	Drainage analysis (A => 1.0 sq. mile) level 3 analysis	No.			0
103	Special drainage studies	No.			0
104	Roadway ditches and channels	Mile	0.5	8	4
105	Develop Erosion Control Plan	Mile	0.5	24	12
106	Inlet spacing calculations	No.	16	0.5	8
107	Storm sewers calculations	No.	16	2	32
108	Perform scour analysis	No.			0
109	Assemble preliminary and final drainage folders	LS	1	40	40
110	Prepare advanced situation folder - bridge	No.			0
111	Prepare advanced situation folder - culvert	No.			0
DRAINAGE MISCELLANEOUS					
112		LS			0
113					0
114					0
115					0

PRODUCTION-HOUR WORKSHEET (revised 7/14)

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FINAL PLAN PREPARATION (Continued)

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
116	Prepare layout sheet	LS	1	8	8
117	Prepare typical sections	No.	2	4	8
118	Prepare Interchange geometric approval	No.			0
119	Prepare intersection geometric approval	No.			0
120	Prepare coordinate control sheet	Mile	0.5	16	8
121	Prepare elevation developments	No.	1	16	16
122	Prepare striping plan	No.	1	16	16
123	Calculate final quantities	Mile	0.5	40	20
124	Complete general summary	LS	1	8	8
125	Complete paving summary	LS	1	8	8
126	Complete drainage summary	LS	1	8	8
127	Complete pavement under-drain summary	LS			0
128	Prepare cost estimate	LS	1	8	8
129	Plot/print copies of plans	LS	1	8	8
130	Plan revisions	Mile	0.5	16	8
131	Prepare final construction plans submittal	LS	1	8	8
MAINTENANCE OF TRAFFIC					
132	Write maintenance of traffic notes (TCP)	LS	1	16	16
133	Prepare construction phasing plans	Mile	0.5	24	12
134	Develop diversion plan sheets	Sheet			0
135	Develop diversion profile sheets	Sheet			0
136	Develop diversion cross sections	No.			0
137	Develop temporary drainage	No.			0
FINAL PLANS MISCELLANEOUS					
138	Document available rock quantities	LS			0
139					0
140					0
141					0
142					0
143					0

FINAL PLANS TOTAL 603

PRODUCTION-HOUR WORKSHEET (revised 7/14)

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		DATE	<u>11/11/2022</u>

MEETINGS

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
150	Prelim. line and grade inspection	2	No.			0
151	Drainage inspection	2	No.	1	4	8
152	Final inspection	3	No.	1	8	24
153	Misc. project coordination meetings	2	No.	3	2	12
154	Project team meetings	2	No.	2	2	8
154a	Local Officials Meeting	2	No.	1	4	8
154b	Attend Pre-Bid Meeting	2	No.	1	4	8
154c	Attend Bid Opening	2	No.	1	4	8
MEETINGS MISCELLANEOUS						
155	Value Engineering Study		LS			0
156	Constructability Review		LS			0
MEETINGS TOTAL						76

PUBLIC INVOLVEMENT

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
160	Develop and Maintain Mailing List		LS			0
161	Prepare for Advisory Committee/Officials Meeting		No.			0
162	Attend Advisory Committee/Officials Meeting	2	No.			0
163	Prepare for Public Meetings/Hearings		No.			0
164	Attend Public Meetings/Hearings	2	No.			0
165	Prepare and Distribute Newsletter		No.			0
166	Property owner coordination		No.	20	0.5	10
PUBLIC INVOLVEMENT MISCELLANEOUS						
167						0
168						0
169						0
PUBLIC INVOLVEMENT TOTAL						10

QA/QC

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
180	Plan review	No.	3	4	12
181	Structure review				0
QA/QC TOTAL					12

PRODUCTION-HOUR WORKSHEET (revised 7/14)

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PRODUCTION-HOUR SUMMARY

SURVEY TOTAL		335
LINE AND GRADE TOTAL		0
UTILITY COORDINATION TOTAL		24
RIGHT OF WAY PLANS TOTAL		230
FINAL PLANS TOTAL		603
MEETINGS TOTAL		76
PUBLIC INVOLVEMENT TOTAL		10
QA/QC TOTAL		12
GRAND TOTAL		1290

**TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIRECT COSTS**

COUNTY Fayette
PROJECT Citation Boulevard Phase III-B
UPN 0
ITEM NO. 7-447

DATE 11/11/2022

SURVEY CREW									
Mileage									
Area	Total Manhours ÷ 8 hours	÷ No. of Crew Members	= No. of Days	No. of Round Trips/Day	= Total No. of Trips	Miles/Trip	Rate/Mile	Mileage Cost	
Survey Crew	42	2	20	1	20	160	0.57	\$ 1,824	
	42	0	0	0	0	0	0.44	\$ -	
Total Mileage								\$ 1,824	
Meals									
Area	Total Manhours ÷ 8 hours	÷ No. of Crew Members	= No. of Days	x No. of Crew Members	= Total Days	Meal	Rate/day	Meals Cost	
Survey Crew	42	0	0	0	0	Breakfast	\$ 8.00	\$ -	
	42	2	20	2	40	Lunch	\$ 10.00	\$ 400	
	42	0	0	0	0	Dinner	\$ 18.00	\$ -	
	42	0	0	0	0		\$ -	\$ -	
	42	0	0	0	0		\$ -	\$ -	
	42	0	0	0	0		\$ -	\$ -	
Total Meals								\$ 400	
*Meals: \$8.00-breakfast; \$10.00-lunch; \$18.00-dinner									
Travel Time									
Area	No. of Trips	Hours/Trip	No. of Crew Members	x Avg Hourly Survey Rate	\$42.96	x 1.3	Travel Time		
Survey Crew	1	0	0	\$ -	\$ -	Total Travel Time		\$ -	
Lodging									
Area	# of Nights	x \$96/Night	x No. of Rooms	Lodging Cost					
Survey Crew	0	\$ 96.00	0	Total Lodging \$ -					
OTHER PERSONNEL									
Mileage									
Area	# Miles	Rate/Mile	Mileage Cost						
Meetings	100	\$ 0.57	\$ 57						
	0	0.44	\$ -						
Total Mileage			\$ 57						
Meals									
Area	x No. of Persons	Meal	Rate/day	Meals Cost					
	0		\$ -	\$ -					
	0		\$ -	\$ -					
	0		\$ -	\$ -					
	0		\$ -	\$ -					
	0		\$ -	\$ -					
Total Meals				\$ -					
*Meals: \$8.00-breakfast; \$10.00-lunch; \$18.00-dinner									
Lodging									
Area	# of Nights	x \$96/Night	x No. of Rooms	Lodging Cost					
	0	\$ 96.00	0	Total Lodging \$ -					
PRINTING									
Item	No. of Sheets	Cost (each)	Printing Cost						
Miscellaneous Reports / Documents - 8-1/2" x 11"	100	\$0.10	\$ 10						
Sheets for Preliminary Line and Grade Inspection - full size - B/W	0	\$15.00	\$ -						
Final Check Prints / Production Prints - full size - B/W	0	\$1.00	\$ -						
Half Scale Plans for Joint Inspection	600	\$0.25	\$ 150						
Final Mylars - full size	0	\$5.00	\$ -						
Color Prints for Public Meetings / Displays - full size	4	\$85.00	\$ 340						
Total Printing			\$ 500						
MISCELLANEOUS									
Item	No.	Cost (each)	Misc. Cost						
	0	\$0.00	\$ -						
	0	\$0.00	\$ -						
Total Misc.			\$ -						

October 28, 2022

**LFUCG
Citation Blvd Extension
Lexington, Kentucky**

**Proposed Scope of Work for Cost Estimate
Drilling and Lab Testing Program**

GENERAL

The purpose of the drilling and lab testing program is to obtain geotechnical information to support the design of the proposed Citation Boulevard Extension Phase III-B. See attached Site and Boring Plan.

The geotechnical subconsultant shall be prepared for hazards associated with these properties. Proper personal protective equipment and training shall be required. Please see the drilling schedule below. The total depths of borings may change depending on the subsurface stratigraphy and depth to rock encountered in the field.

DRILLING AND SAMPLING REQUIREMENTS

As shown in the attached site location map, most of the site should have good access but clearing and grubbing will be required to achieve access to the culvert boring locations. The as-drilled boring locations shall be staked by HDR and locations spotted in the field using a handheld GPS device.

The geotechnical subconsultant will obtain the necessary permit(s) before the arrival of the drill crew and equipment on-site. The geotechnical subconsultant will contact the appropriate utility companies and municipalities in order to locate the utilities at the site prior to drilling borings.

The field investigation is anticipated to consist of completing the following tasks:

- Disturbed Soil Borings
 - The disturbed soil boring is required to collect burlap bag samples to perform laboratory testing to support the pavement design analysis.
 - A representative bag sample consisting of 30 pounds of soil material shall be obtained from each disturbed boring.
- Cut Slope Stability
 - Cut slope stability is performed in order to determine a proper slope configuration.
 - Rock cores shall be obtained by drilling through the overburden to the top of bedrock and coring to the specified elevation.
 - The overburden depth is expected to meet or exceed 10 feet; thus, a soil boring is planned at the proposed crest of the cut slope.
 - Thin-wall tube samples and/or SPTs, as applicable, will be obtained in each 5-foot interval starting at 2 to 3 feet below the groundline to the top of bedded material or to 20

- feet below the proposed ditchline, whichever comes first. Five feet of rock coring is proposed in the proposed cut slope stability boring.
- An observation well shall be installed in the core hole.
 - An immediate water table reading shall be performed prior to rock coring and another no sooner than 7 days after the completion of the boring. Water table readings shall be recorded on the surface log.
 - Fill Slope Stability
 - Fill slope stability is performed in order to determine a proper slope configuration.
 - Thin-walled tube samples and/or SPTs, as applicable, will be obtained in each 5-foot interval starting at 2 to 3 feet below the groundline to the top of bedded material or to 20 feet below the proposed ditchline, whichever occurs first.
 - If the overburden depth in the soil boring exceeds 5 feet, an observation well shall be installed.
 - An immediate water table reading shall be performed and another no sooner than 7 days after the completion of the boring. Water table readings shall be recorded on the subsurface log.

The Drilling Schedule presented below in Table 1 was developed as guide for cost estimating purpose.

Table 1: Proposed Drilling Schedule

Description	Boring Number	Soil Depth per boring (feet)	Total No. of Bulk Samples	Total No. of SPT Samples	Total No. of Shelby Tube Samples	Total Soil Sampling Depth (feet)	Total Rock Sounding Depth (feet)	Rock Depth per boring (feet)
Soil Profile Borings	B-1	5	1	--	--	5	--	--
Rock Soundings	B-2, B-5	10	--	--	--	--	20	--
Embankment Stability Borings	B-4	10	--	2	1	10	--	--
Cut Slope Stability Borings	B-3	10	--	2	1	10	--	5
Totals	5	--	1	4	2	25	20	5

NOTES

General

- Each boring is to be logged by an experienced geologist or geotechnical engineer.
- A Boring Location Plan is attached.
- Laboratory work is to be overseen by an experienced geotechnical engineer.
- The subcontract driller will furnish *typed* boring logs for each test hole. The logs shall include, but not be limited to, the information listed above and applicable laboratory test results (i.e. Atterberg limits, in-situ moisture content, dry density, pocket penetrometer readings, unconfined compression strength, triaxial compression, etc.).

The logs shall include, but not be limited to, the following information:

- Name and location of project;
- Date and time of start and completion of boring;
- Identifying boring number;
- Name of Drill Foreman and Logger;
- Top of boring elevation;
- Depth of ground water during and after drilling (stabilized) and at 24-hrs after drilling;
- Soil classification including geologic origin (e.g. fill, alluvium, etc.) and USCS classification (ASTM D 2487);
- Type, size, and description of casing, drilling method, sampler, and drill rig;
- Any unusual conditions encountered during drilling;
- Pocket Penetrometer readings (prior to extrusion in the lab) in tube samples; and
- SPT blow counts in split spoon samples.
- Sample recovery.

KENTUCKY TRANSPORTATION CABINET
Division of Structural Design
Geotechnical Branch

UNIT COST ITEMS FOR GEOTECHNICAL SERVICES (HDR)

COUNTY	Fayette		ITEM #	0	MARS #	0	
REGION #	2	RANK	0	Agreement #	0	ESTIMATE #	0
				UNIT PRICE	TOTAL		
F1	Rock Coring	\$	44.49	per foot	x	=	\$
F2	Rock Core Floating Equipment	\$	66.74	per foot	x	=	\$
F3	Rock Sounding	\$	14.04	per foot	x	=	\$
F4	Rock Sounding Floating Equipment	\$	21.05	per foot	x	=	\$
F5	Standard Penetration Test	\$	112.28	per sample	x	=	\$
F6	SPT on Floating Equipment	\$	168.42	per sample	x	=	\$
F7	Thin-Walled Tube Sample	\$	157.35	per sample	x	=	\$
F8	Thin Walled tubes on Floating Equipment	\$	236.03	per sample	x	=	\$
F9	Field Vane Shear Test	\$	280.70	per test	x	=	\$
F10	Field Vane Shear Test on Floating Equipment	\$	421.05	per test	x	=	\$
F11	Cased Observation Well	\$	165.79	per well	x	=	\$
F12	Downhole Seismic Prep - grout and pipe	\$	11.11	per foot	x	=	\$
F13	Pavement Cores	\$	115.68	per foot	x	=	\$
F14	Grouting Intervals, 6 Inch Auger	\$	9.23	per foot	x	=	\$
F15	Grouting Intervals, 4 Inch Auger	\$	9.23	per foot	x	=	\$
F16	Standby Time for Downhole Tests	\$	9.23	per hour	x	=	\$
F17	Moisture Content Sample	\$	80.20	per sample	x	=	\$
F18	Bag Sample	\$	70.18	per sample	x	=	\$
F19	Visual Inspection and Logging Rock Exposure	\$	13.80	per foot	x	=	\$
F20	Logging Cores (125 ft per 8 hrs)	\$	9.41	per foot	x	5	= \$ 47.05
F21	GINT Production of Logs	\$	300.00	lump sum	x	=	\$
F22	Undisturbed Tube Extraction	\$	36.54	per tube	x	=	\$

UNIT COST ITEMS FOR GEOTECHNICAL SERVICES (HDR)

COUNTY <u>Fayette</u>		ITEM #	<u>0</u>				
F23	Moisture Content Test	\$ 22.94	per test	x		=	\$
F24	Soil Classification	\$ 367.04	per test	x		=	\$
F25	Wash Gradation	\$ 91.76	per test	x		=	\$
F26	Moisture Density, CBR, and Soil Classification	\$ 871.72	per test	x		=	\$
F27	Moisture Density	\$ NA	per test	x		=	\$
F28	Slake Durability Index and Jar Slake Test	\$ 114.70	per test	x		=	\$
F29	Unconfined Compression Test on Rock	\$ 183.52	per test	x		=	\$
F30	Unconfined Compression Test on Soil	\$ 91.76	per test	x		=	\$
F31	UU Triaxial Test	\$ 183.52	per test	x		=	\$
F32	One Dimensional Consolidation	\$ 825.84	per test	x		=	\$
F33	CU Triaxial Test with Pore Pressure Measurements	\$ 550.56	per test	x		=	\$
F34	CU Triaxial Test (Large Scale) with Pore Pressure Measurements	\$ NA	per test	x		=	\$
F35	Resilient Modulus Test	\$ NA	per test	x		=	\$
F36	Remolding Sample for Permeability or Triaxial Testing	\$ NA	per sample	x		=	\$
F37	Direct Shear Test	\$ NA	per test	x		=	\$
F38	Direct Shear Test (Large Scale)	\$ NA	per test	x		=	\$
F39	Constant Head Permeability Test on Granular Soil	\$ NA	per test	x		=	\$
F40	Falling Head Permeability Test on Cohesive Soil	\$ NA	per test	x		=	\$
F41	Falling Head Permeability Test on Rock	\$ NA	per test	x		=	\$
F42	Slope Stability Analysis	\$ 620.98	per analysis	x	2	=	\$ 1,241.96
F43	Settlement Analysis	\$ 862.13	per analysis	x		=	\$
F44	Deep Foundation Analysis	\$ 862.13	per analysis	x		=	\$

UNIT COST ITEMS FOR GEOTECHNICAL SERVICES (HDR)

COUNTY	<u>Fayette</u>	ITEM #	<u>0</u>						
F45	Wave Equation Driveability Analysis	\$ 862.13	per analysis	x		=	\$		
F46	Negative Skin Friction Analysis	\$ 494.37	per analysis	x		=	\$		
F47	Bearing Capacity Analysis	\$ 620.98	per analysis	x		=	\$		
F48	Retaining Wall Analysis	\$ 988.74	per analysis	x		=	\$		
F49	Dozer Working Time	\$ NA	per hour	x		=	\$		
F50	Trackhoe Working Time	\$ NA	per hour	x		=	\$		
F51	Water Hauling	\$ NA	per hour	x		=	\$		
F52	Mobilization/Demobilization of Drill Eq.	\$ NA	per mile/crew	x		=	\$		
			Mobilization Administration Fee x No. of Crews			=	\$		
F53	Mobilization/Demobilization of Company Owned Water Truck	\$ NA	per mile	x		=	\$		
			Mobilization Administration Fee			=	\$		
F54	Mobilization/Demobilization of Subcontracted Dozer or Track Hoe	\$ NA	per hour (estimated)	x		=	\$		
F55	Mobilization/Demobilization of Company Owned Dozer or Track Hoe	\$ NA	per mile	x		=	\$		
			Mobilization Administration Fee			=	\$		
F56	Mobilization/Demobilization of Company Owned Floating Eq.	\$ NA	per trip	x		=	\$		
F57	Weekly Mobilization	\$ NA	per week	x		=	\$		
F58	Towboat and /or Barge & crew (Subcontracted)	\$ NA	per day	x		=	\$		
			Administration Fee			=	\$		
F59	Towboat and /or Barge & crew (In-House)	\$ NA	per day	x		=	\$		
			Administration Fee			=	\$		
F60	Reclamation : Activity	\$ NA	per hour	x		=	\$		
F61	Reclamation : Material Cost	\$ NA	per invoice	x		=	\$		
F62	Traffic Control (In-House)	\$ NA	per hour	x		=	\$		
						=	\$		
F63	Subcontracted Traffic Control	\$ NA	per invoice	x		=	\$		
						=	\$		
F64	Guardrail Removal	\$ NA	per location	x		=	\$		
F65	Rental Equipment	\$ NA	per invoice	x		=	\$		
F66	Delivery of Cores to Geotechnical Br.	\$ 1,019.08	per trip	x	1	=	\$ 1,019.08		

UNIT COST ITEMS FOR GEOTECHNICAL SERVICES (HDR)

COUNTY	Fayette	ITEM #	0					
F67	Core Boxes	\$ NA	per box	x		=	\$	
F68	Property Contacts	\$ 1,139.49	lump sum	x	1	=	\$ 1,139.49	
F69	Utility Coordination	\$ NA	lump sum	x		=	\$	
F70	Preliminary Plans	\$ 2,110.08	lump sum	x	1	=	\$ 2,110.08	
F71	Local Meetings	\$ NA	per meeting	x		=	\$	
F72	Conference Calls	\$ 430.11	per call	x		=	\$	
F73	Interim Meeting (District Office/KYTC HQ)	\$ 0.00	per meeting	x		=	\$	
F74	Drafting	\$ 1,125.02	per sheet	x	1	=	\$ 1,125.02	
F75	Report Writing	\$ 4,453.59	lump sum	x	1	=	\$ 4,453.59	
F76	Publication of Reports	\$ 275.45	per report	x	1	=	\$ 275.45	
	Total of 1 reports							
F77	Site Reviews Travel	\$ 36.00	per day\	x	8			
	Includes 1 Site Review Project Eng.		per person	x	1	=	\$ 288.00	
F78	Site Reviews Mileage	\$ 35.20	per trip	x		=	\$	
F79	Site Review Project Manager	\$ 1,832.64	per day	x		=	\$	
	On-site 1 days including travel							
F80	Site Review Project Engineer	\$ 1,012.88	per day	x	1	=	\$ 1,012.88	
	On-site 1 days including travel							
F81	Site Review Geologist	\$ NA	per day	x		=	\$	
F82	GINT Testing	\$ 300.00	lump sum	x		=	\$	
F83	Lateral Capacity Estimate for Single Foundation Element	\$ NA	per test	x		=	\$	
F84	Lateral Capacity Estimate for Foundation Element Group	\$ NA	per test	x		=	\$	
F85	Group Uplift Capacity Estimate	\$ NA	per test	x		=	\$	

TOTAL THIS ESTIMATE = \$ 12,712.60

ACCUMULATED TOTAL ESTIMATES THROUGH = \$

FIRM NAME HDR Engineering, Inc.

SIGNED

DATE 11/16/2022

CLASSIFICATIONS AND PERCENTAGES

COUNTY	Fayette
CONSULTANT	HDR
Mars No.	
DRILL REGION	2
DESIGN CLASSIFICATION (Enter Urban or Rural)	urban
Rank	
Agreement No.	
Estimate No.	

PROJECT	Citation Blvd Phase III	ESTIMATED WORK BEGIN DATE	9/19/2022
ITEM NO.		ESTIMATED WORK END DATE	9/22/2023
		MIDDLE OF WORK DATE	3/22/2023
		FYE DATE OF AUDITED RATES	7/2/2022
		DIFFERENNCE IN YEARS	0.72
		ESSCALATION PER YEAR	4.68%
		ALLOWABLE ESCALATION	3.37%
		OVERHEAD RATE	155.01% OH+ FCCM
		PROFIT for Drilling & Eng.	15%
		PROFIT for Lab	15%

POSITION	AVG. RATE	ESC RATE	LOADED RATE	ITEM Project Manager	ITEM Project Engineer	ITEM Driller	ITEM Helper	ITEM Geologist	ITEM Lab Tech	ITEM Drafting Technician	ITEM Adminstrative Assistant
Principal PM	\$89.91	\$92.94	\$272.56	\$27.26 10.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%
Sen Geo Eng	\$73.97	\$76.46	\$224.24	\$201.82 90.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%
Geotech Eng	\$43.89	\$45.37	\$133.05	\$0.00 0.0%	\$106.44 80.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%
Geotech EIT	\$33.27	\$34.39	\$100.86	\$0.00 0.0%	\$20.17 20.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%
Geologist	\$31.30	\$32.36	\$94.89	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$18.98 20.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%
Senior CADD Tech	\$47.05	\$48.64	\$142.63	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$142.63 100.0%	\$0.00 0.0%
Laboratory Tech	\$20.73	\$21.43	\$62.84	\$0.00 0.0%	\$0.00 0.0%	\$0.00 100.0%	\$0.00 100.0%	\$0.00 0.0%	\$18.85 30.0%	\$0.00 0.0%	\$0.00 0.0%
Lab Supervisor	\$34.36	\$35.52	\$104.16	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$72.91 70.0%	\$0.00 0.0%	\$0.00 0.0%
Admin Assist.	\$24.55	\$25.38	\$74.42	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$74.42 100.0%
Geologist Sr.	\$52.80	\$54.58	\$160.06	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$128.05 80.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%
		\$0.00	\$0.00	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%
		\$0.00	\$0.00	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%	\$0.00 0.0%
							0				
							0				
TOTAL				\$229.08 100.0%	\$126.61 100.0%	\$0.00 100.0%	\$0.00 100.0%	\$147.03 100.0%	\$91.76 100.0%	\$142.63 100.0%	\$74.42 100.0%

KYTC Published Rates		
Per Diem	\$36.00	per day
Lodging	\$96.00	per night
Mileage	\$0.44	per mile
4 X 4 Pickup Mileage	\$0.57	per mile
Drill Hourly Rate	\$100.00	per hour
Water Pump Hourly Rate	\$4.25	per hour
Heavy Equipment	\$4.00	per mile
Mobilization Administrative Fee (Per Mob.)	\$250.00	Fixed
Administrative Fee for Subcontracted Towboat/Barge	\$1,000.00	Fixed
Guard Rail Removal	\$200.00	Fixed
Administrative Fee for Subcontracted Traffic (Per Mob.)	\$100.00	Fixed

Production Rates	
Rock Coring	65
Rock Sounding	200
Moisture Content	35
Bag Sample	0.25
Standard Penetration Test	25
Thin-Walled Tube Sample	20
Field Vane Shear Test	10
Cased Observation Well	0.25
Hole for SI Casing	115
Sealing Bore Holes	400
Pavement Cores	25
Visual Inspection	200

F66. DELIVERY of CORES to KYTC

Lab Tech		Hrs			
	Audited Wage Rate		8		Sub-total \$734.08
4x4 Pickup	Miles	Rate			
	500	\$0.57			Sub-total \$285.00
Pallets	Pallets	Cost Per		40 boxes per pallet	
	0	\$32.00			Sub-total \$0.00
					Cost \$1,019.08 per trip

F67. CORE BOXES

	Cost	# Boxes	
	\$45.00	0	Cost \$0.00 per box

F68. PROPERTY CONTACTS

A. Labor Costs

1) Project Engineer	Hr/Parcels	# Parcels	Factor	Fixed Fee	
Audited Wage Rate	2	3	1.50	\$0	Cost \$1,139.49 Lump Sum

Projects in which the highway classification is defined as "Urban" will carry an escalation factor of 1.5. The factor does not apply to the fixed fee. A fixed fee of \$1000.00 will apply on projects in which the following are defined as property owners or property managers.

- Local Governments
- Railroads
- Corps of Engineers
- Education Institutions
- Park Services

* Coast Guard for river work covered under towbarge work

F69. UTILITY COORDINATION

A total of 5 man hours will be awarded for a highway classification of "Rural". When the classification of "Urban" is determined, 10 man-hours will be awarded for Utility Coordination.

A. Labor Costs

1) Driller	Hrs	
Audited Wage Rate	10.00	Cost \$0.00 Lump Sum

F77. SITE REVIEWS

Lodging	Rooms	Cost	# Nights	
DbI Occupancy	0	KYTC	0	Sub-Total \$0.00
Meals	Men	Per-Diem	# days	
	1	KYTC	1	Sub-Total \$36.00
				Cost \$36.00 per day/ per person

F78. SITE REVIEWS

Mileage	Mile/Trip	
KYTC Mileage Rate	80	\$35.20 per trip

F79-F81. SITE REVIEWS

	Hrs	
Project Manager	8	\$1,832.64 per day
Project Engineer	8	\$1,012.88 per day
Geologist	8	\$1,176.24 per day

F19. VISUAL INSPECTION and LOGGING ROCK EXPOSURE

A. Labor Costs				
1) Geologist	Hr/day	OT Rate		Sub-Total
Audited Wage Rate	10	1		\$1,470.30
2) Helper				
Audited Wage Rate	8	1		\$0.00
Audited Wage Rate	2	1.5		\$0.00
				Sub-Total \$1,470.30 per day

B. Personnel Expenses				
1) Meals	Men	Per-Diem		
	2	KYTC		\$72.00
2) Lodging	Rooms	Cost	Factor	
	0	KYTC	1	\$0.00
				Sub-Total \$72.00 per day

C. Equipment Costs				
1) Pickup	Miles/day	Mileage	# Trucks	
	80	KYTC	1	\$45.60

Daily Costs				
A. Labor Costs			\$1,470.30	
B. Personnel Expenses			\$72.00	
C. Equipment Costs			\$45.60	
			Total	\$1,587.90
			Cost	\$7.94 per foot

F20. LOGGING CORES

Geologist	Hrs	Feet logged in 8 hrs	
Audited Wage Rate	8	125	Cost \$9.41 per foot

F22. UNDISTURBED TUBE EXTRACTION

1) Laboratory Technician	Hr/Test	# Tests	
Audited Wage Rate	0.5	1	Cost \$45.88 per tube

F23. MOISTURE CONTENT TEST

1) Laboratory Technician	Hr/Test	# Tests	
Audited Wage Rate	0.25	1	Cost \$22.94 per test

F24. SOIL CLASSIFICATION

1) Laboratory Technician	Hr/Test	# Tests	
Audited Wage Rate	4	1	Cost \$367.04 per test

F25. WASH GRADATION

1) Laboratory Technician	Hr/Test	# Tests	
Audited Wage Rate	1	1	Cost \$91.76 per test

F26. MOISTURE DENSITY, CBR, & SOIL CLASSIFICATION

1) Laboratory Technician Hr/Test # Tests
 Audited Wage Rate 9.5 1

Cost **\$871.72** per test

F27. MOISTURE DENSITY

1) Laboratory Technician Hr/Test # Tests
 Audited Wage Rate 3 1

Cost **\$275.28** per test

F28. SLAKE DURABILITY INDEX and JAR SLAKE TEST

1) Laboratory Technician Hr/Test # Tests
 Audited Wage Rate 1.25 1

Cost **\$114.70** per test

F29. UNCONFINED COMPRESSION TEST ON ROCK

1) Laboratory Technician Hr/Test # Tests
 Audited Wage Rate 2 1

Cost **\$183.52** per test

F30. UNCONFINED COMPRESSION TEST ON SOIL

1) Laboratory Technician Hr/Test # Tests
 Audited Wage Rate 1 1

Cost **\$91.76** per test

F31. UU TRIAXIAL TEST

1) Laboratory Technician Hr/Test # Tests
 Audited Wage Rate 2 1

Cost **\$183.52** per test

F32. ONE DIMENSIONAL CONSOLIDATION

1) Laboratory Technician Hr/Test # Tests
 Audited Wage Rate 9 1

Cost **\$825.84** per test

F33. CU TRIAXIAL TEST with PORE PRESSURE MEASUREMENTS

1) Laboratory Technician Hr/Test # Tests
 Audited Wage Rate 6 1

Cost **\$550.56** per test

F34. CU TRIAXIAL TEST with PORE PRESSURE MEASUREMENTS (LARGE SCALE)

1) Laboratory Technician Hr/Test # Tests
 Audited Wage Rate 10 1

Cost **\$917.60** per test

F35. RESILIENT MODULUS TEST

1) Laboratory Technician	Hr/Test	# Tests
Audited Wage Rate	10	1

Cost	\$917.60	per test
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F36. REMOLDING SAMPLE for PERMEABILITY or TRIAXIAL TESTING

1) Laboratory Technician	Hr/Test	# Tests
Audited Wage Rate	1	1

Cost	\$91.76	per sample
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F37. DIRECT SHEAR TEST

1) Laboratory Technician	Hr/Test	# Tests
Audited Wage Rate	3.5	1

Cost	\$321.16	per test
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F38. DIRECT SHEAR TEST (LARGE SCALE)

1) Laboratory Technician	Hr/Test	# Tests
Audited Wage Rate	10	1

Cost	\$917.60	per test
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F39. CONSTANT HEAD PERMEABILITY TEST ON GRANULAR SOIL

1) Laboratory Technician	Hr/Test	# Tests
Audited Wage Rate	5	1

Cost	\$458.80	per test
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F40. FALLING HEAD PERMEABILITY TEST ON COHESIVE SOIL

1) Laboratory Technician	Hr/Test	# Tests
Audited Wage Rate	8	1

Cost	\$734.08	per test
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F41. FALLING HEAD PERMEABILITY TEST ON ROCK

1) Laboratory Technician	Hr/Test	# Tests
Audited Wage Rate	16.5	1

Cost	\$1,514.04	per test
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F42. SLOPE STABILITY ANALYSIS

1) Project Engineer	Hr/Test	# Tests
Audited Wage Rate	4	1

Subtotal	\$506.44
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2) Project Manager	Hr/Test	# Tests
Audited Wage Rate	0.5	1

Subtotal	\$114.54
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Cost	\$620.98	per analysis
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F43. SETTLEMENT ANALYSIS

1) Project Engineer	Hr/Test	# Tests			
Audited Wage Rate	5	1			Subtotal \$633.05
2) Project Manager	Hr/Test	# Tests			
Audited Wage Rate	1	1			Subtotal \$229.08
					Cost \$862.13 per analysis

F44. DEEP FOUNDATION ANALYSIS

1) Project Engineer	Hr/Test	# Tests	LRFD		
Audited Wage Rate	5	1	no		Subtotal \$633.05
2) Project Manager	Hr/Test	# Tests	LRFD		
Audited Wage Rate	1	1	no		Subtotal \$229.08
					Cost \$862.13 per analysis

F45. WAVE EQUATION DRIVEABILITY

1) Project Engineer	Hr/Test	# Tests			
Audited Wage Rate	5	1			Subtotal \$633.05
2) Project Manager	Hr/Test	# Tests			
Audited Wage Rate	1	1			Subtotal \$229.08
					Cost \$862.13 per analysis

F46. NEGATIVE SKIN FRICTION ANALYSIS

1) Project Engineer	Hr/Test	# Tests	LRFD		
Audited Wage Rate	3	1	no		Subtotal \$379.83
2) Project Manager	Hr/Test	# Tests	LRFD		
Audited Wage Rate	0.5	1	no		Subtotal \$114.54
					Cost \$494.37 per analysis

F47. BEARING CAPACITY ANALYSIS

1) Project Engineer	Hr/Test	# Tests	LRFD		
Audited Wage Rate	4	1	no		Subtotal \$506.44
2) Project Manager	Hr/Test	# Tests	LRFD		
Audited Wage Rate	0.5	1	no		Subtotal \$114.54
					Cost \$620.98 per analysis

F48. RETAINING WALL ANALYSIS

1) Project Engineer	Hr/Test	# Tests	LRFD		
Audited Wage Rate	6	1	no		Subtotal \$759.66
2) Project Manager	Hr/Test	# Tests	LRFD		
Audited Wage Rate	1	1	no		Subtotal \$229.08
					Cost \$988.74 per analysis

F82. GINT TESTING

All testing activities should be entered in the appropriate GINT files. The following rates will be paid for this activity. This will be based on the number of tubes, SPT's, and bag samples.

# Samples	\$\$	# Tests	Cost
0-50	300		
51-150	600		
151-300	900	184	
300+	1200		

Cost \$900.00 Lump Sum

F83. LATERAL CAPACITY ESTIMATE FOR SINGLE FOUNDATION ELEMENT

1) Project Engineer	Hr/Test	# Tests	LRFD	
Audited Wage Rate	6	1	no	Subtotal \$759.66
2) Project Manager	Hr/Test	# Tests	LRFD	
Audited Wage Rate	1.25	1	no	Subtotal \$286.35
				Cost \$1,046.01 per test

F84. LATERAL CAPACITY ESTIMATE FOR FOUNDATION ELEMENT GROUP

1) Project Engineer	Hr/Test	# Tests	LRFD	
Audited Wage Rate	10	1	no	Subtotal \$1,266.10
2) Project Manager	Hr/Test	# Tests	LRFD	
Audited Wage Rate	1.25	1	no	Subtotal \$286.35
				Cost \$1,552.45 per test

F85. GOUP UPLIFT CAPACITY ESTIMATE

1) Project Engineer	Hr/Test	# Tests	LRFD	
Audited Wage Rate	7	1	no	Subtotal \$886.27
2) Project Manager	Hr/Test	# Tests	LRFD	
Audited Wage Rate	1.25	1	no	Subtotal \$286.35
				Cost \$1,172.62 per test

F70. PRELIMINARY PLANS

1) Project Engineer			Hrs		
Audited Wage Rate	Roadway Boring Plan		4		
	Coordination with Drilling Sub		2		
		Hours	6		
				Sub-total	\$759.66
2) Project Manager			Hrs		
Audited Wage Rate	Roadway Boring Plan		2		
	Coordination with Drilling Sub		2		
		Hours	4		
				Sub-total	\$916.32
3) Drafting			Hrs		
Audited Wage Rate			2		
				Sub-total	\$285.26
4) Administrative Services			Hrs		
Audited Wage Rate			2		
				Sub-total	<u>\$148.84</u>
				SubCost	\$2,110.08
				Cost	\$2,110.08 Lump Sum

F71. LOCAL MEETINGS (Conducted in Frankfort or Louisville)

1) Project Manager	Hrs				
Audited Wage Rate	0			Sub-total	\$0.00
2) Project Engineer	Hrs				
Audited Wage Rate	0			Sub-total	\$0.00
A. Personnel Expenses					
1) Meals	Men	Per-Diem			
	0	KYTC			\$0.00
2) Lodging	Rooms	Cost	Factor		
Dbl Occupancy	0	KYTC	1		\$0.00
				Sub-Total	\$0.00 per day
3) Drafting	Hrs				
Audited Wage Rate	0			Sub-total	\$0.00
4) Administrative Services	Hrs				
	0			Sub-total	\$0.00
5) Mileage	Mile/Trip				
	0			Sub-total	<u>\$0.00</u>
					Cost
					\$0.00 Per Meeting

F72. Conference Calls

1) Project Manager	Hrs			
Audited Wage Rate	1		Sub-total	\$229.08
2) Project Engineer	Hrs			
Audited Wage Rate	1		Sub-total	\$126.61
3) Administrative Services	Hrs			
Audited Wage Rate	1		Sub-total	\$74.42
4) Drafting	Hrs			
Audited Wage Rate	0		Sub-total	<u>\$0.00</u>
			Cost	\$430.11 Per Call

F73. INTERIM MEETING (District Office / KYTC HQ)

1) Project Manager	Hrs			
Audited Wage Rate	0		Sub-total	\$0.00
2) Project Engineer	Hrs			
Audited Wage Rate	0		Sub-total	\$0.00
3) Mileage	Mile/Trip			
KYTC Mileage Rate	0		Sub-total	\$0.00
4) Drafting	Hrs			
	0		Sub-total	\$0.00
5) Administrative Services	Hrs			
Audited Wage Rate	0		Sub-total	<u>\$0.00</u>
			Cost	\$0.00 Per Meeting

F74. DRAFTING

1) Drafting Technician	Hr/Sheet	# Sheets		
Audited Wage Rate	7	1	Sub-total	\$998.41
2) Project Engineer	Hr/Sheet	# Sheets		
Audited Wage Rate	1	1	Sub-total	\$126.61
			Cost	\$1,125.02 per sheet

F75. REPORT WRITING

			Hrs	
1) Project Engineer (70%)				
Audited Wage Rate	Roadway Report		18	
		Hours	18	
			Sub-total	\$2,278.98
			Hrs	
2) Project Geologist				
Audited Wage Rate	Evaluate Cut Slopes (1 slope x 2 hrs/each)		2	
	Review Geologic Mapping for Area/Project Site		4	
	Geology Sections of Reports (total all reports)		1	
		Hours	7	
			Sub-total	\$1,029.21
3) Project Manager				
Audited Wage Rate	Total Hours of 1 and 2 X 20%	Hours	5	
			Sub-total	\$1,145.40
			SubCost	\$4,453.59
			1	\$4,453.59
			1	Cost \$4,453.59 Lump Sum

F76. REPORT PUBLICATION (1 bound copies as well as PDF copy and all electronic files)

1) Project Engineer	Hrs			
Audited Wage Rate	1	per report	Sub-total	\$126.61
2) Administrative Services	Hrs			
Audited Wage Rate	2	per report	Sub-total	\$148.84
			SubCost	\$275.45 per report



Proposal # P035245.02	REVISED 11/2/22	ESTIMATED TOTAL PROJECT COST	\$7,449.25	
PROJECT: Citation Blvd. Extension, Phase II		ESTIMATED DAYS TO COMPLETE DRILLING	2	
		<h1>Fee Estimate</h1>		
<p>SOW = per Stephen Borders RFP Email dated 6/20/22. Revised SOW = oer Stephen Borders emailed dated 11/1/22.</p>		<p>Prepared by: Paul Larsen plarsen@geotechnology.com Prepared For: HDR, Inc. ATTN: Mr. Stephen Borders, PE stephen.borders@hdrinc.com</p>		
Item	Unit	Unit Rate	Units	Extension
Drilling Services:				
Mobilization / Demobilization of Drill Rig, Crew & Support Equip.	LS	\$550.00	1	\$550.00
Project Management / Coordination, JHA, Utilities	Hour	\$128.25	2	\$256.50
PreMob Site Visit, Access / Clearing Issues	LS	\$200.00	1	\$200.00
Per Diem, Two Person Drill Crew	Day	\$375.00	1	\$375.00
Rock Sounding, to 15' bgs or Auger Refusal, whichever first.	Each	\$120.00	2	\$240.00
Soil Boring, includes SPT Sampling as noted below	Foot	\$19.50	25	\$487.50
Observation Well, Temp., 1" Diameter PVC, installed & removed	Foot	\$14.50	15	\$217.50
Shelby Tube Sample	Each	\$90.00	2	\$180.00
Bulk Bag Sample	Each	\$35.00	1	\$35.00
Rock Core Setup	Each	\$115.00	1	\$115.00
Rock Coring, NQ	Foot	\$42.75	5	\$213.75
Core Box, Waxboard	Each	\$11.00	1	\$11.00
Standby Time, Excess Moving, Safety Mtgs., Water Hauling	Hour	\$245.00	2	\$490.00
Mobilization / Demobilization of Dozer	LS	\$550.00	1	\$550.00
Dozer	Day	\$800.00	1	\$800.00
Fuel Surcharge	Day	\$100.00	2	\$200.00
Estimated Drilling Total:				\$4,921.25
Laboratory Testing Services				
Moisture Content	Each	\$11.00	6	\$66.00
Atterberg Limits, 3 Points, included in Soil Classification	Each	\$98.00	6	\$588.00
Washed Sieve Analysis	Each	\$98.00	4	\$392.00
Soil Classification, Sieve / Hydrometer Only	Each	\$146.00	3	\$438.00
Unconfined Compressive Strength, Soil	Each	\$98.00	1	\$98.00
Unconfined Compressive Strength, Rock	Each	\$151.00	1	\$151.00
Triaxial Test, Unconsolidated / Undrained	Each	\$227.00	1	\$227.00
Standard Proctor, Moisture-Density Test	Each	\$206.00	1	\$206.00
CBR Test, Laboratory	Each	\$362.00	1	\$362.00
Estimated Lab Testing Total:				\$2,528.00
Estimated Project Total:				\$7,449.25
Notes to Proposal:				
<ol style="list-style-type: none"> All borings accessible via ATV-Mounted Drill Rig. Private Property access by HDR. Logging / Pocket Penetrometer Readings by HDR On-Site Engineer / Geologist. Sampling intervals, 2.5' to 10, 5' intervals thereafter. Geotechnology will make the 811 KY Public Utility Call. Private Utilities are the responsibility of HDR / Owner. Borings to be backfilled with cuttings. Above is an estimate only, actual quantities will be invoiced. 				
Geotechnology Exploration, LLC Paul Larsen, Business Development			Authorized by: HDR, Inc.	
Name and Title 			Name and Title	
Signature and Date 20-Jun-22			Signature and Date	

EXHIBIT C

Certificates of Insurance