AGREEMENT SUMMARY CITY OF BROKEN ARROW

23RD ST. WIDENING FROM ALBANY ST. TO OMAHA ST. AND BRIDGE REPLACEMENT PROFESSIONAL CONSULTANT AGREEMENT PROJECT NO. ST1931 & ST1932

1.0 Professional Consulting Firm:

1.1 Name: Benham Design, LLC

1.2 Telephone No.: 918-492-1600

1.3 Address: One West Third Street, Tulsa, OK 74103

2.0 Project Name/Location: Widen 23rd Street from Albany Street to Omaha Street and

Bridge Replacement.

3.0 Statement of Purpose: This project consists of improvements and widening of 23rd Street from the newly designed intersection, designed by others, at Albany Street to the newly designed intersection, designed by others, at Omaha Street. The project shall include widening the existing two lane asphalt roadway to a five lane section with the addition of curb & gutter, sidewalk/trail, an enclosed storm sewer system, as well as design of water and sewer line relocations/upgrades as required. Replacement of the existing bridge located on 23rd Street along with miscellaneous structures shall be included as part of the design project. The project shall also include services for the following: identification of right-of-way needs, preparation of right-of-way acquisition documents, assistance during acquisition, identification of the need for utility relocations, and the coordination of utility relocations. Coordination will be required on this project in order to tie into newly designed intersections at Albany and Omaha Streets.

4.0 Agreement Summary:

4.1 Agreement Amount:

- 4.1.1 Design Plans Lump Sum amount of Five Hundred Eighty-Nine Thousand Eight Hundred Twenty-Eight Dollars (\$589,828.00)
- 4.1.2 Property Reports, Legal Description review by Surveyor, Field and Stake Legal Descriptions Not to exceed amount of Fifteen Thousand Seven Hundred and Fifty Dollars (\$15,750.00)
- 4.1.3 Total Contract Amount Six Hundred Five Thousand and Five Hundred Seventy-Eight Dollars (\$605,578.00)

4.2 Agreement Time: 411 calendar days

4.3 Estimated Construction Cost: \$7,041,422.00

5.0 Contract Documents and Priority: The City of Broken Arrow (OWNER), represented

by the City Manager, and the Professional Consulting firm, (CONSULTANT), identified in paragraph 1.0 agree to perform this AGREEMENT in strict accordance with the clauses, provisions, and the documents identified as below, all of which are made part of this Contract. In the event of conflict, these documents shall be interpreted in the following order:

- **5.1** AGREEMENT with corresponding Attachments;
- **5.2** Duly authorized Amendments to the AGREEMENT;
- **5.3** AGREEMENT Summary;
- 5.4 Specific project written correspondence mutually recognized; and
- 5.5 Specific project verbal instructions mutually recognized.

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AGREEMENT FOR PROFESSIONAL CONSULTANT SERVICES BETWEEN CITY OF BROKEN ARROW AND BENHAM DESIGN, LLC

FOR

23RD ST. WIDENING FROM ALBANY ST. TO OMAHA ST. AND BRIDGE REPLACEMENT PROJECT NO. ST1931 & ST1932

This AGREEMENT, including Attachment A through Attachment E, between the City of Broken Arrow (OWNER) and BENHAM DESIGN, LLC, (CONSULTANT);

WITNESSETH:

WHEREAS, OWNER intends to widen 23rd St. from Albany St. to Omaha St. including bridge replacement (PROJECT) for which, OWNER has requested that CONSULTANT provide certain professional services as required and,

WHEREAS, CONSULTANT is qualified and capable to provide the professional services required;

NOW, therefore, in consideration of the promises contained in this AGREEMENT, OWNER and CONSULTANT agree as follows:

ARTICLE 1 - EFFECTIVE DATE

The effective date of this AGREEMENT shall be 6/3/2019.

ARTICLE 2 - GOVERNING LAW

This AGREEMENT shall be governed by the laws of the State of Oklahoma and venue for any action concerning this Agreement shall be in the District Court of Tulsa County, Oklahoma.

ARTICLE 3 - SERVICES TO BE PERFORMED BY CONSULTANT

CONSULTANT shall perform the SERVICES described in Attachment A, Scope of Services. If construction phase services are included, the CONSULTANT shall be the OWNER'S agent and representative to observe, record and report with respect to all services that are required or authorized by the construction documents.

ARTICLE 4 – ORGANIZATION OF SUBMITAL DOCUMENTS

CONSULTANT shall prepare the documents as described in Attachment B as part of this Agreement.

ARTICLE 5 - COMPENSATION

OWNER shall pay CONSULTANT in accordance with Attachment D, Compensation. CONSULTANT shall submit invoices requesting payment for services rendered to the City Engineer monthly in accordance with actual progress of the work on each work item. The invoices shall be in a format satisfactory to the City Engineer. Payment will be made following the first eligible City Council meeting occurring after the date on the invoice.

ARTICLE 6 - OWNER'S RESPONSIBILITIES

OWNER shall be responsible for all matters described in Attachment C, OWNER'S Responsibilities and Special Conditions.

ARTICLE 7 - STANDARD OF CARE

CONSULTANT shall perform the SERVICES undertaken in a manner consistent with the prevailing accepted standard for similar services with respect to projects of comparable function and complexity, and with the applicable state laws, as well as the specific codes, regulations, design criteria and construction specifications adopted by the owner and other governing policies published and generally considered authoritative by CONSULTANT'S profession that are in effect at the time of performance of these SERVICES. CONSULTANT is obligated to perform professional services in accordance with the foregoing standard with respect to the laws, codes, regulations, design criteria and construction specifications that are applicable pursuant to this AGREEMENT.

ARTICLE 8 - LIABILITY

- 8.1 <u>General.</u> Having considered the potential liabilities that may exist during the performance of these SERVICES, the benefits of the PROJECT, and CONSULTANT'S fee for the SERVICES; and in consideration of the promises contained in this AGREEMENT, OWNER and CONSULTANT agree to allocate and limit such liabilities in accordance with Article 10.
- 8.2 <u>Indemnification.</u> CONSULTANT agrees to defend, indemnify, and hold harmless OWNER, and its employees, from and against legal liability for all claims, losses, damages, and expenses to the extent such claims, losses, damages, or expenses are caused by the negligent or intentional acts, errors, or omissions of CONSULTANT, its agent or employee. In the event claims, losses, damages, or expenses are caused by the joint or concurrent negligence of OWNER, its agent or employee and CONSULTANT, its agent or employee, then they shall be borne by each party in proportion to each entity's own negligence.
- 8.3 <u>Consequential Damages.</u> Except as provided in Article 24.2 below, in no event will either Party be liable for special, exemplary, punitive or consequential damages, other than those resulting from a Party's fraud, willful injury to person or property, or violation of law, whether willful or negligent.
- 8.4 <u>Survival.</u> Upon completion of all SERVICES, obligations, and duties provided for in this AGREEMENT, or if this AGREEMENT is terminated for any reason, the terms and conditions of this Article 8 shall survive.

ARTICLE 9 - INSURANCE

During the performance of the SERVICES under this AGREEMENT, CONSULTANT shall maintain the following insurance:

- (1) General Liability Insurance, with a combined single limit of \$1,000,000 for each occurrence and \$1,000,000 in the aggregate;
- (2) Automobile Liability Insurance, with a combined single limit of \$1,000,000 for each person, \$1,000,000 for each accident and \$1,000,000 for property damage; and
- (3) Professional Liability Insurance, with a limit of \$1,000,000 annual aggregate.

CONSULTANT shall furnish OWNER certificates of insurance, which shall include a provision that such insurance shall not be canceled without at least thirty (30) days written notice to OWNER. All PROJECT sub-consultants shall be required to name OWNER and CONSULTANT as certificate holders on their certificate of insurance for the PROJECT, and shall be required to indemnify OWNER and CONSULTANT to the same extent. CONSULTANT shall be held responsible to submit certificates of insurance for sub-consultants to OWNER prior to the subconsultant's release to commence work.

ARTICLE 10 - LIMITATIONS OF RESPONSIBILITY

CONSULTANT shall not be responsible for: (1) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the construction of the PROJECT; or (2) procuring permits, certificates, and licenses required for any construction unless such responsibilities are specifically assigned to CONSULTANT in Attachment A, Scope of Services.

ARTICLE 11 - LIMITATIONS OF RESPONSIBILITIES FOR ACTS OF OTHERS

CONSULTANT shall not at any time supervise, direct, control or have authority over any work performed by any employee, contractor or other agent of OWNER. CONSULTANT shall not be responsible for the acts or omissions of any employee, contractor or other agent associated with the PROJECT except for its own employees, subcontractors and agents.

ARTICLE 12 - OPINIONS OF COST AND SCHEDULE

Since CONSULTANT has no control over the cost of labor, materials, or equipment furnished by others, or over the resources provided by others to meet PROJECT schedules, CONSULTANT'S opinion of probable costs and of PROJECT schedules shall be made on the basis of experience and qualifications as a professional. CONSULTANT does not guarantee that proposals, bids, or actual PROJECT costs will conform to OWNER'S cost estimates or that actual schedules will conform to OWNER'S projected schedules.

ARTICLE 13 - REUSE OF DOCUMENTS

All documents, including, but not limited to, drawings, specifications, and details, reports, etc. prepared by CONSULTANT pursuant to this AGREEMENT are instruments of service in respect to the PROJECT. They are not intended or represented to be suitable for reuse by OWNER or others on extensions of the PROJECT or on any other project. Any reuse or adaptation without prior written verification by the CONSULTANT for the specific purpose intended will be at OWNER'S sole risk and without liability or legal exposure to the CONSULTANT. OWNER shall defend, indemnify, and hold harmless the CONSULTANT against all claims, losses, damages, injuries, and expenses, including attorney's fees, arising out of or resulting from such reuse to the extent

allowed by law.

ARTICLE 14 - OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY

Except as otherwise provided herein, engineering documents, drawings, and specifications prepared by CONSULTANT as part of the SERVICES shall become the property of OWNER. CONSULTANT shall retain its rights in its standard drawing details, specifications, data bases, computer software, and other proprietary property. Rights to intellectual property developed, utilized, or modified in the performance of the SERVICES shall remain the property of CONSULTANT, but shall be provided to the OWNER, at no additional expense to the OWNER. OWNER'S reuse or modification of documents shall be in accordance with Article 13.

ARTICLE 15 - TERMINATION

This AGREEMENT may be terminated by either party upon written notice in the event of substantial failure by the either party to perform in accordance with the terms of this AGREEMENT. The non-performing party shall have fifteen (15) calendar days from the date of the termination notice to cure or to submit a plan for cure acceptable to the other party.

OWNER may suspend performance of this AGREEMENT for OWNER'S convenience upon written notice to CONSULTANT. Upon restart, an equitable adjustment may be made to CONSULTANT'S compensation and/or schedule, if the period of suspension has created an economic hardship for the CONSULTANT.

ARTICLE 16 - DELAY IN PERFORMANCE

Neither OWNER nor CONSULTANT shall be considered in default of this AGREEMENT for delays in performance caused by circumstances beyond the reasonable control of the non-performing party. For purposes of this AGREEMENT, such circumstances include, but are not limited to, abnormal weather conditions such as floods, earthquakes, fire; civil disturbances such as war, riots, or other civil epidemic; power outages, strikes, lockouts, work slowdowns, or other labor disturbances; sabotage; judicial restraint, and inability to procure permits, licenses, or authorizations from any local, state, or federal agency for any of the supplies, materials, accesses, or services required to be provided by either OWNER or CONSULTANT under this AGREEMENT.

Should such circumstances occur, the non-performing party shall, within a reasonable time of being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of this AGREEMENT.

ARTICLE 17 - WAIVER

A waiver by either OWNER or CONSULTANT of any breach of this AGREEMENT shall be in writing. Such a waiver shall not affect the waiving party's rights with respect to any other or further breach.

ARTICLE 18 - SEVERABILITY

The invalidity, illegality, or unenforceability of any provision of this AGREEMENT or the occurrence of any event rendering any portion or provision of this AGREEMENT void shall in no way affect the validity or enforceability of any other portion or provision of this AGREEMENT. Any void provision shall be deemed severed from this AGREEMENT, and the balance of this AGREEMENT shall be construed and enforced as if this AGREEMENT did not contain the particular portion or provision held to be void. The parties further agree to amend this

AGREEMENT to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken provision. The provisions of this Article shall not prevent this entire AGREEMENT from being void should a provision which is of the essence of this AGREEMENT be determined void.

ARTICLE 19 - INTEGRATION

This AGREEMENT represents the entire and integrated AGREEMENT between OWNER and CONSULTANT. It supersedes all prior and contemporaneous communications, representations, and agreements, whether oral or written, relating to the subject matter of this AGREEMENT.

ARTICLE 20 - SUCCESSORS AND ASSIGNS

To the extent permitted by Article 22, OWNER and CONSULTANT each binds itself and its successors and assigns to the other party to this AGREEMENT.

ARTICLE 21 - ASSIGNMENT

Neither OWNER nor CONSULTANT shall assign its duties under this AGREEMENT without the prior written consent of the other party. Unless otherwise stated in the written consent to an assignment, no assignment will release or discharge the assignor from any obligation under this AGREEMENT. Nothing contained in this Article shall prevent CONSULTANT from employing independent sub-consultants, associates, and sub-contractors to assist in the performance of the SERVICES. However, third party entities must comply with Article 9.

ARTICLE 22 - THIRD PARTY RIGHTS

Nothing in this AGREEMENT shall be construed to give any rights or benefits to anyone other than OWNER and CONSULTANT.

ARTICLE 23 - COMPLETION

CONSULTANT shall complete the services within the time frame outlined on Attachment E, Schedule, subject to conditions which are beyond the control of the CONSULTANT.

ARTICLE 24 - IMMIGRATION COMPLIANCE

- 24.1 Consultant shall demonstrate that he:
- 24.1.1 Has complied, and shall at all times during the term of this Contract, comply in all respects with all immigration-related laws, statutes, ordinances and regulations including without limitation, the Immigration and Nationality Act, as amended, the Immigration Reform and Control Act of 1986, as amended, and the Oklahoma Taxpayer and Citizen Protection Act of 2007 (Oklahoma HB 1804) and any successor laws, ordinances or regulations (collectively, the Immigration Laws"); and
- 24.1.2 Has properly maintained, and shall at all times during the term of this Contract, maintain any and all employee records required by the U.S. Department of Homeland Security ("DHS"), including, without limitation, properly completed and maintained Form I-9s for each of the Consultants employees; and
- 24.1.3 Has verified the employment eligibility for all employees hired on or after July 1, 2008 through DHS's E-Verify system, and shall at all times continue to verify the employment eligibility of all employees hired during the term of this Contract; and
- 24.1.4 Has required, and will at all times during the term of this Contract, require any sub-

contractor utilized, hired or sub-contracted for by Consultant for the completion or undertaking of any duties, tasks or responsibilities under this Contract, to comply the requirements and obligations imposed by the Immigration Laws and set forth in Paragraph (I), parts (a), (b) and (c), above, with regards to each of the sub-contractor's employees.

24.2 Consultant will indemnify, defend and hold harmless City against any loss, cost, liability, expense (including, without limitation, costs and expenses of litigation and reasonable attorney's fees) demands, claims, actions, causes of action, suits, damages, including special and consequential damages that arise from or in connection with, directly or indirectly, CONSULTANT'S failure, deliberate or negligent, to fulfill its obligations and representations regarding verifying the employment eligibility of its employees and the employees of any subcontractor utilized by Contractor as set forth more fully in Paragraph 25.1 above.

ARTICLE 25 - COMMUNICATIONS

Any communication required by this AGREEMENT shall be made in writing to the address specified below:

OWNER:

City of Broken Arrow 485 N. Poplar Street Broken Arrow, OK 74012

Contact: Mr. Roger D. Hughes, P.E. Engineering Division Manager

CONSULTANT:

Benham Design, LLC One West Third Street, Suite 200, Tulsa, OK 74103

Contact Name: Adam

West

Senior Vice President

Nothing contained in this Article shall be construed to restrict the transmission of routine communications between representatives of OWNER and CONSULTANT.

IN WITNESS WHEREOF, the City Manager of the City of Broken Arrow, Oklahoma has hereunto set his hand, for and on behalf of the City of Broken Arrow and the CONSULTANT has signed, or caused his name to be signed, and seal affixed by proper authority, the day and year first above written and these presents have been executed in triplicate counterparts.

{SIGNATURE PAGE FOLLOWS}

| OWNER: | CONSULTANT: |
|-------------------------------------------------|---------------------------------------------------------|
| City of Broken Arrow, a Municipal Corpor | ation Benham Design, LLC |
| Approved as to form: | |
| ByAssistant City Attorney | By Adam B. West, Senior Vice President |
| | Date 5-23-19 |
| By Michael L. Spurgeon, City Manager Date | (CORPORATE SEAL) Prapping SEAL DELAWARE |
| Attest: | Attest: |
| By Curtis Green, City Clerk | By Mancy a. Rhoads Nancy A. Rhoads, Assistant Secretary |
| Date | Date May 23 2019 |

VERIFICATION

| State of Oklahoma) |
|------------------------------------------------------------------------------------------------------|
| County of <u>lulso</u>) |
| Before me, a Notary Public, on this 23rd day of |
| My Commission Expires: |
| PAMELA REEDER Notary Public in and for STATE OF OKLAHOMA Commission #01007622 Expires: June 10, 2021 |

ATTACHMENT A

AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES BETWEEN CITY OF BROKEN ARROW AND BENHAM DESIGN, LLC

FOR

23RD ST. WIDENING FROM ALBANY ST. TO OMAHA ST. AND BRIDGE REPLACEMENT PROJECT NO. ST1931 & ST1932

SCOPE OF SERVICES

The following scope of services shall be made a part of the AGREEMENT dated the <u>3rd</u> day of <u>June</u> 2019.

1.0 PROJECT UNDERSTANDING

CONSULTANT understands that the OWNER has retained their professional services in order to prepare construction documents for bidding purposes for improvements to 23rd Street widening from Albany Street to Omaha Street, including the bridge replacement. These documents shall include, but not be limited to, the following: a design manual including all numerical calculations supporting the intent of the design, as well as providing the basis for bid document quantities; construction plans detailing the intent of the project; standard details and standard drawings associated with the project specifics; construction specifications; general conditions, and special conditions.

In addition, the CONSULTANT understands that the OWNER has \$ 9,100,000.00 budgeted for this PROJECT that includes all professional CONSULTANT fees, right-of-way acquisition, utility relocation, and project construction monies. The CONSULTANT is required to keep the OWNER apprised of the PROJECT costs and advise the OWNER of necessary cost reduction measures, if required, during the course of the PROJECT.

Furthermore, CONSULTANT understands: This project consists of improvements and widening of 23rd Street from the newly designed intersection, designed by others, at Albany Street to the newly designed intersection, designed by others, at Omaha Street. The project shall include widening the existing two-lane asphalt roadway to a five-lane section with the addition of curb & gutter, sidewalk/trail, an enclosed storm sewer system, as well as design of water and sewer line relocations/upgrades as required. Replacement of the existing bridge on 23rd Street along with miscellaneous structures shall be included as part of the design project. The project shall also include services for the following: identification of right-of-way needs, preparation of right-of-way acquisition documents, assistance during acquisition, identification of the need for utility relocations, and the coordination of utility relocations. Coordination will be required on this project in order to tie into newly designed intersections at Albany and Omaha Streets.

2.0 PROJECT SCOPE

CONSULTANT shall coordinate the subsurface exploration for paving and structures and design the subgrade and pavement section(s) as well as structure foundations; perform civil design including water and sewer lines, and grading; and perform

hydraulics/hydrology necessary to properly design the drainage structures as well as bridge sizing/configuration. All structural and bridge design required for the project, including foundation design, shall be performed by the CONSULTANT. CONSULTANT shall also coordinate gas, electric, telecommunication, and other utility relocation services with private utility companies.

CONSULTANT shall provide consulting services as follows:

Geotechnical Services and Coordination

Survey Services and Coordination

Geometric, Site Grading, Drainage, Bridge & Structural, Paving, and

Miscellaneous Design

Public Utility Design and Relocations (as required)

Private Utility Relocation Services and Coordination

Right-of-Way Documents Preparation & Staking

Governmental Agency Coordination

3.0 SCOPE OF SERVICES

- 3.1 <u>ADMINISTRATIVE/MANAGERIAL DUTIES</u>: CONSULTANT shall be responsible to perform the following tasks throughout the course of the PROJECT:
 - 3.1.1 Document all meetings, conferences, coordination, phone conversations, etc. and send documentation to OWNER within three (3) calendar days.
 - 3.1.2 Meet with the OWNER in a Pre-Design Conference in order to determine design criteria, requirements and codes and other critical design features of the Project such as preferred alignment as well as project schedule and milestone dates. All designs shall meet current City of Broken Arrow codes, regulations and design criteria as found in the latest versions of the Engineering Design Criteria Manual, Land Subdivision Code, Zoning Code, Traffic Control Manual, Standard Construction Specifications, City Ordinances and Comprehensive Plan.
 - 3.1.3 Provide OWNER with a list of all proposed sub-consultants and tasks sub-consultants are responsible to perform.
 - 3.1.4 Meet with the OWNER to discuss review comments on each phase of the project and incorporate appropriate comments into following phase.
- 3.2 <u>LAND SURVEY</u>: Upon receiving the written Notice to Proceed, the CONSULTANT shall perform the following tasks in accordance with the schedule provided in Attachment E:
 - 3.2.1 Establish horizontal and vertical control necessary for the design and construction of the project including the establishment of reference points and benchmarks at each end and at interim points of the project and setting PK nails, at distances no greater than 500 feet between PK nails and at offset locations sufficient as to not be disturbed during construction, throughout the project. Control shall be in accordance with the OWNER'S Engineering Design Criteria.
 - 3.2.2 Conduct all field surveys, including topographical, boundary, and aerial surveys, as necessary, for design of the project.
 - 3.2.3 Research and field-verify, to the fullest extents possible (typically

- S.U.E. level "C"), the horizontal and vertical locations of all public and private utilities within the project boundary, which may be in conflict with the project and include in base survey along with all pertinent utility easements. It is incumbent upon CONSULTANT to determine if further investigation is necessary and advise OWNER of such need.
- 3.2.4 Determine existing right-of-way and easements.
- 3.2.5 Prepare and submit right-of-way documents for said project as defined in Section 3.4.
- 3.2.6 Submit one (1) drawing on electronic media (AutoCAD 2018 or earlier version) and one (1) PDF file of the final survey.
- 3.3 PLANNING AND CONCEPTUAL DESIGN PHASE: Upon receiving the written Notice to Proceed, the CONSULTANT shall perform the following tasks in accordance with the schedule provided in Attachment E:
 - 3.3.1 With CITY input, establish project goals and alignments for streets, storm sewers, sanitary sewers and water lines as required.
 - 3.3.2 Develop conceptual plan for a minimum of 3 alternatives for bridge. Alternatives include rehabilitation and widening versus replacement, replacement on alignment, and replacement offset to existing alignment. Design options for the preferred alternate will be considered and include a skewed versus a square bridge and a cost comparison of weathering steel beams versus prestressed concrete girders.
 - 3.3.3 Perform preliminary bridge layout for typical section, considering construction sequence to maintain two lanes of traffic during construction.
 - Prepare Typical Section for Bridge
 - Prepare Construction Sequence for Bridge for 2 lanes open at all times
 - 3.3.4 Perform conceptual stream/bridge hydraulics analysis and develop conceptual plan alternatives for bridge improvements. Alternatives include square integral bridge with piers located outside channel and skewed conventional bridge with piers located within the channel. Services include:
 - Hydraulic calculations and modeling for Adams Creek with channel improvements to accommodate the bridge.
 - Determine preliminary span arrangement, beam depth, and roadway profile grade
 - Establish span lengths to accommodate no-rise conditions.
 - Prepare General Plan and Elevation for Bridge.
 - Prepare a Hydraulic Report summarizing the findings.
 - 3.3.5 Identify proposed retaining wall needs.
 - 3.3.6 Conduct all necessary geotechnical investigations and submit recommendations to the OWNER for project sub-grade and pavement.
 - Pavement and Subsurface Soil Survey
 - 3.3.7 Coordinate with utility companies to provide adequate relocation corridors as necessary. Provide conceptual design plans to all utility

- companies electronically (i.e. pdf or CADD files as required) at submittal of conceptual design plans.
- 3.3.8 A Section 404 Permit from the U.S. Army Corps of Engineers (USACE) Tulsa District is anticipated for the bridge crossing.
 - Prepare exhibits and hold a pre-consultation meeting with the USACE to determine which type of permit is required of the three (3) types: Nationwide Permits, General Permits (for which standard 401 Certifications have been issued by DEQ), and Individual Permits, which require a separate 401 certification from DEQ. The CITY shall be responsible for the application and all associated fees.
 - Services required for obtaining the individual 404 Permit include:
 - Preparation of application.
 - A jurisdictional waters and wetlands evaluation resulting in a waters and wetlands report.
 - Threatened and Endangered Species Habitat Assessment for coordination with US Fish and Wildlife Service.
 - Swallow assessment.
 - A Section 404 Clean Water Act Permit is required from the US Army Corps of Engineers (USACE) for any projects involving temporary or permanent fill in jurisdictional waters or wetlands.
 - A 401 Water Quality Certification is required from Oklahoma Department of Environmental Quality (DEQ) to accompany the 404 Permit.
 - Services for mitigation will be provided under separate Task Order.
- 3.3.9 The Planning and Conceptual Design Phase submittal shall include:
 - Land Survey
 - Hydraulic Report
 - Geotechnical Pavement & Subsurface Soil Survey Report
 - Biological Studies Report, Species Assessment
 - Biological Studies Report, Potential and Wetlands Evaluation
 - Cultural Resources Report
 - Title Sheet
 - Typical Sections
 - Right-of-Way Map & Data (Existing Right-of-Way)
 - Survey Data Sheet
 - Plan and Profiles (Conceptual)
 - General Plan and Elevation for Bridge
 - Typical Section for Bridge
 - Construction Sequence for Bridge
 - Identify Sanitary Sewer Relocations on P&P
 - Identify Waterline Relocations on P&P
- 3.3.10 Perform Quality Control review.
- 3.3.11 Prepare conceptual construction cost estimate using 20%

- contingency.
- 3.3.12 Submit six (6) bound sets of ½ size prints, one (1) set of drawings on electronic media (AutoCAD 2018 preferred, or earlier version) and one (1) PDF file of the Conceptual design.
- 3.3.13 Conceptual Design Review.
- 3.3.14 Attend a meeting with the CITY to review the Planning and Conceptual Design Phase submittal and provide meeting minutes.
- 3.4 PRELIMINARY DESIGN PHASE: Following approval of the Planning and Concept Design, and upon receiving the written Notice to Proceed, the CONSULTANT shall perform the following tasks in accordance with the schedule provided in Attachment E:
 - 3.4.1 All necessary geotechnical investigations and submit recommendations to the OWNER for project bridge foundation.
 - 3.4.2 All necessary geotechnical investigations for retaining wall designs will be included as a supplement, if needed.
 - 3.4.3 Retaining wall design and detailing will be included as a supplement if needed.
 - 3.4.4 Perform preliminary drainage analysis and design in accordance with City of Broken Arrow Engineering Design Criteria Manual and Stormwater Management Ordinance Chapter 25. Summarize storm sewer drainage on design summary included in plans. Storm sewer calculations will not be provided.
 - 3.4.5 Perform preliminary roadway geometric layout and design.
 - 3.4.6 Update preliminary bridge layout as needed.
 - 3.4.7 Prepare preliminary construction plans and details as necessary for proposed project, including waterline and sanitary sewer relocations.
 - 3.4.8 Identify "Ultimate" right-of-way required to accommodate construction of project and necessary utility relocation.
 - 3.4.9 Attend one (1) public meeting and provide any figures, displays, or media required for use in the public meeting.
 - 3.4.10 Conduct pre-final coordination with private and public utility companies.
 - 3.4.10.1 Meet with utility companies and City of Broken Arrow to conduct coordination for relocation of utility facilities and services in conflict with the project and request relocation plans/proposals from private utility companies.
 - 3.4.10.2 Review relocation plans and proposals submitted by private utilities, and provide comments and recommendations prior to CITY approval and execution of the relocation plans. Obtain releases for non-relocated facilities.
 - 3.4.10.3 Provide preliminary design plans to all utility companies electronically (i.e. pdf or CADD files as required).
 - 3.4.11 Prepare preliminary quantity estimate.
 - 3.4.12 Prepare preliminary construction cost estimate using 15% contingency.
 - 3.4.13 The Preliminary Design Phase submittal shall include:

- Geotechnical Investigation Report for Bridge
- Title Sheet
- Pay Quantities and Pay Item/General Notes
- Typical Sections
- Right of Way Map with proposed right of way
- Project Drainage Area Map
- Right-of-Way Map & Data
- Survey Data Sheet
- Plan and Profiles
- General Plan and Elevation for Bridge
- Typical Section for Bridge
- Construction Sequence for Bridge
- Sanitary Sewer Relocation Sheets, as necessary
- Waterline Relocations Sheets, as necessary
- Cross Section Sheets
- 3.4.14 Perform Quality Control review.
- 3.4.15 Submit six (6) bound sets of ½ size prints, one (1) set of drawings on electronic media (AutoCAD 2018 preferred, or earlier version), and one (1) PDF file of the Preliminary plans.
- 3.4.16 Preliminary Design Review.
- 3.4.17 Attend a meeting with the CITY to review the Preliminary Design Phase submittal and provide meeting minutes.
- 3.5 <u>RIGHT-OF-WAY DESIGN PHASE</u>: After receiving Notice to Proceed of the Preliminary Design and after design has reached a point that Right-of-Way needs can be established, the CONSULTANT shall perform the following tasks in accordance with the schedule provided in Attachment E:
 - 3.5.1 Prepare "Ultimate", see Section 6.4.2 of Engineering Design Criteria Manual, right-of-way documents, in both Microsoft Word and PDF formats along with closure reports, based upon the comments received from the preliminary design review and coordination with utility companies.
 - 3.5.1.1 Prepare "Ultimate" right-of-way instruments which provide sufficient room to accommodate utility relocations and other construction activities. Instruments to be provided in Microsoft Word and PDF formats along with closure reports.
 - 3.5.1.2 Prepare Right-of-Way map/plan sheet(s).
 - 3.5.1.3 Procure and provide Property Reports on unplatted properties (24) and properties with less than "Ultimate" Right-of-Way currently provided, for a total of 56 parcels (assumed for initial estimating purposes).
 - 3.5.1.4 Provide acquisition support services.
 - 3.5.1.5 Submit, <u>following the preliminary design review meeting</u>, three (3) bound sets of ½ size plan sheets and one set of legal instruments, in both Microsoft Word and PDF formats, indicating "Ultimate" right-of-way documents for the project final taking/acquisitions requirements.

- 3.5.2 Provide one time only right-of-way staking services for **24** parcels (assumed for initial estimating purposes).
- 3.6 <u>FINAL DESIGN PHASE</u>: Following approval of the Preliminary Design, and upon receiving the written Notice to Proceed, the CONSULTANT shall perform the following tasks in accordance with the schedule provided in Attachment E:
 - 3.6.1 Conduct all necessary design functions required to complete the final design phase of the project.
 - 3.6.2 Coordinate with FEMA and prepare the CLOMR Application. The CITY shall be responsible for all associated fees.
 - 3.6.3 Finalize utility relocation coordination as necessary.
 - 3.6.4 Prepare and complete final design.
 - 3.6.5 Perform final bridge design including:
 - Prepare final beam, deck, abutment, and pier design calculations and drawings.
 - Prepare final geometrics, bar lists, plan quantities, general notes, and pay items.
 - 3.6.6 Final retaining wall design and plans, including the following, will be included as a supplement if needed.
 - Prepare steps in wall height and footing elevations.
 - Prepare final retaining wall design calculations and drawings.
 - Prepare bar lists and plan quantities.
 - 3.6.7 Submit Structural Design Calculations on 8 ½" x 11" plain white bond paper, and in pdf format as indicated in Attachment B.
 - 3.6.8 Prepare detailed construction plans in conformance with appropriate drafting standards.
 - 3.6.9 Prepare final quantity estimates.
 - 3.6.10 Prepare final estimate of construction costs with a 10% contingency.
 - 3.6.11 The Final Design Phase submittal shall include:
 - Structural Design Calculations
 - Title Sheet
 - Pay Quantities and Pay Item/General Notes
 - Typical Sections
 - Quantity & Miscellaneous Summaries
 - Summary of Drainage Structures
 - Storm Water Management Plan (SWP3)
 - Project Drainage Area Map
 - Right-of-Way Map & Data
 - Survey Data Sheet
 - Plan and Profiles
 - Waterline Relocation Sheets, as necessary
 - Sanitary Sewer Relocation Sheets, as necessary
 - Intersection Details (tie-in to intersection plans by others)
 - Miscellaneous Details Sheet
 - General Plan and Elevation for Bridge
 - Bridge Typical Section
 - Bridge Construction Phasing

- Foundation Reports
- Staking Diagram
- Abutment Details
- Pier Details
- Superstructure Details
- Approach Slab Details
- Riprap Details
- Drains at Ends of Bridge
- Special Structural Details
- Signing & Striping
- Construction Sequencing/Traffic Control
- Cross Sections
- Standard Construction Drawings
- 3.6.12 Perform Quality Control review.
- 3.6.13 Prepare construction specifications; Contract documents other than drawings and estimates on 8-1/2" x 11" plain white bond paper. All documents shall be suitable for original camera-ready copy.
- 3.6.14 Prepare Contract proposals in units compatible with Broken Arrow specifications.
- 3.6.15 Submit six (6) bound sets of ½ size prints of final construction plans, three (3) sets of final contract bid documents, one (1) PDF file and three (3) sets of ½ size prints of final City utility relocation plans, if required, to the OWNER for distribution and review.
- 3.6.16 Final Design Review.
- 3.6.17 Attend a meeting with the CITY to review the Final Design Phase submittal and provide meeting minutes.
- 3.6.18 Provide final design plans to all utility companies electronically (i.e. pdf or CADD files as required).
- 3.6.19 Perform Quality Control review.
- 3.6.20 Incorporate final review comments and furnish one (1) complete set of contract documents, three (3) ½ size sets of final drawings, one (1) set of final drawings in pdf format and electronic media (AutoCAD 2018 preferred, or earlier version), one (1) master set of final specifications on electronic media, in both Microsoft Word and pdf formats, and paper.
- 3.7 <u>ASSISTANCE DURING BIDDING PHASE</u>: Upon receiving the written Notice to Proceed, the CONSULTANT shall perform the following tasks in accordance with the schedule provided in Attachment E:
 - 3.7.1 Provide the OWNER services during advertisement of the Project for bid (i.e. providing plans in pdf format along with one hard copy, specifications, written project description and electronic bid proposal).
 - 3.7.2 Attend and conduct a pre-bid conference as required by OWNER.
 - 3.7.3 Serve as the technical question point of contact to answer requests for information during bidding and draft any necessary addenda to clarify Contract documents.
 - 3.7.4 Assist in preparing addenda and addenda plan sheets as required.

- 3.8 PROJECT CLOSE-OUT PHASE: Upon receiving the written Notice to Proceed, the CONSULTANT shall perform the following tasks in accordance with the schedule provided in Attachment E:
 - 3.8.1 Incorporate changes into the drawings and produce Record Drawings.
 - 3.8.2 Submit record drawings on electronic media (AutoCAD 2018 preferred or earlier version and pdf).
 - 3.8.3 Submit any revisions to the Design Manual caused by construction changes.
 - 3.8.4 Coordinate with FEMA and prepare the LOMR application. The CITY shall be responsible for all associated fees.
- 3.9 CONSTRUCTION ASSISTANCE PHASE (ADDITIONAL SERVICES):
 Construction Assistance is considered an additional service not included in the Scope of Services and will be negotiated with the CONSULTANT as necessary.
- 3.10 EXTRA WORK: Extra Work will be as directed by the CITY in writing for an additional fee as agreed upon by the CITY and the ENGINEER. The following items are not included under this agreement, but will be considered as extra work:
 - 3.10.1 Retaining wall design and plans.
 - 3.10.2 Redesign for the CITY's convenience or due to changed conditions after previous alternate direction and/or approval.
 - 3.10.3 Submittals or deliverables in addition to those listed herein.
 - 3.10.4 Pavement Design beyond that furnished in the Geotechnical Report.
 - 3.10.5 Design of any utility relocations other than water and sewer.
 - 3.10.6 Street lighting or other electrical design.
 - 3.10.7 No other construction services shall be provided beyond those listed in Section 3.7.
 - 3.10.8 Construction materials testing.
 - 3.10.9 Construction submittal review.

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ATTACHMENT B

TO

AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES BETWEEN CITY OF BROKEN ARROW

AND

BENHAM DESIGN, LLC

FOR

23RD ST. WIDENING FROM ALBANY ST. TO OMAHA ST. AND BRIDGE REPLACEMENT PROJECT NO. ST1931 & ST1932

ORGANIZATION OF SUBMITTAL DOCUMENTS

The following constitutes a list of project deliverables, as required, and shall be made a part of the AGREEMENT dated the 3rd day of June 2019.

- 1.0 CONSTRUCTION PLANS: The CONSULTANT shall submit in-full, in accordance with this AGREEMENT, the following plan sheets:
 - 1.1 Title Sheet;
 - 1.2 Pay Quantities and Pay Item/General Notes;
 - 1.3 Typical Sections;
 - 1.4 Quantity & Miscellaneous Summaries;
 - 1.5 Storm Water Management Plan (SWP3);
 - 1.6 Project Drainage Area Map;
 - 1.7 Right-of-Way Map & Data;
 - 1.8 Survey Data Sheet
 - 1.9 Plan and Profiles (roadway, and waterline & sanitary sewer as necessary);
 - 1.10 General Plan and Elevation Bridge
 - 1.11 Special & Structural/Bridge Details
 - 1.12 Signing & Striping
 - 1.13 Construction Sequencing
 - 1.14 Cross Sections; and
 - 1.15 Standard Construction Drawings.
- 2.0 **RIGHT-OF-WAY DOCUMENTS:** The CONSULTANT shall submit in-full, in accordance with this AGREEMENT, the following documents:
 - 2.1 Right-of-Way Plans;
 - 2.2 Individual Legal Description Documents for right-of-way, permanent easements, and temporary construction easements;
 - 2.3 Individual Right-of-Way Detailed Drawing with Existing Easements Shown;
 - 2.4 Closure Report;
 - 2.5 Surveyor's Certification Document;
 - 2.6 Ownership Certification Report; and:

- 2.7 Provide right-of-way and temporary construction easement staking as required for acquisition purposes (assumed one staking per parcel required, assumed 24 parcels, at agreed upon unit price per parcel).
- 3.0 **DRAINAGE DESIGN DOCUMENTS:** The CONSULTANT shall submit in-full, in accordance with this AGREEMENT, the following documents:
 - 3.1 Hydrology and Hydraulic Calculations (Hydraulic Report);
 - 3.2 Overall Project Drainage Map;
 - 3.3 Drainage Summary Tables;
 - 3.4 Stormwater Pollution Prevention Plan (SWP3)
 - 3.4.1 Report;
 - 3.4.2 OWNER, Contractor and Engineer's Certifications;
 - 3.4.3 Approved Grading/Erosion Control Construction Plans; and
 - 3.4.4 Standard Erosion Control Details
- **4.0 DESIGN CALCULATIONS:** The CONSULTANT shall submit in-full, in accordance with this AGREEMENT, the following documents:
 - 4.1 Structural Design Calculations
 - 4.1.1 Bridge Designs;
 - 4.1.2 Retaining Earth; and
 - 4.1.3 Miscellaneous Structures
- **5.0 CONTRACT DOCUMENTS:** The CONSULTANT shall submit in-full, in accordance with this AGREEMENT, the following documents:
 - 5.1 Bid Documents:
 - 5.1.1 Electronic bid proposal in format provided.
 - 5.1.2 Written description of construction project.
 - 5.1.3 Construction duration in calendar days.
 - **5.2** Project Conditions:
 - 5.2.1 Special Conditions.
 - 5.3 Construction Specifications
- **RECORD DRAWINGS**: The CONSULTANT shall submit in-full, in accordance with this AGREEMENT, the following documents:
 - **6.1** Drawings:
 - 6.1.1 CAD files (AutoCAD Version 18 preferred, or earlier) for project construction drawings reflecting red-line markups from the construction contractor and the City Contract Administrator.
 - 6.1.2 Adobe Acrobat (pdf) files of CAD drawings.
 - **6.2** Design Manual:
 - 6.2.1 Paper copy of Design Manual (specifications, calculations, etc.) reflecting any changes during construction.
 - 6.2.2 Adobe Acrobat (pdf) file of Design Manual.

ATTACHMENT C

TO

AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES BETWEEN CITY OF BROKEN ARROW AND

BENHAM DESIGN, LLC

FOR

23RD ST. WIDENING FROM ALBANY ST. TO OMAHA ST. AND BRIDGE REPLACEMENT PROJECT NO. ST1931 & ST1932

OWNER'S RESPONSIBILITIES AND SPECIAL CONDITIONS

The following list of special OWNER'S responsibilities and contract special conditions shall be made a part of this AGREEMENT dated the <u>3rd</u> day of <u>June</u> 2019.

1.0 OWNER'S RESPONSIBILITIES

- 1.1 OWNER shall furnish to CONSULTANT all available information pertinent to the PROJECT including previous reports and any other data relative to design and construction of the PROJECT;
- 1.2 OWNER shall furnish to CONSULTANT all public utility information available relative to the design and construction of the PROJECT. CONSULTANT topographical survey shall locate all utilities above and below ground for exact location;
- 1.3 OWNER shall furnish to CONSULTANT list of codes adopted by the municipality as well as subdivision regulations, design criteria and construction standards and specifications that may be pertinent to the design and construction of the PROJECT;
- 1.4 OWNER shall be responsible for all permit fees, including USACE and FEMA fees, and for all reproduction costs associated with the bidding of the final approved construction documents required for the construction of this PROJECT:
- 1.5 OWNER shall be responsible for acquiring right of way and easements if necessary, and OWNER shall be responsible for all land/easement acquisition costs and filing of the required legal documents, if necessary; and
- **1.6** OWNER shall be responsible for inspecting and verifying the location of all utility relocations; and
- 1.7 OWNER shall provide plans, including CADD files, for the newly designed intersection, designed by others, at Albany Street to the newly designed intersection, designed by others, at Omaha Street.
- OWNER shall examine all studies, reports, sketches, estimates, specifications, plan drawings, proposals, and other documents presented by the CONSULTANT and render in writing decisions pertaining thereto within a reasonable time so as not to delay the SERVICES of the CONSULTANT.

2.0 SPECIAL CONDITIONS

2.1 None

ATTACHMENT D

TO

AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES BETWEEN CITY OF BROKEN ARROW AND

AND

BENHAM DESIGN, LLC

FOR

23RD ST. WIDENING FROM ALBANY ST. TO OMAHA ST. AND BRIDGE REPLACEMENT PROJECT NO. ST1931 & ST1932

COMPENSATION AND ADDITIONAL SERVICES

The following compensation and hourly rates shall apply as described in Attachment D and shall be made a part of the AGREEMENT dated the <u>3rd</u> day of <u>June</u> 2019.

1.0 BASIC COMPENSATION

The basic compensation for the Professional CONSULTANT to perform all duties and responsibilities associated with the Scope of Services as described in Attachment A shall be in accordance with the following payment breakdown:

- 1.1 Task 1. Land Survey Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$ 28,560.00 for ROADWAY and \$ 7,140.00 for BRIDGE for the completion of the Land Survey Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- Task 2. Planning and Conceptual Design Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$ 36,773.00 for ROADWAY and \$ 58,325.00 for BRIDGE for the completion of the Planning and Conceptual Design Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.3 Task 3. Environmental Studies: The OWNER shall pay the CONSULTANT a lump sum amount of \$ 6,222.00 for BRIDGE for the completion of the Biological Studies Report, Species Assessment, Potential and Wetlands Evaluation, and Cultural Resources Report. This amount includes all labor, material, overhead and profit associated with the Scope of Services
- 1.4 Task 4. Preliminary Design Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$ 102,042.00 for ROADWAY and \$ 67,503.00 for BRIDGE for the completion of the Preliminary Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.5 Task 5. Right-of-Way Design Payment: The OWNER shall pay the CONSULTANT a fee not to exceed the amount of \$ 35,540.00 for ROADWAY for the completion of the Right-of-Way Phase. \$19,790.00 is LUMP SUM and includes labor and direct project expenses to set proposed Right-of-Way. \$15,750.00 is a Not to Exceed amount and is based upon an assumed 56 parcels priced at \$ 78.75 per parcel for Right-of-Way Document Review and \$157.50 per parcel for Property Reports, and 24 parcels priced at \$105.00 per parcel for Property Staking. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.6 Task 6. Final Design Phase Payment: The OWNER shall pay the CONSULTANT

- a lump sum amount of \$ 79,260.00 for ROADWAY and \$ 151,109.00 for BRIDGE for the completion of the Final Design Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.7 Task 7. Assistance During Bidding Phase Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$ 12,252.00 for ROADWAY and \$ 7,747.00 for BRIDGE for the Assistance During Bidding Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.8 Task 8. Project Close-Out Phase Payment: The OWNER shall pay the CONSULTANT a lump sum amount of \$ 10,484.00 for ROADWAY and \$ 2,621.00 for BRIDGE for the completion of the Project Closeout Phase. This amount includes all labor, material, overhead and profit associated with the Scope of Services.
- 1.9 <u>Task 9.</u> Construction <u>Assistance Phase Payment (Additional Services)</u>: The OWNER may negotiate with CONSULTANT for providing Construction Assistance as additional services beyond original design agreement.

2.0 ADDITIONAL SERVICES BASED ON TIME

The hourly rates set forth below include all salaries, benefits, overhead and other indirect costs including federal, state, and local taxes, plus profit and effective as of January 1, 2019.

| Personnel | Average Hourly Wage Rate |
|-------------------------|-----------------------------|
| Sr. Project Manager | \$190.48 |
| Project Manager | \$165.32 |
| Sr. Civil Engineer | \$162.19 |
| Civil Engineer | \$126.51 |
| Jr. Civil Designer | \$87.05 |
| Sr. Structural Engineer | \$159.41 |
| Structural Engineer | \$116.62 |
| Jr. Structural Designer | \$84.59 |
| Sr. CADD Technician | \$115.39 |
| CADD Technician | \$89.36 |
| Jr. CADD Technician | \$72.83 |
| Surveyor | \$110.42 |
| Survey Assistant | \$77.89 |
| Administrative | \$75.61 |

3.0 REPRODUCTION

All charges for reproduction shall be included in Basic Compensation Fee of the Professional CONSULTANT. No separate payment will be made for these expenses.

4.0 MILEAGE

All direct costs shall be included in the Basic Compensation of the Professional CONSULTANT. No separate payment will be made for these expenses.

5.0 DIRECT COSTS

All direct costs shall be included in the Basic Compensation of the Professional CONSULTANT. No separate payment will be made for these expenses.

6.0 ADJUSTMENT CLAUSE

The rates and costs described in this AGREEMENT shall not be revised annually, unless mutually agreed upon by both parties.

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ATTACHMENT E

TO

AGREEMENT FOR PROFESSIONAL CONSULTING SERVICES BETWEEN CITY OF BROKEN ARROW

AND

BENHAM DESIGN, LLC

FOR

23RD ST. WIDENING FROM ALBANY ST. TO OMAHA ST. AND BRIDGE REPLACEMENT PROJECT NO. ST1931 & ST 1932

PROJECT SCHEDULE

The following schedule shall be made a part of the AGREEMENT dated the <u>3rd</u> day of <u>June</u> 2019. On issuance of notice proceed by the OWNER, the CONSULTANT shall provide the OWNER a Gantt chart schedule, utilizing the phases and durations provided below.

1.0 LAND SURVEY PHASE:

55 Days

- 1.1 Notice to Proceed (concurrent with Conceptual Design Phase)
- 1.2 Conduct Topographical Surveying
- 1.3 Submit Land Survey
- 1.4 OWNER Review

2.0 PLANNING AND CONCEPTUAL DESIGN PHASE:

95 Days

- 2.1 Notice to Proceed
- 2.2 Prepare & Submit Conceptual (30%) Plans
- 2.3 OWNER Review

3.0 PRELIMINARY DESIGN PHASE:

90 Days

- 3.1 Notice to Proceed (concurrent with R/W phase)
- 3.2 Conduct Geotechnical Investigation & Provide Recommendations/Report
- 3.3 Coordinate & Review utility relocation plans
- 3.4 Prepare & Submit Preliminary (60%) Plans
- 3.5 OWNER Review

4.0

RIGHT-OF-WAY DESIGN PHASE:

| | 4.1 | Notice to Proceed (concurrent | t with preliminary design ph | ase) |
|-----|------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------|
| | 4.2 | Prepare & Submit "Ultimate" F including: right-of-way map/pla reports, and certified property | ans, instruments, closure | |
| | 4.3 | OWNER Review | · | |
| | 4,4 | Right-of-Way Staking (as requ number of parcels) | uired for an assumed | |
| 5.0 | FINA | L DESIGN PHASE: | | 124 Days |
| | 5.1 | Notice to Proceed | | |
| | 5.2 | Finalize utility relocation plans | i | |
| | 5.3 | Prepare & Submit final (90%) Specifications for City Review | | |
| | 5.4 | Prepare final cost estimate | | |
| | 5.5 | Prepare Design Report | | |
| | 5.6 | OWNER review | | |
| | 5.7 | Prepare & Submit bid docume specifications) | ents (100% plans and | |
| 6.0 | ASSI | STANCE DURING BIDDING PH | IASE: | |
| | 6.1 | Providing bid documents | | To be determined. |
| | 6.2 | Attend pre-bid conference | | To be determined. |
| | 6.3 | Answer RFI's & prepare adder | nda | To be determined. |
| 7.0 | PROJ | ECT CLOSE-OUT PHASE: | | |
| | 7.1 | Record Drawings | 30 days after receipt of c | ontractor's red-lines |
| | 7.2 | Revisions to Design Manual: | 30 days after receipt of co | ontractor's red-lines |
| 8.0 | CONS | STRUCTION ASSISTANCE PH | ASE (ADDITIONAL SERVI | CES): |
| | 8.1 | Construction assistance | Additional services to be separately as required. | negotiated |
| | | | | |

60 Days

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City of Broken Arrow GO BOND - Project ST1931 & ST 1932

| Classification of Employee / Estimated Hours | Project Manager | Sr. Civil / | Civil / Structural | Jr. Engineer / Senior | CADD | Admin Assist | HOURS | Total | Total |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------|-------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|---------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Classification of Employee / Estimated Hours | Project manager | Structural Engr | Engineer | Technician | Technician | Admin Assist | | Direct Labor (Raw) | |
| Tions of Tions I Tions | \$56.52 | \$55.45 | \$43.25 | \$39.45 | \$30.55 | \$25.85 | | | |
| 3T1931 & ST1932 TASK 1 - LAND SURVEY | | | | | | | 0 | | \$35,700 |
| ABOR | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$0 | \$0 |
| | т — | | | | | | 0 | \$0 | \$0 |
| DIRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL | costs) | | | | | | 0 | \$0 \$35,700 | \$35,700 |
| LAND SURVEY | | | SUBCONTRACTOR | 5,0% | | | | \$35,700 | \$35,700 |
| Land Survey - 23rd Street Corridor | | SCHOOL SEASON SEASON | \$34,000 | \$1,700 | | | | \$35,700 | \$35,700 |
| ST1931 & ST1932 TASK 2 - PLANNING & CONCEPTUAL | DESIGN PHA | ASE | 11 9 117 | 7 | | | 314 | 1000 | \$45,967 |
| ABOR | 12 | 48 | 42 | 120 | 84 | 8 | 314 | \$12,663 | \$37,041 |
| MISC PLANS & PLOT PROJECT SET UP | 8 | | | - 10 | | | 74 | \$2,879 | \$8,421 |
| TITLE SHEET | • | | 2 | 16 | 6 | 4 | 28 8 | \$1,187 \$270 | |
| TYPICAL SECTIONS | 2 | 2 | 2 | 6 | 16 | | 28 | \$1,036 | |
| PAVEMENT DESIGN - COORDINATE PLOT CONCEPTUAL DESIGN SUBMITTAL | | 4 | | | 2 | 2 2 | 6 | \$274 \$113 | |
| PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) | | | | | | | 186 | \$7,115 | \$20,812 |
| FIELD VERIFY SURVEY EXISTING UTILITIES | | | 8 4 | 8 | 0 | | 16 | \$662 | |
| EXISTING UTILITIES EXIST PROPERTY LINES, OWNERS | | | 4 | 4 | 8 | | 12 16 | \$417 \$575 | |
| HORIZONTAL ALIGNMENT - 23rd ST | | 2 | 8 | 16 | 2 | | 28 | \$1,149 | |
| VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS | | 2 2 | 8 2 | 16 | 2 | | 28 4 | \$1,149 | |
| HORIZONTAL ALIGNMENT - SIDE STREETS | | - 2 | 2 | | | | 0 | \$197 \$0 | |
| VERTICAL ALIGNMENT - SIDE STREETS | | | | | | | 0 | \$0 | |
| HORIZONTAL ALIGNMENT - DRIVES VERTICAL ALIGNMENT - DRIVES | | | | W 77 5 | | | 0 | \$0 \$0 | |
| PROPOSED PAVEMENT | | | | 8 | 12 | | 20 | \$0 \$682 | |
| SIDEWALKS AND WHEELCHAIR RAMPS | | | | | | | 0 | \$0 | |
| DRIVEWAYS LIMITS OF CONSTRUCTION | | | | 32 | 16 | | 0 48 | \$0 | |
| ANTICIPATED WATERLINE RELOCATION | | | 2 | 4 | 2 | | 8 | \$1,751 \$305 | |
| ANTICIPATED SANITARY SEWER RELOCATION | | | 2 | 2 | 2 | | 6 | \$227 | |
| QUALITY CONTROL REVIEW QA/QC (1 Review) | 2 | 4 | | | | | 6 | \$335 | \$979 |
| PRIVATE UTILITY COORDINATION | 2 | 4 | | | | | 6 48 | \$335 \$2,334 | \$6,828 |
| COORDINATE WITH PRIVATE UTILITIES | | 24 | | | 8 | | 32 | \$1,575 | \$0,028 |
| IDENTIFY CONFLICTS | | 8 | | 8 | | | 16 | \$759 | |
| IRECT PROJECT EXPENSES (NON-PAYROLL COSTS) | | | | | | | | | \$137 |
| REPRODUCTION Conceptual Plan Submittal | | | | | | | | \$137 | \$137 |
| IRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL | costs) | | | | | | | \$137 \$8,789 | \$137 \$8,789 |
| | | | | | | | | | |
| GEOTECHNICAL INVESTIGATIONS | | | SUBCONTRACTOR | 5.0% | | | | C. William St. Marketon | 0.207 9.081 |
| GEOTECHNICAL INVESTIGATIONS Pavement and Subsurface Soil Survey | | | SUBCONTRACTOR \$8,370 | 5.0% \$419 | | ou je posk so | | \$8,789 \$8,789 | \$8,789 \$8,789 |
| Pavement and Subsurface Soil Survey | PHASE | | | | | | 113 | \$8,789 | \$8,789 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR | PHASE 0 | 7 | | | 36 | 4 | 113 | \$8,789 | \$8,789 \$8,789 |
| Pavement and Subsurface Soil Survey T1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) | | | \$8,370 | \$419 34 | | 4 | 113 53 | \$8,789 \$8,789 \$4,317 \$2,051 | \$8,789 \$8,789 \$49,132 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST | | 2 | \$8,370 32 | \$419 34 | 2 | 4 | 113 53 12 | \$8,789 \$8,789 \$4,317 \$2,051 \$495 | \$8,789 \$8,789 \$49,132 \$32,332 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS | | | \$8,370 | 34 6 8 | 2 2 | 4 | 113 53 12 14 3 | \$8,789 \$8,789 \$4,317 \$2,051 \$495 \$574 \$142 | \$8,789 \$8,789 \$49,132 \$32,332 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT | | 2 2 | 32 | 34 6 8 | 2 2 | 4 | 113 53 12 14 3 | \$8,789 \$8,789 \$4,317 \$2,051 \$495 \$574 \$142 \$402 | \$8,789 \$8,789 \$49,132 \$32,332 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION | | 2 2 | 32 | 34 6 8 | 2 2 | 4 | 113 53 12 14 3 12 12 | \$6,789 \$8,789 \$4,317 \$2,051 \$495 \$574 \$142 \$402 \$402 | \$8,789 \$6,789 \$49,132 \$32,332 \$6,000 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT | | 2 2 | 32 | 34 6 8 | 2 2 | 4 | 113 53 12 14 3 | \$8,789 \$8,789 \$4,317 \$2,051 \$495 \$574 \$142 \$402 | \$8,789 \$8,789 \$49,132 \$32,332 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT CONCEPTUAL STATEMENT OF STATEMENTS CONCEPTUAL STATEMENTS CONC | | 2 2 | 32 | 34 6 8 | 2 2 | 4 | 113 53 12 14 3 12 12 12 14 0 | \$8,789 \$8,789 \$4,317 \$2,051 \$495 \$574 \$142 \$402 \$438 \$600 \$500 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 |
| Pavement and Subsurface Soil Survey T1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN | | 2 2 1 | \$8,370 32 2 2 2 2 4 | 34 6 8 4 8 | 2 2 | 4 | 113 53 12 14 3 12 12 12 14 0 | \$8,789 \$8,789 \$4,317 \$2,051 \$495 \$574 \$402 \$430 \$430 \$600 \$0 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT CONCEPTUAL STATEMENT OF STATEMENTS CONCEPTUAL STATEMENTS CONC | | 2 2 1 | \$8,370 32 2 2 2 | 34 6 8 4 8 | 2 2 | 4 | 113 53 12 14 3 12 12 12 14 0 | \$4,317 \$2,051 \$495 \$574 \$402 \$438 \$600 \$6,737 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,784 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN PERMITS PRE-CONSULTATION MEETING WITH CORPS OF ENGINEERS | | 2 2 1 | \$8,370 32 2 2 2 2 4 Refer to Bridge Dee | 34 6 8 4 8 | 2 2 8 4 4 | 1 | 113 53 12 14 3 12 12 14 0 14 151 | \$8,789 \$8,789 \$1,317 \$2,051 \$495 \$574 \$142 \$402 \$438 \$600 \$6,737 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN BRIDGE DESIGN PREPARE AGENDA & MINUTES PREPARE AGENDA & MINUTES | | 2 2 1 | \$8,370 32 2 2 2 4 4 Refer to Bridge Des | 34 6 8 4 8 | 2 2 8 4 | | 113 53 12 14 3 12 12 12 14 0 14 151 | \$4,317 \$2,051 \$495 \$574 \$142 \$402 \$438 \$600 \$6,737 \$1,666 \$1,666 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,754 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN PERMITS PRE-CONSULTATION MEETING WITH CORPS OF ENGINEERS | | 2 2 1 | \$8,370 32 2 2 2 2 4 Refer to Bridge Dee | 34 6 8 4 8 | 2 2 8 4 4 | 1 | 113 53 12 14 3 12 12 14 0 14 151 | \$8,789 \$8,789 \$1,317 \$2,051 \$495 \$574 \$142 \$402 \$438 \$600 \$6,737 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,754 |
| Pavement and Subsurface Soil Survey T1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN PERMITS PRE-CONSULTATION MEETING WITH CORPS OF ENGINEERS PREPARE EXHIBITS PREPARE CWIRB AND 404 PERMIT APPLICATION AND EXHIBITS | | 2 2 1 | \$8,370 32 2 2 2 2 4 4 Refer to Bridge Des | 34 6 8 4 8 | 2 2 8 4 4 | 1 1 1 | 113 53 12 14 3 12 12 12 14 0 14 151 46 11 5 8 | \$8,789 \$8,789 \$1,789 \$2,051 \$495 \$574 \$142 \$402 \$438 \$600 \$6,737 \$1,666 \$433 \$1,737 \$1,373 \$2,244 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,784 |
| Pavement and Subsurface Soil Survey ET1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN PERMITS PRE-CONSULTATION MEETING WITH CORPS OF ENGINEERS PREPARE EXHIBITS PREPARE EXHIBITS PREPARE CWIRBITS | | 2 2 1 | \$8,370 32 2 2 2 2 4 4 Refer to Bridge Des | 34 6 8 4 8 | 2 2 8 4 4 | 1 1 1 | 113 53 12 14 3 12 12 12 14 0 14 151 46 11 5 8 | \$8,789 \$8,789 \$1,789 \$2,051 \$495 \$574 \$142 \$402 \$438 \$600 \$6,737 \$1,666 \$433 \$1,737 \$1,373 \$2,244 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,754 \$19,705 |
| Pavement and Subsurface Soil Survey T1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN BRIDGE DESIGN PREMITS PRE-CONSULTATION MEETING WITH CORPS OF ENGINEERS PREPARE AGENDA & MINUTES PREPARE AGENDA & MINUTES PREPARE OWRB AND 404 PERMIT APPLICATION AND EXHIBITS IRECT PROJECT EXPENSES (NON-PAYROLL COSTS) | 0 | 2 2 1 1 2 2 | \$8,370 32 2 2 2 2 4 4 Refer to Bridge Des | 34 6 8 4 8 8 sign Fee Proposal | 2 2 8 4 4 | 1 1 1 | 113 53 12 14 3 12 12 12 14 0 14 151 46 11 5 8 | \$4,317 \$2,051 \$495 \$574 \$142 \$402 \$438 \$600 \$0 \$6,737 \$1,666 \$433 \$173 \$244 \$815 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,754 \$19,705 \$4,873 |
| Pavement and Subsurface Soil Survey T1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN BRIDGE DESIGN PRE-CONSULTATION MEETING WITH CORPS OF ENGINEERS PREPARE AGENDA & MINUTES PREPARE OWNS AND 404 PERMIT APPLICATION AND EXHIBITS PREPARE OWNS AND 404 PERMIT APPLICATION AND EXHIBITS RECT PROJECT EXPENSES (NON-PAYROLL COSTS) IRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL HYDROLOGY & HYDRAULIC ANALYSIS | 0 | 2 2 1 1 2 2 | \$8,370 32 2 2 2 2 4 4 Refer to Bridge Des 8 2 12 | \$419 34 6 8 4 8 8 ign Fee Proposal | 2 2 8 4 4 | 1 1 1 | 113 53 12 14 3 12 12 12 14 0 14 151 46 11 5 8 | \$4,317 \$2,051 \$495 \$574 \$142 \$402 \$438 \$600 \$0 \$6,737 \$1,666 \$3173 \$244 \$815 \$0 \$0 \$16,800 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,754 \$1,754 \$19,705 \$4,873 \$0 \$0 \$16,800 |
| Pavement and Subsurface Soil Survey T1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN BRIDGE DESIGN PERMITS PRE-CONSULTATION MEETING WITH CORPS OF ENGINEERS PREPARE EXHIBITS PREPARE OWRB AND 404 PERMIT APPLICATION AND EXHIBITS IRECT PROJECT EXPENSES (NON-PAYROLL COSTS) RECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL HYDROLOGY & HYDRAULIC ANALYSIS Adams Creek Hydraulics | 0 | 2 2 1 1 2 2 | \$8,370 32 2 2 2 2 4 4 Refer to Bridge Des | 34 6 8 4 8 8 sign Fee Proposal | 2 2 8 4 4 | 1 1 1 | 113 53 12 14 3 12 12 12 14 0 14 151 46 11 5 8 | \$8,789 \$8,789 \$1,77 \$2,051 \$495 \$574 \$142 \$402 \$438 \$600 \$5,737 \$1,666 \$433 \$1,737 \$1,737 \$244 \$815 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,754 \$19,705 \$4,873 \$0 \$0 \$16,800 \$16,800 |
| Pavement and Subsurface Soil Survey T1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN BRIDGE DESIGN PERMITS PRE-CONSULTATION MEETING WITH CORPS OF ENGINEERS PREPARE EXHIBITS PREPARE OWRB AND 404 PERMIT APPLICATION AND EXHIBITS IRECT PROJECT EXPENSES (NON-PAYROLL COSTS) IRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL HYDROLOGY & HYDRAULIC ANALYSIS Adams Creek Hydraulics T1932 TASK 3 - ENVIRONMENTAL STUDIES | COSTS) | 2 2 1 1 2 2 | \$8,370 32 2 2 2 2 4 4 Refer to Bridge Des 8 2 12 | \$419 34 6 8 4 8 8 ign Fee Proposal | 2 2 8 4 4 | 1 1 1 | 113 53 12 14 3 12 12 12 14 0 14 151 46 11 5 8 | \$4,317 \$2,051 \$495 \$574 \$142 \$402 \$438 \$600 \$0 \$6,737 \$1,666 \$3173 \$244 \$815 \$0 \$0 \$16,800 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,754 \$1,754 \$19,705 \$4,873 \$0 \$0 \$16,800 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN BRIDGE DESIGN PRE-CONSULTATION MEETING WITH CORPS OF ENGINEERS PREPARE AGENDA & MINUTES PREPARE OWRB AND 404 PERMIT APPLICATION AND EXHIBITS IRECT PROJECT EXPENSES (NON-PAYROLL COSTS) IRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL HYDROLOGY & HYDRAULIC ANALYSIS Adams Creek Hydraulics T1932 TASK 3 - ENVIRONMENTAL STUDIES IRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL | COSTS) | 2 2 1 1 2 2 | \$8,370 32 2 2 2 2 4 4 Refer to Bridge Des 8 2 12 | \$419 34 6 8 4 8 8 ign Fee Proposal | 2 2 8 4 4 | 1 1 1 | 113 53 12 14 3 12 12 12 14 0 14 151 46 11 5 8 | \$8,789 \$8,789 \$4,317 \$2,051 \$495 \$574 \$142 \$402 \$438 \$600 \$0 \$6,737 \$1,666 \$1,373 \$244 \$815 \$0 \$0 \$0 \$0 \$1,600 \$1,600 \$1,600 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,754 \$19,705 \$4,873 \$0 \$0 \$16,800 \$16,800 \$16,800 \$6,222 |
| Pavement and Subsurface Soil Survey ET1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN BRIDGE DESIGN PERMITS PRE-CONSULTATION MEETING WITH CORPS OF ENGINEERS PREPARE EXHIBITS PREPARE OWRB AND 404 PERMIT APPLICATION AND EXHIBITS IRECT PROJECT EXPENSES (NON-PAYROLL COSTS) IRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL HYDROLOGY & HYDRAULIC ANALYSIS Adams Creek Hydraulics T1932 TASK 3 - ENVIRONMENTAL STUDIES IRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL ENVIRONMENTAL STUDIES | COSTS) | 2 2 1 1 2 2 | \$8,370 32 2 2 2 2 4 4 Refer to Bridge Des 8 2 12 SUBCONTRACTOR \$16,000 | \$419 34 6 8 8 8 8 sign Fee Proposal | 2 2 8 4 4 | 1 1 1 | 113 53 12 14 3 12 12 12 14 0 14 151 46 11 5 8 | \$8,789 \$8,789 \$4,317 \$2,051 \$495 \$574 \$1402 \$438 \$600 \$0 \$5,737 \$1,666 \$433 \$173 \$244 \$815 \$0 \$16,800 \$16,800 \$6,221 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$11,754 \$19,705 \$4,873 \$0 \$0 \$0 \$16,800 \$16,800 \$6,222 \$6,222 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN BRIDGE DESIGN PRE-CONSULTATION MEETING WITH CORPS OF ENGINEERS PREPARE AGENDA & MINUTES PREPARE OWRB AND 404 PERMIT APPLICATION AND EXHIBITS IRECT PROJECT EXPENSES (NON-PAYROLL COSTS) IRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL HYDROLOGY & HYDRAULIC ANALYSIS Adams Creek Hydraulics T1932 TASK 3 - ENVIRONMENTAL STUDIES IRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL | COSTS) | 2 2 1 1 2 2 | \$8,370 32 2 2 2 2 4 4 Refer to Bridge Des | \$419 34 6 8 4 8 8 ign Fee Proposal | 2 2 8 4 4 | 1 1 1 | 113 53 12 14 3 12 12 12 14 0 14 151 46 11 5 8 | \$8,789 \$8,789 \$4,317 \$2,051 \$495 \$574 \$142 \$402 \$438 \$600 \$0 \$6,737 \$1,666 \$1,373 \$244 \$815 \$0 \$0 \$0 \$0 \$1,600 \$1,600 \$1,600 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,754 \$19,705 \$4,873 \$0 \$0 \$16,800 \$16,800 \$16,800 \$6,222 |
| Pavement and Subsurface Soil Survey ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST ASSESS ACCESS IMPACTS & REVISE ALIGNMENTS PROPOSED PAVEMENT LIMITS OF CONSTRUCTION CONCEPTUAL REPORT COMPARATIVE COST ESTIMATES BRIDGE DESIGN BRIDGE DESIGN PERMITS PRE-CONSULTATION MEETING WITH CORPS OF ENGINEERS PREPARE EXHIBITS PREPARE OWIRB AND 404 PERMIT APPLICATION AND EXHIBITS IRECT PROJECT EXPENSES (NON-PAYROLL COSTS) IRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL HYDROLOGY & HYDRAULIC ANALYSIS Adams Creek Hydraulics ST1932 TASK 3 - ENVIRONMENTAL STUDIES IRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL ENVIRONMENTAL STUDIES Studies Management Threatened & Endangered Species Assessment Waters & Wedfands Evaluation | COSTS) | 2 2 1 1 2 2 | \$8,370 32 2 2 2 2 2 4 4 4 | \$419 34 6 8 8 4 8 8 ign Fee Proposal 5.0% \$800 | 2 2 8 4 4 | 1 1 1 | 113 53 12 14 3 12 12 12 14 0 14 151 46 11 5 8 | \$8,789 \$8,789 \$4,317 \$2,051 \$495 \$574 \$1402 \$402 \$438 \$600 \$0 \$6,737 \$1,666 \$433 \$173 \$244 \$815 \$0 \$16,800 \$16,800 \$56,221 \$6,221 \$56,221 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,754 \$19,705 \$4,873 \$0 \$0 \$16,800 \$16,800 \$16,800 \$6,222 \$6,222 \$5,222 |
| Pavement and Subsurface Soil Survey T1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN F ABOR PLAN & PROFILE (2 ALTERNATIVES) (2 OPTIONS) HORIZONTAL ALIGNMENT - 23rd ST | COSTS) | 2 2 1 1 2 2 | \$8,370 32 2 2 2 2 4 4 Refer to Bridge Des 6 2 12 SUBCONTRACTOR \$16,000 | \$419 34 6 8 8 4 8 8 ign Fee Proposal 5.0% \$800 | 2 2 8 4 4 | 1 1 1 | 113 53 12 14 3 12 12 12 14 0 14 151 46 11 5 8 | \$8,789 \$8,789 \$4,317 \$2,051 \$495 \$495 \$574 \$142 \$402 \$438 \$500 \$0 \$0 \$50 \$500 \$15,666 \$433 \$5173 \$244 \$815 \$0 \$16,800 \$16,800 \$16,800 \$16,800 \$16,800 | \$8,789 \$8,789 \$49,132 \$32,332 \$6,000 \$1,754 \$1,754 \$19,705 \$4,873 \$0 \$0 \$0 \$16,800 \$16,800 \$6,222 \$6,222 \$6,222 \$1,512 \$1,859 |

| I Street Widening - Albany Street to Omaha Street | |
|---------------------------------------------------|--|
| | |

| Classification of Employee / Estimated Hours | Project Manager \$56.52 | Sr. Civil / Structural Engr \$55.45 | Civil / Structural Engineer \$43.25 | Jr. Engineer / Senior Technician \$39.45 | CADD Technician \$30.55 | Admin Assist | HOURS | Total Direct Labor (Raw) | Total |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------|-------------------------------------------|---------------------------------------------------|-------------------------------|--------------|----------------------------------|----------------------------------------------------------------------|-----------|
| ST1931 & ST1932 TASK 4 - PRELIMINARY DESIGN PHA | SE | William To the September of Control | Hart Street Bright Street | | | | 1,111 | | \$127,553 |
| LABOR | 0 | 66 | 239 | 514 | 286 | 6 | 1,111 | \$43,166 | \$127,241 |
| MISC PLANS & PLOT | | | | | | | 85 | \$3,075 | \$8,995 |
| TYPICAL SECTIONS MISCELLANEOUS DETAILS | | 1 | 2 | 4 | 8 | | 15 | \$544 | 100 |
| GEOMETRIC DATA SHEETS | | 2 | 2 | 4 | 8 | | 12 16 | \$417 \$600 | |
| SURVEY DATA SHEET | | | | 4 | 2 | | 6 | \$219 | |
| RIGHT OF WAY MAP SHEET INDEX, SHEET NUMBERS & REFERENCES | | | | 6 | 4 | | 10 | \$359 | |
| PLOT PRELIMINARY PLAN SUBMITTAL | | 4 | 2 | 4 | 8 | 4 | 22 | \$122 \$814 | |
| PRELIMINARY CONSTRUCTION SEQUENCE | | | | | | | 16 | \$540 | \$1,578 |
| PRELIMINARY CONSTRUCTION SEQUENCE PLAN & PROFILE | | | 4 | | 12 | | 16 | \$540 | |
| INCORPORATE SURVEY | | | 2 | 2 | 8 | | 264 12 | \$9,756 | \$28,536 |
| EXISTING UTILITIES | | | - | | | | 0 | \$410 \$0 | |
| EXIST PROPERTY LINES , EXIST ESMTS (TITLE REPORTS), OWNERS | | | 4 | 8 | 16 | | 28 | \$977 | |
| HORIZONTAL ALIGNMENT - 23rd ST VERTICAL ALIGNMENT - 23rd ST | | 1 | 2 | 4 | 4 | | 9 | \$361 | |
| HORIZONTAL ALIGNMENT - SIDE STREETS | | 1 | 1 | 4 | 2 | | 11 8 | \$422 \$318 | |
| VERTICAL ALIGNMENT - SIDE STREETS | | 2 | 2 | 8 | 4 | | 16 | \$635 | |
| HORIZONTAL ALIGNMENT - DRIVES VERTICAL ALIGNMENT - DRIVES | | | 2 | 6 | | | В | \$323 | |
| PROPOSED PAVEMENT | | | 4 | 12 8 | 16 | | 16 | \$646 \$977 | |
| SIDEWALKS AND WHEELCHAIR RAMPS | | 2 | 2 | 4 | 8 | | 16 | \$600 | |
| DRIVEWAYS | | 2 | 4 | 4 | 8 | | 18 | \$686 | |
| DRAINAGE STRUCTURES / STORM SEWERS LIMITS OF CONSTRUCTION | | | 8 | 16 12 | 24 8 | | 48 | \$1,710 | |
| PROPOSED RIGHT OF WAY | | | 6 | | 12 | | 28 18 | \$1,064 \$626 | |
| REVIEW & REVISIONS | | | | | | | 0 | \$0 | |
| SHEET PRODUCTION SURFACE / CROSS SECTIONS | | | | | | | 0 | \$0 | |
| EXISTING SURFACE | | | | 12 | | | 250 12 | \$10,046 | \$29,385 |
| EXISTING UTILITIES | | | | 12 | | | 12 | \$473 \$473 | |
| EXISTING RIGHT OF WAY | | | | 12 | | | 12 | \$473 | |
| TEMPLATES PROPOSED SURFACE & SUBGRADE | | | 8 | 8 48 | | | 10 | \$402 | |
| GENERATE CROSS SECTIONS | | | 4 | 12 | | | 56 16 | \$2,240 \$646 | |
| DRAIN CROSS SECTIONS | | 4 | 12 | | | | 16 | \$741 | |
| SIDE STREETS | | | 4 | 16 | | | 20 | \$804 | |
| DRIVES PROPOSED DRAINAGE STRUCTURES/STORM SEWERS | | 4 | 8 | 12 | | | 24 | \$1,041 | |
| PROPOSED RIGHT OF WAY | | 4 | 4 | 8 | | | 16 | \$819 \$710 | |
| SHEET PRODUCTION | | | 4 | 8 | 24 | | 36 | \$1,222 | |
| DRAINAGE | | | | | | | 268 | \$10,399 | \$30,416 |
| STORM SEWER DESIGN DRAINAGE AREA MAP | | 12 | 20 | 100 8 | | 2 | 134 | \$5,527 | |
| STORM SEWER PROFILES | | | 8 | 20 | 56 | | 10 84 | \$402 \$2,846 | |
| DRAINAGE SUMMARIES | | | 8 | 16 | | | 24 | \$977 | |
| DRAINAGE STRUCTURES (Sketch Plans) WATERLINE PLAN & PROFILES | | | 4 | 12 | | | 16 | \$646 | |
| WATERLINE DESIGN | | 12 | 24 | | | | 136 36 | \$5,542 \$1,703 | \$16,210 |
| WATERLINE - PLAN & PROFILES | | 4 | 12 | 12 | 32 | | 60 | \$2,192 | |
| WATERLINE - QUANTITIES SUMMARIES & NOTES | | 4 | 12 | | | | 16 | \$741 | |
| WATERLINE - ROADWAY PLAN & PROFILES SANITARY SEWER PLAN & PROFILES | | | 8 | 8 | 8 | | 24 | \$906 | |
| SANITARY SEWER DESIGN | | | | Ť | | | 0 | \$D \$0 | \$0 |
| SANITARY SEWER - PLAN & PROFILES | | | | | | | 0 | \$0 | |
| SANITARY SEWER - QUANTITIES SUMMARIES & NOTES SANITARY SEWER - ROADWAY PLAN & PROFILES | | | | | | | 0 | \$0 | |
| PRELIMINARY COST ESTIMATE | | | | | | | 74 | \$0 | |
| QUANTITIES | | 4 | 8 | 40 | | | 52 | \$3,076 \$2,146 | \$8,998 |
| PAY ITEMS, NOTES AND COST ESTIMATE | | 2 | 8 | 12 | | | 22 | \$930 | |
| RIGHT OF WAY - EXISTING | | | | | | | 18 | \$733 | \$2,144 |
| RIGHT OF WAY MAPS OWNERSHIP LIST | | | 2 | 12 | | | 16 | \$646 | |
| QUALITY CONTROL REVIEW | | | 2 | | | | 6 | \$87 \$335 | \$979 |
| QA/QC (1 Review) | 2 | 4 | | | | | 6 | \$335 | 4013 |
| IRECT PROJECT EXPENSES (NON-PAYROLL COSTS) | | | | | | | | | \$312 |
| REPRODUCTION | | | | | | | | \$312 | \$312 |
| Preliminary Plan Submittal | | | | | | | | \$312 | \$312 |
| IRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL (| COSTS) | | | | | | | \$0 | \$0 |
| • | | S | UBCONTRACTOR | 5.0% | | | | \$0 | \$0 |
| T1932 TASK 4 - PRELIMINARY DESIGN PHASE | | | | ila atira silua silua silua si | Control Policon | | | \$0 | \$0 |
| | | | | | | | 90 | | \$41,992 |
| ABOR | 0 | 0 | 30 | 44 | 16 | 0 | 90 | \$3,522 | \$16,687 |
| | | | | | | | 47 | \$2,183 | \$6,385 |
| BRIDGE DESIGN | | | Refer to Bridge Desig | n Fee Proposal | | | | | |
| BRIDGE DESIGN | | - | | | | | 90 | \$3,522 | \$10,302 |
| | | | 4 | | | | | \$172 | |
| CHANNEL COORDINATION WITH BRIDGE DESIGN CHANNEL DESIGN | | | 4 | 8 | | | | \$173 \$489 | |
| BRIDGE DESIGN CHANNEL COORDINATION WITH BRIDGE DESIGN CHANNEL DESIGN HORIZONTAL ALIGNMENT | | | 2 | 4 | | | 12 6 | \$489 \$244 | |
| CHANNEL COORDINATION WITH BRIDGE DESIGN CHANNEL DESIGN HORIZONTAL ALIGNMENT VERTICAL ALIGNMENT | | | 2 2 | | | | 12 6 6 | \$489 \$244 \$244 | |
| CHANNEL COORDINATION WITH BRIDGE DESIGN CHANNEL DESIGN HORIZONTAL ALIGNMENT VERTICAL ALIGNMENT TEMPLATES | | | 2 | 4 | | | 12 6 6 8 | \$489 \$244 \$244 \$346 | |
| CHANNEL COORDINATION WITH BRIDGE DESIGN CHANNEL DESIGN CHANNEL DESIGN HORIZONTAL ALIGNMENT VERTICAL ALIGNMENT TEMPLATES EARTHWORK EROSION CONTROL | | | 2 2 | 4 | | | 12 6 6 | \$489 \$244 \$244 \$346 \$316 | |
| CHANNEL COORDINATION WITH BRIDGE DESIGN CHANNEL DESIGN CHANNEL DESIGN HORIZONTAL ALIGNMENT VERTICAL ALIGNMENT TEMPLATES EARTHWORK EROSION CONTROL TYPICAL SECTION | | | 4 2 2 8 | 4 4 8 4 | 4 | | 12 6 6 8 8 4 6 | \$489 \$244 \$244 \$346 \$316 \$158 \$209 | |
| CHANNEL COORDINATION WITH BRIDGE DESIGN CHANNEL DESIGN CHANNEL DESIGN HORIZONTAL ALIGNMENT VERTICAL ALIGNMENT TEMPLATES EARTHWORK EROSION CONTROL TYPICAL SECTION PLAN & PROFILE | | | 4 2 2 8 8 | 4 4 8 4 | 8 | | 12 6 6 8 8 4 6 | \$489 \$244 \$244 \$346 \$316 \$158 \$209 \$733 | |
| CHANNEL COORDINATION WITH BRIDGE DESIGN CHANNEL DESIGN CHANNEL DESIGN HORIZONTAL ALIGNMENT VERTICAL ALIGNMENT TEMPLATES EARTHWORK EROSION CONTROL TYPICAL SECTION | | | 4 2 2 8 | 4 4 8 4 | | | 12 6 6 8 8 4 6 | \$489 \$244 \$244 \$346 \$316 \$158 \$209 | \$0 |

REPRODUCTION

Final Plan Submittal

DIRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL COSTS)

| Classification of Employee / Estimated Hours | Project Manager | Sr. Civil / Structural Engr | Civil / Structural | Jr. Engineer / Senior | CADD | Admin Assist | HOURS | Total Direct | Total |
|-----------------------------------------------------------------------------------------------------|-----------------|--------------------------------|---------------------|--------------------------|-----------------------|--------------|-----------|------------------------------------|----------------------|
| 30000000 8 8000 W. Art. 2019 91 T NAT 2000 01/10 4 2000 01/10 10 10 10 10 10 10 10 10 10 10 10 10 1 | \$56.52 | \$55.45 | Engineer \$43.25 | Technician \$39.45 | Technician \$30.55 | \$25.85 | | Labor (Raw) | |
| | | | | | | | | \$0 | \$0 |
| RECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROL | L COSTS) | | SUBCONTRACTOR | 5.0% | | | | \$25,305 | \$25,305 |
| GEOTECHNICAL INVESTIGATIONS Bridge | | ALSO DE LA CASA | \$24,100 | \$1,205 | VI. TRANSPORT | | | \$25,305 \$25,305 | \$25,305 \$25,305 |
| T1931 TASK 5 - RIGHT OF WAY DESIGN PHASE | | | | - 11 × 11 | | | 168 | | \$35,540 |
| ABOR RIGHT OF WAY - PROPOSED | 0 | 12 | 96 | 4 | 56 | 0 | 168 | \$6,686 | \$19,556 |
| PROPOSED RIGHT OF WAY | | | 24 | | 8 | | 168 32 | \$6,686 \$1,282 | \$19,557 |
| LEGAL DESCRIPTIONS (40 PARCELS) | | 8 | 48 | | | | 56 | \$2,520 | |
| PARCEL MAPS (40 PARCELS) OWNERSHIP LIST | | 4 | 24 | 4 | 48 | | 76 4 | \$2,726 \$158 | |
| RECT PROJECT EXPENSES (NON-PAYROLL COSTS) | ' | | | | | | | 0.00 | \$234 |
| REPRODUCTION | | | | | | | | \$234 | \$234 |
| Right of Way Plan Submittal | | | | | | | | \$234 | \$234 |
| RECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROL | COSTS) | | | | | | 27 | \$15,750 | \$15,750 |
| LAND SURVEY - R/W REVIEW | | | SUBCONTRACTOR | 5.0% | | | | | |
| ROW Document Review (Max 56 Parcels) | 56 | \$75 | \$4,200 | \$210 | | | | \$6,930 \$4,410 | \$6,930 |
| Property Staking (Max 24 Parcels) | 24 | \$100 | \$2,400 | \$120 | | | | \$2,520 | |
| ABSTRACTING Property Reports (Max 56 Parcels) | 56 | \$150 | \$8,400 | \$420 | | | | \$8,820 \$8,820 | \$8,820 |
| T1931 & ST1932 TASK 6 - FINAL DESIGN PHASE | | | | | | | 864 | | \$99,074 |
| ABOR | 2 | 68 | 200 | 234 | 348 | 12 | 864 | \$32,707 | \$95,667 |
| FINAL PLAN PRODUCTION | | | | | | | 165 | \$5,982 | \$17,499 |
| PRELIMINARY REVIEW REVISIONS SHEET INDEX, SHEET NUMBERS & REFERENCES | | 4 | 12 | 16 | 40 | | 72 | \$2,594 | |
| PLOT FINAL PLAN SUBMITTAL | | | 2 | 2 | 4 | 4 | 3 12 | \$104 \$391 | |
| FINAL REVIEW REVISIONS | | 4 | 12 | 12 | 40 | | 68 | \$2,436 | |
| BID SUBMITTAL ADVERTISEMENT | - | | | | | | 0 | \$0 \$0 | |
| CONFORMED DRAWINGS | | | | | | | 0 | \$0 | |
| CROSS SECTIONS CHECKLISTS | | 2 | 8 | | | | 10 | \$457 | |
| UPDATE SURFACE | | | 8 | 24 | | | 108 32 | \$4,401 \$1,293 | \$12,874 |
| EARTHWORK VOLUMES | | 4 | 8 | 24 | | | 36 | \$1,515 | |
| REMOVAL PLANS | | 8 | 8 | 8 | 16 | | 40 | \$1,594 | |
| REMOVAL PLANS | | | 2 | 8 | 24 | | 34 34 | \$1,135 \$1,135 | \$3,321 |
| PAVEMENT MARKING & SIGNING | | | | • | | | 35 | \$1,254 | \$3,667 |
| PAVEMENT MARKING PERMANENT SIGNING | | | 2 | 4 | 12 8 | | 17 | \$568 | |
| SUMMARIES | | 2 | 2 | - | 0 | | 4 | \$489 \$197 | |
| INTERSECTION & DRIVEWAY DETAILS | | | | | | | 48 | \$1,710 | \$5,003 |
| INTERSECTION & DRIVEWAY DETAIL SHEETS JOINT LAYOUT PLANS | | | 8 | 16 | 24 | | 48 | \$1,710 | **** |
| JOINT LAYOUT PLANS | | 4 | 8 | 8 | 20 | | 40 | \$1,494 \$1,494 | \$4,371 |
| EROSION CONTROL PLANS & STORMWATER POLLUTION PREVEN | TION PLAN | | | | | | 76 | \$2,786 | \$8,150 |
| EROSION CONTROL PLANS PLAN SHEET - REPORT FORMAT | | 2 | 2 | 8 | 20 | | 34 | \$1,211 | |
| REPORT | | | 24 | | 8 | 8 | 10 32 | \$331 \$1,245 | |
| DRAINAGE STRUCTURES - DESIGN AND FINAL DETAILS | | | | | | 7 | 48 | \$1,774 | \$5,190 |
| DRAINAGE STRUCTURES - DESIGN AND FINAL DETAILS CONSTRUCTION SEQUENCE & TRAFFIC CONTROL | | 4 | 8 | 12 | 24 | | 48 | \$1,774 | |
| CONSTRUCTION SEQUENCE & TRAFFIC CONTROL | | 8 | 12 | | 40 | | 60 | \$2,185 \$2,185 | \$6,390 |
| PAY ITEMS, NOTES, COST ESTIMATE | | | | | | | 104 | \$4,404 | \$12,883 |
| QUANTITIES PAY ITEMS | | 8 2 | 8 2 | 48 8 | | | 64 | \$2,683 | |
| PAY ITEMS PAY ITEMS | | 2 | 2 | 8 | | | 12 | \$513 \$513 | |
| GENERAL NOTES | | 2 | | 4 | | | 6 | \$269 | |
| QUALITY CONTROL REVIEW | | 2 | | 8 | | | 10 | \$427 | 4000 |
| QA/QC (1 Review) | 2 | 4 | | | | | 6 | \$335 \$335 | \$979 |
| RIGHT OF WAY REVISIONS / COORDINATION | | | | | | | 56 | \$2,016 | \$5,896 |
| RIGHT OF WAY REVISIONS RIGHT OF WAY COORDINATION | | | 12 | | 16 | | 28 | \$1,008 | |
| WATERLINE PLAN & PROFILES | | | 12 | | 16 | | 28 84 | \$1,008 \$3,229 | \$9,444 |
| WATERLINE DESIGN | , | 4 | 12 | | | | 16 | \$741 | +-,+++ |
| WATER LINE - PLAN & PROFILES WATERLINE - QUANTITIES SUMMARIES & NOTES | | 2 | 6 | 6 | 16 | | 26 8 | \$899 | |
| WATERLINE - QUANTITIES SUMMARIES & NOTES WATERLINE - DETAILS | | | 8 | | 12 | | 20 | \$370 \$713 | |
| WATERLINE - CROSS SECTIONS | | | | 4 | | | 4 | \$158 | |
| WATERLINE - ROADWAY PLAN & PROFILES SANITARY SEWER PLAN & PROFILES | | | 2 | 2 | 6 | | 10 | 5349 | |
| | | | | | | | 0 | \$0 \$0 | \$0 |
| SANITARY SEWER DESIGN | | | | | | | 0 | \$0 | |
| SANITARY SEWER - PLAN & PROFILES | | | | | | | | | |
| SANITARY SEWER - PLAN & PROFILES SANITARY SEWER - QUANTITIES SUMMARIES & NOTES | | | | | | | 0 | \$0 | |
| SANITARY SEWER - PLAN & PROFILES | | | | | | | | | |

\$3,407

\$773

\$2,635

\$0

\$0 \$0

\$3,407

\$773

\$2,635

\$0

\$0 \$0

Exhibit 3 | Project Fee Schedule

23rd Street Widening - Albany Street to Omaha Street

City of Broken Arrow GO BOND - Project ST1931 & ST 1932

| Classification of Employee / Estimated Hours | Project Manager \$56.52 | Sr. Civil / Structural Engr \$55.45 | Civil / Structural Engineer \$43.25 | Jr. Engineer / Senior Technician \$39.45 | CADD Technician \$30.55 | Admin Assist \$25.85 | HOURS | Total Direct Labor (Raw) | Total |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------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| ST1932 TASK 6 - FINAL DESIGN PHASE | | | | | | | 20 | | \$131,294 |
| LABOR | 0 | 0 | 4 | 8 | 8 | 0 | 20 | \$733 | \$131,294 |
| BRIDGE DESIGN | | | | | | | 1,168 | \$44,154 | \$129,150 |
| BRIDGE DESIGN | | | Refer to Bridge De | sign Fee Proposal | | | | | |
| CHANNEL CHANNEL REALIGNMENT PLAN & PROFILE | | | 4 | 8 | 8 | | 20 20 | \$733 | \$2,144 |
| DIRECT PROJECT EXPENSES (NON-PAYROLL COSTS) | | | - 1 | | | | 20 | \$733 | |
| REPRODUCTION | | | | | | | | | \$0 |
| REPRODUCTION | | | | | | | | \$0 \$0 | \$0 \$0 |
| DIRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL | costs) | | SUBCONTRACTOR | 5.0% | | | | \$0 | \$0 |
| | | | | | | | | \$0 | \$0 |
| ST1931 & ST1932 TASK 7 - ASSISTANCE DURING BIDD | ING PHASE | The second second | | | | | 110 | \$0 | \$0 |
| LABOR | 12 | 30 | 44 | | 20 | | 118 | WALES. | \$15,315 |
| per second and a second a second and a second a second and a second a second and a second and a second and a | 12 | 30 | 44 | 0 | 32 | 0 | 118 | \$5,222 | \$15,276 |
| CONTRACT DOCUMENTS & ADVERTISING PRE-BID MEETING | 4 | 4 | 4 | | | | 72 12 | \$3,159 \$621 | \$9,240 |
| ADDENDUM | - | 4 | 16 | | 16 | | 36 | \$1,403 | |
| ENGINEER'S ESTIMATE | | 2 | 4 | | | | 6 | \$284 | |
| BID OPENING | | 2 | | | | | 2 | \$111 | |
| BID TAB RECOMMENDATION FOR AWARD OF CONTRACT | | 2 | 8 | | | | 10 | \$457 | |
| GENERAL SERVICES | | 2 | 4 | | | | 6 | \$284 | |
| PRE CONSTRUCTION MEETING | 4 | 4 | 4 | | | - I | 46 12 | \$2,063 \$621 | \$6,035 |
| PUBLIC CONSTRUCTION MEETING | 4 | 4 | 4 | | | | 12 | \$621 | |
| EXHIBITS FOR MEETINGS | | 4 | | | 16 | | 20 | 5711 | |
| AGENDA & MEETING MINUTES (1 Max) | | 2 | | | | | 2 | \$111 | |
| DIRECT PROJECT EXPENSES (NON-PAYROLL COSTS) | | | | | | W | | \$39 | \$39 |
| REPRODUCTION | | | | | | | | \$39 | \$39 |
| Conformed Drawings DIRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL | COSTSI | | | | | | | \$39 | \$39 |
| | | halfy the constraint of the | 2000 1216 182 180 | testing and the same | | WITH TOURSE | N. M. TIAT VINSA | \$0 | \$0 |
| ST1932 TASK 7 - ASSISTANCE DURING BIDDING PHAS | | | | | | | 44 | | \$4,684 |
| LABOR | | | | | | | 44 | \$1,601 | \$4,684 |
| BRIDGE DESIGN BRIDGE DESIGN | | | D.4 | - F. B | | | 44 | \$1,601 | \$4,684 |
| DIRECT PROJECT EXPENSES (NON-PAYROLL COSTS) | | | Refer to Bridge Des | ign Fee Proposal | | | | | 9/8 |
| REPRODUCTION | | | | | | | | \$0 | \$0 |
| Conformed Drawings | | | | | | | | \$D | \$0 |
| DIRECT PROJECT EXPENSES - SUBCONTRACTS (NON-PAYROLL | COSTS) | | | | | | | \$0 \$0 | \$0 |
| | General Control Services | | | And a service to the service of the | Advention to the second | | II AUTOSTALOUS I | φu | \$0 |
| ST1931 & ST1932 TASK 8 - PROJECT CLOSE-OUT PHAS | | 200 | | - | ALICO TO THE RESIDENCE OF THE PERSON OF THE | 40 | 112 | | \$13,104 |
| LABOR | 0 | 16 | 40 | 0 | 52 | 4 | 112 | \$4,309 | \$12,604 |
| HYDROLOGY & HYDRAULICS LOMR APPLICATION PREPARATION | | | 24 | | | | 36 | \$1,585 | \$4,636 |
| GENERAL SERVICES | | В | 24 | | | 4 | 36 | \$1,585 | ***** |
| RECORD DRAWINGS | | 8 | 16 | | 52 | r | 76 | \$2,724 \$2,724 | \$7,968 |
| DIRECT PROJECT EXPENSES (NON-PAYROLL COSTS) | | - | .5 | | 52 | L | 10 | | 2400 |
| REPRODUCTION | | | | | | | | \$500 \$500 | \$500 |
| Record Drawings | | | | | | | | \$500 | \$500 \$500 |
| Trecord Drawings | | | | | | | | 3300 | \$300 |

| Summary of Contract Values | | ROADWAY* | BRIDGE* |
|---------------------------------------------------------------|-----------|-----------|-----------|
| Phase F | Total | ST1931 | ST1932 |
| ST1931 & ST1932 Contract Values | \$605,578 | \$304,911 | \$300,667 |
| ST1931 & ST1932 TASK 1 - LAND SURVEY | \$35,700 | \$28,560 | \$7,140 |
| ST1931 & ST1932 TASK 2 - PLANNING & CONCEPTUAL DESIGN PHASE | \$95,098 | \$36,773 | \$58,325 |
| ST1932 TASK 3 - ENVIRONMENTAL STUDIES | \$6,222 | \$0 | \$6,222 |
| ST1931 & ST1932 TASK 4 - PRELIMINARY DESIGN PHASE | \$169,545 | \$102,042 | \$67,503 |
| ST1931 TASK 5 - RIGHT OF WAY DESIGN PHASE | \$35,540 | \$35,540 | \$0 |
| ST1931 & ST1932 TASK 6 - FINAL DESIGN PHASE | \$230,369 | \$79,260 | \$151,109 |
| ST1931 & ST1932 TASK 7 - ASSISTANCE DURING BIDDING PHASE | \$19,999 | \$12,252 | \$7,747 |
| ST1931 & ST1932 TASK 8 - PROJECT CLOSE-OUT PHASE | \$13,105 | \$10,484 | \$2,621 |

*NOTE: Designated hours contained on this Fee Sheet are split 80% ST1931 and 20% ST1932 for the Roadway contained within the Bridge transitions.



BRIDGE ENGINEERING CONTRACT FEE PROPOSAL Sheet 1 of 3

BRIDGE DESCRIPTION 3 Span Bridge Replacement of 23rd Street over Adams Creek 23rd Street Widening Albany to Omaha PROJECT DESCRIPTION_ NAME OF ORGANIZATION SUBMITTING PROPOSAL Benham Design, LLC Bridge A - Adams Creek City of Broken Arrow N. 23rd Street ST1931-1932 STREET CONTRACT No. BRIDGE DESIGNATION

May 20, 2019

| DIRECT SALARY COSTS | | | I ABOR CATEGORY | FGORY | | | | | | | |
|--------------------------------------------------------------------------|-------------------------------|-----------------------------------------------|--------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|------|----------|-----------------------------|---------|
| | + | 2 | 3 | 4 | 22 | œ. | | | | | |
| Bridge A: 3 Span Bridge over Adams Creek Raw Direct Labor Rate | Project Manager \$56.52 | Sr. Civil / Structural \$55.45 | Civil / J | Jr. Engineer / Sr. Tech | cian | Admin Assist | | | | | |
| BRIDGE PLAN DEVELOPMENT | | | | | | | Sub-Task | Task | Activity | Total Direct Labor (Raw) | Total |
| | | | | | | | | | | | |
| 3.3 Prepare Alternatives Study for Conceptual Plans | | 36 | | 32 | | 2 | | | 0.2 | \$3,310 | \$9,683 |
| 3.3.2 Square versus Skewied | | 24 | | 24 | | 2 | | 20 | | | |
| 3.3.3 Steel versus Concrete Superstructure | | 4 | | 0 | | | | 12 | | | |
| 3.3.4 Prepare Conceptual Report | | 4 4 | | T | | | | 4 4 | | | |
| | | | | | | | | | | | |
| 3.4 Generate Bridge Finished Grade Requirements | | | | 4 | | | | | 4 | \$158 | \$462 |
| 3.8 Prepare Conceptual Bridge Plans | 6 | 4 | 45 | 36 | 0 | | | | 8 | 10000 | 000.04 |
| 3.8.1 Committe Preliminary Geometrics | | - | 2 | 9 0 | 0 | | _ | | 20 | \$2,845 | \$8,322 |
| 3.8.2 Perform Preliminary Structural Design | | - | 4 < | 7 | 4 0 | | | | | | |
| 3.8.3 Perform Comparative Cost Estimates (span arrangement and depth) | | - | 1 | | 7 | | | | | | |
| 3.8.4 Draft Preliminary Bridge Plans | | 3 | 4 | 34 | THE PARTY OF THE P | | | 41 | | | |
| 3.8.4.1 Draft Preliminary General Plan & Elevation | | - | 4 | 18 | | | 23 | | | | |
| 3.8.4.2 Draft Preliminary Sequence of Construction Sheets (If Necessary) | | 2 | | 16 | | | 18 | | | | |
| 3.8.4.3 Draft Preliminary Details (if Necessary) | | | | | | | | | | | |
| 3.8.5 Check & Review Preliminary Bridge Plans | 2 | 2 | 2 | | 2 | | | 8 | | | |
| 3.8.6 Prepare Cost Estimate | | | 1 | | 1 | | | 2 | | | |
| | | | | | | | | | | | |
| 3.10 Attend Conceptual Plan Field Review Meeting | 4 | 2 | 2 | | | | | | 8 | \$423 | \$1,239 |
| 2 44 Decares Designates Disse | | THE RESERVE OF THE PERSON NAMED IN COLUMN TWO | The second second second | | | | | | | | |
| S. II Frepare Fremmay Flams | | | 7 | 4 | 9 | | ٠ | | 1 | \$397 | \$1,161 |
| 3.11.7 Make Changes From Conceptual Plan Fleid Review | | | 2 | 4 | 2 | | | 7 | | | |
| 3.11.7.3 Revise Cost Estimate Based Upon Square Foot Costs | | | - | 4 | 4 + | | D C | | | | |
| | | | | | | | 7 | | | | |
| 3.12 Generate Bridge Sounding Requirements | | | | 2 | | | | | A | \$478 | ¢£40 |
| 3.12.1 Layout Boring Locations On GP&E | | - | 1 | 2 | | | _ | 4 | • | | CIO |
| | | | | | | | | | | | |
| 3.14 Prepare Corps Permit Application | | 4 | | | | | | | 4 | \$222 | \$649 |
| | | | | | | | | | | | |
| 3.16 Attend Preliminary Plan Review Meeting | 4 | 2 | 2 | | | | | | 8 | \$423 | \$1,239 |
| 2.47 Hadakos for Decliminaes Dlan Decina Maceina | | Constitution | | | | | | | | | |
| 3.17 Updates for Preliminary Plan Review Meeting | | 7 0 | | 80 0 | | | _ | | 10 | \$427 | \$1,248 |
| 5.11.5 Make Clanges From Fremmaly Franciscus | | 7 | | 20 | 1 | | 1 | 01 | | | |
| 3.18 Attend Public Meeting | 9 | 2 | 16 | | | | | | 40 | ¢E37 | 64 560 |

Footnote: If an item is not applicable, leave the box blank.

OKLAHOMA DEPARTMENT OF TRANSPORTATION BRIDGE ENGINEERING CONTRACT FEE PROPOSAL Sheet 2 of 3

| BENTATION COSTS 3.22 Prepare Bridge Structural Design 3.2.1 Perform Structural Design of Components 3.2.1.2 Design Plens 3.2.2.1.2 Design Plens 3.2.2.1.2 Design Plens 3.2.2.1.2 Design Plens 3.2.2.1.2 Design Plens | 1 Project Str. Str. Ste6.52 S | - S | ATEGORY 4 Jr. Engineer | 2 | | | | | 5 | WOUND TO THE PARTY OF THE PARTY |
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| Components | Project Str. Manager Str. \$6.52 \$ | 3 ii / Civil / cral Structural 5.45 \$ 43.28 | 4 Jr. Engineer | 2 | | | | | | TOOL VILLE |
| Components | Project St. Manager Strings. \$56.52 \$ | ii / Civil / Civil / Structural 5.45 \$ 43.25 | Jr. Engineer | | 9 | | | | Bridge | Bridge A - Adams Creek |
| Components | Manager Str. \$56.52 \$ | ral Structural 5.45 \$ 43.25 | /Sr Tech | CADD | | | | | Ship | - Adams Cleen |
| Components | \$56.52 \$ | 5.45 \$ 43.25 | 101.1601 | Technician Admin Assist | min Assist | | | | | |
| 3.22 Prepare Bridge Structural Design [3.22.1 Perform Structural Design of Components [3.22.1 Design Plens Tructural Design of Components [3.22.12 Design Plens Tructural Design Plens | 0 | | 5 \$ 39.45 \$ | \$ 30.55 \$ | 25.85 | | | | May 20, 2019 | May 20, 2019 |
| 3.22 Prepare Bridge Structural Design 3.22.1 Perform Structural Design of Components 3.22.1 Design Superstructure 3.22.1.2 Design Plers | 0 | 웃 | HOURS | | , | Sub-Tack | Tack | Activity | Total Direct | |
| 3.22 Prepare Bridge Structural Design 3.22.1 Perform Structural Design of Components 3.22.1 Design Superstructure 3.22.12 Design Superstructure | | 0 | 0 | 0 | 0 | 400 | uce. | ACTIVITY | Labor (Raw) | lotal |
| 3.22.1 Perform Structural Design of Components 3.22.1 Design Superstructure 3.22.1.2 Design Superstructure | DATE OF THE PROPERTY OF THE PARTY OF THE PAR | 56 156 | 99 | | The Control of the Co | | I | 242 | 40 052 | 040 040 |
| 3.22.1.1 Design Superstructure | から は 一日 一日 一日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 | 16 118 | 8 | | March Street, | E | 124 | 717 | | \$78,818 |
| 3.22.1.2 Design Piers | | 4 | 48 | | 000 | 50 | | C P. C. C. | | |
| | | 9 | 48 | | | 54 | | rilased Collstinction | CHOIL | |
| 3.22.1.3 Design Abutment | | 4 | 12 | | | 100 | | | | |
| 3.22.1.4 Design R.C. Box | | | 1 | | STATE OF THE PARTY | 0 | | | | |
| 3.22.1.5 Design Retaining Walls/Sound Walls | | | | | | | | | | |
| 3.22.1.6 Design Miscellaneous Components | | 2 | 10 | | | 42 | | | | |
| 3.22.2 Perform Structural Design Check of Components | | 発行を対象がある | 38 | STATES STATES STATES | New York Control of the Party o | 7 | 70 | | | |
| 3.22.2.1 Check Superstructure | | 16 | 20 | THE REPORT OF THE PARTY OF THE | The state of the s | 35 | 10 | | | |
| 3.22.2.2 Check Piers | | | 12 | | AND THE PERSON NAMED IN COLUMN | 8 6 | | | | |
| 3.22.2.3 Check Abutment | | | 10 | | | 300 | | | | |
| 3.22.2.4 Check R. C. Box | | | 4 | | | 1 | | | | |
| 3.22.2.5 Check Retaining Walls/Sound Walls | | | | | | | | | | |
| 3.22.2.6 Check Miscellaneous Components | | 4 | 4 | | | α | | | | |

| | | | | STATE OF THE PERSON NAMED IN COLUMN | The second secon | | | |
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| 3.23.1 Review Bridge Geotechnical Report | | | | | | | THE PERSON NAMED IN COLUMN | |
| 3 23 2 Develor & Blot Foundation Benort Shoots | | | | | | | | |
| control of the contro | | | | | | | た の は の は の は の の の の の の の の の の の の の | |
| 3.23.3 Develop Foundation Design Parameters | | | | | | Ι | 田子 たんし いたれたり 口 | |
| 3.23.4 Attend Foundation Conference | | | | | | I | | |
| | | | | | | | | |
| 3.24 Prepare Bridge Final Plan Field Review Plans | 4 | 21 | 32 | 62 | 112 | ## | | 234 69 642 |
| 3.24.1 Compute Final Bridge Geometry | | 1 | 4 | 14 | 24 | | CV TO STREET, | |
| 3.24.1.1 Compute Final Overall Geometry | | - | 2 | 9 | 0 | CHECK SHEET | 17 | |
| 3.24.1.2 Compute Final Component Geometry | | | 0 | α | 15 | | 30 | |
| 3.24.2 Draft Proposed Bridge Plans | S TANCOUNT CONTRACTOR | STATE STATE OF THE PARTY OF THE | The Control of the Co | 18 | 44 | September 200 | 20 | |
| 3.24.2.1 Modify Proposed General Plan & Elevation | | | | 2 4 | 107 | PARTICIONAL PROPERTY OF THE PARTICION AND ADDRESS OF THE PARTICION AND ADD | 70 | - |
| 3.24.2.2 Modify Proposed Sequence of Construction Sheets | | | | D (4 | 0 4 | | 47 | |
| 3.24.2.3 Draft Proposed Detail Sheets as Reg. for Constructability Review | | | | 0 | 2 6 | | 77 | |
| 000 | | | | 0 | 2 | STATE OF THE PARTY | 10 | |
| And a control of the | 4 | 20 | 24 | 30 | 40 | | 118 | |
| 3.24.4 Prepare Cost Estimate Based upon Preliminary Quantities | | | 4 | | 4 | | a | |

Footnote: If an item is not applicable, leave the box blank.

3.28.4 Prepare Final Plan Field Review Report
3.28.4 Make Changes From Final Plan Field Review
3.28.4.1 Make Changes to Bridge Plans
3.28.4.5 Revise Cost Estimate Based Upon Final Quantities

19 9



OKLAHOMA DEPARTMENT OF TRANSPORTATION BRIDGE ENGINEERING CONTRACT FEE PROPOSAL Sheet 3 of 3

ST1931-1932 City of Broken Arrow N. 23rd Street

CT SALARY COSTS

| DIRECT SALARY COSTS | | | LABOR CATEGORY | EGORY | | | | | | | N 23rd Street |
|------------------------------------------------------------------------------|----------|---------------------------|----------------|--------------|----------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------|------------------------|
| | , | 2 | 3 | 4 | 2 | 9 | | | | Bridge | Bridge A - Adams Creek |
| Labor Description | Project | Sr. Civil / Structural | Civil / J | Jr. Engineer | CADD | Admin Assist | | | | | |
| Raw Direct Labor Rate | \$ 56.52 | 55.45 | 15 | 39.45 | \$ 30.55 | \$ 25.85 | | | | May 20, 2019 | May 20, 2019 |
| | | | odion | | | | | , | | Total Direct | |
| | • | 2 | NOOL O | 0 | • | • | Sub-Task | lask | Activity | Labor (Raw) | Total |
| 3.30 Prepare Bridge Final Plans | | 26 | 2 23 | 405 | 446 | | | | 200 | | |
| 2 20 4 December Final Disday Datail Chante | | 67 | 20 | 201 | 410 | | | | 680 | \$23,742 | \$69,446 |
| S.SU. Prepare Final Bridge Detail Sheets | | 7 | 27 | 139 | 312 | | | 485 | | | |
| 3.30.1.1 Finalize General Plan & Elevation Sheet(s) | | | 9 | 20 | 40 | | 99 | | Phased Construction | nction | |
| 3.30.1.2 Finalize Construction Phasing Sheet(s) | | | 2 | 12 | 80 | | 22 | In | | | |
| 3.30.1.3 Finalize Foundation Report Sheet(s) | | | 2 | 2 | 9 | | 10 | 10 | | | |
| 3.30.1.4 Prepare Staking Detail Sheet(s) | | | | 80 | 12 | | 20 | 10 | | | |
| 3.30.1.5 Prepare Abutment Detail Sheet(s) | | | - | 10 | 42 | | 53 | ılm | | | |
| 3.30.1.6 Prepare Wingwall Detail Sheet(s) | | | • | 4 | 80 | | 1 | l.co | | | |
| 3.30.1.7 Prepare Substructure Excavation Detail Sheet(s) | | | | - | 12 | | 15 | ılm | | | |
| 3.30.1.8 Prepare Pier Detail Sheet(s) | | 4 | 9 | 36 | 74 | | 120 | 10 | | | |
| 3.30.1.9 Prepare Superstructure Detail Sheet(s) | | - | 2 | 20 | 40 | | 63 | Im | | | |
| 3.30.1.10 Prepare Beam Detail Sheet(s) | | - | 2 | 10 | 30 | | 43 | lm | | | |
| 3.30.1.11 Prepare Bearing Assembly Detail Sheet(s) | | | 2 | 9 | 16 | | 2, | ı. | | | |
| 3.30.1.12 Prepare Approach Slab Detail Sheet(s) | | | - | 9 | 16 | | 23 | -1~ | | | |
| 3.30.1.13 Prepare Slope Wall Detail Sheet(s) | | | | | | | | | | | |
| 3.30.1.14 Prepare Riprap Detail Sheet(s) | | | | | | | Paresculated | | | | |
| 3.30.1.15 Prepare Bridge Rehabilitation Detail Sheet(s) | | | | | | | | | | | |
| 3.30.1.16 Prepare RCB Barrel Detail Sheet(s) | | | | | | | | | | | |
| 3.30.1.17 Prepare RCB Wing/Apron Detail Sheet(s) | | | | | | | | | | | |
| 3.30.1.18 Prepare Channel Modification Sheet(s) | | | | | | | The Control of the Co | | | | |
| 3.30.1.19 Prepare Retaining Walls/Sound Walls Layout Sheet(s) | | | | | | | | | | | |
| 3.30.1.20 Prepare Retaining Walls/Sound Walls Detail Sheet(s) | | | | | | | | | | | |
| 3.30.1.21 Prepare Miscellaneous Detail Sheet(s) RIPRAF | | - | 2 | 4 | 80 | | 15 | lio | | | |
| 3.30.2 Compute Quantities | | 4 | 8 | 40 | 89 | | | 120 | _ | | |
| 3.30.3 Prepare Bridge General Notes Sheet(s) | | 4 | 88 | | 12 | | | 24 | | | |
| 3.30.4 Prepare Bridge Summary of Quantities Sheet(s) | | 2 | 4 | 4 | 12 | | | 22 | | | |
| 3.30.5 Prepare Bridge Special Provision(s) | | | | | | | | Particular State of the | | | |
| 3.30.6 Check & Review Final Bridge Plans Sr Engr. & Indep. QC Review of PS&E | - | 7 | 4 | 2 | 12 | | | 23 | | | |
| 3.30.7 Prepare Final Bridge Construction Estimate | | 4 | 2 | | | | | 9 | l | | |
| | | | | | | | | | | | |
| 5.1 Bid Phase | | 4 | 4 | 12 | 24 | | | | 44 | \$1,601 | \$4.684 |
| 5.1.1 Revise Plans as needed for Addenda | | 2 | 4 | 12 | 24 | | | 42 | | | |
| 5.1.2 Attend Pre-Bid Conference | | 2 | | | | | | 2 | | | |
| | | - | | 1 | | | | The state of the s | | | |

| | SIS | 72 | 171 | 279 | 349 | 285 | 2 | | 1410 |
|--|-----|----|-----|-----|-----|-----|---|--|------|
|--|-----|----|-----|-----|-----|-----|---|--|------|

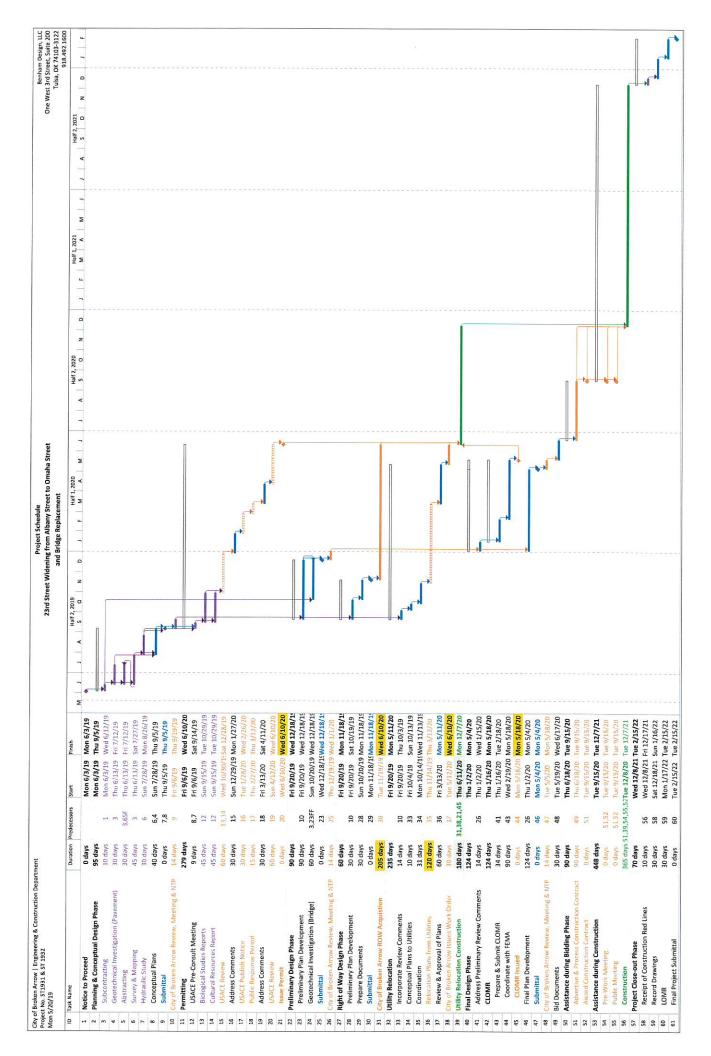
Footnote: If an item is not applicable, leave the box blank.

| | | | \$38.78 | Tech | 933 |
|----------|------------------------|-----------------|----------------|----------|------------|
| Bridge A | 25 | 26 | Bridge A | | |
| 8 | Total Number of Sheets | Hours per Sheet | Aggregate Rate | Engineer | 477 34% |

| \$159,923 | \$54,675 | 1410 | Total |
|-------------|----------|------|--------------------------------------|
| \$4,684 | \$1,601 | 44 | Assistance during Bidding Phase |
| \$129,149 | \$44,154 | 1168 | Final Design Phase |
| \$6,385,13 | \$2,183 | 47 | Preliminary Design Phase |
| \$19,704.76 | \$6,737 | 151 | Planning and Conceptual Design Phase |

\$159,923

675





CERTIFICATE OF SECRETARY OF BENHAM DESIGN, LLC

This Certificate is being executed and delivered for the purpose of providing verification to the City of Broken Arrow that, Adam B. West, executing documents on behalf of Benham Design, LLC, (the "Company"), is duly authorized to bind the Company.

Therefore, I, Nancy A. Rhoads, hereby certify on behalf of Benham Design, LLC, a Delaware limited liability company (the "Company"), as follows:

- That I am a duly elected Assistant Secretary of the Company:
- (ii) That the First Amended and Restated Operating Agreement of Benham Design, LLC, effective as of the 18th day of April, 2016, with Section 4.20 contained therein provides the following:

"The officers of the Company shall have such powers and duties in the management of the Company as may be prescribed by the Member or Board of Directors and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the Board of Directors."

That signature authority for officers of the Company was adopted by the Board of Directors of the (iii) Company, effective the 18th day of April 2016, including the following resolution, which resolution has not been altered, amended, rescinded or repealed and remains in full force and effect:

> RESOLVED, that the following officers of the Company shall have the authority to sign contracts and other legal documents on behalf of the Company, exclusive of any financing arrangements between the Company and any bank or financial institution:

> > President

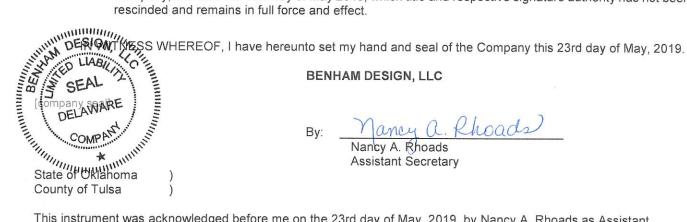
Senior Vice President

Executive Vice President

Vice President

Secretary

That Adam B. West was elected by the Board of Directors to serve as Senior Vice President of the Company, effective the 13th day of May 2016, which title and respective signature authority has not been rescinded and remains in full force and effect.



BENHAM DESIGN, LLC

Nancy A. Rhoads Assistant Secretary

This instrument was acknowledged before me on the 23rd day of May, 2019, by Nancy A. Rhoads as Assistant Secretary of Benham Design, LLC.

PAMELA REEDER Notary Public in and for STATE OF OKLAHOMA Commission #01007622 Expires: June 10, 2021 **CRORORORORORORO**

Pamela L. Reeder #01007622 Expiration Date: 06/10/2021

FIRST AMENDED AND RESTATED OPERATING AGREEMENT OF

BENHAM DESIGN, LLC

(A Delaware Limited Liability Company)

THIS FIRST AMENDED AND RESTATED OPERATING AGREEMENT ("Agreement") is made and entered into effective as of the /8 day of // , 2016, by and between BENHAM DESIGN, LLC (the "Company"), a Delaware limited liability company, and the sole Member of the Company, THE HASKELL COMPANY (the "Member"), a Delaware corporation;

WHEREAS, the Company was originally formed as a Delaware corporation, effective May 29, 2015, and converted to a Delaware limited liability company, effective on August 20, 2015; and

WHEREAS, prior to the conversion of the Company to a Delaware limited liability company, the Former Member was the sole shareholder of 100% of the shares of the capital stock of the Company, which shares were converted into 100% of the membership interests of the Company as a result of the conversion; and

WHEREAS, the Former Member entered into this Agreement for the purpose of conducting the business of the Company as a limited liability company; and

WHEREAS, effective as of the transaction Closing on April 15, 2016, as defined in the Equity Purchase Agreement dated March 14, 2016, the Former Member, as the owner of all the membership interests of the Company, assigned all of its right, title and interest in and to the membership interests in the Company to the Member through the Equity Purchase Agreement, thereby making the Member the sole member of the Company; and

WHEREAS, the Company and the Member desire to amend and restate the original Operating Agreement dated August 20, 2015; and

WHEREAS, the Member intends through this Operating Agreement to operate the Company as the sole Member in accordance with Delaware law governing limited liability companies;

NOW, THEREFORE, in consideration for the mutual promises below and other good and valuable consideration, receipt and sufficiency of which are hereby acknowledged, it is agreed as follows:

ARTICLE I

ORGANIZATION

Section 1.10 Formation.

The Company was originally formed as a Delaware corporation, effective May 29, 2015, and was converted to a Delaware limited liability company, effective on August 20, 2015, under

and pursuant to the Delaware General Corporation Act and the Delaware Limited Liability Company Act, and amendments thereto, by the filing with the Secretary of State of the State of Delaware a Certificate of Conversion and Certificate of Formation as required by the Act. Unless otherwise specified, terms used in this Agreement shall have the same definition and meaning as in the Delaware Limited Liability Company Act ("Act").

Section 1.20 Name.

The name of the limited liability company is Benham Design, LLC.

Section 1.30 Term of Existence.

The term of existence of Benham Design, LLC shall be perpetual.

Section 1.40 Principal Place of Business and Resident Agent.

The principal place of business and resident registered agent of the Company shall be as designated by the Member and may be changed from time to time in accordance with the Act.

Section 1.50 Form of Structure.

The Member has elected to operate the Company, subject to this Operating Agreement, under a corporate form of structure using the same officers and directors as were duly elected and serving at the time of conversion of the Company from a corporation to a limited liability company. To that end, the term "directors" is used in this Agreement to refer to managers of the Company. Notwithstanding the foregoing but subject to the express provisions of this Agreement, the Member reserves the right and power to make decisions with regard to the business and affairs of the Company and the Board of Directors shall serve at the discretion of the Member.

ARTICLE II BOARD OF DIRECTORS

Section 2.10 Number and Qualifications.

The Board of Directors shall consist of one or more Directors, with the number to be subject to change from time to time by the Member. A majority of the directors must reside in the United States.

Section 2.20 Election; Resignation; Removal; Vacancies.

The Member shall elect directors, each of whom shall hold office for a term of one year or until his successor is elected and qualified. Any director may resign at any time upon written notice to the Company. Any director or the entire Board of Directors may be removed with or without cause by action of the Member. Any newly created directorship or any vacancy occurring in the Board of Directors for any cause may be filled by the Member, and each director so elected shall hold office until the expiration of the term of office of the director whom he has replaced or until his successor is elected and qualified.

Section 2.30 Regular Meetings.

Regular meetings of the Board of Directors may be held at such places within or without the State of Delaware and at such times as the Board of Directors may from time to time determine, and if so determined notices thereof need not be given.

Section 2.40 Special Meetings.

Special meetings of the Board of Directors may be held at any time or place within or without the State of Delaware whenever called by the President, any Executive Vice President, the Secretary or by any member of the Board of Directors. Notice of a special meeting of the Board of Directors shall be given by the person(s) calling the meeting at least twenty-four hours before the special meeting.

Section 2.50 Telephonic Meetings Permitted.

Members of the <u>Board of Directors</u>, or any committee designated by the Board of Directors, may participate in a meeting thereof by means of telephone or video conference or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting pursuant to this section of the Operating Agreement shall constitute presence in person at such meeting.

Section 2.60 Quorum; Vote Required for Action.

At all meetings of the Board of Directors, a majority of the whole Board of Directors shall constitute a quorum for the transaction of business. Except in cases in which the Certificate of Formation or this Operating Agreement otherwise provide, the vote of a majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors.

Section 2.70 Organization.

Meetings of the Board of Directors shall be presided over by the Chairman of the Board, if any, or in his absence by the Vice Chairman of the Board, if any, or in his absence by the President, or in their absence by a chairman chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his absence the chairman of the meeting may appoint any person to act as secretary of the meeting.

Section 2.80 Informal Action by Directors.

Unless otherwise restricted by the Certificate of Formation or this Operating Agreement, any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting if all the members if the Board of Directors or such committee, as the case may be, consent thereto in writing, and the writing(s) are filed with the minutes of proceedings of the Board of Directors or such committee.

ARTICLE III COMMITTEES

Section 3.10 Committees.

The Board of Directors may, by resolution passed by majority of the whole Board of Directors, designate one or more committees, each committee to consist of one or more of the directors of the company. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of the committee, the member(s) thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Company, and may authorize the seal of the Company to be affixed to all papers which may require it.

Section 3.20 Committee Rules.

Unless the Board of Directors otherwise provides, each committee designated by the Board of Directors may make, alter and repeal rules for the conduct of its business. In the absence of such rules each committee shall conduct its business in the same manner as the Board of Directors conducts its business pursuant to this Operating Agreement.

ARTICLE IV OFFICERS

Section 4.10 <u>Executive Officers</u>; <u>Election</u>; <u>Qualifications</u>; <u>Terms of Office</u>; <u>Resignation</u>; <u>Removal</u>; <u>Vacancies</u>.

The Board of Directors shall appoint a President and a Chairman of the Board from among the members of the Board of Directors and may, if it so determines, appoint a Vice Chairman. The Board of Directors shall also elect a Secretary and may elect one or more Vice Presidents (including Executive, Senior Vice Presidents or other Vice Presidents), one or more Assistant Secretaries, a Treasurer and one or more Assistant Treasurers, and any other officers deemed necessary by the Board of Directors. Each such officer shall hold office until his resignation or removal. Any officer may resign at any time upon written notice to the Company. The Board of Directors may remove any officer with or without cause at any time, but such removal shall be without prejudice to the contractual rights of such officer, if any, with the Company. Any number of offices may be held by the same person. Any vacancy occurring in any office of the Company by death, resignation, removal or otherwise may be filled for the unexpired portion of the term by the Board of Directors at any regular or special meeting of the Board of Directors.

Section 4.20 Powers and Duties of Executive Officers.

The officers of the Company shall have such powers and duties in the management of the Company as may be prescribed by the Member or Board of Directors and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the Board of Directors.

Section 4.30 Appointment of Other Officers and Agents.

The Board may appoint such other officers and agents as it shall deem necessary, who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board. Unless the laws of the specific jurisdiction require the designation to be by the Board, the President, an Executive Vice President and/or Senior Vice President of the Company shall have the authority to designate licensed or registered individuals to be responsible for the professional activities of the Company, including but not limited to architecture, engineering and/or other professional activities, as appropriate to the licensure laws of the various states in which the Company offers and/or provides such professional services. Architectural decisions shall be made by designated architect(s) responsible for the architectural activities of the Company. Engineering decisions shall be made by designated engineer(s) responsible for the engineering activities of the Company. Other professional decisions shall be made by individual(s) designated as responsible for the specific professional activities of the Company for which the individual(s) are licensed or registered, as determined by the Board, the President or an Executive Vice President of the Company. For the avoidance of doubt, although those licensed or registered individuals designated with certain responsibilities by the Board of Directors, the President and/or an Executive Vice President of the Company pursuant to this Section 4.30 may be given titles such as "Architectural Manager" or "Division Manager," only those directors elected pursuant to Section 2.20 of this Operating Agreement shall serve as managers of the Company (as described in Section 1.50 of this Agreement).

ARTICLE V GENERAL POWERS OF SOLE MEMBER

Section 5.10 Powers and Authority.

The sole Member shall have all the powers and authority granted under the Act and the authority to do every other act not inconsistent with law and consistent with the business purposes of the Company. Such authority shall include the authority to assign, transfer or convey all or any portion of its interest in the Company and to authorize officers of the Company to take any and all actions, and to authorize officers of the Company to execute any and all documentation, that it or such authorized officers may deem necessary or advisable in connection with the business and affairs of the Company. The Member may create additional Members from time to time by amending this Operating Agreement and the Certificate of Formation.

ARTICLE VI INDEMNIFICATION

Section 6.10 Right to Indemnification.

The Company shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person who was or is made, or is threatened to be made, a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "proceeding"), by reason of the fact that he, or a person for whom he is the legal representative, is or was a director, manager, officer, employee or agent of the Company or is or was serving at the request of the Company as a director, manager, officer, employee or agent of another limited liability company, corporation, partnership, joint venture, trust, enterprise or non-profit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses reasonably incurred by such person so long as his act or failure to act does not constitute willful misconduct, recklessness, breach of loyalty, lack of good faith, intentional misconduct, knowing violation of law, or a transaction from which he derived an improper personal benefit. The Company shall be required to indemnify a person in connection with a proceeding initiated by such person only if the proceeding was authorized by the Board of Directors of the Company.

Section 6.20 Prepayment of Expenses.

The Company shall pay the expenses incurred in defending any proceeding in advance of its final disposition; <u>provided</u>, <u>however</u>, that the payment of expenses incurred by a director, manager or officer in advance of the final disposition of the proceeding shall be made only upon receipt of a commitment by the director or officer to repay all amounts advanced if it should be ultimately determined that the director, manager or officer is not entitled to be indemnified under this Article or otherwise.

Section 6.30 Claims.

If a claim for indemnification or payment of expenses under this Article is not paid in full within sixty days after a written claim therefor has been received by the Company, the claimant may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such action the Company shall have the burden of proving that the claimant was not entitled to the requested indemnification or payment of expense under applicable law.

Section 6.40 Non-Exclusivity of Rights.

The rights conferred on any person by this Article shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of the Certificate of Formation, this Operating Agreement, action by the Member or disinterested directors, or otherwise.

Section 6.50 Other Indemnification.

The Company's obligation, if any, to indemnify any person who was or is serving at its request as a director, officer, employee or agent of another limited liability company, corporation, partnership, joint venture, trust, enterprise or non-profit entity shall be reduced by any amount

such person may collect as indemnification from such other company, corporation, partnership, joint venture, trust, enterprise or non-profit entity.

Section 6.60 Amendment or Repeal.

Any repeal or modification of the foregoing provisions of this Article shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification.

ARTICLE VII MISCELLANEOUS

Section 7.10 Fiscal Year.

The fiscal year of the Company shall coincide with the fiscal year of the Member unless otherwise prescribed by the Member.

Section 7.20 Seal.

The seal of the Company, if any, shall have the name of the Company inscribed thereon and shall be in such form as may be approved from time to time by the Board of Directors.

Section 7.30 Waiver of Notice of Meetings of Directors and Committees.

Any written waiver of notice, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of any regular or special meeting of the Board of Directors or members of any committee of directors need be specified in any written waiver of notice.

Section 7.40 Interested Directors; Quorum.

No contract or transaction between the Company and one or more of its directors or officers, or between the Company and any other limited liability company, corporation, partnership, association or other organization in which one or more of its directors or officers are directors or officers, or have financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board of Directors or committee thereof which authorizes the contract or transaction, or solely because his or their votes are counted for such purpose, if: (1) the material facts as to his relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board of Directors or committee in good faith authorizes the contract or transaction-by-the-affirmative-votes of-a-majority-of-the disinterested directors, even though the disinterested directors be less than a quorum; or (2) the contract or transaction is fair to the Company as of the time it is authorized, approved or ratified by the Board of Directors or a committee thereof. Interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

Section 7.50 Form of Records.

Any records maintained by the Company in the regular course of its business, including its Member interests, books of account and minute books, may be kept on, or be in the form of electronic media, photographs, or any other information storage device, provided that the records so kept can be converted into clearly legible printed form within a reasonable time. The Company shall so convert any records so kept upon the request of any person entitled to inspect the same.

Section 7.60 Amendment of the Operating Agreement.

The Operating Agreement may be altered or repealed and a new operating agreement made by the Member.

Section 7.70 Pronouns.

All pronouns and any variations thereof shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the person(s) may require, unless the context clearly indicates otherwise.

Section 7.80 Applicable Law.

This Agreement shall be governed and construed in accordance with the laws of the State of Delaware.

Dated effective as of the 18 day of 1016.

BENHAM DESIGN, LLC

Name: Michael B. Gwyn

Title: President

THE HASKELL COMPANY

By:

Name Bradford A. Slappe

Title: Executive Vice Eresident/CFO