| CITY | | ENGINEER | |
|---|---|---|---|
| **CITY OF JOPLIN**<br>**602 S. MAIN STREET**<br>**JOPLIN, MO 64801** | | Name: HDR Engineering, Inc.<br>Address: 2139 E. Primrose Street, Suite E<br>Springfield, MO 65804 | |
| Attention: Chris Parker, P.E. | | Attention: Bryce Banion, P.E. | |
| Department: Public Works | | Phone: (816) 347-1157 | Fax: (816) 347-1197 |
| Phone: (417) 624-0820 ext 584 | Fax: | | |

**WORK AUTHORIZATION NUMBER** HDR-OC-003
**TO AGREEMENT FOR PROFESSIONAL ENGINEERING CONSULTING SERVICES**

City and Engineer agree to amend their Agreement for Professional Engineering Consulting Services to include a scope of work and fees for engineering services, by adding the following terms to their Agreement.

1. **Services**. The City agrees to engage the services of the Engineer and the Engineer agrees to perform the services hereinafter set forth in connection with projects described in ***Exhibit A***.

2. **Addition to Services**. The City may add to the Engineer services or delete therefrom activities of a similar nature to those set forth in ***Exhibit A***, provided that the total cost of such work does not exceed the total cost allowance as specified in Paragraph 5 hereof. The Engineer shall undertake such changed activities only upon the direction of the City. All such directives and changes shall be in written form and prepared and approved by the City and shall be accepted and countersigned by the Engineer.

3. **Term**. The services of the Engineer shall commence as soon as practicable after the execution of this contract, unless otherwise directed in writing, and shall be undertaken and completed in such sequence as to assure their expeditious completion in the light of the purposes of the contract, but in any event, all of the services required hereunder shall be completed as set forth in the schedule for the project which is attached hereto as ***Exhibit A***.

4. **Costs not to Exceed**. The City of Joplin is limited by law with respect to the amount of money it can pay. Therefore, the City has established a fixed sum for this contract, which cannot be exceeded unless this contract is amended. The Engineer providing services hereunder shall be required to keep track of the amount of hours billable under this contract at all times; and any work in excess of the fixed sum shall not be eligible for payment. The Engineer shall notify the City if Engineer anticipates that the contract amount may be exceeded, in order to determine whether or not the City is prepared to increase the total compensation. The Engineer shall establish a billing system showing the amount of money remaining on the contract, which shall be shown in each monthly billing.

5. **Payment**.

a. **Conditioned upon acceptable performance**. The City agrees to pay the Engineer in accordance with the terms set forth in ***Exhibit A***, which shall constitute complete compensation for all services to be rendered under this contract; provided, that where payments are to be made periodically to Engineer for services rendered under this contract, the City expressly reserves the right to disapprove in whole or in part a request for payment where the services rendered during the period for which payment is claimed are not performed in a timely and satisfactory manner in accordance with the schedule and description of services set forth in ***Exhibit A***.

b. **Total compensation not to exceed**. It is expressly understood that in no event will the total compensation and reimbursement to be paid to the Engineer under the terms of this work Authorization Number HDR-OC-003 exceed the sum of three hundred twenty-one thousand Dollars ($ 321,000.00).

6. **Insurance**. Without limiting any of the other obligations or liabilities of the Engineer, the Engineer shall secure and maintain at its own cost and expense, throughout the duration of this Contract and until the work is completed and accepted by the City of Joplin, insurance of such types and in such amounts as may be necessary to protect it and the interests of the City of Joplin against all hazards or risks of loss as hereunder specified or which may arise out of the performance of the Contract Documents. The form and

limits of such insurance, together with the underwriter thereof in each case, are subject to approval by the City of Joplin. Regardless of such approval, it shall be the responsibility of the Engineer to maintain adequate insurance coverage at all times during the term of the Contract. Failure of the Engineer to maintain coverage shall not relieve it of any contractual responsibility or obligation or liability under the Contract Documents.

The certificates of insurance, including evidence of the required endorsements hereunder or the policies, shall be filed with the City at the time that this contract is signed by the Engineer. All insurance policies shall provide thirty (30) days written notice to be given by the insurance company in question prior to ~~modification or~~ cancellation of such insurance. Such notices shall be mailed, certified mail, return receipt requested, to:

City of Joplin - Public Works, 602 S. Main, Joplin, MO 64801; and

Such policies shall name the City as an additional insured with limits of liability not less than the sovereign immunity limits for Missouri public entities calculated by the Missouri Department of Insurance as of January 1 each calendar year and published annually in the Missouri Register pursuant to Section 537.610, RSMo.
(See, http://insurance.mo.gov/industry/sovimmunity.php ).

As of January 1, 2016, the minimum coverage for the insurance referred to herein shall be as set out below:

a. Workers' Compensation….Statutory coverage per RSMo 287.010 et seq.
Employer's Liability……. $1,000,000.00

b. Commercial General Liability Insurance, including coverage for Contractual Liability and Independent Contractors Liability. Such coverage shall apply to bodily injury and property damage on an "Occurrence Form Basis" with limits of at least Two Million Seven Hundred Twenty-Seven Thousand Four Hundred Eighty-Nine and no/100 Dollars ($2,727,489.00) for all claims arising out of a single accident or occurrence and at least Four Hundred Nine Thousand One Hundred Twenty-Three and no/100 Dollars ($409,123.00) with respect to injuries and/or death of any one person in a single occurrence and an amount not less than at least $1,000,000 for all claims to property arising out of a single occurrence and at least $100,000 to any one owner with respect to damages to property. Engineer agrees that the proceeds of such insurance policy shall first be used to pay any award, damages, costs, and/or attorneys' fees incurred by or assessed against City, its employees, officers and agents, before payment of any award, damages, costs or attorneys fees of Engineer, its employees, officers or agents. Engineer agrees to cause its insurer to name City as an additional insured on such insurance policy, including the City as an additional insured for coverage under its products-completed operations hazard, and said policy shall be primary and noncontributory.

c. Automobile Liability Insurance covering bodily injury and property damage for owned, non-owned and hired vehicles, with limits of at least Two Million Seven Hundred Twenty-Seven Thousand Four Hundred Eighty-Nine and no/100 Dollars ($2,727,489.00) for all claims arising out of a single accident or occurrence and at least Four Hundred Nine Thousand One Hundred Twenty-Three and no/100 Dollars ($409,123.00) with respect to injuries and/or death of any one person in a single accident or occurrence.

d. Errors and Omissions Insurance. The Engineer shall maintain a professional liability insurance policy in the amount of $1,000,000.00. This policy shall remain in full force and effect for a period of one year after completion and acceptance by the City of the construction of the project.

e. Subcontracts. In case any or all of this work is sublet, the Engineer shall require the subcontractor to procure and maintain all insurance required in subparagraphs (A), (B) and (C) hereof and in like amounts. Engineer shall require any and all subcontractors with whom it enters into a contract to perform work on this project to protect the City of Joplin through insurance against applicable hazards or risks and shall, upon request of the City, provide evidence of such insurance.

f. Notice. The Engineer and/or subcontractor shall furnish the City prior to beginning the work satisfactory proof of carriage of all the insurance required by this contract, with the provision that policies shall not be canceled, modified or non-renewed without thirty (30) days written notice to the City of Joplin.

g. Legislative or Judicial Changes. In the event the scope or extent of the City's tort liability as a governmental entity as described in Section 537.600 through 537.650 RSMo is broadened or increased during the term of this agreement by legislative or judicial action, the City may require Engineer, upon 10 days written notice, to execute a contract addendum whereby the Engineer

agrees to provide, at a price not exceeding Engineer's actual increased premium cost, additional liability insurance coverage as the City may require to protect the City from increased tort liability exposure as the result of such legislative or judicial action. Any such additional insurance coverage shall be evidenced by an appropriate certificate of insurance and shall take effect within the time set forth in the addendum.

7. All other terms and conditions of the original Agreement shall remain in effect.

**IN WITNESS WHEREOF,** the parties hereto have set their hands and seals on the day and year herein stated.

**REVIEWED FOR APPROVAL**

_____
Tony Robyn
Assistant Director
Planning, Development & Neighborhood Services

**CERTIFICATE OF DIRECTOR OF FINANCE**

I certify that the expenditure contemplated by this document is within the purpose of the appropriation to which it is to be charged and that there is an unencumbered balance of appropriated and available funds to pay therefore.

_____
Leslie Haase, Director of Finance

**APPROVED AS TO FORM**

_____
Peter Edwards, City Attorney

**Engineer:** HDR Engineering, Inc.

By: _____

Printed Name: Joseph E. Drimmel

Title: Vice President

Date: _____

**CITY OF JOPLIN, MISSOURI**

By: _____
Nicholas A. Heatherly, P.E.
Public Works Director

Date: _____

## EXHIBIT A – TABLE OF CONTENTS

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# Attachment One (rev 7/7/2016)
# Rate Schedule
## (January 1, 2016 – December 31, 2016)

| Role | Hourly Rate |
|---|---|
| Principal/Quality Control/Senior Specialist | $225.00 |
| Senior Project Manager | $198.00 |
| Project Manager | $150.00 |
| Senior Project Engineer | $205.00 |
| Project Engineer | $135.00 |
| Senior Process/Civil Engineer | $160.00 |
| Process/Civil Engineer | $130.00 |
| Senior Structural Engineer | $225.00 |
| Structural Engineer | $140.00 |
| Senior Electrical Engineer | $196.00 |
| Electrical Engineer | $105.00 |
| Senior Mechanical Engineer | $175.00 |
| Mechanical Engineer | $110.00 |
| Engineering Intern | $100.00 |
| Asset Management Specialist | $205.00 |
| GIS Manager | $140.00 |
| Senior CAD Technician | $115.00 |
| CAD Technician | $ 90.00 |
| Registered LAnd Surveyor | $135.00 |
| 2 Person Survey Crew | $140.00 |
| Survey GPS Technician | $ 85.00 |
| Senior Resident Project Representative | $110.00 |
| Resident Project Representative | $ 85.00 |
| Sr. Administration Personnel | $ 95.00 |
| Administration Personnel | $ 75.00 |
| Sr. Environmental Planner | $190.00 |
| Sr. Environmental Scientist | $160.00 |
| Environmental Scientist | $105.00 |
| REIMBURSABLES: | |
| Printing & Reproduction | Cost |
| Travel | Current IRS Rate |
| Phone | Cost |
| Mapping | Cost |
| Subconsultants | Cost |

Project Name/Description Wildwood Business Park Sewer

Consultant HDR Engineering, Inc.

**Engineering Services Agreement**

Article 1 of the Agreement is supplemented to include the following agreement of the parties.

Engineer shall provide Basic and Additional Services as set forth below.

**PART 1- BASIC SERVICES** *All deliverables referred to in the agreement shall also be provided in an electronic format to be specified by the City.*

A1.01 *Conceptual Phase*

A. Engineer shall:

1. Consult with Owner to define and clarify Owner's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility, and expandability, and any budgetary limitations, and identify available data, information, reports, facilities plans, and site evaluations.

   If Owner has already identified one or more potential solutions to meet its Project requirements, then proceed with the study and evaluation of such potential solutions. Options will be discussed and agreed to by Engineer at seeping meeting.

2. Identify potential solution(s) to meet Owner's Project requirements, as needed.

3. Study and evaluate the potential solution(s) to meet Owner's Project requirements.

4. Visit the Site, or potential Project sites, to review existing conditions and facilities, unless such visits are not necessary or applicable to meeting the objectives of the Study and Report Phase.

5. Advise Owner of any need for Owner to obtain, furnish, or otherwise make available to Engineer additional Project-related data and information, for Engineer's use in the study and evaluation of potential solution(s) to Owner's Project requirements, and preparation of a related report.

6. After consultation with Owner, recommend to Owner the solution(s) which in Engineer's judgment meet Owner's requirements for the Project.

7. Identify, consult with, and analyze requirements of governmental authorities having jurisdiction to approve the portions of the Project to be designed or specified by Engineer, including but not limited to mitigating measures identified in an environmental assessment for the Project.

8. Prepare a conceptual report (the "Report") which will, as appropriate, contain schematic layouts, sketches, and conceptual design criteria with appropriate exhibits to indicate the agreed-to requirements, considerations involved, and Engineer's recommended solution(s). For each recommended solution Engineer will provide the following, which will be separately itemized: opinion of probable Construction Cost; proposed allowances for contingencies; the estimated total costs of design, professional, and related services to be provided by Engineer and its Consultants; and, on the basis of information

furnished by Owner, a tabulation of other items and services included within the definition of Total Project Costs.

9. Advise Owner of any need for Owner to provide data or services of the types described in Exhibit B, for use in Project design, or in preparation for Contractor selection and construction.

~~10.~~ When mutually agreed, assist Owner in~~ evaluating the possible use of building information modeling; civil integrated management;~~ geotechnical baselining of subsurface site conditions~~; innovative design, contracting, or procurement strategies; or other strategies, technologies, or techniques for assisting in the design, construction, and operation of Owner's facilities. The subject matter of this paragraph shall be referred to in Exhibit A and B as "Project Strategies, Technologies, and Techniques."~~

~~11. If requested to do so by Owner, assist Owner in identifying opportunities for enhancing the sustainability of the Project, and pursuant to Owner's instructions plan for the inclusion of sustainable features in the design.~~

~~12. Develop a scope of work and survey limits for any topographic and other surveys necessary for design.~~

~~13. Perform or provide the following other Study and Report Phase tasks or deliverables:~~

14. Furnish 6 review copies of the Report and any other Study and Report ~~Phase~~ deliverables to Owner by the due date and review by phone or in person with Owner.

15. Revise the Report and any other ~~Study and Report~~ Conceptual Phase deliverables in response to Owner's comments, as appropriate, and furnish 6 copies of the revised Report and any other Study and Report Phase deliverables to the Owner by the agreed upon due date.

B. Engineer's services under the ~~Study and Report~~ Conceptual Phase will be considered complete on the date when Engineer has delivered to Owner the revised Report and any other Study and Report Phase deliverables.

C. Billing/Payment Processing Options:

1. Request for payment may be submitted at appropriate intervals during the contract.

   Application for payment must include a detailed breakdown of deliverables completed as well as specific tasks or percentages of specific tasks completed. Payment schedule will be at the approval of the city.

~~2. Deliverables option as determined by engineering staff on a project by project basis. Example: 30 percent- Preliminary plans, 60 percent Right of Way plans, 90 percent Final plans and bid documents, 100 percent project completion.~~

*A1.02 Preliminary Design Phase - (30 percent plans)*

A. Proceed with Preliminary Design Phase after the completion of the Conceptual phase which includes: Acceptance by Owner of the Conceptual Report and any other Study and Report ~~Phase~~ deliverables; selection by Owner of a recommended solution; issuance by Owner of any instructions for use of Project Strategies, Technologies, and Techniques, or for inclusion of sustainable features in the design, and Indication by Owner of any specific modifications or changes in the scope, extent, character, or design requirements of the Project desired by Owner.

1. Prepare Preliminary Design Phase documents consisting of final design criteria, preliminary drawings, outline specifications, and written descriptions of the Project.

2. Include on plans, property lines, structure locations, ownership names and contact information.

3. In preparing the Preliminary Design Phase documents, use any specific applicable Project Strategies, Technologies, and Techniques authorized by Owner during ~~or following the Study and~~ Conceptual Phase, and include sustainable features, as appropriate, pursuant to Owner's instructions.

4. Provide necessary field surveys, topographic and utility mapping for Engineer's design purposes. Comply with the scope of work and procedure for the identification and mapping of existing utilities as defined by Section A1.03 "Utility Requirements" and Section A1.04 "Survey Services"

5. Visit the Site as needed to prepare the Preliminary Design Phase documents.

6. Advise Owner if additional reports, data, information, or services of the types described are necessary and assist Owner in obtaining such reports, data, information, or services .

7. Continue to assist Owner with Project Strategies, Technologies, and Techniques that Owner has chosen to implement.

8. Based on the information contained in the Preliminary Design Phase documents, prepare a revised opinion of probable Construction Cost, and assist Owner in tabulating the various cost categories which comprise Total Project Costs. Any opinions of probable project cost or probable construction cost provided by ENGINEER are made on the basis of information available to ENGINEER and on the basis of ENGINEER's experience and qualifications, and represents its judgment as an experienced and qualified professional engineer. However, since ENGINEER has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s') methods of determining prices, or over competitive bidding or market conditions, ENGINEER does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost ENGINEER prepares.

9. Obtain and review Owner's instructions regarding Owner's procurement of construction services (including instructions regarding advertisements for bids, instructions to bidders, and requests for proposals, as applicable), Owner's construction contract practices and requirements, insurance and bonding requirements, electronic transmittals during construction, and other information necessary for the finalization of Owner's bidding-related documents (or requests for proposals or other construction procurement documents), and Construction Contract Documents. Also obtain and review copies of

Owner's design and construction standards, Owner's standard forms, general conditions, supplementary conditions, text, and related documents or content for Engineer to include in the draft bidding-related documents (or requests for proposals or other construction procurement documents), and in the draft Construction Contract Documents, when applicable.

10. ~~Development communication plan for project: considering the use of door hangers, letters, public meetings, changeable message boards.~~

11. Furnish 6 review copies of the Preliminary Design Phase documents, opinion of probable Construction Cost, and any other Preliminary Design Phase deliverables to Owner by established due date, and review them with Owner. Owner shall submit to Engineer any comments regarding the furnished items.

12. Revise the Preliminary Design Phase documents, opinion of probable Construction Cost, and any other Preliminary Design Phase deliverables in response to Owner's comments, as appropriate, and furnish to Owner 6 copies of the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables by the specified due date.

13. Engineer's services under the Preliminary Design Phase will be considered complete on the date when Engineer has delivered to Owner the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other Preliminary Design Phase deliverables.

*A1.03 Utility Requirements*

A. Make notification to utilities during conceptual phase of preliminary design process. Communication to be made in a specific, documented format. (As detailed in item D).

B. Based on specific utility feedback, and field observation, identify potential high expense utility relocation issues.

C. Prepare and present plan for city review, detailing significant utility conflicts, proposed pothole locations, and associated costs for verifying existing utilities. Potholing process to include horizontal and vertical alignment and depth details. Details will be included in 30 percent plan completion, final right of way plans, and final construction plans. Necessary corrective action to address incomplete or inaccurate details from the potholing may be subject to errors and omissions insurance claim.

D. Submit utility report at 30 percent submittal and close out of project. Utility report to include representatives contacted, meeting dates, and a summary of discussions, requests, observations and/or concerns. (See City of Joplin utility notification form.)

*A1.04 Surveying Services - General*

A. Control Survey

All horizontal control for the project will be based on the Missouri State Plane Coordinate System of 1983, West Zone.

All vertical control for the project will be based on the North American Vertical Datum of 1988 (NAVD 88) provided by NOAA's National Geodetic Survey (NGS).

Control points and temporary bench marks will be set inter-visible and in strategic locations along the project route so as to be conveniently used during all phases of the project, including construction.

B. Engineering Survey

Provide topographic engineering survey for the length of the project to facilitate design. Provide a survey of all ~~existing~~ field identified surface and sub-surface utilities in the project corridor.

C. Property Boundary Survey/Right-of-way Survey/Easements

Provide a boundary survey or surveys to locate the existing Right-of-Way/Easements for the length of the project, the adjacent property lines of the parcels along the project, and all existing easements of record encumbering each property that will affect the project. Consultant will be responsible for ordering title work for each parcel along the project route and procuring existing right-of-way documents and/or right-of- way plans.

D. Right-of-way and Easement Description Preparation

Upon final approval of the Right-of-Way/Project Plans consultant will provide descriptions and exhibit drawings for all property right acquisitions including, but not limited to: right-of-way takings, permanent easements and temporary easements.

E. Right-of-way and Easement Staking

During the property negotiation phase of the project it may be necessary to stake the proposed right-of-way and/or easement locations to assist the right-of-way agent. Upon request, the consultant will temporarily stake the proposed right-of- way/easement locations with wooden lathe to allow the property owner to visually inspect the location of such.

Pre-Construction Phase - On projects that will require the relocation of existing utilities prior to the award of the construction contract the consultant shall temporarily stake the location of the Right-of-Way and/or easements at points predetermined by Owner. This service will be provided one (1) time as a part of the contract. Any additional staking, if required by utility contractors due to the destruction of the temporary stakes, will be done at the advertised hourly rate and billed back to the utility contractor who is found to be responsible for removing the original stakes.

F. Existing United States Public Land Survey System Corners

All existing USPLSS corners that may/will be removed or altered as a result of this project must be referenced and re-established according to 20 CSR 2030-17.020 and 20 CSR 2030-17.030.

G. Survey Records

Consultant shall provide to Owner originals or copies of all survey records relevant to the project. These records shall include, but are not limited to: survey notes, research records, computations, calculations and drawings.

H. Other Services

Services not covered by A through F that are determined in the scoping meeting to be necessary for completion of the project.

*A1.05 Right of Way Plan Phase - 60 percent plans*

A. Determine parcels and parcel ownership information to be included on right of way plans.

B. Determine parcel size.

C. Prepare R.O.W. plan tabulation sheet.

D. Prepare R.O.W. plan sheets showing easement and right of way takings.

E. Furnish 6 review copies of the Right of Way Plan Phase documents, opinion of probable Right of Way Cost, and ~~any~~ other Right of Way Plan Phase deliverables to Owner by established due date, and review them with Owner. Owner shall submit to Engineer any comments regarding the furnished items.

F. Revise the Right of Way Plan Phase documents, opinion of probable Right of Way Cost, and any other Right of Way Plan Phase deliverables in response to Owner's comments, as appropriate, and furnish to Owner 6 copies of the revised Right of Way Plan Phase documents, revised opinion of probable Right of Way Cost, and any other deliverables by the specified due date.

G. Engineer's services under the Right of Way Plan Phase will be considered complete on the date when Engineer has delivered to Owner the revised Right of Way Plan Phase documents, revised opinion of probable Right of Way Cost, and any other Right of Way Plan Phase deliverables.

*A1.06 Final Design Phase*

A. After acceptance by Owner of the Preliminary Design Phase documents, revised opinion of probable Construction Cost as determined in the Preliminary Design Phase, and/or any other Right of Way plan documents, subject to any Owner-directed modifications or changes in the scope, extent, character, or design requirements of or for the Project, and upon written authorization from Owner, Engineer shall:

1. Prepare final Drawings and Specifications indicating the scope, extent, and character of the Work to be performed and furnished by Contractor.

2. Visit the Site as needed to assist in preparing the final Drawings and Specifications.

3. Provide technical criteria, written descriptions, and design data for Owner's use in filing applications for permits from or approvals of governmental authorities having jurisdiction to review or approve the final design; assist Owner in consultations with such authorities; and revise the Drawings and Specifications in response to directives from such authorities, as appropriate.

4. Advise Owner of any recommended adjustments to the opinion of probable Construction Cost.

5. After consultation with Owner, include in the Construction Contract Documents ~~any~~ specific protocols for the transmittal of Project-related correspondence, documents, text, data, drawings, information, and graphics, in electronic media or digital format, either directly, or through access to a secure Project website. Any such protocols shall be applicable to transmittals between and among Owner, Engineer, and Contractor during the Construction Phase and Post- Construction Phase, and unless agreed otherwise

shall supersede any conflicting protocols previously established for transmittals between Owner and Engineer.

6. Assist Owner in assembling known reports and drawings of Site conditions, and in identifying the technical data contained in such reports and drawings upon which bidders or other prospective contractors may rely.

7. In addition to preparing the final Drawings and Specifications, assemble drafts of other Construction Contract Documents based on specific instructions and contract forms, text, or content received from Owner.

8. Prepare or assemble draft bidding-related documents (or requests for proposals or other construction procurement documents), based on the specific bidding or procurement-related instructions and forms, text, or content received from Owner.

~~9. Contract shall include contractor provided changeable message signs to communication construction information.~~

10. Furnish for review by Owner, its legal counsel, and other advisors, 6 copies of the final drawings and Specifications, assembled drafts of other construction Contract Documents, the draft bidding-related documents (or requests for proposals or other construction procurement documents), and ~~any other~~ final design Phase deliverables, by the established due date, with the Final Design Phase, and review them with Owner. Owner shall submit to Engineer ~~any~~ written comments regarding the furnished items, and ~~any~~ instructions for revisions.

B. Engineer's services under the Final Design Phase will be considered complete on the date when Engineer has delivered to Owner the final Drawings and Specifications, other assembled Construction Contract Documents, bidding-related documents (or requests for proposals or other construction procurement documents), and any other Final Design Phase deliverables.

C. In the event that the Work designed or specified by Engineer is to be performed or furnished under more than one prime contract, or if Engineer's services are to be separately sequenced with the work of one or more prime Contractors (such as in the case of fast- tracking), Owner and Engineer shall, prior to commencement of the Final Design Phase, develop a schedule for performance of Engineer's services during the Final Design, Bidding or Negotiating, Construction, and Post-Construction Phases in order to sequence and coordinate properly such services as are applicable to the work under such separate prime contracts.

*A1.07 Bidding Phase*

A. After acceptance by Owner of the final Drawings and Specifications, other Construction Contract Documents, bidding-related documents (or requests for proposals or other construction procurement documents), and the most recent opinion of probable Construction Cost as determined in the Final Design Phase, and upon written authorization by Owner to proceed, Engineer shall:

1. Advertise for and obtain bids or proposals for the Work, assist Owner in issuing assembled design, contract, and bidding-related documents (or requests for proposals or other construction procurement documents) to prospective contractors, and where applicable, maintain a record of prospective contractors to which documents have been issued, attend pre-bid conferences, if any, and receive and process contractor deposits or charges for the issued documents.

2. Prepare and issue Addenda as appropriate to clarify, correct, or change the issued documents.

3. Provide readily available information ~~or assistance~~ needed by Owner in the course of ~~any~~ review of proposals with prospective contractors.

4. If Federal funding is involved, set up prequalification's for contractor. This includes researching all applicable debarment & qualified contractor's lists & providing this documentation in the project file

5. Consult with Owner as to the qualifications of subcontractors, suppliers, and other individuals and entities proposed by prospective contractors, for those portions of the Work as to which review of qualifications is required by the issued documents.

6. If the issued documents require, the Engineer shall evaluate and determine the acceptability of "or equals" and substitute materials and equipment proposed by prospective contractors, provided that such proposals are allowed by the bidding-related documents

7. Attend the bid opening, prepare bid tabulation sheets to meet Owner's schedule, and assist Owner in evaluating bids, assembling final contracts for the Work for execution by Owner and Contractor, and in issuing notices of award of such contracts.

B. The Bidding Phase will be considered complete upon commencement of the Construction Phase.

*A1.08 Construction Phase*

A. Upon successful completion of the Bidding and Negotiating Phase, and upon written authorization from Owner, Engineer shall:

1. *General Administration of Construction Contract:* Consult with Owner and act as Owner's representative as provided in the Construction Contract. The extent and limitations of the duties, responsibilities, and authority of Engineer shall be as assigned below. All of Owner's instructions to Contractor will be issued through Engineer, which shall have authority to act on behalf of Owner in dealings with Contractor to the extent provided in this Agreement and the Construction Contract except as otherwise provided in writing.

2. *Resident Project Representative (RPR):* Provide the services of an RPR at the Site to assist the Engineer (unless provided by the city), and to provide more extensive observation of Contractor's work. Duties, responsibilities, and authority of the RPR are as set forth. The furnishing of such RPR's services will not limit, extend, or modify Engineer's responsibilities or authority except as expressly set forth.

3. *Selection of Independent Testing Laboratory:* Assist Owner in the selection of an independent testing laboratory to perform the services identified.

4. *Pre-Construction Conference:* Participate in a pre-construction conference prior to commencement of Work at the Site.

5. *Electronic Transmittal Protocols:* Consultant shall follow City of Joplin protocols shown below.

6. *Original Documents:* If requested by Owner to do so, maintain and safeguard during the Construction Phase at least one original printed record version of the Construction Contract Documents, including Drawings and Specifications signed and sealed by Engineer and other design professionals in accordance with applicable Laws and Regulations. Throughout the Construction Phase, make such original printed record version of the Construction Contract Documents available to Contractor and Owner for review.

7. *Schedules:* Receive, review, and determine the acceptability of any and all schedules that Contractor is required to submit to Engineer, including the Progress Schedule, Schedule of Submittals, and Schedule of Values.

8. *Baselines and Benchmarks:* As appropriate, establish baselines and benchmarks for locating the Work which in Engineer's judgment are necessary to enable Contractor to proceed.

9. *Visits to Site and Observation of Construction:* In connection with observations of Contractor's Work while it is in progress:

    a) Make visits to the Site at intervals appropriate to the various stages of construction, as Engineer deems necessary, to observe as an experienced and qualified design professional the progress of Contractor's executed Work. Such visits and observations by Engineer, and the Resident Project Representative, if any, are not intended to be exhaustive or to extend to every aspect of the Work or to involve detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement and the Construction Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on Engineer's exercise of professional judgment, as assisted by the Resident Project Representative, if any. Based on information obtained during such visits and observations, Engineer will determine in general if the Work is proceeding in accordance with the Construction Contract Documents, and Engineer shall keep Owner informed of the progress of the Work.

    b) The purpose of Engineer's visits to the Site, and representation by the Resident Project Representative, if any, at the Site, will be to enable Engineer to better carry out the duties and responsibilities assigned to and undertaken by Engineer during the Construction Phase, and, in addition, by the exercise of Engineer's efforts as an experienced and qualified design professional, to provide for Owner a greater degree of confidence that the completed Work will conform in general to the Construction Contract Documents and that Contractor has implemented and maintained the integrity of the design concept of the completed Project as a functioning whole as indicated in the Construction Contract Documents. Engineer shall not, during such visits or as a result of such observations of the Work, supervise, direct, or have control over the Work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any Constructor, for security or safety at the Site, for safety precautions and programs incident to any Constructor's work in progress, for the coordination of the Constructors' work or schedules, nor for any failure of any Constructor to comply with Laws and Regulations applicable to furnishing and performing of its work. Accordingly, Engineer neither guarantees the performance of any Constructor nor assumes responsibility for any Constructor's failure to furnish or perform the Work, or any portion of the Work, in accordance with the Construction Contract Documents.

10. *Defective Work:* Reject Work if, on the basis of Engineer's observations, Engineer believes that such Work is defective under the terms and standards set forth in the Construction Contract Documents. Provide recommendations to Owner regarding whether Contractor should correct such Work or remove and replace such Work, or whether Owner should consider accepting such Work as provided in the Construction Contract Documents.

11. *Compatibility with Design Concept:* If Engineer has express knowledge that a specific part of the Work that is not defective under the terms and standards set forth in the Construction Contract Documents is nonetheless not compatible with the design concept of the completed Project as a functioning whole, then inform Owner of such incompatibility, and provide recommendations for addressing such Work.

12. *Clarifications and Interpretations:* Accept from Contractor and Owner submittal of all matters in question concerning the requirements of the Construction Contract Documents (sometimes referred to as requests for information or interpretation-RFIs), or relating to the acceptability of the Work under the Construction Contract Documents. With reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Construction Contract Documents.

13. *Field Orders:* Subject to any limitations in the Construction Contract Documents, Engineer may prepare and issue Field Orders requiring minor changes in the Work.

14. *Change Orders and Work Change Directives:* Recommend Change Orders and Work Change Directives to Owner, as appropriate, and prepare Change Orders and Work Change Directives as required.

    a) Identify discrepancy
    b) Contractor submits pricing
    c) Cost analysis by Project Manager
    ~~d) Submit Conceptual Plan to MoDOT and FHWA, if applicable~~
    e) Receive conceptual approval from both agencies and give contract Notice to Proceed
    ~~f) Change in work complete, submit official change Order with Justification and copy of conceptual to MoDOT and FHWA if applicable (justification provided by City Project Manager)~~
    g) After signatures on Change order are complete, notify the contractor.

15. *Differing Site Conditions:* Respond to any notice from Contractor of differing site conditions, including conditions relating to underground facilities such as utilities, and hazardous environmental conditions. Promptly conduct reviews and prepare findings, conclusions, and recommendations for Owner's use.

16. *Shop Drawings, Samples, and Other Submittals:* Review and approve or take other appropriate action with respect to Shop Drawings, Samples, and other required Contractor submittals, but only for conformance with the information given in the Construction Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated by the Construction Contract Documents . Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto. Engineer shall meet any Contractor's submittal schedule that Engineer has accepted.

17. *Substitutes and "Or-equal":* Evaluate and determine the acceptability of substitute or "or-equal" materials and equipment proposed by Contractor.

18. *Inspections and Tests:*

    a) Receive and review all certificates of inspections, tests, and approvals required by Laws and Regulations or the Construction Contract Documents. Engineer's review of such certificates will be for the purpose of determining that the results certified indicate compliance with the Construction Contract Documents and will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Construction Contract Documents. Engineer shall be entitled to rely on the results of such inspections and tests.

    b) As deemed reasonably necessary, request that Contractor uncover Work that is to be inspected, tested, or approved.

    c) Pursuant to the terms of the Construction Contract, require special inspections or testing of the Work, whether or not the Work is fabricated, installed, or completed.

19. *Change Proposals and Claims:*

    a) Review and respond to Change Proposals. Review each duly submitted Change Proposal from Contractor and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer will not resolve the Change Proposal.

    b) Provide information or data to Owner regarding engineering or technical matters pertaining to Claims.

20. *Applications for Payment:* Based on Engineer's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation:

    a) Determine the amounts that Engineer recommends Contractor be paid. Recommend reductions in payment (set-offs) based on the provisions for set- offs stated in the Construction Contract. Such recommendations of payment will be in writing and will constitute Engineer's representation to Owner, based on such observations and review, that, to the best of Engineer's knowledge, information and belief, Contractor's Work has progressed to the point indicated, the Work is generally in accordance with the Construction Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Construction Contract Documents, and to any other qualifications stated in the recommendation), and the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work. In the case of unit price Work, Engineer's recommendations of payment will include final determinations of quantities and classifications of the Work (subject to any subsequent adjustments allowed by the Construction Contract Documents).

b) By recommending payment, Engineer shall not thereby be deemed to have represented that observations made by Engineer to check the quality or quantity of Contractor's Work as it is performed and furnished have been exhaustive, extended to every aspect of Contractor's Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in this Agreement.

21. *Contractor's Completion Documents:* Receive from Contractor, review, and transmit to Owner maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance required by the Construction Contract Documents, certificates of inspection, tests and approvals, and Shop Drawings, Samples, and other data. Receive from Contractor, review, and transmit to Owner the annotated record documents which are to be assembled by Contractor in accordance with the Construction Contract Documents to obtain final payment. The extent of Engineer's review of record documents shall be to check that Contractor has submitted all pages.

22. *Substantial Completion:* Promptly after notice from Contractor that Contractor considers the entire Work ready for its intended use, in company with Owner and Contractor, visit the Site to review the Work and determine the status of completion. Follow the procedures in the Construction Contract regarding the preliminary certificate of Substantial Completion, punch list of items to be completed, Owner's objections, notice to Contractor, and issuance of a final certificate of Substantial Completion. Assist Owner regarding any remaining engineering or technical matters affecting Owner's use or occupancy of the Work following Substantial Completion.

23. *Other Tasks:* Perform or provide the following other Construction Phase tasks or deliverables:

24. *Final Notice of Acceptability of the Work:* Conduct a final visit to the Project to determine if the Work is complete and acceptable so that Engineer may recommend, in writing, final payment to Contractor. Accompanying the recommendation for final payment, Engineer shall also provide a notice to Owner and Contractor in the form of the acceptance identified in MoDOT's LPA Manual, that the Work is acceptable (subject to the provisions of the Notice and Paragraph Al.OS.A.21.b) to the best of Engineer's knowledge, information, and belief, and based on the extent of the services provided by Engineer under this Agreement.

25. *Standards for Certain Construction-Phase Decisions*: Engineer will render decisions regarding the requirements of the Construction Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth in the Construction Contract for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

26. *Duration of Construction Phase:* The Construction Phase will commence with the execution oft he first Construction Contract for the Project or any part thereof and will terminate upon written recommendation by Engineer for final payment to Contractors. If the Project involves more than one prime contract, then Construction Phase services may be rendered at different times in respect to the separate contracts. Engineer shall be entitled to an equitable increase in compensation if Construction Phase services (including Resident Project Representative services, if any) are required after the original

date for completion and readiness for final payment of Contractor as set forth in the Construction Contract.

*A1.09 Post-Construction Phase*

A. Upon written authorization from Owner during the Post-Construction Phase, Engineer shall:

1. Together with Owner, visit the Project to observe any apparent defects in the Work, make recommendations as to replacement or correction of defective Work, if any, or the need to repair of any damage to the Site or adjacent areas, and assist Owner in consultations and discussions with Contractor concerning correction of any such defective Work and any needed repairs.

2. Together with Owner, visit the Project within one month before the end of the Construction Contract's correction period to ascertain whether any portion of the Work or the repair of any damage to the Site or adjacent areas is defective and therefore subject to correction by Contractor.

3. Full payment of the final invoice will not be considered until the consultant has electronically furnished the following documents:

a) The city's semi-final inspection letter stating the date of semi-final inspection and listing those who were present.

b) The city's final acceptance letter showing the number of working days or calendar days charged, completion date and the amount of liquidated damages, if any.

c) A final list of acceptance testers used on the project and a certification stating:

"The results of the tests or acceptance samples indicate that material incorporated in the construction work and the construction operations controlled by sampling and testing were in reasonably close conformity with the approved plans and specifications, and such results compare favorably with the results of independent assurance sampling and testing." Any deviations from the specifications must be explained along with the reason for acceptance.

"All field tests were performed in conformity with the governing specifications and the results were in reasonably close conformity with the specifications." Explain any deviations and why the work was accepted.

"The project was constructed substantially in conformity with the plans and specifications for the project."

d) Contractor certification and city recommendation:

Showing the final DBE participation on the project including the DBEs used, the type of work performed, and the dollar amount paid to each DBE.

The city's recommendation regarding the contractor's fulfillment of the DBE requirements. The consultant shall also provide written documentation from each DBE that they were paid in full for the work identified in the Contractor DBE Certification. Examples of documentation from DBEs may include a letter,

e-mail, lien waiver or copies of reimbursement checks. If DBE goals were not met, include documentation as to why.

e) Final Invoice

f) Final Detailed Estimate of Quantities

g) Contractor's Affidavit Regarding Settlement of Claims

h) Final Change Order (if needed)

i) Affidavit (Compliance with Prevailing Wage Law)

j) These documents are to be received within 60 days of the Final Inspection date. Final Reimbursement will be processed once all close out documentation has been reviewed and accepted.

B. The Post-Construction Phase services may commence during the Construction Phase and, if not otherwise modified, will terminate twelve months after the commencement of the Construction Contract's correction period.

## PART 2 - ADDITIONAL SERVICES

A2.01 *Additional Services Requiring Owner's Written Authorization*

A. If authorized in writing by Owner, Engineer shall provide Additional Services of the types listed below. These services are not included as part of Basic Services and will be paid for by Owner as indicated.

1. Preparation of applications and supporting documents (in addition to those furnished under Basic Services) for private or governmental grants, loans, or advances in connection with the Project; preparation or review of environmental assessments and impact statements; review and evaluation of the effects on the design requirements for the Project of any such statements and documents prepared by others; and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.

2. Undertaking investigations and studies including, but not limited to:

a) Detailed consideration of operations, maintenance, and overhead expenses.

**Exhibit A3.01**
**Wildwood Business Park Sanitary Sewer**
**City of Joplin, Missouri**

**JOB SPECIFIC SCOPE OF SERVICES**

## Project Description

The City of Joplin plans to install a new sanitary sewer trunk main to serve the new Wildwood Business Park located in the southwest part of Joplin. The City reviewed the site with the Engineer on June 13, 2016 during the scoping meeting. The proposed gravity system will flow northwestward approximately 6,800 feet from near 32nd Street to 20th Street. The new gravity system will flow into a new lift station located near 20th Street and Malang Road. The new lift station will then pump the sewage approximately 7,200 feet via a new force main back to an existing manhole and gravity sewer system near the 32nd Street and Central City Road. A large portion of the new gravity sewer and force main will be parallel. Sewage will flow through existing pipes to the existing Lift Station #19. Lift Station #19 will be upgraded to handle the additional flow.

The gravity and force main pipes will cross the BNSF Railroad, ideally in the same pipe sleeve. There is a Southern Star Central Gas Pipeline which operates a high-pressure transmission line which roughly parallels the railroad berm that will also need to be crossed. Easement preparation and negotiations with BNSF and Southern Star Central Gas Pipeline are included in the Engineers scope of services.

A portion of the project funding is provided by the Economic Development Agency (EDA). The City of Joplin is coordinating directly with EDA. Federal funding will require an Environmental Narrative, preparing a Preliminary Engineering Report discussed below as well as additional requirements identified in Exhibit C.

## General

The general scope of the project is to prepare conceptual, preliminary and final plans for the construction of the Wildwood Business Park sanitary sewer trunk main and lift stations in the City of Joplin, Missouri. The Engineer will be responsible for the site survey, environmental permitting, utility coordination, geotechnical investigation, easement negotiation, and conceptual, preliminary and final plans as well as construction services for the project.

## Additions to Part 1 – Basic Services

The basic services are indicated in Exhibit "A". The following detailed scope of services further refines Engineer's services to be provided as part of Part 1 – Basic Services.

### 1. Project Administration

a. Project Administration – Includes general administration items and standard coordination and correspondence thru design and construction services. Includes routine internal project team meetings and project management.

b. Project Controls – Includes budget and cost monitoring activities thru design and construction services.

c. Status Reports and Invoicing – Preparation of monthly invoices and status reports by project manager and accounting staff thru design and construction services.

d. Survey and Subconsultant Coordination – Coordination of geotechnical subconsultant for site access and activities where survey crew is required.

e. Project Kickoff Meeting and Site Visit – The ENGINEER Project Manager and a Senior Engineer will attend a kickoff meeting with the City of Joplin to discuss the project, visit the project site and review design criteria. The City will provide record drawings for the existing sanitary sewer system and any updated land use plans and/or plats that have been submitted to or prepared by the City. ENGINEER will prepare a meeting agenda prior to the meeting and forward minutes to the City afterwards.

**2. Concept Design Phase**

a. The proposed land use developed by KTGY and Olsson Associates will be reviewed by the Engineer and assumptions developed for future sewage flow rates. The Engineer will review the assumptions with the City, however, since these are future flows based on assumed land development patterns, neither the Engineer nor the City will be held responsible if future development patterns differ from the assumptions.

b. There will be two deliverables in this Phase.

i. The first deliverable will be HDR's revision of "M.3. Preliminary Engineering Report" (PER) prepared by the City of Joplin. The PER shall include the following requirements:

a) Description of Project Components – Provide a general description of all project components involved in the project. Indicate where the project involves the construction of new facilities or the renovation or replacement of existing ones. Describe each of the project components in terms of dimensions, quantities, capacities, square footage, etc.

b) A statement verifying the project components described in the engineering report are consistent with the EDA investment project description that is provided in Section A.2 of Form ED-900. Engineering reports that describe project components that are inconsistent with the EDA investment project description in Section A.2 of Form ED-900 will not be considered valid.

c) Sketches of schematics showing the general layout and location of the existing site conditions and of the project components as well as location of project beneficiary(s) identified in Section B.5 of Form ED-900 that provide economic justification for the project, if any. Rough dimensions and quantities for major project components should be shown and labeled on the drawings. Drawings should clearly identify the project components that are being proposed. Applicants are encouraged to clarify such drawings, for example, through color coding, labeling, and other appropriate methods.

d) A feasibility analysis for the constructability of the project, including a review of the existing conditions and noting particular features, alignments, and events affecting construction of project components.

e) The proposed method of construction. Indicate whether construction procurement shall be done through competitive bid or other method. Indicate if any portion of the project is to be done by design/build, construction management at risk, by the applicant's own forces, or whether a third party construction manager will be used. If an alternate construction procurement method (other than traditional design/bid/build with sealed competitive bid process) is proposed, a construction services procurement plan must be provided to EDA for approval in accordance with EDA's regulation at 13 C.F.R. 305.6(a).

f) The number of construction contracts anticipated. If multiple contracts are proposed, provide a description of the project components included in each contract. If separate contracts are anticipated for demolition or site work, the budget information cost classification should reflect the estimated costs for these components. If project phasing

is proposed, a project phasing request must be provided to EDA for approval per EDA's regulation at 13 C.F.R. 305.9(a).

g) A current detailed construction cost estimate for each of the project components, showing quantities, unit prices, and total costs. Provide a basis for the determination of construction contingencies.

h) If the budget includes costs for real property acquisition, the Applicant should include a current fair market value appraisal completed by a certified appraiser for the property to be purchased.

i) A list of all permits required for the proposed project and their current status. Identify all permits required; include the timeline to obtain the permits and discuss how the permitting relates to the overall project schedule. If the project crosses a railroad right-of-way or is within a railroad right-of-way, provide an explanation of any permitting or approvals that may be required from the railroad or other authority and the timeframe for obtaining these permits or approvals.

j) An overall estimated project schedule, including the number of months for each of the following:

1) design period;
2) period of time to obtain required permits;
3) period of time to obtain any required easements of rights-of-way;
4) solicitation of bids and awarding of contracts, and
5) construction period.

ii. The second deliverable shall be a Conceptual Report (Design Memorandum) which will be a maximum of five pages with exhibits that includes the following information:

a) Calculation of the wastewater design flows for the project.

b) Preliminary sizing of the proposed sanitary sewer, force main, the new pumps and the modifications to the existing pumps.

c) Definition of the preliminary alignments for the sanitary sewer and force main.

d) Preliminary estimates of construction costs.

c. The design of odor control units and excess flow holding facilities are not included in this scope of services.

d. ENGINEER shall submit requests for payment on a monthly basis.

**3. Utility Requirements**

a. Sub-surface utility investigations or researching record drawings are not included in the basic services fees. If potholing is required, the Engineer shall submit a proposed scope and fee for the additional services.

**4. Environmental Assessment**

a. The City of Joplin (City) has requested assistance preparing a federal Economic Development Administration (EDA) Environmental Narrative (EN) in support of a federal grant to fund construction of gravity and pressurized sanitary sewer lines and pump station. The Engineer shall

analyze, write and prepare mapping requirements consist with the EDA EA template outline and consist with generally accepted NEPA planning and documentation standards sufficient to identify impacts and mitigate those impacts. The EDA EA template requirements are itemized at: https://www.eda.gov/about/prelim-engineering-and-environmental-templates.html. Resource areas and topics to be documented in the EN include beneficiaries, project construction, purpose and need, alternatives, historic properties, affected area, coastal zone, wetlands, floodplains, endangered species, land use and zoning including USDA Form 1006 as needed, solid waste management, hazardous and toxic substances, water resources, water supply and distribution, wastewater collection and treatment, environmental justice, transportation, air quality, noise, permits, public notification, cumulative impacts, mitigation, attachments as available or necessary as referenced on the EDA EN template.

b. The Engineer endeavors to work within the EDA EA template guidance found throughout the template. As such, some information or attachments to the EA, such as permits, may not be included. In general, ENGINEER would endeavor to identify required permits as mitigation measures in the mitigation section of the EN.

c. The Preliminary Engineering Report (PER) is assumed to contain sufficient information for the Project Description, Purpose and Need, and alternative actions for the permitting agencies use. A second build alternative will be reviewed for the project and consist of the alignment provided sent to ENGINEER via email June 23, 2016 (gravity alignment). Impacts analysis of this second alternative will consist only of minimum necessary to reject as a feasible or less damaging alternative.

d. City maintains a GIS database of Zoning, Land Use, and other relevant resources considerations that will be made available to ENGINEER upon request.

e. City has obtained a Section 106 NHPA clearance from Missouri State Historic Preservation Office and will provide to ENGINEER to satisfy historic property considerations. No historic or archaeological surveys are included. No tribal consultation services are provided; however, a list will be obtained of potential tribal interests.

f. A preliminary desktop and field assessment determination for wetlands and streams will be provided. The field portion will essentially be a determination sufficient enough to document presence of potential wetland and approximate GPS boundary of wetlands and streams at proposed pipe crossings; however, detailed wetland delineation (datasheets, delineation report, etc) would be a supplemental service in support of a Section 404/401 Nationwide Permit. Wetland and stream impacts would be approximated with engineering judgment of the pipe trench impacts. A formal or preliminary jurisdictional determination submittal to the Corps of Engineers is not provided. However, jurisdictional assessment for NEPA purposes will be based on best professional judgment.

g. Corps of Engineers and MDNR Section 404/401 Nationwide permitting services are not included in this SOW. However, the need for permits will be identified as a mitigation measure in the EDA EA.

h. A FEMA floodmap will be included in the narrative, but floodplain permitting and No-Rise Certification services are not provided in this SOW and assumed to be completed by the City with the Jasper County Floodplain Administrator.

i. No threatened and endangered (T&E) species habitat assessments or surveys are included in this SOW. A desktop and literature review will be completed. Note that if the project is selected for EDA funding, direct coordination with the U.S. Fish and Wildlife Service may be required at that time.

j. Environmental Justice census block groups information will be provided within the narrative, but a detailed analysis is not provided in the SOW.

k. No traffic study services are provided in this SOW. We assume the City has done adequate traffic analysis in support of future development that would be supported by the sanitary lines project.

l. No air quality or noise modeling services are provided in this SOW.

m. ENGINEER assumes City will or has conducted public notification/hearings. No public involvement or notification services are provided in this SOW. City to provide any public notices, hearing minutes, or other documentation of public input.

n. Cumulative effects analysis will consider the overall future development within Wildwood Business Park.

o. City will provide Phase I Environmental Site Assessment previously prepared. City is responsible for signing EA certification regarding hazardous substances and/or waste material.

p. EDA comments, if received on Draft EA, are assumed to be minor and not require new or additional information or analysis.

q. Attachments to the EA not provided in this SOW include Coastal Zone consistency determination; Section 404/401 or Section 10 permits; habitat/species surveys or biological assessments for federal T&E species; sole source aquifer review by U.S. EPA; federal, state, and local permits.

r. A one day site visit by the ENGINEER's environmental scientist is proposed.

s. Up to 3 periodic internal and client coordination meetings by phone are included in the basic services. Meeting minutes of phone call will be prepared by the Engineer.

t. A draft EDA EA document will be sent to the City for review.

u. A final EDA EA document will be developed by the Engineer incorporating EDA and City comments.

v. Schedule:
Draft EN submitted with 45 days or sooner of NTP.
Final EN narrative submitted with 10 days of receipt of all City and EDA comments.

**5. Preliminary Design Phase**

a. The alignments of the sanitary sewer and force main shall be roughly parallel to each other and in close proximity (10-15 feet) to each other, whenever possible. The sanitary sewer and force main shall be drawn on the same plan and profile sheets whenever possible. The sanitary sewer and force main will occupy the same casing pipe as they traverse under the railroad tracks and gas pipeline, if possible.

**6. Surveying Services**

a. Survey Management and Coordination – Task management activities of the survey manager for coordinating survey sub-consultant, Olsson Associates and the logistics necessary for the completion of the survey.

b. Site Control – Set level and tie project control and benchmarks. Includes four control points and two benchmarks.

c. Topographic and Utility Survey – Perform topographic survey. The survey limits are approximately a corridor that is 7,200 feet long along by approximately 50' wide along the alignment identified in the Conceptual Design Phase. Survey will locate the necessary visible features needed for use in preparation of design documents. Utilities existing within the survey limits will be located and shown according to markings provided by the Missouri One-Call system. Utilities will not be potholed. Contours will be produced at one foot intervals for use in design. The services include coordination of utility locates and necessary permits from BNSF for access to the project site.

d. Right-of-Way Survey – A sufficient amount of boundary survey of the subject properties along the proposed sanitary alignment within Wildwood Ranch will be performed for use in developing easements.

e. Geotechnical Boring Staking Survey – Coordinate with the geotechnical sub-consultant to locate the proposed sounding locations and to record the final location and surface elevation of the actual sounding locations for use in design and plan development.

**7. Right-of-Way Phase**

a. The Engineer's sub-consultant, Olsson Associates, shall negotiate with property owners for the acquisition of sanitary sewer easements for the construction and maintenance. Negotiations shall consist of three visits with the landowner, upon which Client direction shall be required prior to continuing negotiations.

b. HDR will subcontract with a local land appraiser who will perform an appraisal of the proposed sewer easement.

**8. Final Design Phase**

a. A geotechnical investigation is included in this scope of services. This service will be performed by Palmerton & Parrish as a subconsultant to ENGINEER. Bores will be taken approximately every 500 feet, at the railroad crossing and at the new lift station site. The bores will penetrate to a depth of two feet below the anticipated flow line of the sewer or to refusal. The bore at the railroad crossing will be taken to a depth of two feet below the casing. The bore at the new lift station will be taken to a depth of five feet below the wetwell. Testing will be performed on the soil samples from the wetwell to determine the bearing capacity of the material.

b. HDR's performance of environmental permitting assistance will include the following scope of work:

   i. Waters of the US Determinations/Reporting – Document Clean Water Act potential jurisdictional waters (wetlands and streams) and submit for jurisdictional determination. Determine the type, size and location of jurisdictional waters impacted by the project.

      - Conduct wetland and stream channel delineations by two experienced wetland scientists. Delineate in accordance with the USACE 1987 wetland delineation manual and Midwest regional supplemental delineation manual. Photo documentation will be provided to include a photo log and corresponding description of each photo.

      - Prepare a written determination/delineation report consisting of an introduction/project overview, methods, results and discussion, and temporary and permanent impacts. Wetland and waters of the U.S. data sheets will be completed, as well as project location map, NWI and soils mapping information, photo log, wetland/pond/stream channel delineation boundary map, and project engineering plans.

      - Develop wetland and/or stream crossing restoration plans for USACE submittal.

      - The City will provide full access to all properties requiring determinations /delineations.

   ii. 404/401 Permit Application – Coordinate and complete applicable USACE 404 permit application to be used as a joint 404/401 application.

a) Complete Form 4345 and supplemental attachments, brief discussion of avoidance and minimization, brief proposal to purchase credit in existing wetland and/or stream mitigation banks (only if required), agency coordination documentation as necessary, cover letter to the USACE, project engineering figures.

b) Include in Form 4345 an engineer's estimate of volume and surface area of fill placed in wetlands or other waters of the U.S. and linear feet of stream channel impacted (if any). The surface area estimate will also include consideration for grading limits within wetlands beyond the proposed fill area, as this can be considered wetlands impacts.

c) A 404/401 permit application (including determination/delineation report) and other supporting information described above in Task 3 HDR Activities.

d) The City will likely require Nationwide Permit # 12 (NWP # 12) Section 404 permit from the USACE and a conditionally certified 401 water quality certification for NWP # 12 from Missouri Department of Natural Resources (MDNR).

e) No practical alternatives to avoid jurisdictional water impacts for the proposed project exist.

f) No mitigation is anticipated, though potential for temporary and very minor permanent impacts to jurisdictional waters is at least acknowledged in the development of this scope of work that would require delineation and pre-construction notification to the USACE, but could be covered under NWP#12 without mitigation. No mitigation banking, in-lieu fee, or mitigation site development costs are provided in this scope of services, as they are not anticipated. A restoration plan sheet will address temporary environmental resource damages for wetland and stream crossings.

g) The City will provide permission for site access by the USACE Regulatory Office for purposes of determination/delineation verification (only if requested).

iii. T&E Species Habitat Assessment – Evaluate tree habitat in field for potential Indiana and Northern Long-eared bat habitat. Develop brief habitat assessment memo as needed (does not include detailed USFWS habitat assessment forms). Coordinate with Corps on City's potential commitment to clear potential bat habitat roost trees and tree clearing in general only between November 1 and March 31st for the Indiana and Northern Long-eared bat species as an avoidance measure for potential take and may adversely affect opinion.

a) Coordinate with Corps on the City's commitment to avoid potential roost tree and tree clearing in general relative to active and inactive bat seasons (active April 1st – October 31$^{st}$ and inactive November 1$^{st}$ to March 31st).

b) Provide habitat assessment memo to Corps as part of 404 NWP application.

c) No detailed USFWS habitat or species survey services are provided in this scope of work.

d) Should a "likely to adversely affect" determination result, HDR can provide further formal or informal USFWS consultation services such as acoustic and/or mist netting surveys, Biological Assessment, etc. as a supplemental service.

e) No mitigation services for bat habitat are provided in this scope of work.

Assumptions:

- Section 106 Clearance provide previously to City and HDR will use same letter as part of 404 application.
- City has advised HDR that it will secure NPDES stormwater construction permit for land disturbance through its local authority. No stormwater permit or plan services included in this scope or services.

c. HDR shall perform the engineering work required for the applications for the permits/licenses from the railroad (assumed to be the BNSF) and Southern Star Central Gas Pipeline on behalf of the City. The City shall be responsible for paying all permit/license fees that are required.

**9. Bidding Phase**

a. ENGINEER will distribute contract document to prospective bidders from its office in Springfield, MO. The costs associate with reproduction, delivery services, postage and clerical staff will be covered in the price charged for a set of contract documents to plan holders.

b. Only one (1) construction contract will be issued for this project that will include all proposed improvements.

**10. Construction Phase**

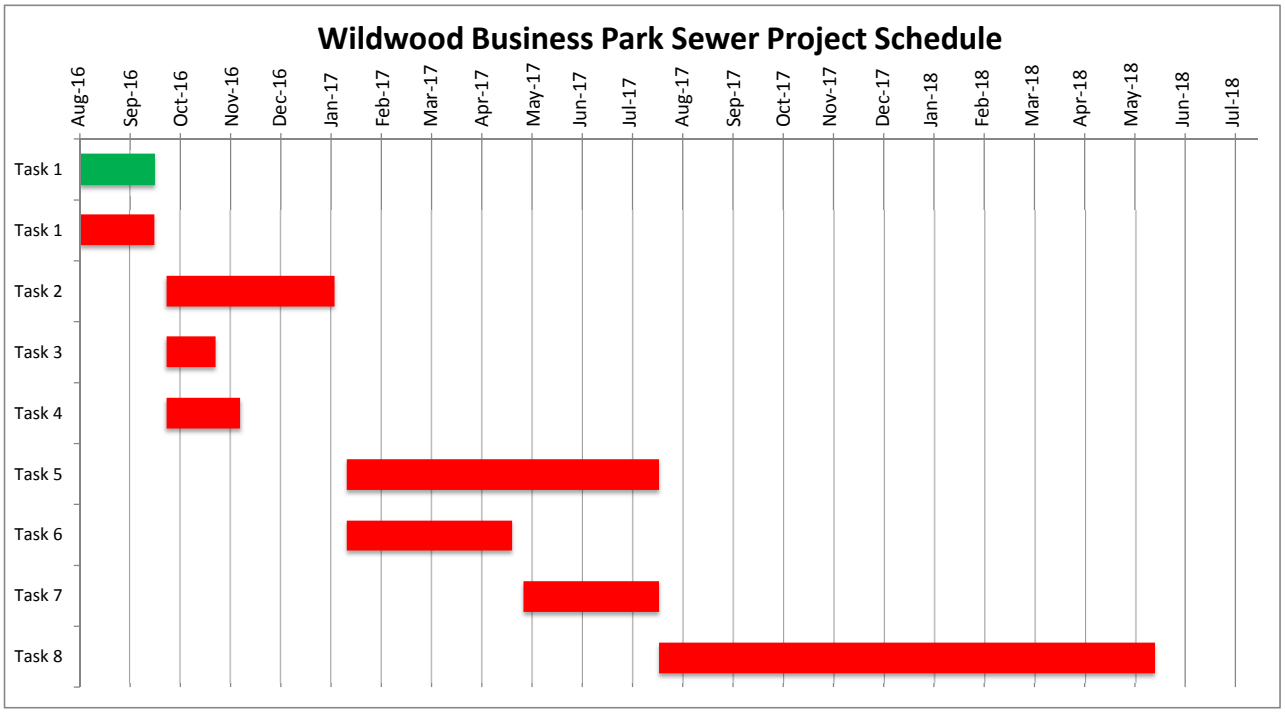
a. ENGINEER's scope of services and fee proposal are based upon the following conditions:

i. The construction period shall be 300 calendar days from the notice to proceed to issuance of the certification of completion to the Contractor. This constitutes approximately 210 working days. ENGINEER has included 942 hours of part time RPR services in its fee proposal, calculated as follows:

- 157 days at 6 hours/day = 942 hours

ii. The scope of services and fee proposal include one regularly scheduled construction progress meeting per month attend by the Project Engineer for a total of nine (9). There is also one meeting in the fee proposal for a final inspection to be attended by the Project Manager, Project Engineer and one other staff Engineer.

## Schedule




**NOTE: THIS SCHEDULE ASSUMES AN OWNER REVIEW PERIOD OF 1 WEEK AFTER TASKS 1, 2, AND 6.**

| Task Number | Task Description | Duration (days) |
|---|---|---|
| | Phase 1 | |
| Task 1 | Environmental Assessment | 45 |
| | Phase 2 | |
| Task 1 | Conceptual Phase | 45 |
| Task 2 | Preliminary Design Phase | 102 |
| Task 3 | Utility Coordination | 30 |
| Task 4 | Surveying | 45 |
| Task 5 | Right of Way Plan Phase | 189 |
| Task 6 | Final Design Phase | 100 |
| Task 7 | Bid Phase | 82 |
| Task 8 | Construction Phase | 300 |

**Exhibit A3.03**

# City of Joplin, MO - Wildwood Business Park Sewer

## Fee Summary

| | Sr. Project Mgr. | Sr. Process/Civil Engineer | CAD | Process/Civil Engineer | Electrical Engineer | Reg Land Surveyor | 2 Person Survey | Admin | Sr. Admin | Sr. Environmental Scientist | Environmental Scientist | Olsson Associates | Palmerton & Parrish | HDR Expenses | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Allowable Billing Rates per Client Contract** | **198.00** | **160.00** | **90.00** | **130.00** | **105.00** | **135.00** | **140.00** | **75.00** | **95.00** | **160.00** | **105.00** | **1.00** | **1.00** | | |
| **TASKS** | | | | | | | | | | | | | | | |
| ***A. Phase 1 - Environmental Assessment*** | | | | | | | | | | | | | | | |
| *1* Enviromental Assessment | | | | | | | | | | 65 | 31 | | | $345 | $14,000 |
| | | | | | | | | | | | | | | | $0 |
| ***Subtotal Hours*** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **65** | **31** | **0** | **0** | | |
| ***Subtotal Dollars*** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **10400** | **3255** | **0** | **0** | **345** | **$14,000** |
| ***Total Phase 1*** | | | | | | | | | | | | | | | **$14,000** |
| | | | | | | | | | | | | | | | |
| ***B. Phase 2 - Basic Services*** | | | | | | | | | | | | | | | |
| *1* Conceptual Phase | 16 | 38 | 12 | 7 | 8 | | | 8 | | | | 2000 | | $322 | $15,000 |
| *2* Preliminary Design Phase | 24 | 49 | 176 | 69 | 25 | | | 44 | 4 | | | 1000 | | $300 | $45,007 |
| *3* Utility Coordination | 2 | 8 | | 8 | | | | 2 | | | | | | | $2,866 |
| *4* Surveying | | | | | | 104 | 102 | | | | | 5000 | | $3,700 | $37,020 |
| *5* Right of Way Phase | | | | | | 16 | | | | | | 2500 | | $1,500 | $6,160 |
| *6* Final Design Phase | 23 | 59 | 176 | 60 | 23 | | | 20 | 8 | 30 | 60 | | 7000 | $638 | $61,047 |
| *7* Bid Phase | 12 | 54 | | | 14 | | | 18 | | | | | | $146 | $13,982 |
| *8* Construction Phase | 34 | 123 | 24 | 2 | 20 | | | 16 | 12 | | | 89500 | | $928 | $123,700 |
| *9* Post-Construction Phase | 1 | 12 | | | | | | | | | | | | $100 | $2,218 |
| | | | | | | | | | | | | | | | |
| ***Subtotal Hours*** | **112** | **343** | **388** | **146** | **90** | **120** | **102** | **108** | **24** | **30** | **60** | **100000** | **7000** | | |
| ***Subtotal Dollars*** | **22176** | **54880** | **34920** | **18980** | **9450** | **16200** | **14280** | **8100** | **2280** | **4800** | **6300** | **100000** | **7000** | **7634** | **$307,000** |
| ***Total Phase 2*** | | | | | | | | | | | | | | | **$307,000** |
| | | | | | | | | | | | | | | | |
| **Total Hours** | **112** | **343** | **388** | **146** | **90** | **120** | **102** | **108** | **24** | **95** | **91** | **100,000** | **7,000** | | **108,619** |
| **Total Fee Amount** | **$22,176** | **$54,880** | **$34,920** | **$18,980** | **$9,450** | **$16,200** | **$14,280** | **$8,100** | **$2,280** | **$15,200** | **$9,555** | **$100,000** | **$7,000** | **$7,979** | **$321,000** |

**Estimated Project Fee** **$321,000**

**Special Provisions to the**
**On-Call Professional Engineering Consulting Services Contract**
**Between City of Joplin and HDR Engineering, Inc.**
**Dated February 22, 2016**

The City of Joplin desires to engage the Engineer on the Wildwood Sanitary Sewer Project (Project). The Project is in part funded using Federal funds and modifications to the contract are required to comply with the funding requirements. The Contract shall be amended as follows:

Delete Paragraph **10. Discrimination** and replace with the following:

> **10. Discrimination**. The Engineer agrees in the performance of this contract not to discriminate on the ground or because of race, creed, color, national origin or ancestry, sex, religion, handicap, age, status as a protected veteran or status as a qualified individual with a disability, or political opinion or affiliation, against any employee of Engineer or applicant for employment and shall include a similar provision in all subcontracts let or awarded hereunder. The parties hereby incorporate the requirements of 41 C.F.R. §§ 60-1.4(a)(7), 29 C.F.R. Part 471, Appendix A to Subpart A, 41 C.F.R. § 60-300.5(a)ii and 41 C.F.R. § 60-741.5(a), if applicable.
>
> a. This engineer and subcontractor shall abide by the requirements of 41 C.F.R. § 60-300.5(a). This regulation prohibits discriminations against qualified protected veterans, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans.
>
> b. This engineer and subcontractor shall abide by the requirements of 41 C.F.R. § 60-741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.

Insert the following Paragraphs:

> **5.1 Equal Employment Opportunity**. During the performance of this Contract, the Engineer agrees as follows:
>
> a) The Engineer will not discriminate against any employee or applicant for employment because of race, creed, color, national origin, religion, or sex. The Engineer will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, national origin, religion, or sex. Such action shall include, but not be limited to, employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Engineer agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the City setting forth the provisions of this non-discrimination clause.

b) The Engineer will, in all solicitation or advertisements for employees placed by or on behalf of the Engineer, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, national origin, religion, or sex.

c) The Engineer will cause the foregoing provisions to be inserted in all subcontracts for any work covered by this Contract so that provisions will be binding upon each subcontractor, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.

d) In the event of the Engineer's noncompliance with the non-discrimination clauses of this Agreement or with any of such rules, regulations, or orders, this Agreement may be canceled, terminated, or suspended in whole or in part, and the Engineer may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

e) The Engineer will include the provisions of paragraphs (a) through (e) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Engineer will take such action with respect to any subcontract or purchase order as the City may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event the Engineer becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the City, the Engineer may request the United States Government to enter into such litigation to protect the interests of the United States.

**5.2 Civil Rights Act of 1964**. Under Title VI of the Civil Rights Act of 1964, no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

**5.3 Affirmative Action for Handicapped Workers**

a. The Engineer will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The Engineer agrees to take affirmative action to employ, advance in employment, and to otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices, such as employment upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship.

b. The Engineer agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

c. In the event of the Engineer's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

d. The Engineer agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, provided by or through the contracting officer. Such notices shall state the contractor's obligation under the law to take affirmative action to employ and advance in employment qualified handicapped employees and applicants for employment, and the rights of the applicants and employees.

e. The Engineer will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the contractor is bound by terms of Section 503 of the Rehabilitation Act of 1973 and is committed to take affirmative action to employ and advance in employment physically and mentally handicapped individuals.

f. The Engineer will include the provisions of this clause in every subcontract or purchase order of $2,500 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to Section 503 of the Act, so that such provisions will be binding upon each subcontractor or vendor. The Engineer will take such action with respect to any subcontractor or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

**5.4 Section 504 of the Rehabilitation Act of 1973**, as amended, provides for nondiscrimination of an otherwise qualified individual solely on the basis of his handicap in benefiting from any program or activity receiving Federal financial assistance. All recipients must certify to compliance with all provisions of this Section.

**5.5 Age Discrimination Act of 1975**. No person in the United States, on the basis of age, be excluded from participation in, be denied benefits of, or be subjected to discrimination under, any program or activity receiving Federal financial assistance.

**5.6 Authorized Employees**. Engineer acknowledges that Section285.530, RSMo, prohibits any business entity or employer from knowingly employing, hiring for employment, or continuing to employ an unauthorized alien to perform work within the State of Missouri. Engineer therefore covenants that is not knowingly in violation of subsection 1 or Section 285.530, RSMo, and that it will not knowingly employ, hire for employment, or continue to employ any unauthorized aliens to perform work on the Project, and that its employees are lawfully to work in the United States.

**7.1 Interest of Engineer and Employees**. The Engineer covenants that he presently has no interest and shall not acquire interest, direct or indirect, in the study area or any parcels therein or any other interest which would conflict in any manner or degree with the performance of his services hereunder. The Engineer further covenants that in the performance of this Contract, no person having any such interest shall be employed.

**7.2 Interest of Members of a City**. No member of the governing body of the City and no other officer, employee, or agent of the City who exercises any functions or responsibilities in connection with the planning and carrying out of the program, shall have any personal financial

interest, direct or indirect, in this Contract, and the Engineer shall take appropriate steps to assure compliance.

**7.3 Interest of Other Local Public Officials**. No member of the governing body of the locality and no other public official of such locality, who exercises any functions or responsibilities in connection with the planning and carrying out of the program, shall have any personal financial interest, direct or indirect, in this Contract, and the Engineer shall take appropriate steps to assure compliance.

**9.4 Copyright**. No report, maps, or other documents produced in whole or in part under this Contract shall be the subject of an application for copyright by or on behalf of the Engineer.

**18.1 Reports and Information**. The Engineer, at such times and in such forms as the City may require, shall furnish the City such periodic reports as it may request pertaining to the work or services undertaken pursuant to this Contract, the costs and obligations incurred or to be incurred in connection therewith, and any other matters covered by this Contract.

**18.2 Records and Audits**. The Engineer shall maintain accounts and records, including personnel, property, and financial records, adequate to identify and account for all costs pertaining to the Contract and such other records as may be deemed necessary by the City to assure proper accounting for all project funds. These records will be made available for audit purposes to the City or any authorized representative, and will be retained for three years after the expiration of this Contract unless permission to destroy them is granted by the City.