AGREEMENT

FOR

ENGINEERING SERVICES

This AGREEMENT, between the Norman Utilities Authority (OWNER) and CH2MHILL ENGINEERS, INC, (ENGINEER);

WITNESSETH

WHEREAS, OWNER intends to construct approximately 6,600 LF of 30-inch transmission main along Robinson between 12th Ave NE and 24th Ave NE include associated inter-connections and appurtenances. This PROJECT will be identified as Robinson 30-inch Transmission Main 12th Ave NE to 24th Ave NE and shall be as generally described in Attachment B.

WHEREAS, OWNER requires survey, design and engineering services in connection with the PROJECT (the SERVICES); and,

WHEREAS, ENGINEER is prepared to provide said SERVICES; and.

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

**ARTICLE 1 - EFFECTIVE DATE**

The effective date of this AGREEMENT shall be _____.

**ARTICLE 2 - COMPLETION DATE**

ENGINEER shall complete the SERVICES in accordance with Attachment A, Project Schedule.

**ARTICLE 3 - GOVERNING LAW**

The laws of the state of Oklahoma shall govern this AGREEMENT.

**ARTICLE 4 - SERVICES TO BE PERFORMED BY ENGINEER**

ENGINEER shall perform the SERVICES described in Attachment B, Scope of Services.

**ARTICLE 5 - COMPENSATION**

OWNER shall pay ENGINEER in accordance with Attachment C, Compensation.

**ARTICLE 6 - OWNER'S RESPONSIBILITIES**

6.1. OWNER-Furnished Data: Upon request, OWNER will provide to ENGINEER all data in OWNER's possession relating to ENGINEER's SERVICES on the PROJECT. Such data may include electronic data available from the OWNER's Geographic Information System (GIS) and data generated by OWNER's water distribution system model. ENGINEER will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by OWNER. OWNER's data is provided for temporary use or copying by ENGINEER.

6.2. Access to Facilities and Property: OWNER will make its facilities accessible to ENGINEER as required for ENGINEER's performance of its SERVICES

6.3. Timely Review: OWNER will examine ENGINEER's studies, reports, sketches, drawings, specifications, proposals, and other documents; and transmit OWNER comments or other decisions to ENGINEER in a timely manner.

6.4. Meetings: OWNER will participate in monthly progress meetings or other meetings with ENGINEER or contractor(s) defined in Scope of Services.

6.5. Advertisements, Permits, and Access: Unless otherwise agreed to in the Scope of Services, OWNER will obtain, arrange, and pay for all advertisements for bids; permits and licenses required by local, state, or federal authorities; and land, easements, rights-of-way, and access necessary for ENGINEER's SERVICES or PROJECT construction.

6.6. Hazardous Substances: If hazardous substances in any form are encountered or suspected, ENGINEER will stop its own work in the affected portions of the PROJECT to permit testing and evaluation. ENGINEER will, if requested by OWNER, conduct tests to determine the extent of the problem and will perform the necessary studies and recommend necessary remedial measures at an additional fee with contract terms to be negotiated.

**ARTICLE 7 - STANDARD OF CARE**

ENGINEER shall exercise the same degree of care skill and diligence in the performance of the SERVICES as is ordinarily possessed and exercised by a professional engineer under similar circumstances. ENGINEER shall correct the SERVICES that fail to satisfy this standard of care. No warranty, express or implied is included in this AGREEMENT or in any drawing, specifications, report or opinion produced pursuant to this AGREEMENT.

**ARTICLE 8 - LIABILITY AND INDEMNIFICATION**

8.1 General. Having considered the potential liabilities that may exist during the performance of the SERVICES, the benefits of the PROJECT, the ENGINEER's fee for the SERVICES and in consideration of the promises contained in this AGREEMENT, OWNER and ENGINEER agree to allocate and limit such liabilities in accordance with this Article.

8.2 Indemnification and Liability. The CONSULTANT agrees to defend, indemnify, and hold harmless the OWNER, its officers, servants, and employees, from and against legal liability for all claims, losses, damage, cost, and expense (including reasonable attorneys' fees and accountants' fees) caused by a negligent act, error, or omission of the CONSULTANT in the performance of services under this Agreement. OWNER agrees to defend, indemnify, and hold harmless the CONSULTANT, its officers, servants, and employees, from and against legal liability for all claims, losses, damage, cost, and expense (including reasonable attorneys' fees and accountants' fees) caused by a negligent act, error, or omission of the OWNER in the performance of services under this Agreement, provided such indemnification shall be applicable only to the extent sovereign immunity has been waived pursuant to Oklahoma law. The CONSULTANT and the OWNER each agree to promptly service notice on the other party of any claims arising hereunder, and shall cooperate in the defense of such claims. The acceptance by OWNER or its representatives of any certification of insurance providing for coverage other than as required in this Agreement to be furnished by the CONSULTANT shall in no event be deemed a waiver of any of the provisions of this indemnity provision. None of the foregoing provisions shall deprive the OWNER of any action, right, or remedy otherwise available to OWNER at common law.

8.3 Employee Claims. ENGINEER shall indemnify OWNER against legal liability for damages arising out of claims by ENGINEER's employees. OWNER shall indemnify ENGINEER against legal liability for damages arising out of claims by OWNER's employees.

8.4 Consequential Damages. To the fullest extent permitted by law, ENGINEER shall not be liable to OWNER for any special, indirect or consequential damages resulting in any way from the performance of the SERVICES.

8.5 Survival. Upon completion of all SERVICES obligations and duties provided for in this AGREEMENT or if this AGREEMENT is terminated for any reason the terms and conditions of this Article shall survive.

**ARTICLE 9 - INSURANCE**

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

9.1 Worker's compensation insurance for ENGINEER's employees as required by Oklahoma Workers Compensation Statutes.

9.2 Comprehensive general liability insurance with a limit of $125,000 per occurrence and $500,000 aggregate for bodily injury or death and $25,000 per occurrence for property damage.

9.3 Comprehensive automobile liability insurance with a limit of $125,000 combined single limit for bodily injury or death and $25,000 for property damage.

9.4 Professional Liability (errors and omissions) insurance with a policy value of $1,000,000 per claim and $1,000,000 aggregate.

ENGINEER shall furnish OWNER certificates of insurance that shall include a provision that such insurance shall not be canceled without at least thirty days written notice to OWNER. All PROJECT contractors shall be required to include OWNER and ENGINEER as additional insured on their General Liability Insurance policies.

ENGINEER and OWNER each shall require its insurance carriers (Except Professional Liability) to waive all rights of subrogation against the other and its directors, officers, partners, commissioners, officials, agents and employees for damages covered by property insurance during and after the SERVICES. A similar provision shall be incorporated into all contractual arrangements entered into by OWNER and shall protect OWNER and ENGINEER to the same extent.

**ARTICLE 10 - LIMITATIONS OF RESPONSIBILITY**

ENGINEER shall not be responsible for: (1) construction means, methods, techniques, sequences, procedures or safety precautions and programs in connection with the PROJECT; (2) the failure of any contractor, subcontractor, vendor or other PROJECT participant, not under contract to ENGINEER, to fulfill contractual responsibilities to the OWNER or to comply with federal, state or local laws, regulations, and codes; or (3) procuring permits, certificates and licenses required for any construction unless such responsibilities are specifically assigned to ENGINEER in Attachment B, Scope of Services.

**ARTICLE 11 - OPINIONS OF COST AND SCHEDULE**

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

**ARTICLE 12 - REUSE OF DOCUMENTS**

Upon OWNER's request ENGINEER shall furnish OWNER with deliverables and/or other data on electronic media. All documents, including but not limited to, drawings, specifications and computer software prepared by ENGINEER pursuant to this AGREEMENT are instruments of Service in respect to the PROJECT. Said documents are not intended or represented to be suitable for reuse by OWNER or others on extensions of the PROJECT or on any other PROJECT.

**ARTICLE 13 - TERMINATION**

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

OWNER may terminate or suspend performance of this AGREEMENT for OWNER's convenience upon written notice to ENGINEER. ENGINEER shall terminate or suspend performance of the SERVICES on a schedule

acceptable to OWNER. If termination or suspension is for OWNER's convenience, OWNER shall pay ENGINEER for all the SERVICES performed to date, amount not to exceed the normal fee amount due for the SERVICES rendered and termination or suspension expenses. Upon restart, an equitable adjustment shall be made to ENGINEER's compensation.

**ARTICLE 14 - DELAY IN PERFORMANCE**

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

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

**ARTICLE I5 - COMMUNICATIONS**

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

ENGINEER: Lars B. Ostervold Jr, P.E.
CH2MHILL Engineers, Inc.
401 S. Boston, Suite 330
Tulsa, OK 74103
918-921-6051
Lars.Ostervold@jacobs.com

OWNER: Chris Mattingly, P.E.
Norman Utilities Authority
201-C West Gray
P.O. Box 370
Norman OK 73070
405-217-7778
Chris.mattingly@normanok.gov

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

**ARTICLE 16 - WAIVER**

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

**ARTICLE 17 - SEVERABILITY**

The invalidity, illegality, or unenforceability of any provision of this AGREEMENT or the occurrence of any event rendering any portion or provision of this AGREEMENT void shall in no way affect the validity or enforceability of any other portion or provision of this AGREEMENT. Any void provision shall be deemed severed from this AGREEMENT, and the balance of this AGREEMENT shall be construed and enforced as if this AGREEMENT did not contain the particular portion or provision held to be void. The parties further agree to amend this AGREEMENT to replace any stricken provision with a valid Provision that comes as close as possible to the intent of the stricken provision. The provisions of this Article shall not prevent this entire AGREEMENT from being void should a provision, which is of the essence of this AGREEMENT, be determined void.

**ARTICLE 18 - INTEGRATION**

This AGREEMENT represents the entire and integrated AGREEMENT between OWNER and ENGINEER. It supersedes all prior and contemporaneous communications, representations, and agreements, whether oral or written, relating to the subject matter of this AGREEMENT. This AGREEMENT, including its attachments and schedules, may only be changed by a written amendment executed by both parties. The following attachments and schedules are hereby made a part of this AGREEMENT:

Attachment A - Schedule
Attachment B - Scope of Services
Attachment C - Compensation

**ARTICLE 19 - SUCCESSORS AND ASSIGNS**

OWNER and ENGINEER each binds itself and its directors, officers, partners, successors, executors, administrators, assigns, and legal representatives to the other party to this AGREEMENT and to the directors, officers, partners, successors, executors, administrators, assigns, and legal representatives of such other party in respect to all provisions of this AGREEMENT.

IN WITNESS WHEREOF, OWNER and ENGINEER have executed this AGREEMENT.

DATED this _____ day of _____ 20_____.

AMANDA M. GEORGE
Notary Public, State of Oklahoma
Commission # 15011025
My Commission Expires 12-02-2023

**CH2MHILL - ENGINEER**

ATTEST

By: Jmh Kazee

Title: MANAGER OF PROJECTS

Amanda M. George

CH2M Hill Engineers Inc

**Norman Utilities Authority- OWNER**

APPROVED as to form and legality this _____ day of _____, 20____.

_____
City Attorney

APPROVED by the Trustees of the Norman Utilities Authority this _____ day of _____, 20_____.

ATTEST

By: _____ _____
Title:

_____ _____

## ATTACHMENT A

SCHEDULE

Robinson 30-inch Transmission Main 12th Ave NE to 24th Ave NE (refer to Figure 1 for Project Schedule):

ENGINEER shall complete and submit 35% plans and specifications to the OWNER within 90 calendar days following receipt of Contract from the OWNER. ENGINEER shall complete and submit 95% plans and specifications to the OWNER within 130 calendar days following receipt of comments from OWNER on 35% plans and specifications.

Real Estate Services will begin after completion of the 35% design and are planned to be complete within 235 calendar days following City acceptance of the 35% plans and specifications. The timeline for Real Estate Services is contingent upon Office of Management and Enterprise Services (OMES) internal timelines and valuations, which are beyond the control of the ENGINEER. Delays by OMES are not the responsibility of the ENGINEER and will impact the project schedule. ENGINEER shall complete Final Design Services and submit final plans and specifications to the OWNER within 46 calendar days following completion of Real Estate Services.

ENGINEER shall provide Construction Phase Services to the OWNER following the successful bidding and award of the PROJECT(s). ENGINEER shall submit as-built drawings to the OWNER within 30 calendar days after acceptance of construction PROJECT(s) by OWNER. Construction Phase Services will be added to this agreement via addendum at a later date.

My Commission

Failure of ENGINEER to comply with above schedule for various tasks or subtasks may result in OWNER's termination of this AGREEMENT.

**ATTACHMENT B**
**CITY OF NORMAN**
**ROBINSON WATER LINE REPLACEMENT 24TH NE TO WTP– SCOPE OF SERVICES**
**December 17, 2018**

## 1.0 BACKGROUND

This contract will cover the Robinson 30" Transmission Main 12th Ave NE to 24th Ave NE (Project).

- Project consists of approximately 6,600 LF of 30-inch waterline along Robinson Street beginning approximately 400 feet west of 12th Avenue NE where it will connect to the existing 16-inch water line (immediately west of the valve vault) on the north side of Robinson Street, crossing under Robinson Street and running along the south side of the road and ending approximately 400 feet east of 24th Avenue NE where it will connect to a 30-inch stub-out from a new valve vault (to be designed by others).

- The Project is illustrated as Figure 2 on the following page.

The Robinson 30" Transmission Main 12th Ave NE to 24th Ave NE scope of work is detailed below:

- Prepare an Engineering Design Report for submittal to the Oklahoma Department of Environmental Quality (ODEQ).

- Develop of 35%, 65%, 95% and 100% Final Design (Issue for Bids) plans for the pipeline.

- Prepare technical specifications to fully describe the intended work and convey the intent of the design. ENGINEER may utilize City of Norman Standard Specifications and Construction Drawings (City Specifications) to the maximum extent possible. For all items not adequately covered in the City Specifications, the ENGINEER will provide supplemental specifications and drawings.

- Prepare ODEQ and Oklahoma Department of Transportation (ODOT) permits.

- Develop Opinion of Probable Construction Cost (OPCC) based upon the 65%, 95%, and Final Design plans and specifications.

## 2.0 BASIC SERVICES

Basic Services provided by the ENGINEER will generally be covered under the following activities: Activity A – Project Coordination, Activity B –Pipeline Design, Activity C – Bid Phase Services, Activity D – Construction Phase Services and Activity E - Engineering Allowances. Specific tasks for each activity are identified in the following sections. Activity D – Construction Phase Services will be added to this agreement via amendment at a later date.

### ACTIVITY A - PROJECT COORDINATION

#### Task 1 – Bi-Monthly Progress Meetings

Bi-Monthly Progress Meetings - ENGINEER will coordinate, prepare for, and conduct bi-monthly coordination meetings to review progress with the OWNER and the consultants working on the design. Meetings will take place at the OWNER's office in Norman.

a. ENGINEER will prepare an agenda for the meetings.

b. ENGINEER will moderate the meetings.

c. ENGINEER will prepare and distribute draft meeting minutes for review within 5 business days of the progress meeting. After receipt of comments, the meeting minutes will be finalized and distributed to the OWNER and sub-consultants for record purposes.

d. Up to four (4) bi-monthly progress meetings will be held.

e. ENGINEER will conduct coordination teleconferences with the OWNER during months when a bi-monthly coordination meeting is not conducted.

**Task 2 – Project Management**

Provide project management for Activities A, B, C, and E. Project management will include, but not be limited to developing and implementing a project management plan; tracking and managing internal schedules of work; monitoring and addressing issues related to the scope of work, budget and deliverables; preparing and processing monthly billings; providing labor resources necessary to fulfill scoped work; scheduling and participating in quality control reviews; and providing updates to the OWNER on a regular basis.

a. ENGINEER will coordinate design efforts on project tasks identified below.

b. ENGINEER as the prime design consultant will manage sub-consultant's field and design activities and coordinate those efforts with the OWNER.

c. ENGINEER shall prepare a brief project update and common monthly invoice for all detailed design phase services.

**Deliverables**

a. Draft and Final Meeting Notes for the progress meetings

b. Monthly Invoices with Project Update

c. Baseline Design Schedule

**ACTIVITY B – PIPELINE DESIGN**

**Task 1 – Quality Control Meetings**

a. Participate in Preliminary Engineering Design Report, 35%, 65%, 95% and 100% design quality control review meetings with OWNER's personnel. The meetings will occur in concert with a monthly progress meeting. ENGINEER will furnish four sets of the draft plans, specifications and bidding documents to the OWNER for each meeting.

b. Coordinate with Engineering Consultants performing design of utility relocations along 24th Avenue NE and design of the valve vault and 42-inch water line from 24th Avenue NE to the Norman Water Treatment Plant (WTP).

c. In addition, furnish additional sets to all utility companies affected by the PROJECT. Schedule and attend conference(s) with all affected utility companies to verify horizontal and vertical locations of their existing facilities as required. Revise documents as necessary to reflect utility company and OWNER comments. Obtain written approval from all affected utility companies as to correctness of existing facilities and proposed relocations shown on the revised plans.

d. Provide a written record of OWNER comments and the ENGINEER's responses.

**Task 2 – Pipeline Detailed Design**

a. Right of Entry

1. ENGINEER will provide land owner contact information to the OWNER's Land Department for those parcels impacted by the selected pipeline alignment. OWNER's Land Department will utilize the contact information and will be responsible for securing Right-of-Entry (ROE) so that ENGINEER can access the properties as needed to perform various engineering support tasks.

2. OWNER will notify ENGINEER of those parcels that are non-responsive or have refused granting ROE within 15 days of sending notification letters.

b. ENGINEER will prepare an Engineering Design Report for the Project for submittal to ODEQ at least 30 days prior to submission of the application for a permit to construction. This Engineering Design Report will include the basis of design, calculations, and all pertinent requirements outlined in OAC 252: 626-3-6.

c. Plans

ENGINEER will develop the plans as follows:

1. ENGINEER will develop and submit drawings to the OWNER for review as defined below at the 35%, 65%, 95% and 100% design levels in advancing the design. The OWNER will review and comment. ENGINEER will provide a written response to OWNER comments and will modify drawings incorporating required changes.

2. ENGINEER will perform design calculations.

3. ENGINEER will consult with the OWNER's Transportation and Public Works Department, Water Department, and other departments, public utilities, private utilities, ODOT, the airport and other facilities that have an impact or influence on the project.

4. ENGINEER will require the CONTRACTOR to prepare the Storm Water Pollution Prevention Plan (SWPPP) required for the project for use by the CONTRACTOR during construction. ENGINEER will prepare standard details for proposed SWPPP improvements that the CONTRACTOR must use during construction. CONTRACTOR will be responsible for filing the SWPPP with appropriate regulatory agencies.

5. ENGINEER will prepare 35% Plans to include preliminary plan sheets for the alignment. Plans will show existing utilities, property lines with legal descriptions (Lot Nos., Block Nos., and Addition Names), property ownership, and other information from the design survey. Plans will reflect actual conditions to a distance of at least 25 feet on either side of the proposed water lines, excluding the width of Robinson Street. For the portion of the alignment from 12th Ave NE to the east along the

south side of Robinson, the distance may be less than 25 feet as the survey will extend to just south of the fence line.

6. ENGINEER will prepare 65% Plans to include the proposed plan/profile for the transmission main, existing utilities, property lines with legal descriptions (Lot Nos., Block Nos., and Addition Names), property ownership, proposed permanent and temporary construction easements, geotechnical bore and hydroexcavation locations, details for connections to the existing water lines, applicable OWNER's standard details (modified as necessary).

7. ENGINEER will prepare 95% Plans to include proposed plan/profile for the transmission main, existing utilities, property lines with legal descriptions (Lot Nos., Block Nos., and Addition Names), property ownership, proposed permanent and temporary construction easements, geotechnical bore and hydroexcavation locations, details for connections to the existing water lines, applicable OWNER's standard details (modified as necessary), all other standard and special details required, and all other pertinent information needed to construct the project.

8. ENGINEER will prepare 100% Final Design Plans to include proposed plan/profile for the transmission main, existing utilities, property lines with legal descriptions (Lot Nos., Block Nos., and Addition Names), property ownership, proposed permanent and temporary construction easements, geotechnical bore and hydroexcavation locations, details for connections to the existing water lines, applicable OWNER's standard details (modified as necessary), all other standard and special details required, and all other pertinent information needed to construct the project.

9. ENGINEER will prepare a design that complies with the most recent amendment of all applicable portions of Oklahoma Administrative Code including but not limited to OAC 252:626, Public Water Supply Construction Standards.

10. After completion of the 100% quality control review meeting and prior to the advertisement for bids, ENGINEER will prepare and submit and ODEQ Permit to Construction and three (3) sets of half size plans and specifications to ODEQ for review. This will include required hydraulic analysis. If necessary, incorporate modifications requested by permitting entities and obtain all required design approvals and permits. OWNER will be responsible for fees associated with the permitting process.

11. OWNER will obtain all necessary ROW prior to award of any construction contract(s). Submit plans as required to all parties associated with PROJECT including OWNER, ODEQ and private utility companies. ENGINEER will provide a written response to OWNER comments and will modify documents incorporating required changes. ENGINEER will provide sealed construction contract documents to OWNER.

**Task 3 – Specifications**

a. ENGINEER will prepare specifications to fully describe the intended work and convey the intent of the design. ENGINEER will utilize City of Norman Standard Specifications and Construction Drawings (City Specifications) to the maximum extent possible.

   1. ENGINEER will provide preliminary specifications list with the 35% design.
   2. At the 65% design phase the ENGINEER will provide technical specification sections.
   3. All specification sections, including front-end documents, will be provided by the ENGINEER with the 95% design.
   4. The 100% Final Design will include all specifications.

b. ENGINEER will prepare the bid form for the proposed work on a unit price basis. Specifications shall include a measurement and payment section fully describing each bid item.

c. Bid documents shall be prepared by ENGINEER to allow differing construction techniques (i.e. open trench, boring and jacking, or directional boring) and materials (i.e. fusible PVC, HDPE) whenever possible.

d. The use of additive alternates shall be evaluated by the ENGINEER and incorporated if feasible to provide flexibility in awarding portions of the work that are within the OWNER's budget.

**Task 4 – Opinion of Probable Construction Cost (OPCC) Development**

a. ENGINEER will prepare an OPCC for review by the OWNER. This OPCC will be prepared and submitted with the 35% (Class 3 Estimate), 65% (Class 2 Estimate) and 95% (Class 1 Estimate) quality control review of the plans and specifications. The ENGINEER will update the OPCC for submittal with the final sealed plans and specifications.

b. Preparation of additional construction packages, separate procurement packages or additional OPCC's if requested by the OWNER shall be provided as an ADDITIONAL SERVICE.

**Deliverables**

a. Engineering Design Report and required design calculations
b. 35% quality control review plans and specification list
c. 35% OPCC
d. 65% quality control review plans and specifications
e. 65% OPCC
f. 95 % quality control review plans and specifications
g. 95% OPCC
h. Final sealed plans and specifications
    1. 7 sets of half size (11-in x 17-in) plans (3 to ODEQ, 4 to OWNER)
    2. 4 sets of specification books
    3. Electronic (PDF OCR) files of plans and specifications via optical disc
i. Final OPCC

**ACTIVITY C – BID PHASE SERVICES**

**Task 1 – Pre-Bid Activities**

Assist the OWNER in the advertisement of the project for competitive bids.

a. Assist the OWNER in securing bids, preparing addenda, issuing notice to bidders and notifying construction news publications. The notice to bidders will be furnished to the OWNER for publication in the local news media. The cost for publications shall be paid by the OWNER. The ENGINEER will post the bidding documents to Civcast (www.civcastusa.com), a bid management and online bidding service. Prospective Bidders can obtain bidding documents from this website free of charge.

b. Coordinate and conduct a pre-bid conference for the project bid package included in Basic Services.

c. In conjunction with the OWNER, ENGINEER will issue addenda in response to questions raised during the bidding process. ENGINEER will transmit addenda to all plan holders via Civcast.

**Task 2 – Post-Bid Activities**

a. Assist the OWNER in the opening and tabulation of bids for construction of project and recommend to the OWNER as to the proper action on all proposals received.

b. Following the opening of bids, the ENGINEER shall conform the contract documents including all addendum changes. The following contract document sets shall be provided:

    1. Four sets of half size (11-in x 17-in) conformed plans.

    2. One set of full size (24-in x 36-in) conformed plans.

    3. Two conformed specification books for execution by the respective parties.

    4. Electronic (PDF OCR) files of the plans and specifications via ftp site or optical disc.

c. Assist the OWNER in coordinating the execution of the conformed contract documents.

d. Preparation of additional copies of the documents for the OWNER or other parties will be performed by the ENGINEER as an ADDITIONAL SERVICE.

**ACTIVITY D – CONSTRUCTION PHASE SERVICES (*TO BE ADDED AT A LATER DATE VIA AMENDMENT)***

**ACTIVITY E – ENGINEERING ALLOWANCES**

a. **Topographic Survey.** Topographic Survey for the area shown in Figure 3. The amount shown in Attachment C is for detailed survey and will not be exceeded without written OWNER approval.

    Based on successful ROE, the survey scope of work will include the following tasks:

    1. Utility coordination: Prior to commencing any topographic fieldwork, surveyor will coordinate with, collect and review available public and private utility records within the project limits. The surveyor will submit a utility locate request for the project limits to OKIE811.

    2. Right-of-Way and Property: Survey will locate and tie existing ROW, property lines and easements including type, size, volume and page, where applicable.

    3. Survey will horizontally and vertically locate surface features; drainage features; building locations; fences/retaining walls; tree lines; roadways; railways; and city, county and franchise utilities (as provided by OKIE811 utility locate request) within the project area to the following limits:

        - Approximately 6,600 feet along Robinson, including capture of the water lines on the south side of Robinson that coincide with the proposed alignment for the new water transmission main.
        - Alignment swaths as shown in Figure 3.

    4. Methods and precision: All design development must be tied to two of the OWNER's control points. The control point locations shall be supplied by the OWNER. Survey coordinates will be reported on the NGS Oklahoma State Plane Coordinate System, NAD83 (+/- 0.01 feet) with vertical coordinates reported in the NAVD 88 Vertical System (+/- 0.01 feet). Horizontal and vertical control will be set using post-processed GPS static methods. Data will be collected using RTK GPS and

robotic total stations for the majority of the survey. Laser scanning methods will be used at state highway and railroad crossings for safety reasons. The permanent benchmark location and description used to extend level datum to the projects shall be noted on the plans.

5. A permanent benchmark shall be established on the project. This permanent benchmark will be a brass cap set in concrete in a location accepted by the OWNER. The cap shall read "City of Norman Bench Mark" together with a letter and/or numerical designation assigned it by the OWNER from the master file of bench marks maintained by the OWNER.

6. All survey data collected will be submitted to the OWNER in CAD and GIS format per project spatial data management and procedures with appropriate ground to grid conversion.

7. The budget for survey established in this contract assumes full ground survey of the project limits.

8. Survey Records Research: Surveyor will research boundaries, subdivision plats, rights-of-way (ROW) and easements of which the surveyor has knowledge, which may affect the physical boundaries of the project. Easements with volume and page numbers will be identified and labeled in the survey submittal. Research will include public record resources, including but limited to: county records; ODOT records; franchise utility records (gas, telephone, electric, cable and others); ownership or easement records as available; and title/abstracting reports from owner on proposed easement parent tracts.

9. Easement Services: Surveyor will prepare a metes and bounds description with accompanying exhibit for up to five (5) parcels.

**Survey Deliverables**:

- An electronic abstract report with supporting documents for the parent tract on each proposed instrument.
- Metes and bounds description with accompanying exhibit.
- One electronic executed PDF of the complete instrument for each parcel.
- Five (5) original hard copies of the complete instrument for each parcel.
- The staking of easements will be provided as an additional service. If requested, all easement corners and horizontal points of inflection will be staked with ½ inch iron rods or appropriate material after final executed documents are delivered.
- All easement data will be submitted to the OWNER in GIS format per project spatial data management and procedures with appropriate ground to grid conversion.

Assumptions include:

- Abstracting services and title work for property, easement and ROW line workup of proposed easement parcels will be provided to the surveyor by the OWNER. Current platting and/or deed information available at the County will be used for all other project property, easement and ROW lines.

Additional parcels above that stated will be provided under ADDITIONAL SERVICES.

**b. Geotechnical Investigation**

Based on successful ROE, the geotechnical investigation scope of work will include the following tasks:

1. The geotechnical investigation firm will submit a utility locate request for all test pit and boring locations to OKIE811.

2. The purpose of the geotechnical subsurface evaluation is to obtain data and information regarding subsurface conditions for the design and construction of the Robinson 30-inch Transmission Main 12th Ave NE to 24th Ave NE.

3. Boring and test pit locations will be provided by the ENGINEER.

4. In the borings, Standard Penetration Tests (SPT) will be conducted every 2.5 feet in the overburden materials in the upper 10 feet, then increase to 5-foot intervals to the boring termination depth. Shelby tubes will be collected in cohesive overburden materials. If bedrock is encountered prior to the proposed boring termination depth, the rock will be tested using Texas Cone Penetrometer (TCP) testing.

5. Test pits will be dug to depths of 10 feet or to refusal using a backhoe equipped with an 18 inch or larger bucket that is capable of reaching a depth of at least 10 feet below the ground surface. Samples will be collected at material changes from the excavated soil.

6. Groundwater levels will be monitored in all of the boring prior to the borings being grouted or backfilled with the exception of any piezometer locations where a 72-hour reading will be taken. If groundwater is encountered in the test pits, the rate of groundwater flow into the excavation will be estimated.

7. Laboratory testing will be conducted as directed by the ENGINEER. Soil samples will be classified in accordance with the Unified Soil Classification System (USCS).

8. After completing the field exploration and laboratory testing, the data and conditions will be analyzed, and a geotechnical report will be prepared by or under the supervision of a licensed professional engineer in the State of Oklahoma. The report will contain a description of the project; a summary of the drilling, sampling, and testing procedures; logs of the borings, laboratory test results, and discussion of the subsurface conditions and site observations.

**Geotechnical Deliverables**

- Two (2) hard copies of Geotechnical Report

**c. Hydroexcavation**

Based on successful ROE, the hydroexcavation scope of work will include the following tasks:

1. The hydroexcavation firm will submit a utility locate request for all test pit and boring locations to OKIE811.

2. The purpose of hydroexcavation is to obtain data and information regarding location, depth, pipe size, and pipe material for existing utilities along the alignment for the Robinson 30-inch Transmission Main that could impact design and/or construction

3. Hydroexcavation locations will be provided by the ENGINEER.

4. Hydroexcavation locations will be surveyed.

5. A report documenting the results of the hydroexcavation will be prepared and submitted.

**Hydroexcavation Deliverables**

- Two (2) hard copies of Hydroexcacvation Report

d. Real Estate

The real estate scope of work will include the following tasks:

1. Prepare Right-of-Way documents for a maximum of three (3) parcels for Waterline Easements.

2. Prepare Right-of-Way documents for a maximum of five (5) parcels for Temporary Construction Easements.

3. Prepare title work for each of the parcels.

4. Coordinate title work needed for land survey.

5. Perform QA/QC for legal descriptions for a maximum of three (3) parcels for Waterline Easements.

6. Perform QA/QC for legal descriptions for a maximum of five (5) parcels for Temporary Construction Easements.

7. Perform QA/QC for Right-of-Way map.

8. Initiate contacts with property owners.

9. Prepare and make offers to landowners. Negotiate with land owners as needed.

10. Perform title research.

11. Resolve title issues as needed.

12. Finalize negotiations, including final paperwork.

13. Coordination with OWNER for possible condemnation.

14. Perform file close out for all parcels.

15. Project meetings.

16. Project management.

**Real Estate Deliverables**

- Right-of-Way documents for a maximum of three (3) parcels for Waterline Easements
- Right-of-Way documents for a maximum of five (5) parcels for Temporary Construction Easements

**Real Estate Assumptions/Exclusions**

The following are excluded from the survey and real estate scope of work:

1. Appraisals.
2. Construction plan preparation.
3. Environmental Site Assessment.
4. Pre-construction conferences.
5. Monthly construction progress meetings.
6. Construction staking
7. Operations and maintenance manual development.
8. Engineering special inspection.
9. Project agendas and meeting minutes.

## 3.0 ADDITIONAL SERVICES

Additional Services are those services not included in General Services that may be required for the Project but cannot be defined sufficiently at this time to establish a Scope of Work. These include, but are not necessarily limited to the following:

a. Other services not included in Basic Services that are approved by the OWNER.

b. Modification of design criteria or significant design changes following review and comment on the 65%, 95% and 100% design document submittals.

c. Labor and Analytical costs associated with water quality sampling, not included in Basic Services or Allowance Tasks.

d. Archeological investigations

e. GIS processing of geophysical and/or geotechnical data beyond the assumptions provided in Basic Services or Allowance Tasks

f. Preparing applications and supporting documents for grants, loans, or planning advances for providing data for detailed applications.

g. Providing additional copies of reports, plans, specifications, OPCC's and contract documents beyond those specifically described in Basic Services or Allowance Tasks.

h. Preparing environmental impact statements, storm water discharge permits, and 404 permit applications, except as specifically included in the Basic Services.

i. Appearing before regulatory agencies or courts as an expert witness in any litigation with third parties other than condemnation proceedings arising from the development or construction of the Project, including the preparation of engineering data and reports for assistance to the OWNER.

j. Payment of fees for permit applications and publication(s) of notices.

k. Public relation activities and consulting services.

l. Services known to be required for completion of the PROJECT that the OWNER agrees are to be furnished by the ENGINEER or by a sub-consultant that cannot be defined sufficiently at this time to establish the maximum compensation.

**ASSUMPTIONS AND EXCLUSIONS**

- Design will be based on federal, state, and local codes and standards in effect at the start of the project. Any changes in these codes may necessitate a change in scope.

- Design documents will be prepared for a single construction contract.

- Termination points at each end of the transmission main are as defined by the OWNER at the approximate locations shown in Figure 2.

- OWNER will provide record drawings and Geographic Information System (GIS) files showing locations of existing utilities. ENGINEER will confirm locations of critical utilities using hydroexcavation and will not rely solely on information from the OWNER.

- MicroStation will be used to develop project drawings. The drawings will follow the ENGINEER's CAE/CAD standards.

- Design quality control review meetings with OWNER's personnel will occur in concert with a monthly progress meeting.

- OWNER's Land Department will utilize the contact information and will be responsible for securing ROE so that ENGINEER can access the properties as needed to perform various engineering support tasks.

- OWNER will be responsible for fees associated with ODEQ and any other permitting processes.

- The timeline for Real Estate Services is contingent upon OMES internal timelines and valuations, which are beyond the control of the ENGINEER. Delays by OMES are not the responsibility of the ENGINEER and will impact the project schedule.

- OWNER will obtain all necessary ROW prior to award of any construction contract(s).

- The cost for publications of notice to bidders shall be paid by the OWNER.

- Construction phase services will be added via addendum at a later date.

- Survey control point locations shall be supplied by the OWNER.

- Abstracting services and title work for property, easement and ROW line workup of proposed easement parcels will be provided to the surveyor by the OWNER. Current platting and/or deed information available at the County will be used for all other project property, easement and ROW lines.

## ATTACHMENT C

COMPENSATION

The OWNER will compensate ENGINEER on a lump sum basis for the SERVICES rendered for Activities A, B, C and D. For the SERVICES rendered for Activity E, the OWNER will compensate ENGINEER on a time and materials basis with a not-to-exceed amount at a salary cost multiplier of 2.17. The lump sum fee for Activities A, B, C and D and the not-to-exceed amount for Activity E is broken down below by task as defined in the Scope of Services:

| Activity | Task Description | Original Amount | Increase (Decrease) | Revised Amount |
|---|---|---|---|---|
| **Lump Sum Activities** | | | | |
| A | Project Coordination | $29,810 | -- | $29,810 |
| B | Pipeline Design | $127,105\4 | | $127,104 |
| C | Bid Phase Services | $14,364 | -- | $14,364 |
| D | Construction Phase Services (not included) | -- | -- | -- |
| | **Subtotal for Lump Sum Activities** | **$171,278** | **--** | **$171,278** |
| **Time & Materials Activities** | | | | |
| E | Engineering Allowances | | | |
| E1 | Survey | $33,996 | -- | $33,996 |
| E2 | Geotechnical | $35,000 | -- | $35,000 |
| E3 | Hydroexcavation | $5,000 | -- | $5,000 |
| E4 | Real Estate | $34,973 | -- | $34,973 |
| | **Subtotal for Time & Materials Activities** | **$108,969** | **--** | **$108,969** |
| | | | | |
| | **Total Fee** | **$280,247** | **--** | **$280,247** |

The ENGINEER may submit interim statements, not to exceed one per month, for partial payment for SERVICES rendered. The statements to OWNER will be by task for the percentage of work actually completed. The OWNER shall make interim payments within 30 calendar days in response to ENGINEER's interim statements.

No budgetary allowance has established for Additional Services. Additional services must be authorized by amendment of the agreement. Time and materials billing for ENGINEER'S labor will be at a salary cost multiplier of 2.17. ENGINEER's direct expenses, including subcontractor expenses, will include a multiplier of 1.0.