

AGREEMENT
FOR
ENGINEERING SERVICES

This AGREEMENT, between NORMAN UTILITIES AUTHORITY (Owner) and Cardinal Engineering, Inc. (Engineer);

WITNESSETH

WHEREAS Owner intends to modify or relocate approximately 2,400 feet of existing waterlines along Highway 9, generally between 24th and 36th Avenue SE, in preparation for roadway widening project. (the Project).

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 October, _____ 2012.

ARTICLE 2 - COMPLETION DATE

Engineer shall complete the Services in accordance with Attachment A, Schedule.

ARTICLE 3 - GOVERNING LAW

This Agreement shall be governed by the laws of the state of Oklahoma.

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 maps, plans or records pertinent to the Project and available from the Owner's files. If requested by Owner,

Engineer shall make copies of data provided and promptly return originals to the Owner. Engineer will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by Owner.

- 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 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.

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. The Engineer shall correct the Services which 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 and 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. Engineer and Owner each agrees to defend, indemnify and hold harmless each other it's agents and employees, from and against legal liability for all claims, losses, damages and expenses to the extent such claims, losses, damages, or expenses are caused by its negligent acts, errors or omissions. In the event such claims, losses, damages or expenses are caused by the joint or concurrent negligence of Engineer and Owner, such liability shall be borne by each party in proportion to it's own negligence.
- 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.
- 8.6 Unanticipated Hazardous Materials. In the event hazardous material or waste is encountered by Engineer during the course of performing its services, and conditioned upon the fact that Owner did not previously advise Engineer of the existence thereof, then and in that event:
- a. Engineer will stop its own work in the affected portions of the Project and notify Owner within a reasonable time following such discovery 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.
 - b. Owner shall indemnify, defend and hold Engineer, its officers, directors, agents, servants and employees, harmless from any claim, demand or action brought by any third party which is based upon injury or damage caused by said hazardous material or waste.

ARTICLE 9 - INSURANCE

During the performance of the services under this agreement engineer shall maintain the following insurance:

- 9.1 Comprehensive General Liability insurance coverage with a minimum of \$100,000 per accident for bodily injury or death and \$25,000 per occurrence for property damage.
- 9.2 Comprehensive Automobile Liability insurance coverage with a minimum of \$100,000 per accident for bodily injury or death and \$25,000 for property damage.
- 9.3 Workers Compensation insurance in accordance with statutory requirements and Employers' Liability Insurance with limits of not less than \$500,000 for each occurrence.
- 9.4 Professional Liability (errors and omissions) insurance providing a minimum policy value of \$1,000,000.

Engineer shall furnish Owner certificates of insurance which 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 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 costs estimates.

ARTICLE 12 - REUSE OF DOCUMENTS

Upon Owner's request Engineer shall furnish Owner with specified drawings and/or 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. They are not intended or represented to be suitable for reuse by Owner or others on extensions of the Project or on any other project unless specifically assigned to Engineer in Attachment B, Scope of Services.

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 leave fifteen 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 use of being prevented from performing, give written notice to the other party describing the circumstances

preventing continued performance and the efforts being made to resume performance of this Agreement.

ARTICLE 15 - COMMUNICATIONS

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

Engineer:

Bill Swain, P.E., P.L.S.
Cardinal Engineering, Inc.
3226 Bart Conner Drive
Norman, OK 73072
(405) 579-0655 (office)
(405) 366-8540 (fax)
bills@cardinalengineers.com

Owner:

Jim Speck, P.E., P.L.S.
Capital Projects Engineer
Norman Utilities Authority
P.O. Box 370
Norman OK 73070
(405) 217-7778
jim.speck@norman.ok.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. 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_____.

Cardinal Engineering, Inc. - Engineer

ATTEST

By:



Title:

Vice-President

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

TIME SCHEDULE FOR SCOPE OF SERVICES PERFORMANCE

The Engineer shall, within 30 calendar days following the "Notice to Proceed", Submit the 50% Plans to the Owner. Then within 60 calendar days of receipt of the Preliminary Plan approval the Engineer shall Submit 100% Plans and Specifications. Within 14 calendar days of receipt of comments the Engineer shall make all requested changes to the plans and Submit Final Plans and Specifications to the Owner for approval.

ATTACHMENT B

SCOPE OF SERVICES

Cardinal Engineering has responded to a request by the Utilities Department to prepare Waterline plans along Highway 9 between Sta. 235+00 and 297+00, J/P 20266(06) as outlined below. The services to be performed, per the Item numbers as listed in the "Field Meeting Report City of Norman, J/P 20266(06) Utilities, STPY-114A (101) UT" dated December 14, 2011, under this Agreement consist of Items 1-9 listed below.

(Item #1):

- (a) Prepare plans to lengthen the existing 42" encasement conduit to account for the increased roadway width.

(Item #2):

- (a) Prepare plans to lengthen the existing 18" encasement conduit to account for the increased roadway width.

(Item #3):

- (a) Prepare plans to lengthen the existing 42" encasement conduit to account for the increased roadway width.

(Item #4):

- (a) Relocate the existing 12" waterline from under the proposed shoulder to the utility corridor as defined by in the Field Meeting Report.

(Item #5):

- (a) Relocate the existing 12" waterline around the proposed storm improvements.

(Item #6):

- (a) Prepare plans to lower the existing 8" waterline below the proposed storm improvements.

(Item #7):

- (a) Prepare a written request to ODOT requesting they redesign the proposed storm depth to allow the existing waterline to remain undisturbed.
- (b) However if not approved, prepare plans to lower the existing 12" waterline below the proposed storm improvements.

(Item #8):

- (a) Prepare plans to lower and realign the existing 12" waterline to allow for proposed storm improvements.

(Item #9):

- (a) Prepare plans to provide bollards around or raise the existing MH to provide protection during construction.

(Item #10):

- (a) Prepare plans to extend the encasement conduit on the existing 12" waterline or realign the existing 12" waterline if necessary under 36th Avenue SE.

In reference to the above listed scope items we will perform the following:

DESIGN SURVEY

Lemke Land Survey (a division of Cardinal Engineering) will provide isolated additional topo survey as required for the preparation of the waterline plans. No ROW acquisition is anticipated or included in the fee estimate. No additional boundary work, property line staking, or easement searches are included in the estimate.

WATER LINE DESIGN

Cardinal Engineering will prepare water line plans, and details necessary for the permitting and construction of the water line relocation project. The plans are anticipated to include Plan & Profile sheets for approximately 2200 lineal feet of water line. The general scope of the project is to relocate existing waterlines or extend the protective casing where necessary.

BID DOCUMENTS & BID ADMINISTRATION

Cardinal Engineering will prepare all documents necessary for the advertising, bidding and award of the project. Cardinal Engineering will assist the City as requested in facilitating pre-bid meetings, bid tabulations, bid award recommendations, etc.

CONSTRUCTION ADMINISTRATION

Cardinal Engineering will perform various bid administration tasks including: submittal review, progress meeting attendance, RFI review & response, progress payment review, final inspection, etc.

RECORD DRAWINGS

At the completion of the project, a field survey will be conducted to locate all surface features (e.g. water valves, hydrants, etc.) of the completed project. This survey, along with any contractor noted adjustments to buried components will be the basis for the preparation of as-built documents. These documents will be delivered in pdf format, Autocad format, and hard copy as requested by the City.

REIMBURSABLE EXPENSES

Cardinal Engineering has estimated the reimbursable costs resulting from printing and reproduction costs. This estimate does not include any reimbursable costs other than anticipated printing and reproduction.

SPECIFIC EXCLUSIONS FROM THE SCOPE OF SERVICES:

- **Construction Staking** – All construction surveying services are excluded from this fee estimate.
- **Construction Inspection**
- **Sub-Consultants** – Although not anticipated to be necessary, the fee estimate does not include potential costs associated with structural engineering, geotechnical engineering, utility pot-hole location services, etc.

Compensation

The engineer will receive estimated time and material compensation for the project of \$47,100. The total fee will be broken down as follows:

| | |
|------------|-------------------|
| (Item #1) | \$2,300 ESTIMATE |
| (Item #2) | \$4,200 ESTIMATE |
| (Item #3) | \$1,900 ESTIMATE |
| (Item #4) | \$22,100 ESTIMATE |
| (Item #5) | \$2,300 ESTIMATE |
| (Item #6) | \$3,300 ESTIMATE |
| (Item #7) | \$1,000 ESTIMATE |
| (Item #8) | \$6,700 ESTIMATE |
| (Item #9) | \$0 |
| (Item #10) | \$3,300 ESTIMATE |

| | |
|-------------------|--------------------------|
| <u>Total Fees</u> | <u>\$47,100 ESTIMATE</u> |
|-------------------|--------------------------|

Note: If additional tasks are identified and agreed upon by the Capital Projects Engineer, this agreement may be amended to include additional tasks. Amendment will be approved by the NORMAN UTILITIES AUTHORITY prior to initiation of any additional items.

The Engineer may submit interim statements, not to exceed one per month, for partial payment for Services rendered. The statements to owner will be for all work actually completed. The Owner shall make interim payments within 45 days of receipt of invoice in response to Engineer's interim statements.

HWY 9 Waterline Relocation Item #3

Base Cost Estimate

October 17, 2012

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|-----------------|--|-----------|--|---------------------------|--|-----------------|--|-----------------------|------------------------------|---------------------------|--|-----------------|--|-----------|---------------------|---------------------------|--|--|--|--|
| Relocation Design and Plans | | | | | | | | | | | | | Meetings/Admin | | | | | | Engineers Report | | | | | |
| TASK | | | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | | | |
| Principle | | | | 1 Hrs. | | \$ 140.00 | | \$ 140.00 | | Hrs. | | \$ 140.00 | | \$ - | | Hrs. | | \$ 140.00 | | \$ - | | | | |
| Project Coordination (PLS) | | | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | | | |
| Project Coordination (PE) | | | | 1.5 Hrs. | | \$ 120.00 | | \$ 180.00 | | 2 Hrs. | | \$ 120.00 | | \$ 240.00 | | 0.5 Hrs. | | \$ 120.00 | | \$ 60.00 | | | | |
| Standard Two-Man Survey Crew | | | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | | | |
| CADD Technician | | | | 5 Hrs. | | \$ 75.00 | | \$ 375.00 | | Hrs. | | \$ 75.00 | | \$ - | | Hrs. | | \$ 75.00 | | \$ - | | | | |
| TOTAL OF ALL TASKS | | | | | | | | \$ 695.00 | | | | | | \$ 240.00 | | | | | | \$ 60.00 | | | | |
| SWPPP | | | | | | | | | | | | | Bid Package Admin/Assistance | | | | | | Supplemental Survey | | | | | |
| TASK | | | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | | | |
| Principle | | | | Hrs. | | \$ 140.00 | | \$ - | | 1 Hrs. | | \$ 140.00 | | \$ 140.00 | | Hrs. | | \$ 140.00 | | \$ - | | | | |
| Project Coordination (PLS) | | | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | | | |
| Project Coordination (PE) | | | | 0.5 Hrs. | | \$ 120.00 | | \$ 60.00 | | 0.5 Hrs. | | \$ 120.00 | | \$ 60.00 | | Hrs. | | \$ 120.00 | | \$ - | | | | |
| Standard Two-Man Survey Crew | | | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | 1 Hrs. | | \$ 110.00 | | \$ 110.00 | | | | |
| CADD Technician | | | | Hrs. | | \$ 75.00 | | \$ - | | 0.5 Hrs. | | \$ 75.00 | | \$ 37.50 | | Hrs. | | \$ 75.00 | | \$ - | | | | |
| TOTAL OF ALL TASKS | | | | | | | | \$ 60.00 | | | | | | \$ 237.50 | | | | | | \$ 110.00 | | | | |
| Construction Admin | | | | | | | | | | | | | Reimbersables | | | | | | Record Drawings | | | | | |
| TASK | | | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | | | |
| Principle | | | | Hrs. | | \$ 140.00 | | \$ - | | Hrs. | | \$ 140.00 | | \$ - | | 1 Hrs. | | \$ 140.00 | | \$ 140.00 | | | | |
| Project Coordination (PLS) | | | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | | | |
| Project Coordination (PE) | | | | 1 Hrs. | | \$ 120.00 | | \$ 120.00 | | Hrs. | | \$ 120.00 | | \$ - | | Hrs. | | \$ 120.00 | | \$ - | | | | |
| Standard Two-Man Survey Crew | | | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | | | |
| CADD Technician | | | | Hrs. | | \$ 75.00 | | \$ - | | Hrs. | | \$ 75.00 | | \$ - | | Hrs. | | \$ 75.00 | | \$ - | | | | |
| TOTAL OF ALL TASKS | | | | | | | | \$ 120.00 | | | | | | \$ 67.50 | | | | | | \$ 140.00 | | | | |
| Estimated Costs= | | | | \$ 1,730.00 | | | | | | | | | | | | | | | | | | | | |
| Contingency | | | | \$ 173.00 | | | | | | | | | | | | | | | | | | | | |
| Total Estimated Costs= | | | | \$ 1,903.00 | | | | | | 100.0% | | Norman responsibility | | | | \$ 1,903.00 | | | | | | | | |
| | | | | | | | | | | 0.0% | | ODOT responsibility | | | | \$ 0.00 | | | | | | | | |

October 17, 2012

| Relocation Design and Plans | | | | | Meetings/Admin | | | | Engineers Report | | | | |
|------------------------------|--|-----------------|------|-----------|------------------------------|-----------------|-----------------------|-----------|---------------------------|-----------------|------|-----------|---------------------------|
| TASK | | ESTIMATED UNITS | | UNIT COST | TOTAL ESTIMATED TASK COST | ESTIMATED UNITS | | UNIT COST | TOTAL ESTIMATED TASK COST | ESTIMATED UNITS | | UNIT COST | TOTAL ESTIMATED TASK COST |
| Principle | | 2 | Hrs. | \$ 140.00 | \$ 280.00 | 3 | Hrs. | \$ 140.00 | \$ 420.00 | 0.5 | Hrs. | \$ 140.00 | \$ 70.00 |
| Project Coordination (PLS) | | | Hrs. | \$ 110.00 | \$ - | | Hrs. | \$ 110.00 | \$ - | | Hrs. | \$ 110.00 | \$ - |
| Project Coordination (PE) | | 15 | Hrs. | \$ 120.00 | \$ 1,800.00 | 22 | Hrs. | \$ 120.00 | \$ 2,640.00 | 6 | Hrs. | \$ 120.00 | \$ 720.00 |
| Standard Two-Man Survey Crew | | | Hrs. | \$ 110.00 | \$ - | | Hrs. | \$ 110.00 | \$ - | | Hrs. | \$ 110.00 | \$ - |
| CADD Technician | | 70 | Hrs. | \$ 75.00 | \$ 5,250.00 | | Hrs. | \$ 75.00 | \$ - | | Hrs. | \$ 75.00 | \$ - |
| TOTAL OF ALL TASKS | | | | | \$ 7,330.00 | | | | \$ 3,060.00 | | | | \$ 790.00 |
| SWPPP | | | | | Bid Package Admin/Assistance | | | | Supplemental Survey | | | | |
| TASK | | ESTIMATED UNITS | | UNIT COST | TOTAL ESTIMATED TASK COST | ESTIMATED UNITS | | UNIT COST | TOTAL ESTIMATED TASK COST | ESTIMATED UNITS | | UNIT COST | TOTAL ESTIMATED TASK COST |
| Principle | | 0.5 | Hrs. | \$ 140.00 | \$ 70.00 | 1 | Hrs. | \$ 140.00 | \$ 140.00 | | Hrs. | \$ 140.00 | \$ - |
| Project Coordination (PLS) | | | Hrs. | \$ 110.00 | \$ - | | Hrs. | \$ 110.00 | \$ - | 1 | Hrs. | \$ 110.00 | \$ 110.00 |
| Project Coordination (PE) | | 6 | Hrs. | \$ 120.00 | \$ 720.00 | 9 | Hrs. | \$ 120.00 | \$ 1,080.00 | | Hrs. | \$ 120.00 | \$ - |
| Standard Two-Man Survey Crew | | | Hrs. | \$ 110.00 | \$ - | | Hrs. | \$ 110.00 | \$ - | 16 | Hrs. | \$ 110.00 | \$ 1,760.00 |
| CADD Technician | | | Hrs. | \$ 75.00 | \$ - | 5 | Hrs. | \$ 75.00 | \$ 375.00 | | Hrs. | \$ 75.00 | \$ - |
| TOTAL OF ALL TASKS | | | | | \$ 790.00 | | | | \$ 1,595.00 | | | | \$ 1,870.00 |
| Construction Admin | | | | | Reimbursables | | | | Record Drawings | | | | |
| TASK | | ESTIMATED UNITS | | UNIT COST | TOTAL ESTIMATED TASK COST | ESTIMATED UNITS | | UNIT COST | TOTAL ESTIMATED TASK COST | ESTIMATED UNITS | | UNIT COST | TOTAL ESTIMATED TASK COST |
| Principle | | 1 | Hrs. | \$ 140.00 | \$ 140.00 | | Hrs. | \$ 140.00 | \$ - | | Hrs. | \$ 140.00 | \$ - |
| Project Coordination (PLS) | | | Hrs. | \$ 110.00 | \$ - | | Hrs. | \$ 110.00 | \$ - | 4 | Hrs. | \$ 110.00 | \$ 440.00 |
| Project Coordination (PE) | | 18 | Hrs. | \$ 120.00 | \$ 2,160.00 | | Hrs. | \$ 120.00 | \$ - | 2 | Hrs. | \$ 120.00 | \$ 240.00 |
| Standard Two-Man Survey Crew | | | Hrs. | \$ 110.00 | \$ - | | Hrs. | \$ 110.00 | \$ - | 4 | Hrs. | \$ 110.00 | \$ 440.00 |
| CADD Technician | | | Hrs. | \$ 75.00 | \$ - | | Hrs. | \$ 75.00 | \$ - | 6 | Hrs. | \$ 75.00 | \$ 450.00 |
| TOTAL OF ALL TASKS | | | | | \$ 2,300.00 | | | | \$ 750.00 | | | | \$ 1,570.00 |
| Estimated Costs= | | \$ 20,055.00 | | | | | | | | | | | |
| Contingency | | \$ 2,005.50 | | | | | | | | | | | |
| Total Estimated Costs= | | \$ 22,060.50 | | | | 42.9% | Norman responsibility | | | \$ 9,468.37 | | | |
| | | | | | | 57.1% | ODOT responsibility | | | \$ 12,592.13 | | | |

HWY 9 Waterline Relocation Item #6

Base Cost Estimate

October 17, 2012

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|-----------------|--|-----------|--|---------------------------|--|-----------------|--|-----------------------|--|---------------------------|------------------------------|-----------------|--|-----------|--|---------------------------|---------------------|--|--|--|--|--|
| Relocation Design and Plans | | | | | | | | | | | | | Meetings/Admin | | | | | | Engineers Report | | | | | |
| TASK | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | | | | | |
| Principle | | 0.5 Hrs. | | \$ 140.00 | | \$ 70.00 | | 0.5 Hrs. | | \$ 140.00 | | \$ 70.00 | | 1 Hrs. | | \$ 140.00 | | \$ 140.00 | | | | | | |
| Project Coordination (PLS) | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | | | | | |
| Project Coordination (PE) | | 1 Hrs. | | \$ 120.00 | | \$ 120.00 | | 2 Hrs. | | \$ 120.00 | | \$ 240.00 | | 1 Hrs. | | \$ 120.00 | | \$ 120.00 | | | | | | |
| Standard Two-Man Survey Crew | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | | | | | |
| CADD Technician | | 11 Hrs. | | \$ 75.00 | | \$ 825.00 | | Hrs. | | \$ 75.00 | | \$ - | | Hrs. | | \$ 75.00 | | \$ - | | | | | | |
| TOTAL OF ALL TASKS | | | | | | \$ 1,015.00 | | | | | | \$ 310.00 | | | | | | \$ 260.00 | | | | | | |
| SWPPP | | | | | | | | | | | | | Bid Package Admin/Assistance | | | | | | Supplemental Survey | | | | | |
| TASK | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | | | | | |
| Principle | | 1 Hrs. | | \$ 140.00 | | \$ 140.00 | | 1 Hrs. | | \$ 140.00 | | \$ 140.00 | | Hrs. | | \$ 140.00 | | \$ - | | | | | | |
| Project Coordination (PLS) | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | 0.5 Hrs. | | \$ 110.00 | | \$ 55.00 | | | | | | |
| Project Coordination (PE) | | 1 Hrs. | | \$ 120.00 | | \$ 120.00 | | 1 Hrs. | | \$ 120.00 | | \$ 120.00 | | Hrs. | | \$ 120.00 | | \$ - | | | | | | |
| Standard Two-Man Survey Crew | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | 2 Hrs. | | \$ 110.00 | | \$ 220.00 | | | | | | |
| CADD Technician | | Hrs. | | \$ 75.00 | | \$ - | | 0.5 Hrs. | | \$ 75.00 | | \$ 37.50 | | Hrs. | | \$ 75.00 | | \$ - | | | | | | |
| TOTAL OF ALL TASKS | | | | | | \$ 260.00 | | | | | | \$ 297.50 | | | | | | \$ 275.00 | | | | | | |
| Construction Admin | | | | | | | | | | | | | Reimbersables | | | | | | Record Drawings | | | | | |
| TASK | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | | | | | |
| Principle | | 0.5 Hrs. | | \$ 140.00 | | \$ 70.00 | | Hrs. | | \$ 140.00 | | \$ - | | Hrs. | | \$ 140.00 | | \$ - | | | | | | |
| Project Coordination (PLS) | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | | | | | |
| Project Coordination (PE) | | 1 Hrs. | | \$ 120.00 | | \$ 120.00 | | Hrs. | | \$ 120.00 | | \$ - | | 1 Hrs. | | \$ 120.00 | | \$ 120.00 | | | | | | |
| Standard Two-Man Survey Crew | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | | 1 Hrs. | | \$ 110.00 | | \$ 110.00 | | | | | | |
| CADD Technician | | Hrs. | | \$ 75.00 | | \$ - | | Hrs. | | \$ 75.00 | | \$ - | | Hrs. | | \$ 75.00 | | \$ - | | | | | | |
| TOTAL OF ALL TASKS | | | | | | \$ 190.00 | | | | | | \$ 115.50 | | | | | | \$ 230.00 | | | | | | |
| Estimated Costs= | | \$ 2,953.00 | | | | | | | | | | | | | | | | | | | | | | |
| Contingency | | \$ 295.30 | | | | | | | | | | | | | | | | | | | | | | |
| Total Estimated Costs= | | \$ 3,248.30 | | | | | | 100.0% | | Norman responsibility | | | | \$3,248.30 | | | | | | | | | | |
| | | | | | | | | 0.0% | | ODOT responsibility | | | | \$0.00 | | | | | | | | | | |

HWY 9 Waterline Relocation Item #8

Base Cost Estimate

October 17, 2012

| | | | | | | | | | | | | | |
|------------------------------|--|-----------------|--|-----------|--|------------------------------|--|----------------------------|---------------------|-------------|--|---------------------------|--|
| October 17, 2012 | | | | | | | | | | | | | |
| Relocation Design and Plans | | | | | | Meetings/Admin | | | Engineers Report | | | | |
| TASK | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | |
| Principle | | 0.5 Hrs. | | \$ 140.00 | | \$ 70.00 | | 1 Hrs. | | \$ 140.00 | | \$ 140.00 | |
| Project Coordination (PLS) | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | |
| Project Coordination (PE) | | 4.5 Hrs. | | \$ 120.00 | | \$ 540.00 | | 7 Hrs. | | \$ 120.00 | | \$ 840.00 | |
| Standard Two-Man Survey Crew | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | |
| CADD Technician | | 25 Hrs. | | \$ 75.00 | | \$ 1,875.00 | | Hrs. | | \$ 75.00 | | \$ - | |
| TOTAL OF ALL TASKS | | | | | | \$ 2,485.00 | | | | | | \$ 980.00 | |
| | | | | | | | | | | | | | |
| SWPPP | | | | | | Bid Package Admin/Assistance | | | Supplemental Survey | | | | |
| TASK | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | |
| Principle | | Hrs. | | \$ 140.00 | | \$ - | | Hrs. | | \$ 140.00 | | \$ - | |
| Project Coordination (PLS) | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | |
| Project Coordination (PE) | | 1 Hrs. | | \$ 120.00 | | \$ 120.00 | | 1 Hrs. | | \$ 120.00 | | \$ 120.00 | |
| Standard Two-Man Survey Crew | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | |
| CADD Technician | | Hrs. | | \$ 75.00 | | \$ - | | 1.5 Hrs. | | \$ 75.00 | | \$ 112.50 | |
| TOTAL OF ALL TASKS | | | | | | \$ 120.00 | | | | | | \$ 232.50 | |
| | | | | | | | | | | | | | |
| Construction Admin | | | | | | Reimbersables | | | Record Drawings | | | | |
| TASK | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | | ESTIMATED UNITS | | UNIT COST | | TOTAL ESTIMATED TASK COST | |
| Principle | | 0.5 Hrs. | | \$ 140.00 | | \$ 70.00 | | Hrs. | | \$ 140.00 | | \$ - | |
| Project Coordination (PLS) | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | |
| Project Coordination (PE) | | 6 Hrs. | | \$ 120.00 | | \$ 720.00 | | Hrs. | | \$ 120.00 | | \$ - | |
| Standard Two-Man Survey Crew | | Hrs. | | \$ 110.00 | | \$ - | | Hrs. | | \$ 110.00 | | \$ - | |
| CADD Technician | | Hrs. | | \$ 75.00 | | \$ - | | Hrs. | | \$ 75.00 | | \$ - | |
| TOTAL OF ALL TASKS | | | | | | \$ 790.00 | | | | | | \$ 234.00 | |
| | | | | | | | | | | | | | |
| Estimated Costs= | | \$ 6,096.50 | | | | | | | | | | | |
| Contingency | | \$ 609.65 | | | | | | | | | | | |
| Total Estimated Costs= | | \$ 6,706.15 | | | | | | 0.0% Norman responsibility | | \$ 0.00 | | | |
| | | | | | | | | 100.0% ODOT responsibility | | \$ 6,706.15 | | | |

