

**REQUEST AUTHORIZATION FOR MAYOR AND FINANCE OFFICER TO SIGN
PROFESSIONAL SERVICES AGREEMENT OR AMENDMENT**

Date: April 16, 2012

Project Name & Number: Elk Vale Lift Station Upgrades
Project No. 11-1999

CIP #: 50728

Project Description: To provide professional engineering services.

Consultant: Cetec Engineering Services, Inc.

Original Contract Amount: \$499,204.00

Original Contract Date: April 17, 2012

Original Completion Date: June 28, 2012

Addendum No:

Amendment Description:

Current Contract Amount: \$499,204.00

Current Completion Date: June 28, 2012

Change Requested:

New Contract Amount: \$499,204.00

New Completion Date: _____

Funding Source This Request:

Amount	Dept.	Line Item	Fund	Comments
\$499,204.00	833	4380	604	
	Total			

Agreement Review & Approvals

 4/4/12
Project Manager Date

Chamber Soto 4/4/12
Compliance Specialist Date

City Attorney _____ Date _____

Division Manager _____ Date _____

Department Director Date

ROUTING INSTRUCTIONS

Route **two** originals of the **Agreement** for review and signatures.

Finance Office - Retain one original

Project Manager - Retain second original for delivery to Consultant

cc: Public Works

Engineering

Engineering Project Manager

FINANCE OFFICE USE ONLY

(Note to Finance: Please write date of Agreement in appropriate space in the Agreement document)

Date Initials Approved

Appropriation

Cash Flow

Y N

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Y **N**

**Agreement Between City of Rapid City and Cetec Engineering Services, Inc. for
Professional Services for Elk Vale Lift Station Upgrades,**

Project No. 11-1999 / CIP No. 50728

AGREEMENT made April 17, 2012, between the City of Rapid City, SD (City) and Cetec Engineering Services, Inc., (Engineer), located at 1560 Concourse Drive, Rapid City, SD 57703. City intends to obtain services for Elk Vale Lift Station Upgrades, Project No. 11-1999, CIP No. 50728. The scope of services is as described in Exhibits A, B and C.

The City and the Engineer agree as follows:

The Engineer shall provide professional engineering services for the City in all phases of the Project as defined in Exhibits A, B and C, serve as the City's professional engineering representative for the Project, and give professional engineering consultation and advice to the City while performing its services.

Section 1—Basic Services of Engineer

1.1 General

- 1.1.1 The Engineer shall perform professional services described in this agreement, which include customary engineering services. Engineer intends to serve as the City's professional representative for those services as defined in this agreement and to provide advice and consultation to the City as a professional. Any opinions of probable project cost, approvals, and other decisions provided by Engineer for the City are rendered on the basis of experience and qualifications and represent Engineer's professional judgment.
- 1.1.2 All work shall be performed by or under the direct supervision of a professional Engineer licensed to practice in South Dakota.
- 1.1.3 All documents including Drawings and Specifications provided or furnished by Engineer pursuant to this Agreement are instruments of service in respect of the Project and Engineer shall retain an ownership therein. Reuse of any documents pertaining to this project by the City on extensions of this project or on any other project shall be at the City's risk. The City agrees to defend, indemnify, and hold harmless Engineer from all claims, damages, and expenses including attorney's fees arising out of such reuse of the documents by the City or by others acting through the City.

1.2 Scope of Work



The Engineer shall:

- 1.2.1 Consult with the City, other agencies, groups, consultants, and/or individuals to clarify and define requirements for the Project and review available data.
- 1.2.2 Perform the tasks described in the Scope of Services. (See Exhibits A, B and C.)
- 1.2.3 Conduct a location survey of the Project to the extent deemed necessary to provide adequate site information.
- 1.2.4 Prepare a report and construction plans as outlined in the scope of services.

Section 2—Information Provided by City

The City will provide any information in its possession for the project at no cost to the Engineer.

Section 3—Notice to Proceed

The City will issue a written notification to the Engineer to proceed with the work. The Engineer shall not start work prior to receipt of the written notice. The Engineer shall not be paid for any work performed prior to receiving the Notice to Proceed.

Section 4—Mutual Covenants

4.1 General

- 4.1.1 The Engineer shall not sublet or assign any part of the work under this Agreement without written authority from the City.
- 4.1.2 The City and the Engineer each binds itself and partners, successors, executors, administrators, assigns, and legal representatives to the other party to this agreement and to the partners, successors, executors, administrators, assigns, and legal representatives of such other party, regarding all covenants, agreements, and obligations of this agreement.
- 4.1.3 Nothing in this agreement shall give any rights or benefits to anyone other than the City and the Engineer.
- 4.1.4 This agreement constitutes the entire agreement between the City and the Engineer and supersedes all prior written or oral understandings. This agreement may only be amended,



supplemented, modified, or canceled by a duly executed written instrument.

- 4.1.5 The Engineer shall make such revisions in plans which may already have been completed, approved, and accepted by the City, as are necessary to correct Engineer's errors or omissions in the plans, when requested to do so by the City, without extra compensation therefore.
- 4.1.6 If the City requests that previously satisfactorily completed and accepted plans or parts thereof be revised, the Engineer shall make the revisions requested by the City. This work shall be paid for as extra work.
- 4.1.7 If the City changes the location from the one furnished to the Engineer, or changes the basic design requiring a new survey for the portions so changed, the redesign will be paid for as extra work.
- 4.1.8 The City may at any time by written order make changes within the general scope of this Agreement in the work and services to be performed by the Engineer. Any changes which materially increase or reduce the cost of or the time required for the performance of the Agreement shall be deemed a change in the scope of work for which an adjustment shall be made in the Agreement price or of the time for performance, or both, and the Agreement shall be modified in writing accordingly. Additional work necessary due to the extension of project limits shall be paid for as extra work.
- 4.1.9 Extra work, as authorized by the City, will be paid for separately and be in addition to the consideration of this Section.
- 4.1.10 For those projects involving conceptual or process development services, activities often cannot be fully defined during the initial planning. As the project does progress, facts and conditions uncovered may reveal a change in direction that may alter the scope of services. Engineer will promptly inform the City in writing of such situations so that changes in this agreement can be renegotiated.
- 4.1.11 This Agreement may be terminated (a) by the City with or without cause upon seven days' written notice to the Engineer and (b) by the Engineer for cause upon seven days' written notice to the City. If the City terminates the agreement without cause, the Engineer will be paid for all services rendered and all reimbursable expenses incurred prior to the date of termination.

If termination is due to the failure of the Engineer to fulfill its agreement obligations, the City may take over the work and complete



it. In such case, the Engineer shall be liable to the City for any additional cost to the extent directly resulting from Engineer's action.

- 4.1.12 The City or its duly authorized representatives may examine any books, documents, papers, and records of the Engineer involving transactions related to this agreement for three years after final payment. All examinations will be performed at reasonable times, with proper notice. Engineer's documentation will be in a format consistent with general accounting procedures.
- 4.1.13 The City shall designate a representative authorized to act on the City's behalf with respect to the Project. The City or such authorized representative shall render decisions in a timely manner pertaining to documents submitted by the Engineer in order to avoid unreasonable delay in the orderly and sequential progress of the Engineer's services.
- 4.1.14 Costs and schedule commitments shall be subject to renegotiation for delays caused by the City's failure to provide specified facilities or information or for delays caused by other parties, excluding sub-contractors and sub-consultants, unpredictable occurrences including without limitation, fires, floods, riots, strikes, unavailability of labor or materials, delays or defaults by suppliers of materials or services, process shutdowns, acts of God, or the public enemy, or acts of regulations of any governmental agency or any other conditions or circumstances beyond the control of the City or Engineer. Temporary delays of services caused by any of the above which results in additional costs beyond those outlined may require renegotiation of this agreement.
- 4.1.15 The City will give prompt written notice to the Engineer if the City becomes aware of any fault or defect in the Project or nonconformance with the Project Documents.
- 4.1.16 Unless otherwise provided in this Agreement, the Engineer and the Engineer's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to hazardous materials in any form at the project site, including but not limited to asbestos products, polychlorinated biphenyl (PCB), or other toxic substances.
- 4.1.17 In the event asbestos or toxic materials are encountered at the jobsite, or should it become known in any way that such materials may be present at the jobsite or any adjacent areas that may affect the performance of Engineer's services, Engineer may, at their option and without liability for consequential or any other damages, suspend



performance of services on the project until the City retains appropriate specialist CONSULTANT(S) or contractor(s) to identify, abate, and/or remove the asbestos or hazardous or toxic materials.

- 4.1.18 This agreement, unless explicitly indicated in writing, shall not be construed as giving Engineer the responsibility or authority to direct or supervise construction means, methods, techniques, sequences, or procedures of construction selected by any contractors or subcontractors or the safety precautions and programs incident to the work of any contractors or subcontractors.
- 4.1.19 Neither the City nor the Engineer, nor its Consultants, shall hold the other liable for any claim based upon, arising out of, or in any way involving the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids, or gases, waste materials, or other irritants, contaminants, or pollutants.
- 4.1.20 Neither the City nor the Engineer, nor its Consultants, shall hold the other liable for any claim based upon, arising out of, or any way involving the specification or recommendation of asbestos, in any form, or any claims based upon use of a product containing asbestos.
- 4.1.21 Engineer hereby represents and warrants that it does not fail or refuse to collect or remit South Dakota or City sales or use tax for transactions which are taxable under the laws of the State of South Dakota.

4.2 City of Rapid City NonDiscrimination Policy Statement

In compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination act of 1975, the Americans with Disabilities Act of 1990, and other nondiscrimination authorities it is the policy of the City of Rapid City, 300 Sixth Street, Rapid City, SD 57701-5035, to provide benefits, services, and employment to all persons without regard to race, color, national origin, sex, disabilities/handicaps, age, or income status. No distinction is made among any persons in eligibility for the reception of benefits and services provided by or through the auspices of the City of Rapid City.

Engineer will permit access to any and all records pertaining to hiring and employment and to other pertinent data and records for the purpose of enabling the Commission, its agencies or representatives, to ascertain compliance with the above provisions.

This section shall be binding on all subcontractors or suppliers.



Section 5—Payments to the Engineer

5.1 Schedule of Pay Rates

The City will pay the Engineer for services rendered or authorized extra work according to the Engineer's hourly rate schedule. (See Exhibit C.)

5.2 Fee

The maximum amount of the fee for the services as detailed in Section 1.2 shall not exceed \$499,204.00 unless the scope of the project is changed as outlined in Section 4. If expenses exceed the maximum amount, the Engineer shall complete the design as agreed upon here without any additional compensation. Sub task dollar amounts may be reallocated to other tasks as long as the total fee is not exceeded. Prime consultant may not mark up sub-consultant or sub-contractor services.

5.3 Progress Payments

Monthly progress payments shall be processed by the City upon receipt of the claim as computed by the Engineer based on work completed during the month at the rates established in Section 5.1 and approved by the City.

Net payment to the Engineer shall be due within forty-five (45) days of receipt by the City.

Section 6—Completion of Services

The Engineer shall complete services on or before June 28, 2013 based on an award date of April 17, 2012.

Section 7—Insurance Requirements

7.1 Insurance Required

The Engineer shall secure the insurance specified below. The insurance shall be issued by insurance company(s) acceptable to the City and may be in a policy or policies of insurance, primary or excess. Certificates of all required insurance including any policy endorsements shall be provided to the City prior to or upon the execution of this Agreement.

7.2 Cancellation

The Engineer will provide the City with at least 30 days' written notice of an insurer's intent to cancel or not renew any of the insurance coverage. The



Contractor agrees to hold the City harmless from any liability, including additional premium due because of the Contractor's failure to maintain the coverage limits required.

7.3 City Acceptance of Proof

The City's approval or acceptance of certificates of insurance does not constitute City assumption of responsibility for the validity of any insurance policies nor does the City represent that the coverages and limits described in this agreement are adequate to protect the Engineer, its consultants or subcontractors interests, and assumes no liability therefore. The Engineer will hold the City harmless from any liability, including additional premium due, because of the Engineer's failure to maintain the coverage limits required.

7.4 Specific Requirements

- 7.4.1 Workers' compensation insurance with statutory limits required by South Dakota law. Coverage B-Employer's Liability coverage of not less than \$500,000 each accident, \$500,000 disease-policy limit, and \$500,000 disease-each employee.
- 7.4.2 Commercial general liability insurance providing occurrence form contractual, personal injury, bodily injury and property damage liability coverage with limits of not less than \$1,000,000 per occurrence, \$2,000,000 general aggregate, and \$2,000,000 aggregate products and completed operations. If the occurrence form is not available, claims-made coverage shall be maintained for three years after completion of the terms of this agreement. The policy shall name the City and its representatives as an additional insured.
- 7.4.3 Automobile liability insurance covering all owned, nonowned, and hired automobiles, trucks, and trailers. The coverage shall be at least as broad as that found in the standard comprehensive automobile liability policy with limits of not less than \$1,000,000 combined single limit each occurrence. The required limit may include excess liability (umbrella) coverage.
- 7.4.4 Professional liability insurance providing claims-made coverage for claims arising from the negligent acts, errors or omissions of the Engineer or its consultants, of not less than \$1,000,000 each occurrence and not less than \$1,000,000 annual aggregate. Coverage shall be maintained for at least three years after final completion of the services.



Section 8—Hold Harmless

The Engineer hereby agrees to hold the City harmless from any and all claims or liability including attorneys' fees arising out of the professional services furnished under this Agreement, and for bodily injury or property damage arising out of services furnished under this Agreement, providing that such claims or liability are the result of a negligent act, error or omission of the Engineer and/or its employees/agents arising out of the professional services described in the Agreement.

Section 9—Independent Business

The parties agree that the Engineer operates an independent business and is contracting to do work according to his own methods, without being subject to the control of the City, except as to the product or the result of the work. The relationship between the City and the Engineer shall be that as between an independent contractor and the City and not as an employer-employee relationship. The payment to the Engineer is inclusive of any use, excise, income or any other tax arising out of this agreement.

Section 10-Indemnification

If this project involves construction and Engineer does not provide consulting services during construction including, but not limited to, onsite monitoring, site visits, site observation, shop drawing review and/or design clarifications, City agrees to indemnify and hold harmless Engineer from any liability arising from the construction activities undertaken for this project, except to the extent such liability is caused by Engineer's negligence.

Section 11-Controlling Law and Venue

This Agreement shall be subject to, interpreted and enforced according to the laws of the State of South Dakota, without regard to any conflicts of law provisions. Parties agree to submit to the exclusive venue and jurisdiction of the State of South Dakota, 7th Judicial Circuit, Pennington County.

Section 12-Severability

Any unenforceable provision herein shall be amended to the extent necessary to make it enforceable; if not possible, it shall be deleted and all other provisions shall remain in full force and effect.

Section 13—Funds Appropriation

If funds are not budgeted or appropriated for any fiscal year for services provided by the terms of this agreement, this agreement shall impose no obligation on the City for payment. This agreement is null and void except as to annual payments herein agreed upon for which funds have been budgeted or appropriated, and no right of action or



damage shall accrue to the benefit of the Engineer, its successors or assignees, for any further payments. For future phases of this or any project, project components not identified within this contract shall not constitute an obligation by the City until funding for that component has been appropriated.

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

City of Rapid City:

Engineer:

MAYOR

Cetec Engineering Services, Inc.

DATE: _____

DATE: _____

ATTEST:

FINANCE OFFICER

Reviewed By:

Michelle L. Schweitzer, PROJECT MANAGER

DATE: _____

**CITY'S DESIGNATED PROJECT
REPRESENTATIVE**

**ENGINEERING FIRM'S DESIGNATED
PROJECT REPRESENTATIVE**

NAME Michelle Schweitzer
PHONE 605-394-4154
EMAIL michelle.schweitzer@rcgov.org

NAME Ted Schultz
PHONE 605-341-7800
EMAIL TedS@cetecengineering.com



EXHIBIT A

Elk Vale Lift Station Upgrade
PROJECT NO. 12 – 1999 / CIP 50728

SCOPE OF SERVICES: LIFT STATION & FORCE MAIN TO I-90

The City of Rapid City (City) proposes to construct upgrades to the existing lift station and force main located at the northwest intersection of Elk Vale Road and Seger Drive in Rapid City, South Dakota. Primary work includes the following and is also identified within each Technical Memorandum listed in Task 1:

1. Evaluation of the existing lift station as needed for the design of the new lift station and retrofit of existing building.
2. New Lift station expansion to accommodate a triplex pumping station expandable to a fourplex station, and an additional force main, including retrofit of the existing building for generator. The design will incorporate accommodations for future expansions.
3. Design and specification of the pumps to include three pumps in parallel, rather than the existing series pump configuration.
4. This facility handles a considerable volume of sewage. Consideration for overflows and sewage storage is critical.
5. The City has had significant maintenance issues due to availability of pump replacement parts. The City wants to have critical spare parts stored on site consisting of spare pump, motor, etc.
6. An additional force main to accommodate future growth. The force main will be evaluated to the discharge point with Project No. 1. The survey, design and construction of the force main from I-90 south to the discharge point will be completed in Project 2.
7. As part of the project, the existing force main air release valves shall be replaced and new valves installed per current standards.
8. A pig launching station for the new and existing force mains to allow for maintenance. The existing force main shall be pigged and cleaned as a part of this project.
9. Permanent and temporary easement acquisitions.
10. Wetland delineation and flood plain analysis and permitting, as needed. The consultant will evaluate the proposed DFIRM and meet the requirements of Section 15.32 of the Rapid City Municipal Code if applicable.
11. Preparation of the Operations and Maintenance Manual and equipment training.
12. Construction Administration.

CETEC Engineering Services, Inc. (CETEC) submitted a proposal, interviewed with City Staff and was selected to complete the tasks requested in the RFP. CETEC proposes to complete Task 1 – Preliminary Design Services, Task – 2 Final Design Services, Task – 3 Bidding Services, Task 4 Basic Construction Services and Task 5, Expanded Construction Services, as requested in the RFP.

Below are project outlines that list anticipated work items for each task:

TASK 1 - PRELIMINARY DESIGN SERVICES

- 1.1 Kick-off Conference: The consultant shall meet with City staff to detail project concept and scope. The consultant shall prepare an agenda, take minutes, and distribute minutes.
- 1.2 Perform site surveys sufficient for design plan preparation. The route and topography survey shall be tied to at least two City of Rapid City Monument Control system monuments utilizing State Plane coordinates. The survey includes the lift station site and force main alignment parallel to the existing force main to I-90.
- 1.3 Prepare preliminary plan and profile/elevation sheets including locations of existing and new utilities. Show existing utilities locations with probable depths.
- 1.4 Attend submittal review meeting with City staff, if necessary.
- ~~1.5 Attend Public Works and Council meetings as necessary. Reserved.~~
- 1.6 Technical Memorandum Submittals

Technical Memorandums (TM) shall be submitted throughout the conceptual and preliminary design process. Each TM will be reviewed independently by City Staff and the final comments will be included with submittal of the final report which consolidates all Technical Memorandums.

Submittals shall generally consist of the following documents:

1.6.1 Design Criteria: TM 1 shall establish and indicate project specific design criteria and standards within the Conceptual Design Report. TM 1 shall provide all design assumptions. The Consultant shall include design life, design criteria, and reference of design resources. The Consultant shall use the City Infrastructure Design Criteria Manual, Supplemental Criteria, the Recommended Design Criteria Manual for Wastewater Collection and Treatment Facilities (SDDENR, March 1991 Edition), and the Recommended Standards for Wastewater Facilities (Wastewater Committee of the Great Lakes, 2004 Edition, also known as the 10 States Standards) to establish design criteria and standards. Review background information listed in this RFP, and any other resources as necessary.

1.6.2 Property Requirements: TM 2 shall identify the existing right-of-way (ROW) location and any ROW or easements necessary for the Project, including size and extent of such ROW and easements and contact information of property owners. TM 2 shall identify landowners that may be affected and provide contact record minutes of discussions with Landowners. Property acquisition will also be discussed. Identify right-of-way (ROW) and permanent and temporary construction easements acquisition needs. Include size and extent of such ROW and easements and contact information of property owners. Meet with individual property owners (including the lift station property owner) regarding ROW and permanent and temporary easement needs and regarding specific project issues and components.

1.6.3 Site Development: TM 3 shall define the site layout within the project limits. The site layout shall be designed to allow for future expansions. The lift station site design will conform to the requirements of Section 15.32 of the Rapid City Municipal Code where applicable. ADA requirements will be reviewed and incorporated. Existing utilities within the project limits will be reviewed. Fencing options will be evaluated based on regulatory requirements and

aesthetics. Future gravity sewer connections will be evaluated and provided for. Yard piping layout will be established and pig launching locations selected.

1.6.4 Stormwater/Drainage/Wetlands: TM 4 will evaluate local stormwater and major drainage and provide design recommendations. Stormwater quality design options will be proposed. The Flood Plain in the expansion area will be reviewed in order for design to comply with flood elevations. A flood plain development permit will be provided if necessary. The site will be evaluated with regards to impacts to wetlands.

1.6.5 Force Main: TM 5 will provide evaluation results and recommendations for the existing and proposed force main. Specifically, the existing force main will be evaluated with respect to condition, serviceability, and capacity. Recommendations will be made with respect to the existing force main and air release valves. The proposed force main will be designed with respect to available alignment options, maximum sizing with respect to velocity and detention time. Air release valves, pig launcher, and valve pit design will be proposed as well as placement along the force main. Flow Ranges will be evaluated for velocity, TDH, etc.

1.6.6: Pump Selection: TM 6 will provide an analysis of three available pumping options. The recommended pump will be evaluated with respect to the existing force main system head curve as well as the proposed force main system head curve. An energy analysis will be completed based on 2 Static Head alignment options to determine payback time for increased capital expenditure of the lower static head option. Recommendations will be provided. TM6 will include recommendations for allowable flow rates with different numbers of pumps and force main sizing.

1.6.7 Surge Analysis: TM 7 will provide the results of the surge analysis. The selected pump and existing and proposed force main will be analyzed for surge with Bentley Hammer™ or equal. The proposed design will account for surge results.

1.6.8 Lift Station Layout: TM 8 shall evaluate and recommend preliminary locations and configurations for the proposed wet well and dry pit. Future expansion recommendations will be provided. Emergency storage will be designed to provide a level of safety. The storage will be maximized to the extent practical for current design and provide space for future expansion. The design will be reviewed with respect to regulatory conformance.

1.6.9 Odor Control: TM9 will discuss the wastewater quality with respect to proposed sampling/laboratory analysis in addition to historical wastewater quality data from the lift station. Using this data and the design flow, sizing recommendations will be made. Air injection alternatives of air and pure oxygen will be provided along with capital costs, and a listing of advantages and disadvantages for air injection vs. pure oxygen injection for odor control. The nitrate chemical feed system preliminary sizing and anti-freeze consideration recommendations will be provided. Vapor phase odor control at the lift station will be preliminarily sized and equipment capital costs will be provided. Options will be presented with respect to vapor phase control at the manhole where the force main discharges.

1.6.10 Pump Protection: TM10 will evaluate up-to three prescreening alternatives. The prescreening options that will be evaluated include: a grinder pump attachment, pump intake basket, and a manually cleaned bar screen.

1.6.11 Controls Narrative: TM 11 will provide desired process control of the lift station for the following design areas: pump operation, emergency storage return piping and pumping system, and odor control. P&IDs will be developed based on these control descriptions. The

contractor will coordinate the design of the lift station controls with the Sewer Lift Station Monitoring and Control System being designed under City Project Number SS11-1950; CIP No. 50877.

1.6.12 Geotechnical Report: TM12 will be the results of the soils investigation. The geotechnical report will include soil classifications, N values, Proctors, CBR's, and resistivity tests. The report will include test hole results, foundation recommendations, water levels, groundwater dewatering recommendations, soil corrosivity analysis, excavation layback/shoring recommendations. The report will discuss regulatory conformance/permits. Recommend location and extent of geotechnical services investigations necessary to complete design. Geotechnical services typically will be a sub consultant to the Consultant and payment for geotechnical services is the responsibility of the Consultant.

1.6.13 Architectural: TM 13 will discuss the architectural components of the project including, aesthetic features, waterproofing, materials, manlift requirements, stairs, coatings, and building classification.

1.6.14 Structural: TM 14 will provide a summary of structural design components including foundation recommendations, buoyancy, and corresponding structure protection, crane design criteria/clearance requirements as well as building classification.

1.6.15 Electrical/ HVAC: TM 15 will summarize the electrical/HVAC design components. The TM will include Design Criteria, controls, lighting recommendations, Standby/Emergency Power, Enclosure Requirements based on Building Classification, HVAC sizing, as well as a summary of regulatory conformance/permits.

1.6.16 Construction: TM 16 will provide the anticipated project phasing and suggested Contractor sequencing.

1.6.17 Exceptions: TM17 will provide review of compliance with City's Standard Specifications for construction of the project and a list of anticipated exceptions.

1.6.18 Opinion of Probable Cost: A probable preliminary opinion of construction costs for the project(s) shall be included in TM18. The costs shall be itemized based on the City's standard bid items and appropriate contingency item allowance. In cases where standard bid items will not apply, costs will be obtained from vendors, similar projects, historical prices updated based on market trends, etc.

Electronic copies of the Technical memorandums will be submitted on an as-completed basis to City of Rapid City's project manager for review and comment as hard copies and electronic documents (pdf's). These TMs will be bound together to be submitted as the Final Design Report (Task 2). Four (4) hard copies will be submitted with the electronic files.

1.7 Conceptual Drawings.

- Four (4) copies of the conceptual drawings will be provided. The conceptual drawings shall contain the following sheets:
 - Cover Sheet - Note the index of Sheets indicating the anticipated drawing sheets shall be provided.
 - Survey Control Sheet
 - Property Layout and Land Ownership

- Phasing Plan will identify how the existing lift station will remain in service during the expansion and a transition to using the new facilities while expansion of the existing lift station is done.
- Site Development Plan - Existing and proposed site information and lift station features.
- Site Preparation/Removal Plan
- Grading Plan
- Elevations and Sections -Existing and proposed wet wells, dry wells, emergency storage tanks, etc.
- Plan and Profile Sheets - Existing Plan and Profile Sheets - Show existing and proposed utility mains and existing services, storm sewers, driveway locations, fittings, and proposed surfacing and drainage items. The utilities should be shown in profile as well.
- Structural Details
- Landscaping/Fencing
- Process & Instrumentation Control Diagrams (P&IDs)
- Electrical Plans
- Mechanical Plans
- Rapid City Standard Details
- Special Details - Conceptual layouts for special/critical elements for example buildings, fencing, special drainage structures, pump facilities, etc.

Plan sheets shall be prepared utilizing the latest City of Rapid City Drafting Standards.

TASK 2 - FINAL DESIGN SERVICES

- 2.1. Address City comments from the Task 1 City review(s) and finalize Conceptual Design Report. The Conceptual Design Report should be now titled "Project Design Report".
- 2.2. Complete ROW and easement(s) acquisition - prepare easement and ROW exhibits as necessary, conduct property owner meetings for easement and ROW acquisition, and document acquisition meetings. Negotiations and agreements completed by City.
- 2.3. Determine removal limits with approval of City of Rapid City representative.
- 2.4. Coordinate with the geotechnical engineer to complete these services, and provide a geotechnical report to be included in the Project Design Report and project plans or specifications,
- 2.5. Incorporate design features as necessary to meet the requirements outlined in the Project Design Report,
- 2.6. Incorporate Erosion and Sediment Control items. Provide a complete stormwater pollution narrative which will include detailed erosion and sediment control measures and specifications. Provide a complete erosion and sediment control plan which includes station and offset locations for each implemented measure where appropriate. Include both temporary and permanent erosion and sediment control measures. Include an erosion and sediment control sequence of implementation and phase schedule. Each erosion control item shall be bid separately. The consultant shall prepare project supplemental specifications for erosion and sediment control devices in accordance with City of Rapid City Standard Specifications format.

- 2.7. Staking information shall include either of the following formats:
- On the Plans
 - Station offsets for all items of work requiring field staking.
 - In tabular form on a plan sheet (schedule)
 - Coordinates and description of inter-visible control points.
 - Coordinates of all items of work requiring field staking.
 - Benchmark information shall be provided on each sheet.
- 2.8. Provide project layout to include lot lines (adjacent to the project and side lot lines) and addresses of all properties (adjacent to construction, or alternatively, in service area). Identify if property is owner occupied or a rental.
- 2.9. Provide detailed traffic control plan showing all devices required for MUTCD compliant plan. Show all existing signage, pavement markings, etc. All work zones, road closures, lane closures, and pavement marking removals shall be indicated on the plan. A detailed layout will be included for each phase of multi-phased projects. The traffic control sequence of implementation and phasing schedule shall coincide with the erosion and sediment control sequence of implementation and phasing schedule. The City will provide an electronic version of an aerial photo for the selected consultant's use. The consultant shall prepare project supplemental specifications for traffic control devices in accordance with City of Rapid City Standard Specification format.
- 2.10. Coordinate directly with utility companies' engineering divisions to ensure that all existing utilities are completely and accurately identified and located in the field; that pertinent information regarding depth, material, size, etc. are noted on the plans; and that conflicts requiring relocation of utilities or special construction techniques are fully specified in the contract documents. Preliminary plans shall be provided to the pertinent utilities for comment at the time they are complete followed by a specific private utility coordination meeting in one week.
- 2.11. Provide a Project Sequence of implantation and phasing schedule which shall include such items as traffic control, erosion and sediment control, utility installations, paving, restoration, and construction milestones.
- 2.12. Provide detailed plans and specifications supplementing the City of Rapid City Standard Specifications, as necessary. Typically project drawing specific issues should be indicated as a General Note on the drawings. Material types and material specific items would be included as a detailed specification. Provide complete plans and specifications for a unit price construction contract. Plan sheets shall be prepared utilizing the latest City of Rapid City Drafting Standards. Plan documents shall adhere to current City of Rapid City guidelines.
- 2.13. Prepare any and all permits with exhibits required for the City including a Flood Plain Development Permit if applicable.
- 2.14. Identify permits that will be required for the Contractor. Identify permit costs and indicate if any permit costs are paid for directly by the owner or if it is a Contractor cost. Typically all permit costs are the Contractor's obligation.
- 2.15. Prepare final "Engineer's Estimate" of probable construction cost for the project.

- 2.16. All submittals (drawings and specifications) believed by the Engineer of Record to be a final, shall contain a Certification Statement of Conformance with City Standards which shall read, "I (insert Engineer of Record's name) Certify that I have read and understand the provisions contained in the City of Rapid City Standard Specifications for Public Works Construction, current edition and the City of Rapid City's adopted Design Criteria Manuals. The drawings and specifications contained here within, to the best of my knowledge, were prepared in accordance with these documents or a properly executed exception to the Standard Specifications and/or Infrastructure Design Criteria Manual has been secured". This statement shall appear on the title sheet of the drawings and on the first page of specifications after the cover sheet. The "Certification Statement of Conformance with City Specifications" shall be signed and dated by the Engineer of Record.
- 2.17. Engineer shall obtain an administrative design exception for any additional criteria manual requirements that cannot be met. Failure by the City to comment on a nonconforming item during a review does not constitute an exception.
- 2.18. The City will submit plans and specifications to the Department of Environment and Natural Resources for approval, and the Consultant shall address any comments or corrections required.
- 2.19. 95% Submittal
- Provide four (4) copies of complete plans, specifications, and opinion of probable construction cost. The 95% Submittal will be made to the City when the consultant believes the plans, specifications and opinion of probable construction cost are 100% complete.
 - Provide four (4) copies of bid documents including complete plans, specifications, contract documents, and Engineer's Estimate of probable construction cost to the City of Rapid City's project manager for City distribution.
 - Provide complete plans on CD compatible with AutoCAD Release 2008 to 2011 format and a pdf file. Provide all topographic, control, and design points in the .dwg file and in tabular format, both on CD and on hard copy printout.
 - Provide complete specifications and contract documents on CD in Microsoft Word XP or previous versions.
 - Provide the Final Design Report on CD in Microsoft Word XP or previous versions and as a pdf file.
 - Provide a unit price cost estimate on CD in Microsoft Excel XP or previous version on the City of Rapid City "Engineer's Estimate" form.
 - Provide Engineer's Estimate of probable construction costs as a component of this submittal.
 - Provide four (4) copies of the Final Project Design Report and a pdf of the report.
- 2.20. Address 95% submittal staff comments as necessary.

2.21. Final Submittal

- Provide four (4) hard copies and a PDF version of final plans and specifications, stamped and signed by a Professional Engineer, for City printing and distribution.
- Provide 1 copy of the final opinion of probable construction costs for the project.
- Print and distribute three (3) copies plans/ drawings to the City of Rapid City at 11" x 17" scale.

2.22. Prepare Draft Operations and Maintenance Manual including all design specifications.

TASK 3. BIDDING SERVICES

- 3.1. Submit sufficient information to the City of Rapid City project manager for completion of City Advertising Authority form.
- 3.2. Conduct a Pre-bid Conference. Record attendance and minutes. Distribute copies to all attendees. The agenda shall be submitted to the Project Manager for review and comment one week prior to the Conference. An example of an agenda is enclosed as Attachment Prepare meeting minutes of Pre-bid meeting and provide to City project Manager for City file.
- 3.3. Prepare and issue addenda to the bid documents as required. Provide consultation, answer Contractor questions, and evaluate equal equipment.
- 3.4. Attend the bid opening (to be held at the City Finance Office).
- 3.5. Review Bidder's Proposals and review and sign the City Engineering Services prepared Bid Tab, assist the City of Rapid City project manager with the preparation of an award recommendation letter and sign a City Engineering Services prepared Award Summary.

TASK 4. BASIC CONSTRUCTION SERVICES

- 4.1. Prepare Notice to Proceed for City of Rapid City project manager signature and distribution to contractor for execution.
- 4.2. Conduct a Pre-Construction Conference including agenda. Record minutes and distribute to all attendees. An example of an agenda is enclosed as Attachment Five for your information.
- 4.3. Provide written clarification regarding drawing and specification questions.
- 4.4. Provide recommendations to address changed or unknown conditions that may appear during construction.
- 4.5. Review and take action on shop drawings, product submittals, test results, and other submittals.
- 4.6. Prepare "As-Built" plans and specifications. "As-Built" plans and specifications shall be submitted as a hard copy and on CD compatible with AutoCAD Release 2008 or newer format. Submit to Engineering Services within 30 days of project completion. In the event that the City did not issue a "Notice to Proceed" for Task 5 services, then the City shall forward construction record documents for preparing the "As-Built" plans and specifications.
- 4.7. Finalize the Operations and Maintenance Manual.
- 4.8. Schedule equipment training with manufacturers and Utility Maintenance personnel.

TASK 5. EXPANDED CONSTRUCTION SERVICES

- 5.1. Mark removal limits of appropriate items.
- 5.2. Prepare Public Service Announcements (P.S.A.'s) for Engineering Services. Engineering Services will be responsible for distribution to all local media. Copies of P.S.A.'s shall be distributed one week prior to start of work or change in operations that may significantly affect the public.
- 5.3. Appropriately notify affected Property Owners.
- 5.4. Conduct appropriate progress meetings. Record minutes and distribute to all attendees.
- 5.5. Provide daily on-site observation to assure that the methods and materials used by the contractor meet the intent of the plans and specifications. For buried installations such as for sewer and water mains, the Consultant shall be on site and witnessing the installation of these buried installations.
- 5.6. Prepare daily reports. A daily record of activity will be maintained by the inspector including weather conditions, construction progress, deviations from the plans and specifications, work performed, quantities installed and any other pertinent information. Such information shall be neatly and concisely entered into the City of Rapid City Project Inspector's Diary and Inspection quantity book. Submit detachable copies to Engineering Services on a weekly basis. The Consultant shall coordinate with the City Construction Coordinator regarding whether electronic format will be accepted.
- 5.7. Perform stormwater inspections, prepare reports, and keep the erosion and sediment control plans current as required by the ordinance regulating construction site runoff control, Chapter 8.46, and the Stormwater Quality Manual.
- 5.8. Provide soil compaction testing according to the Standard Specifications. All test results shall be submitted to the City of Rapid City within 30 days of project completion.
- 5.9. Start-up services upon project completion. Testing and trial settings for operational efficiency.
- 5.10. Prepare and submit monthly pay request information.
- 5.11. Prepare change orders, and extra work orders for contractor on City of Rapid City forms and make recommendations for their approval or denial.
- 5.12. Prepare and submit project completion punch list items to the Contractor and Engineering Services and oversee its completion.
- 5.13. Prepare and submit City of Rapid City project "Construction Project Close-out Checklist" indicating compliance with Standard Specifications and acceptance of the various infrastructure components. The Consultant is responsible for coordinating completion of the checklist items with the Contractor. The checklist is enclosed as Attachment Six for your information.
- 5.14. Prepare letter of certification of project completion verifying compliance with plans and specifications and start of warranty period.
- 5.15. Prepare a letter to SDDENR notifying them of project completion.
- 5.16. Ensure Contractor's two-year warranty surety is provided to the City of Rapid City either within the performance bond or as a separate bond.

- 5.17. Assist the City in addressing and communicating warranty items with the Contractor that may arise during the City's two year warranty period.

PROJECT TEAM, MEETINGS AND SUBMITTALS SUMMARY

6.1. Project team members will include:

- The Consultant
- City Engineering Services staff
- Operations Division staff
 - Utility Maintenance Division (Service area and O&M related issues)
 - Wastewater Division

6.2. Meetings requiring the Consultant's participation will likely include, but may not be limited to the following:

- Kick-off meeting, Task 1
- Weekly meetings to discuss Technical Memos.
- Property owners meeting
- Private Utility coordination meeting, Task 2
- 100% Plans, Specifications, and Contract Documents review, Task 2 (This submittal is made when the consultant believes the plans, specifications, contract documents, and opinion of probable construction cost documents are complete).
- Prebid Conference, Task 3
- Bid Opening, Task 3
- Pre-construction Conference, Task 4
- Construction Progress Meetings, Task 5
- Committee and Council Meetings as required, All Tasks

6.3. Submittals include:

- In general submittals shall be made as hard copies, electronic documents and pdf's as negotiated.
- Kick-off meeting, Task 1 meeting minutes
- Technical Memorandum Submittals, Task 1 including meeting minutes
- Easement and ROW documents and corresponding property owner negotiation notes.
- (Final Project Design Report, Task 2 including meeting minutes. Final design reports shall be bound utilizing a comb binder or equal. 3-ring binders are not permitted without project manager's prior approval.
- 100% complete plans, specifications, contract documents, and opinion of probable construction cost Contract Documents Review, Task 2 including meeting minutes
- Final submittal of bid documents including complete plans, specifications, and Engineer's Estimate of probable construction cost, Task 2

- Draft Operations and Maintenance Manual, Task 2
- Prebid conference meeting minutes, Task 3
- Award recommendation, Task 3
- Pre-Construction conference meeting minutes, Task 4
- Shop Drawing submittal reviews, Task 4
- "As-Built" plans and specifications, Task 4
- Final Operation and Maintenance Manual, Task 4
- Equipment training, Task 4
- Progress meeting minutes, Task 5
- Daily observation reports, Task 5
- Erosion and Sediment Control plan inspection reports, Task 5
- Project completion "Punch List", Task 5
- "Construction Project Close-out Checklist", Task 5
- Letter of certification of project completion, Task 5

PROJECT SCHEDULE

The Consultant shall allow 3-5 working days for City review submittal, and the 95% complete plans; specifications; contract documents; and opinion of probable construction cost Contract Documents submittal.

PROJECT NO. 1 SCHEDULE

	Date:
Contract Negotiations Complete	April 3, 2012
Notice to Proceed with Design	April 17, 2012
Final Design Submittal	June 4, 2012
Advertising Authority Cost	June 5, 2012
Final Plans, Specifications, and Contract Documents	June 22, 2012
Project Bid Opening Date	July 10, 2012
Project 100% Construction Complete	June 28, 2013

SUMMARY OF TASKS

ENGINEERING SERVICES

for Elk Vale Lift Station Upgrade - Lift Station and Force Main to I-90

Project No. 12-1999

CIP 50728

CETEC Engineering Services, Inc.

TASK SCHEDULE

March 30, 2012

TASK 1 - PRELIMINARY DESIGN SERVICES		Task Cost
1.1	Kick-off Conference.	\$ 856.00
1.2	Site Surveys	\$ 9,092.00
1.3	Preliminary plan and profile/elevation sheets.	\$ 1,772.00
1.4	Submittal review meeting.	\$ 1,048.00
1.5	Attend Public Works Meetings Reserved	\$ -
1.6	Conceptual Design Technical Memorandums.	\$ 68,370.00
1.7	Conceptual Drawings (65%)	\$ 42,994.00
	Travel Expenses	\$ 260.00
	Lab Expenses	\$ 350.00
	Geotechnical	\$ 3,000.00
	Architectural	\$ 4,904.00
	Structural	\$ 8,305.00
	Mechanical and Electrical	\$ 13,420.00
Subtotal / Task 1 - Preliminary Design Services		\$ 154,371.00

TASK 2 - FINAL DESIGN SERVICES		Task Cost
2.1	Address City comments.	\$ 2,904.00
2.2	Complete ROW and easement(s) acquisition.	\$ 1,438.00
2.3	Removal limits.	\$ 336.00
2.4	Coordinate with geotechnical engineer.	\$ 592.00
2.5	Design features.	\$ -
2.6	Erosion and Sediment Control items.	\$ 2,108.00
2.7	Staking information.	\$ 2,736.00
2.8	Project layout to include lot lines.	\$ 2,084.00
2.9	Traffic control plan (FM).	\$ 1,764.00
2.1	Existing utilities accurately identified/meeting	\$ 884.00
2.11	Project Sequencing	\$ 804.00
2.12	Detailed plans and specifications.	\$ 25,968.00
2.13	Permits with exhibits.	\$ 350.00
2.14	Identify permits for the Contractor.	\$ 374.00
2.15	Engineer's Estimate (Final).	\$ 1,704.00
2.16	Certification Statement of Conformance with City Specifications.	\$ 162.00
2.17	Obtain design exception.	\$ 560.00
2.18	(City) submit plans and specifications to DENR.	\$ 162.00
2.19	95% Submittal.	\$ 324.00
2.20	Address 95% submittal comments.	\$ 4,164.00
2.21	Final Submittal.	\$ 962.00
2.22	Draft Operations and Maintenance Manual.	\$ 4,320.00
	Travel Expenses	\$ 65.00
	Geotechnical	\$ -
	Architectural	\$ 9,014.00
	Structural	\$ 12,290.00
	Mechanical and Electrical	\$ 15,460.00
Subtotal / Task 2 - Final Design Services		\$ 91,529.00

TASK 3 - BIDDING SERVICES		Task Cost
3.1	City Advertising Authority form.	\$ 118.00
3.2	Conduct a Pre-bid Conference.	\$ 1,232.00
3.3	Prepare and issue addenda/consultation/equipment review	\$ 5,560.00
3.4	Attend the bid opening.	\$ -
3.5	Attend Public Works Committee meetings.	\$ -
3.6	Review Bidders' Proposals.	\$ 692.00
	Travel Expenses	\$ -
	Geotechnical	\$ -
	Architectural	\$ 778.00
	Structural	\$ 1,540.00
	Mechanical and Electrical	\$ 1,440.00
	Subtotal / Task 3 - Bidding Services	\$ 11,360.00

TASK 4 - BASIC CONSTRUCTION SERVICES		Task Cost
4.1	Notice to Proceed.	\$ 162.00
4.2	Pre-Construction Conference.	\$ 2,844.00
4.3	Written clarification - drawings and specifications.	\$ 6,404.00
4.4	Provide recommendations or address changed or unknown conditions.	\$ 908.00
4.5	Shop drawings, product submittals, test results.	\$ 10,964.00
4.6	"As-Built" plans and specifications.	\$ 4,096.00
4.7	Operations and Maintenance Manual.	\$ 4,572.00
4.8	Schedule equipment training with Utility Maintenance personnel.	\$ 3,530.00
	Travel Expenses	\$ -
	Geotechnical	\$ -
	Architectural	\$ 2,230.00
	Structural	\$ 1,560.00
	Mechanical and Electrical	\$ 4,825.00
	Subtotal / Task 4- Basic Construction Services	\$ 42,095.00

TASK 5 - EXPANDED CONSTRUCTION SERVICES		Task Cost
5.1	Removal limits.	\$ 288.00
5.2	Prepare P.S.A.'s.	\$ 288.00
5.3	Notify affected property owners.	\$ 262.00
5.4	Progress meetings (25 @ 2).	\$ 12,840.00
5.5	Daily on-site observation (50 weeks).	\$ 144,096.00
5.6	Daily Reports.	\$ -
5.7	Stormwater Inspections and Reports.	\$ -
5.8	Soil Compaction Testing (only Quality Assurance Included) (ATS).	\$ -
5.9	Start up Services	\$ 6,752.00
5.10	Monthly Pay Request Preparation / Review.	\$ 2,832.00
5.11	Prepare Change Orders.	\$ 5,344.00
5.12	Project completion punch list.	\$ 1,048.00
5.13	"Construction Project Close-out Checklist".	\$ 472.00
5.14	Letter of certification of project completion.	\$ 236.00
5.15	Letter to DENR notifying them of project completion.	\$ 118.00
5.16	Contractor's 2-year warranty.	\$ 1,736.00
5.17	Address and communicate warranty items.	\$ 4,680.00
	Travel Expenses	\$ 1,625.00
	Geotechnical	\$ 1,250.00
	Architectural	\$ 2,912.00
	Structural	\$ 3,990.00
	Mechanical and Electrical	\$ 9,080.00
	Subtotal / Task 5- Expanded Construction Services	\$ 199,849.00

TOTAL ESTIMATED FEES	\$ 499,204.00
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Fee Summary

TASK 1 - PRELIMINARY DESIGN SERVICES	\$	154,371.00
TASK 2 - FINAL DESIGN SERVICES	\$	91,529.00
TASK 3 - BIDDING SERVICES	\$	11,360.00
TASK 4 - BASIC CONSTRUCTION SERVICES	\$	42,095.00
TASK 5 - EXPANDED CONSTRUCTION SERVICES	\$	199,849.00

FEE TOTAL \$ 499,204.00

EXHIBIT C

Elk Vale Lift Station Upgrade
City of Rapid City
Project No. 11-1999, CIP No. 50728

CETEC Engineering Services, Inc.

Ted Schultz, P.E., Project Manager	\$120.00/hr.
Greg Wierenga, P.E., Project Manager	\$118.00/hr.
Rich Marsh, P.E., Project Manager	\$110.00/hr.
Brian Tideman, P.E., Project Engineer	\$84.00/hr.
Morgan Gagliano, P.E., Project Engineer	\$84.00/hr.
Mike Riker, Field Manager	\$72.00/hr.
Rick Fox, CADD Manager	\$72.00/hr.
Michael Schille, Senior Engineering Technician	\$72.00/hr.
Jeb Rieb, Senior Project Technician	\$62.00/hr.
Jesse Rieb, Construction Observer / Technician	\$62.00/hr.
Jason Sanders, Construction Observer / Technician	\$54.00/hr.
Keith Peterson, RLS, Survey Crew Chief	\$68.00/hr.
Jon Collins, Survey Crew Chief / Technician	\$68.00/hr.
Jason Dahlman, Survey Assistant / Technician	\$46.00/hr.
Sean Smith, Survey Assistant / Technician	\$48.00/hr.
Sandy Feickert, Office Administrator	\$44.00/hr.
Michelle Ritchie, Clerical	\$44.00/hr.

Reimbursable Expenses

Project Travel.....	\$0.65/mile
GPS Equipment.....	\$40/hour
Geo XH GPS Rover.....	\$15/hour
UTV Ranger.....	\$15/hour
ATV Equipment.....	\$15/hour
Blueline Printing.....	Actual Cost
Outside Printing.....	Actual Cost
Subconsultants.....	Cost plus 10%
Wastewater Flow Meter.....	\$200/week
Telephone, Perdiem.....	Non-Reimbursable



Albertson Engineering Inc.

Principal Engineer:\$145/hour
 Project Engineer II:\$120/hour
 EIT:\$90/hour
 Drafting:\$60/hour
 Clerical:\$50/hour



Principal\$190.00/hr.
 Office Manager/Project Manager\$145.00/hr.
 Senior Engineer/Project Engineer\$105.00/hr.
 Design Engineer\$70.00/hr.
 Draftsperson\$55.00/hr.
 Clerical\$45.00/hr.

Reimbursable Expenses

Mileage\$0.50/mile
 Per Diem\$25.00/day
 LodgingAt Cost
 Copies\$0.10/each
 Miscellaneous
 (i.e. long distance phone calls, printing, shipping, photos, etc.)At Cost

CHAMBERLIN ARCHITECTS GRAND JUNCTION, CO • RAPID CITY, SD

Principal Architect (Brad Burns):\$112/hr.
 Intern / Drafter:\$55/hr



UNIT RATE AND FEE SCHEDULE

item	Unit	Rate
A. Earthwork/Deep Foundation Inspection:		
Laboratory Testing - Soils:		
Proctors *	Each	\$ 125.00
Gradations *	Each	\$ 100.00
Plasticity Index *	Each	\$75.00
Consolidation Swell tests *	Each	\$ 150.00
Moisture Content *	Each	\$15.00
Nuclear Density Tests	Each	\$10.00
Engineering Technician	Hour	\$42.00
Geotechnical Engineer**	Hour	\$85.00

* Plus sample retention and preparation time. Sample retention and prep time charged at Engineering Technician rate.

"Geotechnical Engineer time applied on an hourly basis for quality control assurance which includes review of test results and acceptability of tests.

B. Concrete:		
Concrete Cylinders (41 set)	Set	\$45.00
Engineering Technician	Hour	\$ 42.00

Fresh concrete tests include air content, slump, temperature, and casting of cylinders. Price for cylinder set includes mold, curing, breaking, and reporting. Minimum charge of 3 hours of Engineering Technician time for concrete testing. We will strip, cure, break, and record tests for cylinders cast by others. We must charge for stripping time for sets cast by others.

C. Asphalt:		
Marshall *	Each	\$150.00
Rice Determination	Each	\$ 42.00
Gradation*	Each	\$50.00
Extraction-Ignition Oven Method*	Each	\$150.00
Engineering Technician	Hour	\$42.00

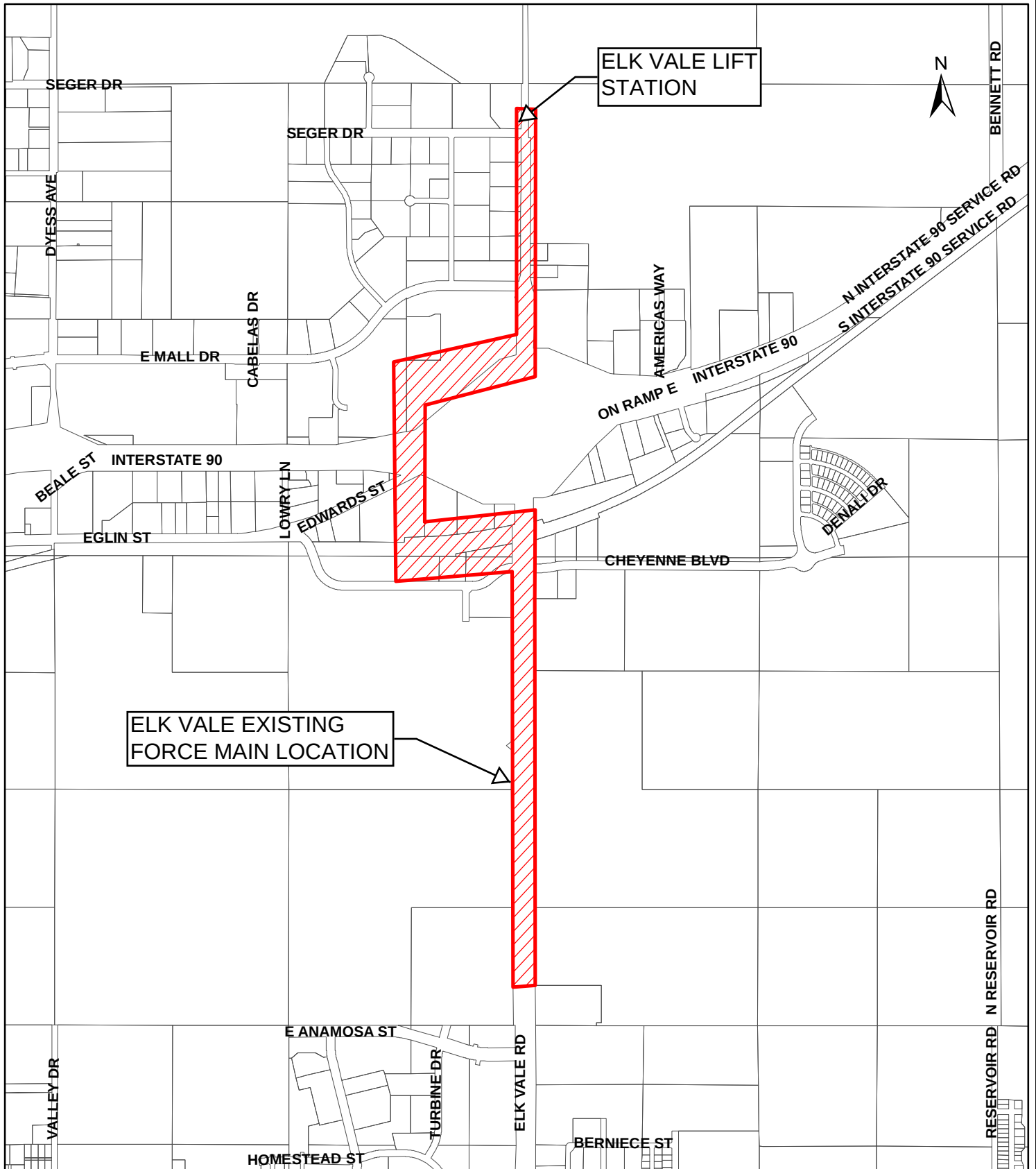
* Plus sample retention and preparation time. Sample retention and prep time charged at Engineering Technician rate.

D. Mobilization:

Trip Charge (Round Trip)	Mile	\$0.55
Driving Time	Hour	\$35.00
Subsurface Exploration:		
Mobilization (Drill Rig)	Mile	\$3.50
Lab Work (Engineering Tech)	Hour	\$42.00
Drilling Exploration	Hour	\$135.00
Report	Lump Sum	\$400.00

Requested specialty materials testing will be quoted on a per job basis. Testing equipment and supplies may need to be ordered from outside vendors and prices change.

EXHIBIT A



ELK VALE LIFT STATION UPGRADES
Proj. No. 11-1999 **CIP No. 50728**