

Contract for Professional Engineering Services

City of Billings W.O. 19-01, Schedule 1 1st Avenue North Water Main Replacement

In consideration of the mutual promises herein, City of Billings and Sanderson Stewart agree as follows. This Contract consists of:

- Part I, consisting of 15 Sections of Special Provisions;
- Part II, consisting of 11 Sections of General Provisions;
- Appendix A consisting of 10 pages (Basic Services of Contractor);
- Appendix B consisting of 1 page (Methods and Times of Payment);
- Appendix C consisting of 1 page (Additional Services of Contractor);
- Appendix D consisting of 2 pages (Schedule of Professional Fees);
- Appendix E consisting of 1 pages (Project Schedule);
- Appendix F consisting of 1 page (Certificate(s) of Insurance);

PART I SPECIAL PROVISIONS

Section 1. Definitions.

In this Contract:

- A. "Administrator" means the City Engineer of the Engineering Division of the Public Works Department or his designee.
- B. "Billings" means the City of Billings.
- C. "Contractor" means Sanderson Stewart.

Section 2. Scope of Services.

- A. The Contractor shall perform professional services in accordance with Appendix A, which is attached hereto and incorporated in this Section by reference.
- B. Billings shall pay the Contractor in accordance with the Schedule of Professional Fees attached as Appendix D and incorporated herein by reference for services actually performed under this Contract.
- C. Billings shall not allow any claim for services other than those described in this Section. However, the Contractor may provide, at its own expense, any other services that are consistent with this Contract.

- D. The Engineer shall provide as-built drawings as approved by the City of Billings, to the Administrator within 30 days after the project completion date. Final payment will be withheld until the as-built drawings are received by the City of Billings. Requirements for submitting as constructed documents of completed Private Contracts, Work Orders, Special Improvement Districts and Site plans involving any City of Billings infrastructure: a point file; 1 (*.asc, *.txt, comma delimited; point number, northing, easting, elevation and description) / 2 (*.csv, with headings for; point number, northing, easting, elevation and description), with northings and eastings to the nearest tenth of a foot, elevations to the nearest hundredth of a foot, representing new, updated or relocated City of Billings infrastructure features such as, but not limited to Sanitary Sewer Manholes, Storm Drain Manholes, Water Valves, Water Bends, Signals, Street Light, etc., in the coordinates of Montana State Plane, Zone 2500 using NAD83(2011), Horizontal and NAVD88 Vertical, Horizontal units and Vertical units will be International feet, one half size paper copy to scale, one full size paper copy to scale, two CD's or DVD's with PDF files being half size to scale and full size to scale and AutoCAD DWG files as-constructed / as-built, Version 2016, or equivalent.
- E. ~~The Contractor shall provide certified construction payrolls to the Administrator stating in writing that the payrolls have been reviewed and are acceptable.~~

Section 3. Time for Performance.

- A. This Contract becomes effective when signed on behalf of Billings.
- B. The Contractor shall commence performance of the Work described in Section 2 on receipt of written Notice to Proceed and complete that performance in accordance with the schedule set forth in Appendix E.
- C. This Contract shall terminate at midnight on December 31, 2019.

Section 4. Compensation; Method of Payment.

- A. Each month, or at the conclusion of each phase of the Work for which payment is due, as negotiated on a per-task basis, the Contractor shall present a bill to the Administrator describing the Work for which it seeks payment and documenting expenses and fees to the satisfaction of the Administrator. If any payment is withheld because the Contractor's performance is unsatisfactory, the Administrator must, within ten (10) days of the payment denial, notify the Contractor of the payment denial and set forth, with reasonable specificity, what was unsatisfactory and why. Billings will pay Contractor within 30 days of receiving an acceptable invoice.
- B. The Contractor is not entitled to any compensation under this Contract, other than is expressly provided for in this Section.
- C. As a condition of payment, the Contractor shall have paid all City taxes currently due and owing by the Contractor.

Section 5. Termination of the Contractor's Services.

The Contractor's services under Section 2 of this Part may be terminated:

- A. By mutual consent of the parties.

- B. For the convenience of Billings, provided that Billings notifies the Contractor in writing of its intent to terminate under this paragraph at least 10 days prior to the effective date of the termination.
- C. For cause, by either party where the other party fails in any material way to perform its obligations under this Contract. Termination under this Subsection is subject to the condition that the terminating party notifies the other party of its intent to terminate, stating with reasonable specificity the grounds therefor, and the other party fails to cure the default within 30 days after receiving the notice.

Section 6. Duties Upon Termination

- A. If Billings terminates the Contractor's services for convenience, Billings shall pay the Contractor for its actual costs reasonably incurred in performing before termination and Billings shall pay for services rendered prior to termination. Payment under this Subsection shall never exceed the total compensation allowable under Section 4 of this Part. All finished and unfinished documents and materials prepared by the Contractor shall become the property of Billings.
- B. If the Contractor's services are terminated for cause, Billings shall pay the Contractor the reasonable value of the services satisfactorily rendered prior to termination, less any damages suffered by Billings because of the Contractor's failure to perform satisfactorily. The reasonable value of the services rendered shall never exceed ninety percent (90%) of the total compensation allowable under Section 4 of this Part. Any finished or unfinished documents or materials prepared by the Contractor under this Contract shall become the property of Billings at its option.
- C. If the Contractor receives payments exceeding the amount to which it is entitled under Subsections A or B of this Section, he shall remit the excess to the Administrator within 30 days of receiving notice to do so.
- D. The Contractor shall not be entitled to any compensation under this Section until the Contractor has delivered to the Administrator all documents, records, Work product, materials and equipment owned by Billings and requested by the Administrator.
- E. If the Contractor's services are terminated for whatever reason the Contractor shall not claim any compensation under this Contract, other than that allowed under this Section.
- F. If a final audit has not been performed before the Contractor's services are terminated, Billings may recover any payments for costs disallowed as a result of the final audit.
- G. Except as provided in this Section, termination of the Contractor's services under Section 5 of this Part does not affect any other right or obligation of a party under this Contract.

Section 7. Insurance.

- A. The Contractor shall maintain in good standing the insurance described in Subsection B of this Section. Before rendering any services under this Contract, the Contractor shall furnish the Administrator with proof of insurance in accordance with Subsection B of this Section.

B. The Contractor shall provide the following insurance:

1. Workers' compensation and employer's liability coverage as required by Montana law.
2. Commercial general liability, including contractual and personal injury coverage's -- \$1,500,000 per occurrence.
3. Commercial automobile liability -- \$1,500,000 per accident.
4. Professional liability in the amount of \$1,500,000 per claim.

C. Each policy of insurance required by this Section shall provide for no less than 30 days' advance notice to Billings prior to cancellation.

D. Billings SHALL be listed as an additional insured on all policies except Professional Liability and Worker's Compensation Policies. In addition, all policies except Professional Liability and Worker's Compensation shall contain a waiver of subrogation against Billings.

Section 8. Assignments.

Unless otherwise allowed by this Contract or in writing by the Administrator, any assignment by the Contractor of its interest in any part of this Contract or any delegation of duties under this Contract shall be void, and an attempt by the Contractor to assign any part of its interest or delegate duties under this Contract shall give Billings the right immediately to terminate this Contract without any liability for Work performed.

Section 9. Ownership; Publication, Reproduction and Use of Material.

- A. Except as otherwise provided herein, all data, documents and materials produced by the Contractor under this Contract shall be the property of Billings, which shall retain the exclusive right to publish, disclose, distribute and otherwise use, in whole or in part, any such data, documents, or other materials. Exclusive rights shall not be attributed to portions of such materials presently in the public domain or which are not subject to copyright. Contractor shall retain rights to pre-existing proprietary property including but not limited to interactive models. The Contractor shall have the right to include photographic or artistic representations of the design and construction of the Project among the Contractor's promotional and professional materials. The Contractor's materials shall not include Billings' confidential or proprietary information regardless of whether Billings has previously advised the Contractor in writing of the specific information considered by Billings to be confidential and proprietary.
- B. Equipment purchased by the Contractor with Contract funds: See Appendix A, Section 3. Scope of Work.
- C. Should Billings elect to reuse Work products provided under this Contract for other than the original project and/or purpose, Billings will indemnify and hold harmless the Contractor from any and all claims, demands and causes of action of any kind or character arising as a result of reusing the documents developed under this contract. Additionally, any reuse of design drawings or specifications provided under this Contract must be limited to conceptual or preliminary use for adaptation, and the original Contractor's or subcontractor's signature, professional seals and dates removed. Such reuse of drawings and specifications, which require

professional seals and dates removed, will be signed, sealed, and dated by the professional who is in direct supervisory control and responsible for adaptation.

Section 10. Notices.

Any notice required pertaining to the subject matter of this Contract shall be either sent via facsimile (FAX) or mailed by prepaid first class registered or certified mail, return receipt requested to the following addresses:

Billings: City Engineer (Debi Meling, PE)
City of Billings
Public Works Department
2224 Montana Avenue
Billings, Montana 59101 FAX: (406) 237-6291 / PHONE : (406) 657-3095

Contractor: Sanderson Stewart
Mac Fogelsong, PE, LEED AP, Vice President
1300 North Transtech Way
Billings, MT 59102 FAX: (406) 656-0967 / PHONE: (406) 656-5255

Notices are effective upon the earlier of receipt, proof of good transmission (facsimiles only), or 5 days after proof of proper posting.

Section 11. Contract Budget.

In connection with its performance under this Contract, the Contractor shall not make expenditures other than as provided in line items in the Contract budget.

Section 12. Force Majeure.

- A. Any failure to perform by either party due to force majeure shall not be deemed a violation or breach hereof.
- B. As used in this Contract, force majeure is an act or event of substantial magnitude, beyond the control of the delayed party, which delays the completion of this Contract, including without limitation:
 - 1. Any interruption, suspension or interference resulting solely from the act of Billings or neglect of Billings not otherwise governed by the terms of this Contract.
 - 2. Strikes or Work stoppages.
 - 3. Any interruption, suspension or interference with the project caused by acts of God, or acts of a public enemy, wars, blockades, insurrections, riots, arrests or restraints of governments and people, civil disturbances or similar occurrences.
 - 4. Order of court, administrative agencies or governmental officers other than Billings.

Section 13. Financial Management System.

The Contractor shall establish and maintain a financial management system that:

- A. Provides accurate, current, and complete disclosure of all financial transactions relating to the Contract;
- B. Maintains separate accounts by source of funds for all revenues and expenditures and identifies the source and application of funds for the Contractor's performance under this Contract, including information pertaining to subcontracts, obligations, unobligated balances, assets, liabilities, outlays and income;
- C. Effectively controls and accounts for all municipal funds and Contract property;
- D. Compares actual expenditures with budgeted amounts and relates financial information to performance or productivity data including unit cost information where applicable;
- E. Allocates administrative costs to direct service delivery units;
- F. Minimizes the time between receipt of funds from Billings and their disbursement by the Contractor;
- G. Provides accounting records supported by source documentation; and
- H. Provides a systematic method assuring the timely and appropriate resolution of audit findings and recommendations.

Section 14. Funding Requirements.

In the event that any funding source for this Contract should impose additional requirements upon Billings for the use of those funds, the Contractor agrees to abide by those additional requirements immediately upon receipt of written notice thereof from Billings.

Section 15. Subcontracts.

The Contractor may enter into subcontracts for the purchase of goods and services necessary for the performance of this Contract, provided:

- A. Every subcontract shall be reduced to writing and contain a precise description of the services or goods to be provided and the nature of the consideration paid therefor.
- B. Every subcontract under which the Contractor delegates the provision of services shall be subject to review and approval by the Administrator before it is executed by the Contractor.
- C. Every subcontract in an amount exceeding \$1,000 shall require reasonable access to business records of the subcontractor relating to the purchase of goods or services pursuant to the subcontract.

PART II
GENERAL CONTRACT PROVISIONS

Section 1. Relationship of Parties.

The Contractor shall perform its obligations hereunder as an independent Contractor of Billings. Billings may administer the Contract and monitor the Contractor's compliance with its obligations hereunder. Billings shall not supervise or direct the Contractor other than as provided in this Section.

Section 2. Nondiscrimination.

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, age, sex, or marital status or who is a "qualified individual with a disability" (as that phrase is defined in the Americans With Disabilities Act of 1990). The Contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, or mental or physical impairment/disability. Such action shall include, without limitation, employment, upgrading, demotion or transfer, recruitment or recruiting advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship. The Contractor agrees to post, in conspicuous places available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.
- B. The Contractor shall state, in all solicitations or advertisements for employees to Work on Contract jobs, that all qualified applicants will receive equal consideration for employment without regard to race, color, religion, national origin, ancestry, age, sex or marital status, or mental or physical impairment/disability.
- C. The Contractor shall comply with any and all reporting requirements that may apply to it which the City of Billings may establish by regulation.
- D. The Contractor shall include the provisions of Subsections A through C of this Section in every subcontract or purchase order under this Contract, so as to be binding upon every such subcontractor or vendor of the Contractor under this Contract.
- E. The Contractor shall comply with all applicable federal, state, and city laws concerning the prohibition of discrimination.
- F. The Contractor and subcontractor shall abide by the requirements of 41 CFR 60-300.5(a) and 41 CFR 60-741.5(a), which prohibit discrimination against qualified protected veterans and/or qualified individuals on the basis of disability, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans and individuals with disabilities.

Section 3. Permits, Laws, and Taxes.

The Contractor shall acquire and maintain in good standing all permits, licenses and other entitlements necessary to its performance under this Contract. All actions taken by the

Contractor under this Contract shall comply with all applicable statutes, ordinances, rules and regulations. The Contractor shall pay all taxes pertaining to its performance under this Contract.

Section 4. Nonwaiver.

The failure of either party at any time to enforce a provision of this Contract shall in no way constitute a waiver of the provision, nor in any way affect the validity of this Contract or any part hereof, or the right of such party thereafter to enforce each and every provision hereof.

Section 5. Amendment.

- A. This Contract shall only be amended, modified or changed by a writing, executed by authorized representatives of the parties, with the same formality as this Contract was executed.
- B. For the purposes of any amendment modification or change to the terms and conditions of this Contract, the only authorized representatives of the parties are:

Contractor: Mac Fogelsong, PE, LEED AP, Vice President
(title of position)

Billings: City Council or Authorized Designee

- C. Any attempt to amend, modify, or change this Contract by either an unauthorized representative or unauthorized means shall be void.

Section 6. Jurisdiction; Choice of Law.

Any civil action rising from this Contract shall be brought in the District Court for the Thirteenth Judicial District of the State of Montana, Billings. The law of the State of Montana shall govern the rights and obligations of the parties under this Contract.

Section 7. Severability.

Any provision of this Contract decreed invalid by a court of competent jurisdiction shall not invalidate the remaining provisions of the Contract.

Section 8. Integration.

This instrument and all appendices and amendments hereto embody the entire agreement of the parties. There are no promises, terms, conditions or obligations other than those contained herein; and this Contract shall supersede all previous communications, representations or agreements, either oral or written, between the parties hereto.

Section 9. Liability.

The Contractor shall indemnify, defend, save, and hold Billings harmless from any and all claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses including reasonable attorneys' fees and costs, arising from any wrongful or negligent act, error or omission of the Contractor or any agent, employee or subcontractor as a result of the Contractor's or any subcontractor's performance pursuant to this Contract.

- A. The Contractor shall not indemnify, defend, save and hold Billings harmless from claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses or attorneys' fees and costs arising from wrongful or negligent acts, error or omission solely of Billings occurring during the course of or as a result of the performance of the Contract.
- B. Where claims, lawsuits or liability, including attorneys' fees and costs arise from wrongful or negligent act of both Billings and the Contractor, the Contractor shall indemnify, defend, save, and hold Billings harmless from only that portion of claims, causes of action, lawsuits, damages, judgments, liabilities, and litigation costs and expenses including attorneys' fees and costs, which result from the Contractor's or any subcontractor's wrongful or negligent acts occurring as a result from the Contractor's performance pursuant to this Contract.

Section 10. Inspection and Retention of Records.

The Contractor shall, at any time during normal business hours and as often as Billings may deem necessary, make available to Billings, for examination, all of its records with respect to all matters covered by this Contract for a period ending three years after the date the Contractor is to complete performance in accordance with Section 2 of the Special Provisions. Upon request, and within a reasonable time, the Contractor shall submit such other information and reports relating to its activities under this Contract, to Billings, in such form and at such times as Billings may reasonably require. The Contractor shall permit Billings to audit, examine and make copies of such records, and to make audits of all invoices, materials, payrolls, records of personnel, and other data relating to all matters covered by this Contract. Billings may, at its option, permit the Contractor to submit its records to Billings in lieu of the retention requirements of this Section.

Section 11. Availability of Funds.

Payments under this Contract may require funds from future appropriations. If sufficient funds are not appropriated for payments required under this Contract, this Contract shall terminate without penalty to Billings; and Billings shall not be obligated to make payments under this Contract beyond those which have previously been appropriated.

IN WITNESS WHEREOF, the parties have executed this Contract on the date and at the place shown below.

City of Billings

Engineer

City Council or Designee

Date: _____

Name: _____

Title: _____

Date: _____

ATTEST:

IRS Tax ID # _____

City Clerk

APPROVED AS TO FORM:

Date: _____

By _____

BRENT BROOKS, City Attorney

STATE OF MONTANA)
 :ss.
COUNTY OF YELLOWSTONE)

On this ____ day of _____, 2018, before me, the undersigned, a Notary Public for the State of Montana, personally appeared _____, known to me to be the _____ of _____, and acknowledged to me that they executed the foregoing instrument on behalf of said corporation having first been authorized to do so.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year first above written.

Notary Public for the State of Montana
Residing at Billings, Montana
My Commission Expires: _____

Note: Final contract documents will require the Engineer's signature to be notarized if Federal funds are used.

Appendix A
Basic Services of Engineer
W.O. 19-01, Schedule 1
1st Avenue North Water Main Replacement

Section 1. Engineer's Rights and Duties.

- A. To furnish all labor, materials, equipment, supplies, and incidentals necessary to conduct and complete the Engineer's portion of the project as defined in the scope of work and to prepare and deliver to Billings all plans, specifications, bid documents, and other material as designated herein.
- B. Ascertain such information as may have a bearing on the work from local units of government, utility companies, and private organizations and shall be authorized to procure information from other authorities besides Billings, but shall keep Billings advised as to the extent of these contacts and the results thereof.
- C. Prepare and present such information as may be pertinent and necessary in order for Billings to pass critical judgment on the features of the work. The Engineer shall make changes, amendments or revisions in the detail of the work as may be required by Billings. When alternates are being considered, Billings shall have the right of selection.
- D. Engineer's work shall be in accordance with the standards of sound engineering and present City, State, and National standards and policies currently in use.
- E. Conform to the requirements of the Montana Code Annotated Title 18 "Public Contracts" and more particularly Sections 18-2-121 and 18-2-122, and all other codes of the State of Montana applicable to providing professional services including codes and standards nationally recognized.
- F. The Engineer shall certify with the submission of final plans that the plans are in conformance with applicable sections of Title 69, Chapter 4, Part 5, of the Montana Code Annotated as pertaining to existing utilities.
- G. To perform professional services in connection with the project and will serve as Billings' representative in those phases of the project to which this agreement applies.
- H. Where Federal funds are involved, the necessary provisions to meet all requirements will be complied with and documents secured and placed in the bidding documents.
- I. Submit an estimated progress schedule as to time and costs at the beginning of the work, and monthly progress reports thereafter until complete. The reports will include any problems, potential problems, and delays as foreseen by the Engineer. Reports will be submitted in a timely manner to permit prompt resolution of problems.

- J. Name a Task Director who shall be the liaison between Billings and the Engineer. For this project the Task Director designated for the Engineer is Jeff Heidner, PE working under the Principal-in-Charge, Mac Fogelsong, PE.

Section 2. Billings Rights and Duties.

- A. To furnish all labor, materials, equipment, supplies, and incidentals necessary to conduct and complete Billings' portion of the project as designated in the scope of work.
- B. Name a Task Director who shall be the liaison between the Engineer and Billings. For this project, the Task Director designated is Travis Harris, PE working under the City Engineer, Debi Meling, PE.

Section 3. Scope of Work.

SCOPE OF WORK:

The scope of work covered by this agreement is described hereafter:

The project consists of the design, bidding, and construction services for the '*City of Billings W.O. 19-01, Schedule 1: 1st Avenue North Water Main Replacement*' project. The project includes approximately 5,930 lineal feet of 12-inch diameter and smaller water main replacement within 1st Avenue North from North 33rd Street to North 25th Street and from North 15th Street to Main Street. The project also includes replacement of approximately 750 lineal feet of side street water main laterals where these laterals have not already been replaced with PVC or ductile iron pipe and includes replacement of large diameter services (4-inch and greater) and hydrant laterals within the 1st Avenue North right-of-way. These laterals generally run north and south. The scope of work and budget assumes a single construction contract covering all necessary work.

Professional services include design of a water main replacement or rehabilitation for the existing water mains, geotechnical investigations and report, traffic control design, preparation of contract plans and specifications, contract plan and specification interpretation during construction, review of contractor pay estimates, construction staking, and observation of construction for the water main replacement and associated appurtenances. Engineer will coordinate work efforts with other related improvement projects expected to be completed concurrently in the project areas. The scope of work covered by this Contract shall include the following tasks:

Phase 100. Project Initiation

- Task 1. Attend meeting with City officials to determine project scope.
- Task 2. Review routes in field walkthrough.
- Task 3. Review available existing information to assist in preparing scope.
- Task 4. Prepare project scope of work and contracts.

Phase 200. Preliminary Design Services

- Task 1. Project management and coordination.
- Task 2. Attend up to four periodic design review meetings with the City of

Billings Public Works Department.

- Task 3. Review existing atlas maps, as-built drawings, and water service records provided to Sanderson Stewart by the City.
- Task 4. Review existing reports prepared for the Montana Department of Transportation (MDT) 1st Avenue North – Billings (UPN 9022000) reconstruction project. These reports consist of a preliminary geotechnical and materials report, preliminary site investigation to investigate hazardous materials, cultural resource investigation, biological resources report, and Phase I subsurface utility engineering (SUE) report.
- Task 5. Prepare base mapping using the existing survey information (survey control, scan and manual topographic survey, cadastral survey, and utility survey) from the MDT street reconstruction project in 1st Avenue North. The drawings will be converted from MicroStation to AutoCAD Civil 3D and setup to match Sanderson Stewart's CADD standards for City of Billings' projects on 11x17 plan sheets. The existing valve and manhole measuredown information from the SUE report will be incorporated into the plans. The survey information will remain in Montana State Plane Coordinate System (NAD 83 horizontal and NAVD 88 vertical), which is based on MDT's survey control for 1st Avenue North. The existing right-of-way and centerline established for the MDT 1st Avenue North project will be used for this project and no additional property corner search or legal survey is included.
- Task 6. Utility locates will be requested for the project corridor using the One-Call service and locate markings will be reviewed in a field walkthrough to verify with the existing utility locates obtained as part of the MDT street reconstruction project in 1st Avenue North. Obtain available utility maps from utility companies.
- Task 7. Complete topographic survey pickups in 1st Avenue North to update existing survey in the project areas. Up to three days of survey pickups are included, which includes verifying measuredowns on water valves, updating utility locates and traffic control as well as updating the topographic base maps.
- Task 8. Complete topographic survey in 1st Avenue North from North 9th Street east to Main Street (approximately 500 lineal feet). Up to three days of survey, utility measuredowns, traffic control are included as well as updating the base maps. It is anticipated that a Lidar scan survey will be completed for the intersection of 1st Avenue North and Main Street to minimize traffic control. Additional survey control needed for the Lidar scan survey is also included.
- Task 9. Review water main alignments with respect to other utilities. Consider offset water main alignment to allow existing water main to remain live during construction.

- Task 10. Review extents of water main replacement at side streets and determine which hydrant laterals and water services require replacement.
- Task 11. Prepare and submit 30% design plans to City for review. Plans to consist of base mapping along with the preliminary plan alignment of the new water main (no profiles).
- Task 12. Review feasibility of a pipe bursting alternate for the existing 12-inch and 14-inch water main.
- Task 13. Verify water main sizing with the proposed One Big Sky District improvements to determine if upsizing is necessary. It is assumed that all new water mains will be 12-inch diameter or smaller. Assist the City with analyzing their hydraulic model if necessary to determine utility sizing or routing. No independent water system modeling, field flow tests, or other sizing studies are included in this scope.
- Task 14. Meet and coordinate with MDT regarding permitting requirements and coordination with the MDT street reconstruction project in 1st Avenue North. Prepare encroachment permit documents and submit to MDT for the subsurface utility potholing and geotechnical borings to be completed during design. Per MDT, the typical review time for the encroachment permit is six to eight weeks.
- Task 15. Develop a public involvement plan which shall include an educational outreach component and one public informational meeting. Mail out one written survey to businesses and residences along 1st Avenue North requesting information on water usage, delivery requirements and special access needs. We have included up to eight (8) separate one-on-one owner meetings.
- Task 16. Identify areas to perform subsurface utility “potholing” at identified pipe line or utility crossings to identify specific pipe elevations or private utility locations. Scope of work assumes Sanderson Stewart will provide a “vacuum” truck via subcontract to remove material in order to survey said utilities. Scope of work includes up to four (4) full 8-hour days of subcontract “potholing” for an estimated total of up to 24 potholes. Temporarily backfill holes with cold-mix asphalt. Provide filling of holes during construction by Contractor with hot-mix asphalt. Scope of work includes four (4) days of traffic control.
- Task 17. Geotechnical Investigation of 1st Avenue North project area. Geotechnical engineering shall include field sampling, laboratory testing and review of subsurface soils to determine appropriate pavement section design alternatives, subgrade treatment, groundwater conditions, and foundations for utility installations. Recommendations for specific construction materials and groundwater management established in this review will be

included in the project plans and specifications. Up to fifteen (15) soil borings will be completed to a depth of 15 feet and up to four (4) groundwater monitoring wells will be installed along the corridor. Geotechnical investigation includes traffic control during boring operations.

- Task 18. Groundwater elevation monitoring of up to four (4) monitoring wells. We have assumed monitoring the groundwater elevations from November to May using transducers in the monitoring wells.
- Task 19. Send preliminary plans (70%) to the private utilities for review and comment, and hold subsequent coordination meetings with the private utilities to assemble and evaluate comments (up to two (2) meetings). Coordinate with Montana Dakota Utilities (MDU) regarding their plans to replace the existing gas main in 1st Avenue North.
- Task 20. Meet with local contractors and suppliers to discuss constructability and traffic control issues.
- Task 21. Review alternate construction timing methods for 1st Avenue North (review of night work/weekend work, 24 hour 7-day a week work hours).
- Task 22. Prepare preliminary traffic control plans and special provisions for the project and submit package for review by the City of Billings and MDT. Work zone/traffic control boundaries and a construction sequence plan will be developed with the intent of promoting construction efficiency while minimizing impacts to traffic operations. Standard City of Billings and MDT traffic control details will be referenced wherever possible. Customized traffic control layouts for specific work zones will be described with a text narrative in the Traffic Control special provision in cases where standard details are not applicable. An overall project area work zone exhibit will be provided, but individual work zone traffic control exhibits will not be prepared except in special cases as determined jointly between Sanderson Stewart and the City of Billings. Sanderson Stewart will coordinate with other known (planned or ongoing) construction projects for which traffic control impacts may overlap, including the sanitary sewer lateral replacements across 1st Avenue North between North 15th Street and North 21st Street.
- Task 23. Prepare preliminary plans and specifications (70% design level) using all data gathered and input received.
- Task 24. Prepare opinion of probable cost with 15 percent contingency included.
- Task 25. Quality control review of plans and specifications.
- Task 26. Submit preliminary plans and specifications (70% design level) for review to all interested parties as determined by the City of Billings and Sanderson Stewart.

Phase 200 Deliverables:

- a. Preliminary plans (30%) with base mapping and water main alignment on 11x17 size plans and PDF format
- b. Preliminary geotechnical report
- c. Preliminary plans and profiles (70%) on 11x17 size plans and PDF format
- d. Preliminary traffic control plans
- e. Preliminary specifications
- f. Preliminary opinion of probable cost with 15% contingency

Phase 300. Final Design and Bidding Services

- Task 1. Project management and coordination.
- Task 2. Assemble all preliminary plan review comments and redlines for incorporation into final plans.
- Task 3. Design of temporary water system performance specifications for project area. Include requirements for temporary private fire suppression systems. Meet with City of Billings Fire Marshall to review affected buildings with fire suppression systems.
- Task 4. Prepare plan for sequencing of water main flushing and testing including location and size of test ports to assist the City's valve operation crew during construction.
- Task 5. Coordinate final design with other public utilities within the selected project corridor including the new storm drain replacement (by MDT) in 1st Avneue North.
- Task 6. Incorporate recommendations of geotechnical report into final plans and specifications, including the QA/QC recommendations for materials testing during construction.
- Task 7. Incorporate City of Billings and MDT comments on preliminary traffic control plans and special provisions and prepare final bid documents for inclusion in the project specification book.
- Task 8. Complete final plan and specification sets for submittal, review, and approval by the City of Billings, MDT, and the Montana Department of Environmental Quality (MDEQ).
- Task 9. Apply for permits, licenses, and approvals necessary to construct the project including the Utility Occupancy Permit through MDT.
- Task 10. Submittal of two (2) copies of the project specifications, two (2) 11x17 plan sets, contract-bidding documents, design report and certified water checklist to (MDEQ) for approval. The MDEQ review fees up to \$2,600 are included in this contract, based on 6,680 lineal feet of water main being replaced (includes side streets), two deviations, and a design report.
- Task 11. Receive final redline comments from the City of Billings, MDT and the MDEQ and incorporate said comments in final plans and

specifications. Final plans and specifications will be prepared in accordance with the Montana Public Works Standard Specifications, Sixth Edition, April 2010 and the current adopted City of Billings Standard Modifications to the Sixth Ed. Stamp and sign all plans and specifications with seal of Professional Engineer in charge.

- Task 12. Calculate bid quantities and prepare bid proposal and contract documents. Update Engineer's Opinion of Probable cost based upon final plan quantities.
- Task 13. Assist in preparation of bid advertisement and provide documents to prospective bidders and suppliers. Bid advertisement text will be provided to the City for publication.
- Task 14. Attend one pre-bid meeting.
- Task 15. Answer bid questions and issue addendums as required.
- Task 16. Attend bid opening, tabulate bids, and make recommendation to the City for award.
- Task 17. Assist in City procurement of final contract agreement, verification of insurance and bonds, and issue notice to proceed.
- Task 18. Quality control review.

Phase 300 Deliverables:

- a. Final plans on 11x17 size plans and PDF format
- b. Final specifications book including geotechnical report, final traffic control plans, water main flushing and testing plan
- c. MDEQ approval documents including design report
- d. MDT approval documents (Utility Occupancy Permit)
- e. Final opinion of probable cost
- f. Pre-bid meeting minutes and addenda as required
- g. Bid tabulations
- h. Recommendation of award
- i. Final contracts
- j. Notice to proceed

Phase 400. Construction Services and Contract Administration

- Task 1. Project management and coordination.
- Task 2. Schedule and conduct pre-construction conference prior commencement of work at the site. Issue pre-construction meeting minutes to Contractor and City.
- Task 3. Implement and coordinate QA/QC testing program for materials testing developed in the design phase of the project.
- Task 4. Take preconstruction photos of proposed work areas.
- Task 5. Prepare weekly website informational update content for distribution to the City of Billings and email to property owners

along project corridor based on a 140 calendar day construction contract.

- Task 6. Review Contractor shop drawing submittals in conformance with the information given in contract documents. Also review valve requests and temporary water plans. Review does not include review of any dewatering plans, and said review shall not extend to Contractor means, methods, techniques, sequences, or procedures of construction or Contractor safety programs.
- Task 7. Attend weekly construction meetings during construction based on a 140 calendar day construction contract.
- Task 8. Make visits to the site at intervals appropriate to various stages of construction to observe as an experienced and qualified design professional the progress of the Contractor's executed work. Visits by Engineer shall be limited to spot checking and similar methods of general observation of the work as assisted by the Resident Project Representative.
- Task 9. Meet as required during construction with businesses and affected residential owners. Provide up to one hour per week for business or residential meetings for a 140 calendar day construction contract.
- Task 10. Respond to Contractor requests for information. Issue necessary clarifications and interpretations of the Contract Documents as appropriate, consistent with the intent and reasonably inferable from the Contract Documents. Engineer may issue Field Orders authorizing minor variations in the Work from the requirements of the Contract Documents.
- Task 11. Recommend and prepare Change Orders and Work Change Directives to City as appropriate.
- Task 12. Provide field staking to give the Contractor measurements, lines, locations, and grades necessary for construction. Field staking shall include off-sets and grades for the water mains and appurtenances thereto, off-sets and grades for miscellaneous concrete replacement (if required), and assisting contractor with marking out lane striping restoration.
- Task 13. Coordinate and schedule quality assurance testing during all phases of construction.
- Task 14. Provide full-time construction observation during construction utilizing a Resident Project Representative (RPR) to assist Engineer in observing progress and quality of the Work. It is estimated that the total construction contract time required for one pipeline crew would be up to 190 calendar days. In order to complete the project in one construction season, it is assumed that two pipeline crews will be required for a portion of the project to reduce the contract time to 140 calendar days. The budget includes one RPR at 50-hours per week for 140 calendar days

and a second overlapping RPR at 50-hours per week for 50 calendar days. In addition, it's anticipated that night work will be required at up to nine intersections and at up to seven large diameter water service reconnections. Up to 25 nights at 10-hours per night are included in the budget for night inspection in addition to the two overlapping RPR's. RPR shall report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor said clarifications and interpretations as issued by Engineer. RPR will prepare daily inspection reports, and daily diaries for the term of construction activity.

In addition to review of major work items for the water main replacement, inspection activities shall include general review of traffic control set-up and sediment and erosion control.

- Task 15. Review and recommend payment and contract requests in accordance with City of Billings format. Up to six pay applications are estimated based on a 140 calendar day construction contract.
- Task 16. Coordinate daily traffic control changes and prepare media releases as required.
- Task 17. Keep track of actual in-place materials, locations, and quantities and transfer to field plans for preparation of record drawings.
- Task 18. Coordinate testing of final water main installations and recommend approval or adjustments as necessary.
- Task 19. Conduct final inspection and prepare punchlist.
- Task 20. Prepare reproducible construction record drawings for City of Billings files from records prepared by Contractor. Survey all new water main surface features (e.g., valve boxes and hydrants) following project completion and incorporate into record drawings. Record drawings will include at a minimum:
 - Offset distances measured from the centerline of the right-of-way to all public water mains.
 - Locations of water services based on measurements from property lines.
 - Elevations indicating the depth of bury of all public water mains. These elevations shall be shown at each street or right-of-way intersection and at such intervals along the public water mains as may be deemed appropriate by the City Engineer.
- Task 21. Conduct one-year inspection with City of Billings staff and Contractor.

Phase 400 Deliverables:

- a. Pre-construction meeting minutes

- b. Shop drawing review
- c. Pay applications and change orders
- d. Final inspection and one-year warranty inspection punchlists
- e. Final record drawings, in accordance with Part 1, Section 2, Article D of this Contract, and as required by MDEQ.
- f. Copy of materials testing and water main testing records

Appendix B
Methods and Times of Payment
W.O. 19-01, Schedule 1
1st Avenue North Water Main Replacement

Section 1. Payments for Basic Services.

Billings shall authorize payment to the Engineer for services performed under Appendix A of this Agreement. Partial payment shall be due the Engineer upon receipt of the Engineer's pay estimate, said estimate being proportioned to the work completed by the Engineer.

Billings shall deduct five percent (5%) from each monthly pay estimate to be held until the completion of the final scope of work. The final payment shall be made only after acceptance of final documents by Billings, and determination that the scope of work has been satisfactorily completed.

A. For services rendered in accordance with Appendix A, the Engineer shall be paid based upon actual time accrued, but not to exceed \$776,650.00 (Seven Hundred Seventy Six Thousand Six Hundred Fifty and 00/100 dollars) based on the following tasks:

| | | |
|-----------|--------------------------------------|---------------------|
| Phase 100 | Project Initiation | <u>\$6,880.00</u> |
| Phase 200 | Preliminary Design | <u>\$245,860.00</u> |
| Phase 300 | Final Design | <u>\$134,800.00</u> |
| Phase 400 | Construction/Contract Administration | <u>\$389,110.00</u> |

B. Final payment shall be the above stated basic fee less all previous payments.

Section 2. Payments for Extra Services when Authorized by Billings.

Work requests made or conditions identified by interested groups at the agency or public meetings which are beyond the scope and intent of this project shall be paid for on an hourly basis at the applicable fees in Appendix D or by an addendum to the agreement.

Section 3. Corrections.

Costs of Billings' work that is required for the purpose of correcting the Engineer's work shall be deducted from any payments due the Engineer if the Engineer fails to make the required corrections.

Section 4. Fee Increases

For contracts and services that are expected to require more than one (1) year to complete, the above stated basic services payments may be reviewed and adjusted annually by mutual agreement of the parties, based upon documented evidence that the Engineer's costs and hourly rates as shown in Appendix D have increased for all comparable clients.

Appendix C

Additional Services of Engineer

Extra Services of the Engineer will be paid only with written prior authorization by Billings.

- A. Field and laboratory testing of materials and reports.
- B. Requests made or conditions identified by interested groups at the agency or public meetings, which are beyond the scope and intent of this study.

CHARGE OUT RATES EFFECTIVE AUGUST 2018

At Sanderson Stewart, we strive to provide great customer service and value. While we can offer the traditional method of billing by hourly charge rates, we strongly encourage our current and prospective clients to consider a lump sum arrangement in determining your overall project compensation. Fixed-fee projects can result in substantial savings over our posted hourly billing rates and provide a level of certainty at the outset of your project.

STAFF PERSONNEL SERVICES

| | |
|-----------------------------------|-----------------|
| Expert Witness/Special Consultant | \$ 265.00 /hour |
| Principal | \$ 190.00 /hour |
| Senior Engineer | \$ 170.00 /hour |
| Project Engineer | \$ 115.00 /hour |
| Staff Engineer | \$ 90.00 /hour |
| Engineer Intern | \$ 65.00 /hour |
| Senior Land Planner | \$ 135.00 /hour |
| Land Planner | \$ 130.00 /hour |
| Right-of-Way Agent | \$ 135.00 /hour |
| Landscape Architect | \$ 125.00 /hour |
| Landscape Designer | \$ 80.00 /hour |
| Senior Professional Land Surveyor | \$ 130.00 /hour |
| Professional Land Surveyor | \$ 110.00 /hour |
| Staff Surveyor | \$ 95.00 /hour |
| Field Survey Technician | \$ 80.00 /hour |
| Marketing Director | \$ 125.00 /hour |
| Graphic Artist | \$ 100.00 /hour |
| Photographer | \$ 180.00 /hour |
| Web Developer | \$ 90.00 /hour |



To Plan and Design
Enduring Communities...

| | |
|--|-----------------|
| Senior Designer | \$ 100.00 /hour |
| Designer | \$ 90.00 /hour |
| CADD Technician | \$ 80.00 /hour |
| Senior Construction Engineering Technician | \$ 110.00 /hour |
| Construction Engineering Technician | \$ 85.00 /hour |
| Construction Inspector | \$ 80.00 /hour |
| Project Administrator | \$ 70.00 /hour |
| Administrative/Clerical | \$ 65.00 /hour |

SURVEY CREW SERVICES

| | |
|-----------------------|------------|
| 1-man Crew/2-man Crew | \$ Per Job |
|-----------------------|------------|

OUTSIDE CONSULTANTS

- 1) At cost if independently billed direct to client.
- 2) Cost plus 5% if billed through us.

INDEPENDENT LABORATORIES

- 1) At cost if independently billed direct to client.
- 2) Cost plus 5% if billed through us.

ADMINISTRATIVE EXPENSES

Administrative expenses (including copies, prints, phone, postage, materials, and travel) based on professional services only 3.5% *

* unless modified by contract

Appendix E

Project Schedule W.O. 19-01, Schedule 1 1st Avenue North Water Main Replacement

Based on a notice to proceed by Billings date no later than November 14, 2018, the completion date for the Engineer's work through final design shall be:

1. Preliminary Engineering Services (30% Design): December 21, 2018
2. Preliminary Engineering Services (70% Design): February 15, 2019
3. Final Engineering Services (100% Design): April 5, 2019

Delays affecting the completion of the work within the time specified of more than ninety (90) days, not attributable to or caused by the Parties hereto, may be considered as cause for the renegotiation or termination of this Contract.

If the Engineer is behind on this Contract due to no fault of Billings, then the Engineer hereby acknowledges the right of Billings to withhold future Contracts to the Engineer in addition to any other remedy until this Contract is brought back on schedule or otherwise resolved.

Appendix F

Certificate(s) of Insurance

(Attach Certificate(s) of Insurance)