

# Contract for Professional Architectural and Engineering Services

## WO 18-06 EBURD 10<sup>th</sup> to 13<sup>th</sup> Infrastructure Improvements

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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 3 pages (Schedule of Professional Fees);
- Appendix E consisting of 1 page (Project Schedule);
- Appendix F consisting of 1 page (Certificate(s) of Insurance); and

### **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 Contractor shall provide as-built drawings on mylars and in digital format, 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.

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: Debi Meling, PE  
City of Billings  
Public Works/Engineering  
2224 Montana Avenue  
Billings, Montana 59101 FAX: (406) 237-6291

Contractor: Sanderson Stewart  
D.J. Clark, PE, PTOE, Community Transportation Studio Manager  
1300 North Transtech Way

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: D.J. Clark, PE, PTOE, Community Transportation Studio Manager  
(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

Contractor

\_\_\_\_\_  
City Council or Designee

\_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

ATTEST:

IRS Tax ID # \_\_\_\_\_

\_\_\_\_\_  
City Clerk

APPROVED AS TO FORM:

Date: \_\_\_\_\_

By \_\_\_\_\_

BRENT BROOKS, City Attorney

**Appendix A**  
**Basic Services of Engineer**  
**W.O. 18-06**  
**EBURD 10th to 13th Infrastructure Improvements**

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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 D.J. Clark, PE, PTOE, working under the Principal-in-Charge, Mac Fogelsong, PE.

## Billings Rights and Duties.

- K. 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.
- L. Name a Task Director who shall be the liaison between the Engineer and Billings. For this project, the Task Director designated is Chris Hertz, PE working under the City Engineer, Debi Meling, PE.

## Scope of Work.

### **SCOPE OF WORK:**

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

The project consists of the design and bidding services for the W.O. 18-06, EBURD 10th to 13th Infrastructure Improvements project. The project will reconstruct 2nd Avenue North and 3rd Avenue North (from North 13th Street to North 10th Street) and North 11th Street and North 12th Street from 1st Avenue North to 4th Avenue North. Exhibit A (attached) illustrates the extends of the base infrastructure project. Surface improvements are to include curb and gutter, sidewalk, asphalt, drive approaches, signing and striping, and street lighting. The project will also include storm drain and sanitary sewer system improvements. Street lighting improvements will extend beyond the base project area to include the areas of the East Billings Urban Renewal District (EBURD) bound by North 13th Street to North 22nd Street (east to west) and by 1st Avenue North to 4th Avenue North (north to south), the segments of North 13th Street, North 15th Street, North 18th Street and North 20th Street from 4th Avenue North to 6th Avenue North, the segment of Montana Avenue from approximately North 13th Street to North 22nd Street and half-block segments of North 15th Street through North 20th street, north of Montana Avenue. Exhibit B (attached) illustrates the anticipated locations for street both in the base project area and the extended area. A special improvements district (SID) and a street lighting maintenance district (SLMD) will be created to fund construction and operations for the street lights.

Professional services include field survey, geotechnical investigation, design of sanitary sewer and storm drain system improvements, roadway and traffic-related improvements, coordination with power, natural gas, cable television, telephone, and fiber optic private utility companies on possible installations or modifications of their facilities during this project, property owner/business tenant coordination, public involvement, preparation of contract plans and specifications, permitting, project bidding, and SID and SLMD creation and coordination services, more specifically described below. Engineer will coordinate work efforts with other related improvement projects expected to be completed concurrently in the project area, such as the Montana Department of Transportation (MDT) 1st Avenue North project.

## **Phase 100. Preliminary (50%) Design Services**

- Task 1. General project management, including internal meetings and administrative tasks.
- Task 2. Weekly project update e-mails will be sent to the City of Billings Project Manager (Chris Hertz) and the City Engineer (Debi Meling).
- Task 3. Meetings and correspondence with City of Billings staff on project-related items and issues.
- Task 4. Meetings and correspondence with BIRD staff on project-related items and issues.
- Task 5. Preliminary field review and project site reconnaissance. Sanderson Stewart will take photos of key project features for documentation purposes and for use in design.
- Task 6. Potholing of public and private utilities for up to 20 locations to verify depth and location within the project corridor. Pothole locations will be determined strategically based on potential conflicts identified through utilities research.
- Task 7. Research of property ownership and right-of-way information for parcels in the project area. Review of property deeds, easements and title report. This task shall also include the work necessary to verify property frontage distances for use in SID assessment calculations.
- Task 8. Drafting in Autocad of public street and alley right-of-way boundaries based on found information from plats and easement documents for use in design.
- Task 9. Research and review of existing street lighting and maintenance districts within the project area. The City of Billings will assist Sanderson Stewart with this task by providing existing documentation.
- Task 10. Research and review of records and field-generated information (topographic survey/locates) on public and private utilities that are located within the project area. Records shall include atlas maps, online resources and information provided by the private utility and irrigation companies. This task shall also include meetings with the City and private utilities companies to discuss coordination of facility modifications as required.
- Task 11. Review of City of Billings sanitary sewer video logs (where available) to determine condition and disposition of facilities. This information will help with determining design approach for sanitary sewer replacement (e.g., open cut or trenchless approach).
- Task 12. Review of City of Billings storm drain video logs (where available) to determine condition and disposition of facilities. This information will help with determining design approach for storm drain replacement.

- Task 13. Meetings and correspondence with infrastructure project area property owners to inform them about the project and to discuss parking, access and drainage considerations. Sanderson Stewart will send one (1) letter survey to each of the property owners within the nine-block infrastructure project area to request input. Sanderson Stewart will also attend up to one (1) meeting with each property to discuss preliminary details about the project and anticipated impacts. Additional ongoing communication will be maintained via phone calls and e-mail correspondence. Negotiations for the purchase of right-of-way or easements (if required) are not included in the scope for this contract. This scope does not account for meetings with property owners outside of the nine-block infrastructure project area.
- Task 14. Pre-survey research and computations, including review of previous surveys and plats. Upload existing property corner information from database. Setup Trimble Business Center project and controller files. Download, maintain, and manage project data.
- Task 15. Survey control field work, including control placement, horizontal ties, levels and adjustments. Survey control will consist of either MAG Nails in asphalt or, where applicable, 18"x5/8" rebar with 2-inch aluminum caps clearly stamped SANDERSON STEWART CONTROL MONUMENT with the control point number. Control points will be spaced no more than 250 feet apart in scanning areas, and no more than 600 feet apart in non-scanning areas. All control points will be double observed to ensure horizontal accuracy within 0.04 feet. Reciprocal levels will be performed to ensure vertical accuracy to within 0.03 feet.
- Task 16. Search and tie existing property corner monuments within the project area. Adjust boundary calculations based on found monuments and perform secondary searches. Prepare drawing of approximate boundaries and street right-of-ways.
- Task 17. Field work related to LIDAR scanning survey. Scanning will be utilized to collect topographic survey data for hard surface and vertical elements of the project corridor. We anticipate utilizing approximately 35 setups at intersection, mid-block and mid-alley locations to obtain adequate coverage of project surface features.
- Task 18. Downloading and register of scanning data utilizing Leica Cyclone Register software to create one point cloud.
- Task 19. Review of LIDAR scanning data to determine if there are any voids in the scan data that need to be surveyed. Trim the point cloud and clear the data of "noise" created from traffic, pedestrians, parked cars, and tree canopy.
- Task 20. Drafting in Autocad of line work and point features utilizing LIDAR scanning data for use in design. Resulting cadd line work will be integrated in a dedicated cadd file for use in design (see Task 23).

- Task 21. Creation of existing conditions surface model in Autocad based on LIDAR scanning surface data for use in design.
- Task 22. Topographic survey pickups of project area to supplement LIDAR scanning data. Pickup surveys will utilize conventional total station methods.
- Task 23. Processing of completed topographic survey data, importation into base cadd file and drafting existing conditions features. Unless otherwise directed by the City, the project will use the following coordinate systems:
- a. Billings Low Distortion Projection (NAD83-2011) with horizontal units expressed in international feet.
  - b. Vertical datum will be NAVD88 with GPS elevations derived from GEOID12A and vertical units expressed in U.S. survey feet.
- Task 24. Preliminary geotechnical field investigation and report to be performed by Terracon. Scope of work for Terracon includes:
- c. Seven (7) borings drilled to a depth of 20 feet; one (1) in at the intersection of 2nd Avenue North between and North 12th Street (location of sanitary sewer main); and six (6) in alleys where sanitary sewer is to be reconstructed.
  - d. Four (4) borings drilled to a depth of 15 feet along North 11th Street (three mid-block locations) and at the intersection of North 12th Street and 3rd Avenue North.
  - e. Five (5) borings drilled to a depth of 5 feet; two (2) at the ends of North 12th Street; one (1) at the west end of 2nd Avenue North; one (1) at the west end of 3rd Avenue North; and one (1) at the north end of North 11th Street. Existing asphalt will be cored in five (5) locations.
  - f. Dynamic Cone Penetrometer (DCP) testing at five (5) selected locations for the purpose of correlating with laboratory CBR test results.
  - g. Three (3) piezometers will be installed for monitoring groundwater elevations.
  - h. Laboratory tests, including visual classification, moisture content, pH, resistivity, water soluble sulfate content, grain-size distribution, Atterberg Limits, strength testing and California Bearing Ratio, as appropriate.
  - i. Summary geotechnical report with recommendations for pavement section design, subgrade treatment, utility installations and groundwater remediation (if required).
- Task 25. Review of as-built drawings and reports for past projects within the project area. This information will supplement topographic survey data to establish a complete picture of existing conditions surface

and utility features.

- Task 26. Preliminary storm water analysis including delineation of contributing drainage areas, analysis of peak flows for the existing and proposed improvements for the 10-year, 24-hour design storm and analysis of existing and proposed inlet and storm drain main capacity.
- Task 27. Groundwater monitoring by Sanderson Stewart via piezometers to be placed by Terracon. Monitoring would be conducted once per month from December 2017 through July 2018.
- Task 28. Setting up of plan sheets and creation of title sheet.
- Task 29. Geometric design layout of proposed surface improvements in Autocad.
- Task 30. Design, dimensioning and labeling of proposed signing and striping improvements in Autocad.
- Task 31. Preliminary design of plan and profile storm drain features in Autocad, including labeling and dimensioning.
- Task 32. Preliminary design of plan and profile sanitary sewer features in Autocad, including labeling and dimensioning.
- Task 33. Creation and layout of plan and profile sheets in Autocad.
- Task 34. Creation and maintenance of Autocad corridor model for surface improvements design.
- Task 35. Detailed grading design of ADA ramps at project intersections.
- Task 36. Detailed grading design of driveway and alley approaches.
- Task 37. Detailed grading design for locations where project improvements match or blend into existing private property surfaces
- Task 38. Detailed grading design for retaining walls and other special features required to provide ADA-compliant design and proper drainage.
- Task 39. Labeling and dimensioning of miscellaneous plan features such as street names, property owners, land survey information and other such pertinent information.
- Task 40. Development and ongoing adjustments of cross sections for streets with the project infrastructure area. Cross sections will be cut at 50-ft intervals, as well as at other key project alignment locations.
- Task 41. Drafting in Autocad of typical sections to illustrate planned surface improvement details, as well as creation of other typical project details that are not included in MPWSS or the City Standard Mods.
- Task 42. Preliminary analysis and design of street lighting improvements both for the base infrastructure project area and the extended street lighting areas. This task will include related calculations, drafting and production of preliminary plan sheets, specifications and electrical opinions of cost.

- Task 43. Preparation of right-of-way exhibits to be utilized for public meetings and individual property owner meetings.
- Task 44. Performance of quantity take-off calculations and preparation of preliminary (50%) opinions of probable construction cost.
- Task 45. Development of preliminary project specifications, including special provisions intended to clarify project details.
- Task 46. Design of preliminary construction traffic control concepts and supportive special provisions. Special provisions will address recommended sequencing and schedules for full and partial roadway closures.
- Task 47. Perform quality control review of preliminary (50%) plans and opinions of probable cost. Revisions to submittal materials will be made as necessary based on review comments.
- Task 48. Attend one (1) concept design review meeting at City of Billings – Public Works offices.
- Task 49. Assistance with creation of special improvements district for street lighting, including calculations and preparation of exhibits (renderings) for use in meetings between the BIRD and property owners in the proposed SID.
- Task 50. Administration of one (1) neighborhood meeting to present preliminary design concepts and details to interested project stakeholders. Mailing of notifications and arrangement of venue are assumed to be the responsibility of the City for the purposes of this scope of work.
- Task 51. Direct reimbursable expenses such as printing and mileage.

Phase 100 Deliverables:

Preliminary (50%) design plans, geotechnical report and an opinion of probable construction cost (15% contingency). Physical deliverables to include up to four (4) full-sized sets (24x36-inch) and four (4) half-sized sets (12x18-inch) preliminary plans and specifications.

**Phase 200. Final (90%) Design Services**

- Task 1. General project management, including internal meetings and administrative tasks not specifically addressed in other scope items.
- Task 2. Weekly project update e-mails will be sent to the City of Billings Project Manager (Chris Hertz) and the City Engineer (Debi Meling).
- Task 3. Meetings and correspondence with City of Billings staff on project-related items and issues.
- Task 4. Meetings and correspondence with BIRD staff on project-related items and issues.
- Task 5. Additional potholing of public and private utilities as necessary based on design development.

- Task 6. Additional research and review of street lighting district documentation.
- Task 7. Up to one (1) additional meeting with each infrastructure project area property owner, as well as ongoing communication via phone and e-mails. Negotiations for the purchase of right-of-way is not included in the scope for this contract. This scope does not account for meetings with property owners outside of the nine-block infrastructure project area.
- Task 8. Completion of storm water analysis and preparation of Stormwater Management Design Report with associated exhibits and details.
- Task 9. Additional pick-up topographic survey (conventional) as required.
- Task 10. Ongoing consultation with geotechnical subconsultant on design-related details and specifications. Preliminary recommendations may be revised based on the development of design details for the project.
- Task 11. Final geometric design layout of proposed surface improvements in Autocad.
- Task 12. Final design, dimensioning and labeling of proposed signing and striping improvements in Autocad.
- Task 13. Final design of plan and profile storm drain features in Autocad, including labeling and dimensioning.
- Task 14. Final design of plan and profile sanitary sewer features in Autocad, including labeling and dimensioning.
- Task 15. Plan and profile sheet updates in Autocad.
- Task 16. Ongoing work to update the Autocad corridor models based on final design development.
- Task 17. Finalize detailed grading design of ADA ramps at project intersections.
- Task 18. Finalize detailed grading design of driveway and alley approaches.
- Task 19. Finalize detailed grading design for locations where project improvements match or blend into existing private property surfaces
- Task 20. Finalize detailed grading design for retaining walls and other special features required to provide ADA-compliant design and proper drainage.
- Task 21. Final labeling and dimensioning of miscellaneous plan features such as street names, property owners, land survey information and other such pertinent information.
- Task 22. Ongoing adjustments to cross sections for streets with the project infrastructure area based on design development.
- Task 23. Final modifications to typical sections and other typical project details not included in MPWSS or the City Standard Mods.

- Task 24. Final analysis and design of street lighting improvements both for the base infrastructure project area and the extended street lighting areas. This task will include all related calculations, drafting and production of final plan sheets, specifications and electrical cost estimates.
- Task 25. Perform quantity take-off calculations and prepare final (90%) construction cost estimates.
- Task 26. Prepare final (90%) project specifications.
- Task 27. Prepare final (90%) traffic control plans and special provisions.
- Task 28. Prepare draft construction contract documents for City review.
- Task 29. Perform a detailed quality control review of final (90%) plans and cost estimates. Revisions to submittal materials will be made as necessary based on review comments.
- Task 30. Attend one (1) final design review meeting at City of Billings – Public Works offices.
- Task 31. Coordinate with City of Billings staff to schedule and administer a second informational neighborhood meeting. Mailing of notifications and arrangement of venue are assumed to be the responsibility of the City for the purposes of this scope of work.
- Task 32. Direct reimbursable expenses such as printing and mileage.

Phase 200 Deliverables:

Final (90%) geotechnical report, storm report, alignment and grade plans, and construction cost estimates (with 10% contingency). Physical deliverables to include up to four (4) full-sized sets (24x36-inch) and four (4) half-sized sets (12x18-inch) preliminary plans and specifications.

**Phase 300. Bid (100%) Design and Contract Administration Services**

- Task 1. General project management, including internal meetings and administrative tasks not specifically addressed in other scope items.
- Task 2. Weekly project update e-mails will be sent to the City of Billings Project Manager (Chris Hertz) and the City Engineer (Debi Meling).
- Task 3. Meetings and correspondence with City of Billings staff on project-related items and issues.
- Task 4. Final revisions to design plans and specifications based on City of Billings review comments.
- Task 5. 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 6. Attendance of one (1) pre-bid meeting.
- Task 7. Provision of responses to contractor request for information (RFIs) during the bidding process.

- Task 8. Preparation and distribution of bid addenda (as required).
- Task 9. Attendance of public bid opening.
- Task 10. Tabulation of bids and recommendation of award to the City of Billings.
- Task 11. Assistance to City in the procurement of final contract agreement, verification of insurance and bonds, and issue of notice to proceed.
- Task 12. Direct reimbursable expenses such as printing and mileage.

Phase 300 Deliverables:

Final plans and specifications for review and bidding, construction cost estimate(s), bid tabulations, and Recommendation of Award.

**Phase 400. Construction Observation and Contract Administration Services (assumes a single 120-day construction contract)**

- Task 1. General project management, including internal meetings and administrative tasks not specifically addressed in other scope items.
- Task 2. Weekly project update e-mails will be sent to the City of Billings Project Manager (Chris Hertz) and the City Engineer (Debi Meling).
- Task 3. Attendance of approximately seventeen (17) weekly construction meetings with Contractor and City of Billings staff.
- Task 4. Attendance of one (1) pre-construction meeting.
- Task 5. Site visit to take pre-construction photos for the purpose of documenting project features and conditions prior to the start of construction.
- Task 6. Review of project shop drawing as submitted by contractor. Reviewed shop drawings to be provided to the City of Billings.
- Task 7. Preparation of valve operation requests and submittal to City of Billings for processing. Coordination with Contractor on requests.
- Task 8. Review of traffic control plan proposals as made by Contractor and submittal of proposals to City of Billings with comments and recommendations for revisions and/or approval.
- Task 9. Site visits by the Project Manager or Project Engineer(s) and subconsultants other than for the scheduled weekly meeting with the Contractor.
- Task 10. Meetings with property owners to address questions or concerns during construction, as well as to notify property owners of progress and impending impacts to private property or access.
- Task 11. Response to contractor-submitted requests for information (RFIs) during construction. This task shall include all necessary time for drafting plan modifications and design revisions as needed to

address RFIs.

- Task 12. Review and processing of pay applications and change orders for the project. This task shall include time for verification of bid item quantities both in the office and in the field as necessary to approve pay applications.
- Task 13. Daily observation of construction activities based on an anticipated 120-day construction contract. Sanderson Stewart will provide full-time (8 hrs/day) observation services for all sub-surface sanitary sewer and storm drain construction work, as well as part-time (4-6 hrs/day on average) observation during earthwork, paving and concrete operations.
- Task 14. Observe traffic control operations for each zone application to determine if adjustments need to be made in the field. Coordinate with City staff on a decision for potential modifications.
- Task 15. Observe storm drain and sanitary sewer video testing in the field. Review Contractor-provided video logs and submit to City of Billings with required forms.
- Task 16. Coordination of materials testing per City of Billings specifications on frequency and conformance standards. Sanderson Stewart staff will coordinate schedules for testing and keep detailed records of where tests are performed relative to construction details.
- Task 17. Record project bid item quantities and details in-place for use in evaluating pay applications and the completion of record drawings.
- Task 18. Final walk-through inspection of project once substantial completion is reached. Includes time for summarizing final inspection results via a memo to be sent to the Contractor and the City of Billings.
- Task 19. Preparation of project record drawings for submittal to City of Billings and Montana Department of Environmental Quality (if required).
- Task 20. One-year anniversary warranty inspection of project. Includes time for summarizing final inspection results via a memo to be sent to the Contractor and the City of Billings.
- Task 21. Direct reimbursable expenses such as printing and mileage.

## Phase 400 Deliverables:

Weekly project update e-mails, reviewed shop drawings, reviewed pay applications and change orders, storm drain video logs and forms, copies of materials testing records, record drawings, final and one-year warranty walk-through summary memos.

## Phase 500. Construction Staking

- Task 1. General project management and coordination of staking requests with Contractor.
- Task 2. Preparation of survey computations in the office prior to field work.
- Task 3. Meetings and consultation with Project Manager and/or Project Engineer.
- Task 4. Preparation of point files and exhibits for staking.
- Task 5. Staking for street lighting and related electrical features for the base infrastructure project and the extending lighting installation area.
- Task 6. Staking of signing and striping improvements. Stake all actual sign locations. Stake actual striping every 50 feet. Stake miscellaneous striping features at ends, point of curves and point of tangent.
- Task 7. Staking of curb and gutter, driveway and alley approaches, sidewalk, bulb-out and ADA ramp improvements.
- Task 8. Staking of sanitary sewer facilities, including pipe, manholes and service connections.
- Task 9. Staking of storm drain facilities, including pipe, manholes, inlets and service connections (if applicable).
- Task 10. Direct reimbursable expenses such as printing, stakes and mileage.

## Phase 500 Deliverables:

Weekly project update e-mails

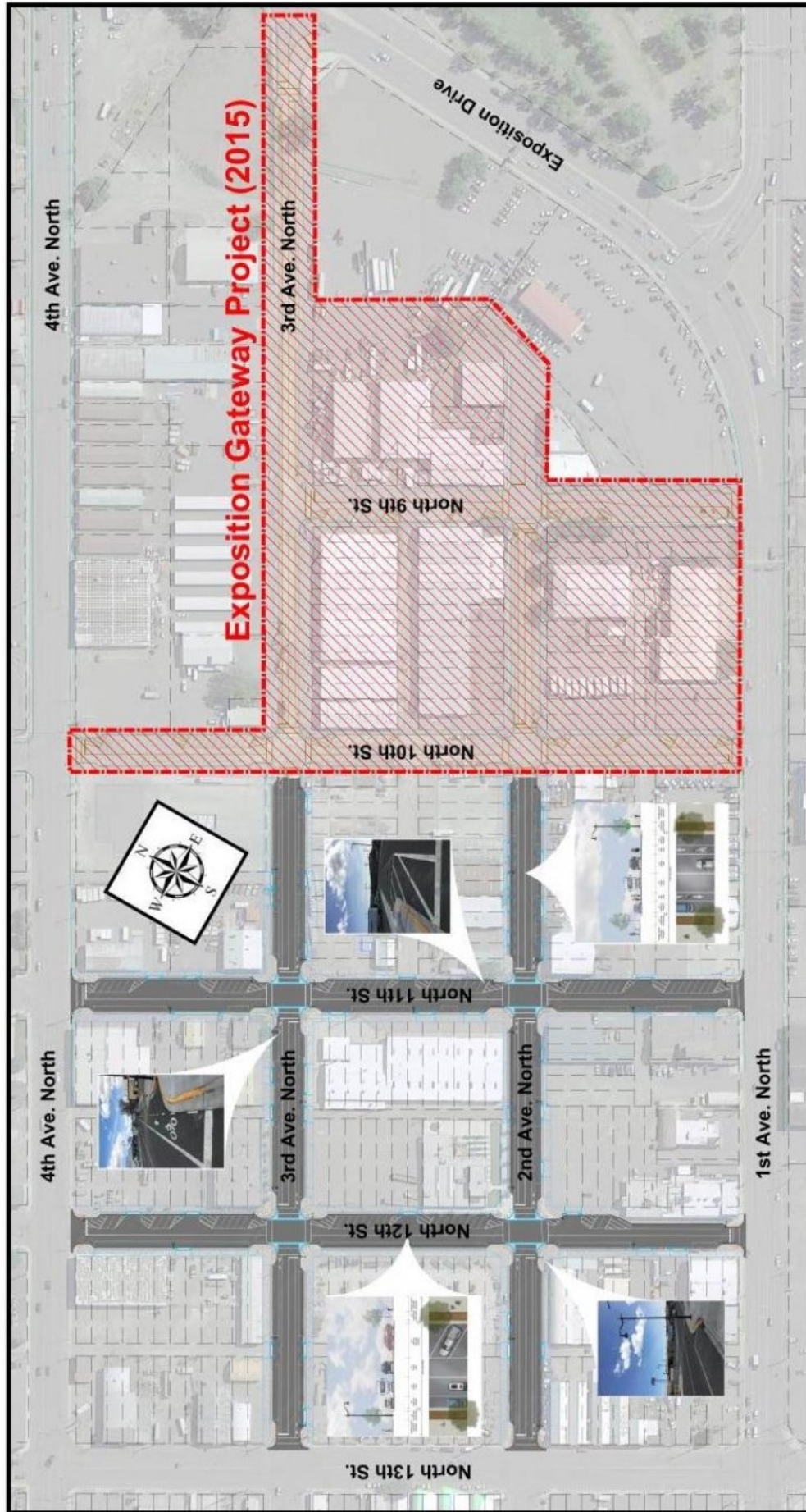
## Exclusions from Scope of Work

The following work items are excluded from the scope of work for this project and shall be considered as Additional Work. If the City of Billings determines that Additional Work is required, Sanderson Stewart will provide those services for an additional agreed-upon fee.

1. Landscape or landscape irrigation design and specifications – the City of Billings has directed that landscape improvements will not be included in this project. The Contractor will be required to stabilize and re-seed disturbed areas as per the requirements of NPDES and DEQ regulations.
2. Topographic survey, potholing of utilities or other pre-design field work other than for site visits in the additional lighting project areas outside of the nine-block infrastructure project area. Street lighting in those areas will be approximately located based on available information from right-of-way research and aerial photos. The contract documents will then specify that the Contractor must locate the street light infrastructure to avoid sub-surface conflicts and to meet ADA requirements for accessibility.

- 3.** Design, specifications or permitting related to erosion control and storm water management during construction; this work shall be considered to be the responsibility of the contractor. Sanderson Stewart will be in no way responsible for reviewing, approving or monitoring Contractor-required storm water pollution prevention plan (SWPPP) documentation or installation measures. The Contractor shall be required to prepare and submit for approval the Notice of Intent (NOI), Notice of Termination (NOT) and all related supportive materials.
- 4.** Design of private utilities (natural gas, power, fiber optic, telephone, cable television or other) facilities.
- 5.** Creation and of maintenance of a project website, as it is presumed that the City will provide a website for the project.

# Exhibit A - EBURD 10th to 13th Infrastructure Improvements



- NOTES:
1. THIS IS A CONCEPTUAL DESIGN PLAN AND IS NOT FOR CONSTRUCTION.
  2. STREET LAYOUTS ARE INTENDED TO BE CONSISTENT WITH PREVIOUS EBURD AND EXPOSITION GATEWAY MASTER PLANS AND CONCEPT PLANS, AS WELL AS WITH THE ORIGINAL EXPOSITION GATEWAY CONSTRUCTION PROJECT FROM 2015.
  3. DETAILED DESIGN IS SUBJECT TO CHANGE BASED ON VARIOUS FACTORS.



**Methods and Times of Payment**  
**W.O. 18-06**  
**EBURD 10th to 13th Infrastructure Improvements**

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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.

Partial payment shall be made to the Engineer upon receipt of the Engineer's pay estimate, said estimate being proportioned to the work completed by the Engineer. Billings shall deduct ten percent (10%) 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.

- M. For services rendered prior to construction, Appendix A, the Engineer shall be paid based upon actual time accrued, but not to exceed the following amounts:

Phase 100 – Preliminary Design	\$319,615.00
Phase 200 – Final Design	\$107,795.00
Phase 300 – Bid Design/Administration	\$46,560.00
Phase 400 – Construction/Contract Administration	\$216,465.00
Phase 500 – Construction Staking	\$45,100.00

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

Payments for Extra Services when Authorized by Billings.

Requests made or conditions identified by interested groups at the agency or public meetings, which are beyond the scope and intent of this study shall be paid for on an hourly basis at the applicable fees in Appendix D.

Corrections.

Costs of Billings work that is required for corrections to the Engineer's work which requires redoing by Billings 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**  
**W.O. 18-06**  
**EBURD 10th to 13th Infrastructure Improvements**

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

- N. Requests made or conditions identified by interested groups at the agency or public meetings, which are beyond the scope and intent of this study.

**Appendix D**  
**Schedule of Professional Fees**  
**W.O. 18-06**  
**EBURD 10th to 13th Infrastructure Improvements**

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Current agreements for engineering services stipulate that the standard hourly rates are subject to review and adjustments. Hourly rates for services effective on the date of this Agreement are included below.

The itemized schedule provided below includes direct labor costs, normal payroll and overhead costs, transportation, furnishing equipment and materials normally required for performance of the work and reasonable profit. Direct project costs not itemized herein shall be paid for at actual cost.

Rate changes may be made to the fee schedule by the Engineer to reflect increased salaries and other business costs. Engineer shall submit a revised rate schedule at the time of the change if requested by the Owner. Rate schedule changes made by the Engineer during the term of this Contract shall not alter the maximum project professional fee set forth in the Contract. Changes that alter the maximum project professional fee are covered in Appendix B.

The cost of Professional Liability Insurance coverage is included in the hourly rates of personnel.

**PROJECT SCOPING WORKSHEET**

<b>Project Name:</b>	<b>W.O. 18-06 - EBURD 10th to 13th</b>
<b>Project Number:</b>	<b>P-17029</b>
<b>Project Manager:</b>	<b>D.J. Clark</b>
<b>Date:</b>	<b>10/17/2017</b>

	PRINCIPAL	SENIOR ENGINEER	DESIGNER (CADD)	PROJECT ENGINEER	STAFF ENGINEER	LANDSCAPE ARCHITECT	Sr. PROF. LAND SURV.	STAFF SURVEYOR	PROF. LAND SURV.	SR CONST ENG TECH	PROJECT ADMIN.
<b>TASK DESCRIPTION, BILL RATE</b>	<b>\$180.00</b>	<b>\$165.00</b>	<b>\$90.00</b>	<b>\$115.00</b>	<b>\$90.00</b>	<b>\$125.00</b>	<b>\$130.00</b>	<b>\$95.00</b>	<b>\$110.00</b>	<b>\$110.00</b>	<b>\$65.00</b>
<b>PHASE 100 PRELIMINARY DESIGN SERVICES (50%) - October 16 through December 15</b>											
1 General Project Management	16	32	4	2			4				2
2 Weekly Project Update E-mails		3									
3 Meetings/Correspondence with City of Billings	4	12									
4 Meetings/Correspondence with BIRD		10									
5 Field Review/Measure-Downs	2	4			40						
6 Pothole Utilities [Tru-Pipe]		2			32						
7 Property Ownership/ROW Research & Review/SID Frontage Calcs	2	8					6		76		
8 Draft Right-Of-Way Boundaries		2							80		
9 Lighting District Research/Documentation	2	4			32						
10 Public/Private Utilities Research & Meetings		6	4		16						2
11 Review Sanitary Sewer Video Logs					16						
12 Review Water Service Reports					32						
13 Land Owner Meetings/Correspondence	4	60									8
14 Pre-Survey Research/Computations							5	6			
15 Survey Control Activities								80			
16 Boundary Survey								100			
17 Scanning Field Work								40			
18 Scanning Registry and Adjustments				18							
19 Scanning Data Cleanup			30	10							
20 Scanning Data Linework			40								
21 Scanning Data Surface			10	10							
22 Conventional Survey Pickups								44			
23 Draft Topo and Base Plan			40				2	2			
24 Preliminary Geotechnical Field Investigation & Report [Terracon]		4						8			
25 Review As-Built Drawings and Reports		4	4		40						
26 Preliminary Stormwater Analysis		2	6		60						
27 Groundwater monitoring					12						
28 Set Up Plans Sheets Layout and Title Sheet			16								
29 Geometric Design Layout (CADD)		32	40		40						
30 Signing & Striping Design		4	8	24							
31 Storm Drain Design			24	40							
32 Sanitary Sewer Design			24	32							
33 Plan and Profile Sheet Layout		4	40								
34 Corridor Design			80								
35 ADA Ramp Grading		2	8		16						
36 Driveway/Alley Approach Grading		2	8		16						
37 Private Property/Parking Lot Match Grading		2	16		16						
38 Retaining Wall/Special Features Grading		2	8		16						
39 Labeling/Dimensions			24		16						
40 Cross Sections		4	40		40						
41 Typical Sections and Detail Sheets		4	32								
42 Street Lighting/Electrical Analysis and Design [Marvin & Associates]		2	8								
43 Right-Of-Way Exhibits		2	32								
44 Quantity Take-Offs and Cost Estimates [Marvin & Associates]		4	2	2	16						
45 Preliminary Specifications	8	32			40						
46 Preliminary Traffic Control Design/Special Provisions		8		24							
47 QC Review	8	16					3				
48 Preliminary Design Review Meeting	4	4									
49 SLID Assistance/Exhibits	2	24	16		16	20					
50 Public Meeting #1		8									
51 Reimbursables											
<b>Sub-total - Hours</b>	<b>52</b>	<b>309</b>	<b>564</b>	<b>162</b>	<b>512</b>	<b>20</b>	<b>20</b>	<b>280</b>	<b>156</b>		<b>12</b>
<b>Sub-total - Fee</b>	<b>\$9,360.00</b>	<b>\$50,985.00</b>	<b>\$50,760.00</b>	<b>\$18,630.00</b>	<b>\$46,080.00</b>	<b>\$2,500.00</b>	<b>\$2,600.00</b>	<b>\$26,600.00</b>	<b>\$17,160.00</b>		<b>\$780.00</b>
<b>PHASE 200 FINAL DESIGN SERVICES (90%) - December 16 through January 26</b>											
1 General Project Management	8	32	4				2				
2 Weekly Project Update E-mails		4									
3 Meetings/Correspondence with City of Billings	2	12									
4 Meetings/Correspondence with BIRD		10									
5 Pothole Pickups [Tru-Pipe]		2			6						
6 Lighting District Research/Documentation	2	4			12						
7 Land Owner Meetings/Correspondence		12									
8 Stormwater Report		2	6		40						
9 Topo Survey Pickups		4					4	30			
10 Geotechnical Design Consultation [Terracon]		4									
11 Geometric Design Layout (CADD)		16	16								
12 Signing & Striping Design		4	6	18							
13 Storm Drain Design			20	20							
14 Sanitary Sewer Design			20	24							
15 Plan and Profile Sheet Layout			16								
16 Corridor Design			40								
17 ADA Ramp Grading		2	8		8						
18 Driveway/Alley Approach Grading		2	8		8						
19 Private Property/Parking Lot Match Grading		2	8		8						
20 Retaining Wall/Special Features Grading		2	8		8						
21 Labeling/Dimensions			24								
22 Cross Sections		2	24								
23 Typical Sections and Detail Sheets		2	24								
24 Street Lighting/Electrical Analysis and Design [Marvin & Associates]		4	6								
25 Quantity Take-Offs and Cost Estimates [Marvin & Associates]		4	2	2	12						
26 Final Project Specifications [Marvin & Associates]	2	12		4	16	4					1
27 Final Traffic Control Design/Special Provisions		4		16							
28 Draft Contract Documents		4									4
29 QC Review	8	16									
30 Final Design Review Meeting	4	4									
31 Public Meeting #2		6									
32 Reimbursables											
<b>Sub-total - Hours</b>	<b>26</b>	<b>172</b>	<b>240</b>	<b>84</b>	<b>118</b>	<b>4</b>	<b>6</b>	<b>30</b>			<b>5</b>
<b>Sub-total - Fee</b>	<b>\$4,680.00</b>	<b>\$28,380.00</b>	<b>\$21,600.00</b>	<b>\$9,660.00</b>	<b>\$10,620.00</b>	<b>\$500.00</b>	<b>\$780.00</b>	<b>\$2,850.00</b>			<b>\$325.00</b>

**Appendix E**  
**Project Schedule**  
**W.O. 18-06**  
**EBURD 10th to 13th Infrastructure Improvements**

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Based on a notice to proceed by Billings date no later than November 14, 2017, the completion date for the Engineer's work through final design shall be:

- |                                      |                          |
|--------------------------------------|--------------------------|
| 1.Preliminary (50%) Design Services: | <u>December 15, 2017</u> |
| 2.Final (90%) Design Services:       | <u>January 26, 2018</u>  |
| 3.Bid (100%) Design Services:        | <u>February 16, 2018</u> |

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**  
**W.O. 18-06**  
**EBURD 10th to 13th Infrastructure Improvements**

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