



ENGINEERING DEPARTMENT

DATE: October 18, 2016
FROM: Gabe Schell, PE | City Engineer 
ITEM: Engineering Consultant Services – Silver Ranch Watershed Master Plan

REQUEST

Approval of consultant services with AE2S relating to storm water master planning services for the Silver Ranch Watershed.

BACKGROUND INFORMATION

Advanced Engineering and Environmental Services (AE2S) was selected through the RFP and interview process. This project will master plan the regional storm water and related infrastructure required to serve the developed and undeveloped properties of the Silver Ranch Watershed. This planning will include coordination with the property owners and other affected stakeholders. Scope and fee information is attached and the full contract is available if requested. Contract is hourly not to exceed \$343,120. Design and construction phases may be added by amendment to this contract at a future date with Board approval.

Project Schedule

Contract Approval:	October 25, 2016
Draft Master Plan Submittal:	July 31, 2017
Final Master Plan Submittal:	August 31, 2017

RECOMMENDED CITY COMMISSION ACTION

Approval of contract with AE2S.

STAFF CONTACT INFORMATION

Gabe Schell, PE
gschell@bismarcknd.gov
701-355-1505

CONTRACT REVIEW

ENGINEERING DEPARTMENT

Contract between the City of Bismarck and Advanced Engineering and Environmental Services

Purpose of Contract: Silver Ranch Stormwater Master Plan

Contract Amount: \$ 343,120.00

Contract Period: Complete Work by August 31, 2017

Funding Source: Public Works – Stormwater Utility Fund

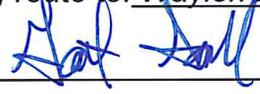
-SU-71

Federal Project Number (if applicable): NA

City Project Number: NA

Comments: For approval on 10/25 BCC meeting. Route to Knisti for signature after contract review complete.

After Mayor's signature, route to: Waylon Erdmann, Engineering Department

Department Signature: 

10/19/16
Date

CITY ATTORNEY

Comments: _____

OK

City Attorney Signature: _____



10-19-16
Date

FISCAL

Comments: _____

OK

Director of Finance Signature: _____



10-19-16
Date

APPROVAL

City Administrator Signature: _____



10-19-16
Date

**STANDARD FORM OF AGREEMENT
BETWEEN
OWNER AND ENGINEER
FOR
STUDY AND REPORT PHASE
PROFESSIONAL SERVICES**

This is an Agreement effective as of October 25, 2016 ("Effective Date") between City of Bismarck, 221 North 5th Street, Bismarck, ND 58501 ("OWNER") and Advanced Engineering and Environmental Services, Inc., 1815 Schafer Street, Suite 301, Bismarck, ND 58501 ("ENGINEER").

OWNER retains ENGINEER to perform professional services, in connection with preparation of the Silver Ranch Watershed Stormwater Master Plan; as further delineated in Exhibit SR-E ("Assignment").

OWNER and ENGINEER, in consideration of their mutual covenants as set forth herein, agree as follows:

ARTICLE 1--ENGINEER'S SERVICES

1.01 Scope

A. ENGINEER shall provide the services set forth in Exhibit SR-A.

B. Upon this Agreement becoming effective, ENGINEER is authorized to begin services as set forth in Exhibit SR-A.

C. From time to time during the terms of the performance of this Agreement, the OWNER may require engineering services not contained in SR-A of this Agreement but closely related to the services being rendered by the ENGINEER. If the OWNER should require such additional services, the OWNER may request the ENGINEER to provide a proposed scope of services including a price not to exceed quotation for the OWNERS consideration. Prior to the ENGINEER performing any such additional work, the parties must agree to the scope of services and a cost not to exceed in writing signed by both parties.

ARTICLE 2--OWNER'S RESPONSIBILITIES

2.01 General

A. OWNER shall have the responsibilities set forth herein and in Exhibit SR-A.

ARTICLE 3--TIMES FOR RENDERING SERVICES

3.01 ENGINEER's services will be performed within the time period or by the date stated in Exhibit SR-A.

3.02 If ENGINEER's services are delayed or suspended in whole or in part by OWNER, ENGINEER shall be entitled to equitable adjustment of the time for performance and rates and amounts of compensation provided for elsewhere in this Agreement to reflect reasonable costs incurred by ENGINEER in connection with, among other things, such delay or suspension and reactivation and the fact that the time for performance under this Agreement has been revised.

ARTICLE 4--PAYMENTS TO ENGINEER

4.01 Methods of Payment for Services of ENGINEER.

A. OWNER shall pay ENGINEER for services rendered under this Agreement as follows:

1. An amount equal to the cumulative hours charged to the Assignment by each class of ENGINEER's employees times Standard Hourly Rates for each applicable billing class for all services performed on the Assignment, plus Reimbursable Expenses and ENGINEER's Consultants' charges, if any. The total compensation under paragraph 4.01.A.1 for the services in Exhibit SR-A shall not exceed \$343,120.00, unless authorized by OWNER.

2. ENGINEER's Reimbursable Expenses Schedule and Standard Hourly Rate Schedule are attached to this Agreement as Exhibits SR-C and SR-D, respectively.

3. The amounts billed for ENGINEER's services will be based on the cumulative hours charged to the Assignment during the billing period by each class of ENGINEER's employees times Standard Hourly Rates for each applicable billing class, plus Reimbursable Expenses and ENGINEER's Consultants' charges, if any, incurred during the billing period.

4.02 Other Provisions Concerning Payment

A. *Estimated Compensation Amounts.*

1. **Not Used.**

2. If it becomes apparent to ENGINEER that the not to exceed amount will be exceeded for the scope of services in Exhibit SR-A, ENGINEER shall give OWNER written notice thereof. Promptly thereafter OWNER and ENGINEER shall review the matter of services remaining to be performed and compensation for such services.

B. *Adjustments*

1. ENGINEER's compensation is conditioned on time to complete the Assignment not exceeding the time identified in Exhibit SR-A. Should the time to complete the Assignment be extended beyond this period due to reasons not the fault of and beyond the control of ENGINEER, the total compensation to ENGINEER shall be appropriately adjusted.

2. The Standard Hourly Rates Schedule and Reimbursable Expenses Schedule will be adjusted annually (as of January 1) to reflect equitable changes to the compensation payable to ENGINEER.

C. *Reimbursable Expenses.* Reimbursable Expenses means the actual expenses incurred by ENGINEER or ENGINEER's Consultants directly in connection with the Assignment, including the categories and items listed in Exhibit SR-C.

D. *For Additional Services.* OWNER shall pay ENGINEER for all services not included in the scope of this Agreement on the basis of the Standard Hourly Rate and Reimbursable Expense Schedules in effect at the time such services are authorized by OWNER.

ARTICLE 5--DESIGNATED REPRESENTATIVES

5.01 Contemporaneous with the execution of this Agreement, ENGINEER and OWNER shall each designate specific individuals as ENGINEER's and OWNER's representatives with respect to the services to be performed or furnished by ENGINEER and responsibilities of OWNER under this Agreement. Such individuals shall have authority to transmit instructions, receive information, and render decisions relative to the Assignment on behalf of their respective party.

ARTICLE 6--CONTENT OF AGREEMENT

6.01 The following Exhibits are incorporated herein by reference:

A. Exhibit SR-A, "Further Description of Services, Responsibilities, Time, and Related Matters," consisting of two pages.

B. Exhibit SR-B, "Standard Terms and Conditions," consisting of four pages.

C. Exhibit SR-C, "Reimbursable Expenses Schedule," consisting of one page.

D. Exhibit SR-D, "Standard Hourly Rate Schedule," consisting of one page.

E. Exhibit SR-E, "Silver Ranch Watershed Stormwater Master Plan" consisting of four pages.

F. Exhibit SR-F, "Silver Ranch Watershed Master Plan Detail", consisting of one page.

6.02 Total Agreement

A. This Agreement (consisting of pages 1 to 4, inclusive, together with the Exhibits identified in paragraph 6.01) constitutes the entire agreement between OWNER and ENGINEER and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which is indicated on page 1.

OWNER:

By: Mike Seminary

Title: President of Board of City Commissioners

Date Signed: _____

ATTEST: _____

Type Name: Keith Hunke

Title: City Administrator

Address for giving notices:

City of Bismarck

P.O. Box 5503

Bismarck, ND 58506-5503

Designated Representative (Paragraph 5.01):

Name: Michael Greer, PE

Title: Design & Construction Engineer

Phone Number: (701) 355-1505

Facsimile Number: (701) 221-6593

E-Mail Address: mgreer@bismarcknd.gov

ENGINEER:

By: Lisa Ansley, PE

Title: Operations Director

Date Signed: 10/18/16

ATTEST: _____

Type Name: Brent Erickson, PE

Title: Project Engineer

Address for giving notices:

Advanced Engineering and Environmental Services, Inc.

1815 Schafer Street, Suite 301

Bismarck, ND 58501

Designated Representative (Paragraph 5.01):

Name: Jeffrey M. Hrubby, PE

Title: Water Resources Group Manager

Phone Number: (701) 221-0530

Facsimile Number: (701) 221-0531

E-Mail Address: jeff.hrubby@ae2s.com

This is **EXHIBIT SR-A**, consisting of two pages, referred to in and part of the **Agreement between OWNER and ENGINEER for Study and Report Phase Professional Services** dated October 25, 2016.

Further Description of Services, Responsibilities, Time, and Related Matters

Specific articles of the Agreement are amended and supplemented to include the following agreement of the parties:

A.1.01 ENGINEER's Services

A. ENGINEER, in accordance with completing the tasks in Exhibit SR-E, shall:

1. Consult with OWNER to define and clarify OWNER's requirements for the Assignment and available data.
2. Advise OWNER as to the necessity of OWNER providing data or services which are not part of ENGINEER's services, and assist OWNER in obtaining such data and services.
3. Identify, consult with, and analyze requirements of governmental authorities having jurisdiction relevant to the Assignment.
4. Identify and evaluate alternate solutions available to OWNER and, after consultation with OWNER, recommend to OWNER those solutions which, in ENGINEER's judgment, meet OWNER's requirements.
5. Prepare a report (the "Report") which will, as appropriate, contain schematic layouts, sketches and conceptual design criteria with appropriate exhibits to indicate the agreed-to requirements, considerations involved, and those alternate solutions available to OWNER which ENGINEER recommends. This Report will be accompanied by ENGINEER's opinion of Total Project Costs for each solution which is so recommended with each component, including the following, separately itemized: opinion of probable Construction Cost, allowances for contingencies and for the estimated total costs of design, professional, and related services provided by ENGINEER and, on the basis of information furnished by OWNER, allowances for other items and services included within the definition of Total Project Costs.
6. Perform or provide the following additional tasks or deliverables: None identified on the effective date of the Agreement.
7. Furnish review copies of the Report to OWNER and review it with OWNER.
8. Revise the Report in response to OWNER's and other parties' comments, as appropriate, and furnish final copies of the revised Report to the OWNER.

A.2.01 OWNER's Responsibilities

A. OWNER shall do the following in a timely manner, so as not to delay the services of ENGINEER:

1. Provide all criteria and full information as to OWNER's requirements for the Assignment.

2. Furnish to ENGINEER all existing studies, reports and other available data pertinent to the Assignment, obtain or authorize ENGINEER to obtain or provide additional reports and data as required, and furnish to ENGINEER services of others as required for the performance of ENGINEER's services.

B. ENGINEER shall be entitled to use and rely upon all such information and services provided by OWNER or others in performing ENGINEER's services under this Agreement.

C. OWNER shall bear all costs incident to compliance with its responsibilities pursuant to this paragraph A.2.01.

A.3.01 Times for Rendering Services

A. ENGINEER shall use commercially reasonable efforts to complete the services under this Agreement by August 31, 2017.

B. ENGINEER's services under this Agreement will be considered complete when all deliverables set forth in Exhibit SR-A are submitted to OWNER.

A.4.02 Other

A. Not Used.

This is EXHIBIT **SR-B**, consisting of four pages, referred to in and part of the **Agreement between OWNER and ENGINEER for Study and Report Phase Professional Services** dated October 25, 2016.

Standard Terms and Conditions

Article 6 of the Agreement is amended and supplemented to include the following agreement of the parties:

B.6.01.B Standard Terms and Conditions

1. Standard of Care

The standard of care for all professional services performed or furnished by ENGINEER under this Agreement will be the care and skill ordinarily used by members of ENGINEER's profession practicing under similar circumstances at the same time and in the same locality. ENGINEER makes no warranties, express or implied, under this Agreement or otherwise, in connection with ENGINEER's services.

2. Independent Contractor

All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of OWNER and ENGINEER and not for the benefit of any other party. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either OWNER or ENGINEER. ENGINEER's services under this Agreement are being performed solely for OWNER's benefit, and no other entity shall have any claim against ENGINEER because of this Agreement or the performance or nonperformance of services hereunder. OWNER agrees to include a provision in all contracts with contractors and other entities involved in this project to carry out the intent of this paragraph.

3. Payments to ENGINEER

Invoices will be prepared in accordance with ENGINEER's standard invoicing practices and will be submitted to OWNER by ENGINEER monthly, unless otherwise agreed. Invoices are due and payable within 30 days of receipt. If OWNER fails to make any payment due ENGINEER for services and expenses within 30 days after receipt of ENGINEER's invoice therefore, the amounts due ENGINEER will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day. In addition, ENGINEER may, after giving seven days written notice to OWNER, suspend services under this Agreement until ENGINEER has been paid in full all amounts due for services, expenses, and other related charges.

4. Insurance

ENGINEER will maintain customary insurance coverage for Workers' Compensation, General Liability, and Automobile Liability and will provide certificates of insurance to OWNER upon request. Insurance carrier shall notify the OWNER of any change of insurance coverage during the term of the Agreement.

5. Indemnification and Allocation of Risk

a. To the fullest extent permitted by law, ENGINEER shall indemnify and hold harmless OWNER, OWNER's officers, directors, partners, and employees from and against costs, losses, and damages (including but not limited to reasonable fees and charges of engineers, architects, attorneys, and other professionals, and reasonable court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of ENGINEER or ENGINEER's officers, directors, partners, employees, and consultants in the performance of ENGINEER's services under this Agreement.

b. To the fullest extent permitted by law, OWNER shall indemnify and hold harmless ENGINEER, ENGINEER's officers, directors, partners, employees, and consultants from and against costs, losses, and damages (including but not limited to reasonable fees and charges of engineers, architects, attorneys, and other professionals, and reasonable court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of OWNER or OWNER's officers, directors, and employees with respect to this Agreement.

c. **Not Used.**

d. In addition to the indemnity provided under paragraph B.6.01.B.5.b. of this Exhibit, and to the fullest extent permitted by law, OWNER shall indemnify and hold harmless ENGINEER and ENGINEER's officers, directors, partners, employees, and consultants from and against injuries, losses, damages and expenses (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other disputes resolution costs) caused by, arising out of, or resulting from Hazardous Environmental Condition, provided that (i) any such injuries, losses, damages and expenses are attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom, and (ii) nothing in this paragraph B.6.01.B.5.d shall obligate OWNER to indemnify any individual or entity to the extent of that individual or entity's own negligence or willful misconduct.

e. The indemnification provision of paragraph B.6.01.B.5.a. is subject to and limited by the provisions agreed to by OWNER and ENGINEER in paragraph B.6.01.B.6, "Limit of Liability," of this Agreement.

6. **LIMIT OF LIABILITY**

TO THE FULLEST EXTENT PERMITTED BY LAW, THE TOTAL LIABILITY, IN THE AGGREGATE, OF ENGINEER AND ENGINEER'S OFFICERS, DIRECTORS, PARTNERS, EMPLOYEES, AGENTS, AND CONSULTANTS, OR ANY OF THEM TO OWNER AND ANYONE CLAIMING BY, THROUGH, OR UNDER OWNER, FOR ANY AND ALL INJURIES, LOSSES, DAMAGES AND EXPENSES, WHATSOEVER ARISING OUT OF, RESULTING FROM, OR IN ANY WAY RELATED TO THIS AGREEMENT FROM ANY CAUSE OR CAUSES INCLUDING BUT NOT LIMITED TO THE NEGLIGENCE, PROFESSIONAL ERRORS OR OMISSIONS, STRICT LIABILITY OR BREACH OF CONTRACT OR WARRANTY, EXPRESS OR IMPLIED, OF ENGINEER OR ENGINEER'S OFFICERS, DIRECTORS, PARTNERS, EMPLOYEES, AGENTS, AND CONSULTANTS, OR ANY OF THEM, SHALL NOT EXCEED THE TOTAL INSURANCE PROCEEDS PAID ON BEHALF OF OR TO ENGINEER BY ENGINEER'S INSURERS IN SETTLEMENT OR SATISFACTION OF OWNER'S CLAIMS UNDER THE TERMS AND CONDITIONS OF ENGINEER'S INSURANCE POLICIES APPLICABLE THERETO (EXCLUDING FEES, COSTS, AND EXPENSES OF INVESTIGATION, CLAIMS ADJUSTMENT, DEFENSE, AND APPEAL).

7. **Dispute Resolution - Not Used.**

8. **Termination of Contract**

Either party may at any time, upon seven days prior written notice to the other party, terminate this Agreement. Upon such termination, OWNER shall pay to ENGINEER all amounts owing to ENGINEER under this Agreement, for all work performed up to the effective date of termination, plus reasonable termination costs.

9. **Access**

OWNER shall arrange for safe access to and make all provisions for ENGINEER and ENGINEER's Consultants to enter upon public and private property as required for ENGINEER to perform services under this Agreement.

10. **Hazardous Environmental Conditions**

It is acknowledged by both parties that ENGINEER's scope of services does not include any services related to a "Hazardous Environmental Condition," i.e. the presence at the site of asbestos, PCBs, petroleum, hazardous waste, or radioactive materials in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Assignment. In the event ENGINEER or any other party encounters a Hazardous Environmental Condition, ENGINEER may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Assignment affected thereby until OWNER: (i) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the Hazardous Environmental Condition; and (ii) warrants that the site is in full compliance with applicable laws and regulations. OWNER acknowledges that ENGINEER is

performing professional services for OWNER and that ENGINEER is not and shall not be required to become an "arranger," "operator," "generator," or "transporter" of hazardous substances, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (CERCLA), which are or may be encountered at or near the site in connection with ENGINEER's activities under this Agreement.

11. Patents

ENGINEER shall not conduct patent searches in connection with its services under this Agreement and assumes no responsibility for any patent or copyright infringement arising therefrom. Nothing in this Agreement shall be construed as a warranty or representation that anything made, used, or sold arising out of the services performed under this Agreement will be free from infringement of patents or copyrights.

12. Ownership and Reuse of Documents

All documents prepared or furnished by ENGINEER pursuant to this Agreement are instruments of service, and ENGINEER shall retain an ownership and property interest therein. Reuse of any such documents by OWNER shall be at OWNER's sole risk; and OWNER agrees to indemnify, and hold ENGINEER harmless from all claims, damages, and expenses including attorney's fees arising out of such reuse of documents by OWNER or by others acting through OWNER.

13. Use of Electronic Media

a. Copies of Documents that may be relied upon by OWNER are limited to the printed copies (also known as hard copies) that are signed or sealed by the ENGINEER. Files in electronic media format of text, data, graphics, or of other types that are furnished by ENGINEER to OWNER are only for convenience of OWNER. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk.

b. When transferring documents in electronic media format, ENGINEER makes no representations as to long-term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by ENGINEER at the beginning of this Assignment.

c. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

d. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. ENGINEER shall not be responsible to maintain documents stored in electronic media format after acceptance by OWNER.

14. Opinions of Probable Construction Cost

a. Construction Cost is the cost to OWNER to construct proposed facilities. Construction Cost does not include costs of services of ENGINEER or other design professionals and consultants, cost of land, rights-of-way, or compensation for damages to properties, or OWNER's costs for legal, accounting, insurance counseling or auditing services, or interest and financing charges incurred in connection with OWNER's contemplated project, or the cost of other services to be provided by others to OWNER pursuant to this Agreement. Construction Cost is one of the items comprising Total Project Costs.

- b. ENGINEER's opinions of probable Construction Cost provided for herein are to be made on the basis of ENGINEER's experience and qualifications and represent ENGINEER's best judgment as an experienced and qualified professional generally familiar with the industry. However, since ENGINEER has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, ENGINEER cannot and does not guarantee that proposals, bids, or actual Construction Cost will not vary from opinions of probable Construction Cost prepared by ENGINEER. If OWNER wishes greater assurance as to probable Construction Cost, OWNER shall employ an independent cost estimator.
15. Opinions of Total Project Costs
- a. Total Project Costs are the sum of the probable Construction Cost, allowances for contingencies, the estimated total costs of services of ENGINEER or other design professionals and consultants, cost of land, rights-of-way, or compensation for damages to properties, and OWNER's costs for legal, accounting, insurance counseling or auditing services, and interest and financing charges incurred in connection with a proposed project, and the cost of other services to be provided by others to OWNER pursuant to this Agreement.
- b. ENGINEER assumes no responsibility for the accuracy of opinions of Total Project Costs.
16. Force Majeure
ENGINEER shall not be liable for any loss or damage due to failure or delay in rendering any service called for under this Agreement resulting from any cause beyond ENGINEER's reasonable control.
17. Assignment
Neither party shall assign its rights, interests or obligations under this Agreement without the express written consent of the other party.
18. Binding Effect
This Agreement shall bind, and the benefits thereof shall inure to the respective parties hereto, their legal representatives, executors, administrators, successors, and assigns.
19. Severability and Waiver of Provisions
Any provision or part of the Agreement held to be void or unenforceable under any laws or regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and ENGINEER, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision. Non-enforcement of any provision by either party shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.
20. Survival
All express representations, indemnifications, or limitations of liability included in this Agreement will survive its completion or termination for any reason.
21. Headings
The headings used in this Agreement are for general reference only and do not have special significance.
22. Controlling Law
This Agreement is to be governed by the law of the state of North Dakota.
23. Notices
Any notice required under this Agreement will be in writing, addressed to the appropriate party at its address on the signature page and given personally, or by registered or certified mail postage prepaid, or by a commercial courier service. All notices shall be effective upon the date of receipt.

This is **EXHIBIT SR-C**, consisting of one page, referred to in and part of the **Agreement between OWNER and ENGINEER for Study and Report Phase Professional Services** dated October 25, 2016.

Reimbursable Expenses Schedule

Reimbursable expense rates in effect on the date of the Agreement are:

Transportation	\$0.65/mile
Survey Vehicle	\$0.70/mile
B&W Photocopies 8½” x11”	\$0.10/copy
B&W Laser Printouts 8½” x11”	\$0.20/page
Color Laser Printouts/Copies 8½” x11”	\$0.68/page
Plots – Color Bond	\$1.25/sf
Plots – Monochrome Bond/Vellum	\$0.75/sf
Plots – Film/Photo High Gloss	\$2.00/sf
Total Station – Robotic	\$35.00/hour
Pro-XR GPS	\$15.00/hour
Fast Static/RTK GPS	\$50.00/hour
Sonar Mite	\$50.00/day
All-Terrain Vehicle/Boat	\$100.00/day
Air Transportation - Pilatus	\$1,600/hour
Air Transportation - Cirrus	\$700/hour
In-house Lodging	\$150.00/day
Legal Services Reimbursement	\$206.00/hour
Outside Services**	cost *1.15
Out of Pocket Expenses***	cost*1.15
Rental Car	cost*1.20

* Position titles are for labor rate grade purposes only.

** Includes laboratory testing, architectural and engineering consultants, surveying, etc.

*** Includes toll telephone, shipping, postage, subsistence, technical literature, equipment rental, etc.

These rates are subject to adjustment each year on January 1.

This is **EXHIBIT SR-D**, consisting of one page, referred to in and part of the Agreement between **OWNER** and **ENGINEER** for Study and Report Phase Professional Services dated October 25, 2016.

Standard Hourly Rate Schedule

Hourly rates for services in effect on the date of the Agreement are:

<u>Labor Rates*</u>		I&C Technician I	\$91.00
Administrative I	\$55.00	I&C Technician II	\$103.00
Administrative II	\$67.00	I&C Technician III	\$118.00
Administrative III	\$80.00	I&C Technician IV	\$128.00
Administrative IV	\$92.00	I&C Technician V	\$141.00
Construction Services Manager I	\$125.00	I&C Specialist	\$152.00
Construction Services Manager II	\$135.00	I&C Senior Specialist	\$160.00
Construction Services Manager III	\$152.00	I&C Manager	\$170.00
Construction Services Manager IV	\$169.00	Land Surveyor I	\$91.00
Construction Services Manager V	\$185.00	Land Surveyor II	\$111.00
Construction Services Rep I	\$77.00	Land Surveyor III	\$121.00
Construction Services Rep II	\$92.00	Land Surveyor IV	\$135.00
Construction Services Rep III	\$108.00	Marketing Consultant I	\$77.00
Engineer I	\$98.00	Marketing Consultant II	\$97.00
Engineer II	\$121.00	Marketing Consultant III	\$118.00
Engineer III	\$144.00	Marketing Consultant IV	\$135.00
Engineer IV	\$164.00	Program Coordinator I	\$164.00
Engineer V	\$179.00	Program Coordinator II	\$175.00
Engineer VI	\$202.00	Program Coordinator III	\$185.00
Engineer VII	\$215.00	Project Coordinator I	\$98.00
Engineer VIII	\$225.00	Project Manager I	\$154.00
Engineering Technician I	\$62.00	Project Manager II	\$169.00
Engineering Technician II	\$80.00	Project Manager III	\$185.00
Engineering Technician III	\$94.00	Project Manager IV	\$200.00
Engineering Technician IV	\$110.00	Senior Design	\$175.00
Engineering Technician V	\$125.00	Senior Consultant	\$215.00
Engineering Technician VI	\$140.00	Technical Expert I	\$230.00
Financial Analyst I	\$82.00	Technical Expert II	\$250.00
Financial Analyst II	\$97.00	Technical Expert III	Negotiable
Financial Analyst III	\$113.00		
Financial Analyst IV	\$128.00		
Financial Analyst V	\$144.00		
Financial Analyst VI	\$164.00		
Financial Analyst VII	\$179.00		
Financial Analyst VIII	\$195.00		
GIS Specialist I	\$80.00		
GIS Specialist II	\$97.00		
GIS Specialist III	\$115.00		
GIS Specialist IV	\$130.00		

Titles are for labor rate grade purposes only.

These rates are subject to adjustment each year on January 1.

This is **EXHIBIT SR-E**, consisting of four pages, referred to in and part of the **Agreement between OWNER and ENGINEER for Study and Report Phase Professional Services** dated October 25, 2016.

Silver Ranch Watershed Stormwater Master Plan

Study and Report Phase – Silver Ranch Stormwater Master Plan (Phase 020)

A. Engineer shall complete:

1. Project Management and Meetings

- a. City Meetings consisting of a project kick-off meeting, six working group meetings, and presentation of the final master plan to the City Commission.
- b. Provide project management to keep project on schedule and on budget.

2. Public Input / Stakeholder Communication

- a. Private stakeholder meetings consisting of up to five individual meetings to solicit input and information and discuss the draft master plan.
- b. Coordination with public stakeholders including Burleigh County, Burleigh County Water Resource District, North Dakota Department of Transportation, North Dakota Department of Trust Lands, Bismarck Engineering and Public Works (landfill staff), North Dakota State Water Commission, and Federal Emergency Management Agency specifically related to drainage, floodplain, and transportation facilities within the watershed area.

3. Data Collection

- a. Field survey will be conducted to collect key topographic and hydraulic structure survey data to augment City-provided 2016 LiDAR data within the Silver Ranch watershed.
- b. Limited field survey will be conducted to collected hydraulic structure survey data to augment City-provided 2016 LiDAR data within the Hay Creek watershed.
- c. Obtain existing study information such as plats, development stormwater management plans, stormwater master plans, NDDOT information, FEMA floodplain data, landfill information, and County highway data.

4. Preliminary Land Use and Transportation Plan

- a. Work with Community Development to incorporate the City's Future Land Use Plan (FLUP), Fringe Area Road Master Plan (FARMP), North Dakota Department of Trust Lands (State School property) data, Silver Ranch development, and recent plats into a land use plan that will be used for preparation of the stormwater master plan.
- b. Work with City Engineering to synthesize existing transportation planning information and prepare a preliminary transportation plan based on the existing information and direction provided by City Engineering and Community Development. Effort will be focused on locations where the roadways will cross critical drainage areas or have the potential to be incorporated with regional detention or conveyance facilities.

5. Stormwater Analysis and Master Plan Development

- a. Existing Conditions

- i. Develop an InfoSWMM model of the portion of the Silver Ranch watershed noted in Exhibit SR-F using existing land use data, LIDAR, and field survey information.
 - 1. For the purposes of defining existing conditions, “existing” will be defined as the conditions that exist at the time of this agreement.
- ii. Summarize existing peak flows and volumes at key locations.
- iii. Identify existing areas impacted by flooding.
- iv. Identify existing culvert capacity and conveyance areas of concern.
- v. Hay Creek Overflow to Silver Ranch Watershed
 - 1. Using existing LiDAR data, master plans, City storm sewer GIS data, rainfall, and soils data, create “high level” InfoSWMM model for Hay Creek watershed tributary to Main Avenue and combine the Hay Creek and Silver Ranch InfoSWMM models. Note – we assume that the City will provide the recently updated North Washington Watershed InfoSWMM model for incorporation into the Hay Creek model.
 - 2. Estimate flows, flow timing, and peak stages on both Hay Creek and Silver Ranch to determine flow direction(s) and quantities.
- b. Proposed Conditions – No Controls
 - i. Develop an InfoSWMM model using the preliminary land use and transportation plan data.
 - ii. Summarize uncontrolled peak flows and volumes.
 - iii. Identify additional areas impacted by flooding.
 - iv. Identify additional culvert capacity and conveyance areas of concern.
- c. Concept Development
 - i. Utilize the InfoSWMM model to develop concept level approaches to managing stormwater and drainage for the area noted in Exhibit C-1- for review with the City Working Group.
 - ii. Include the effects of the connection between Hay Creek and Silver Ranch (see Task 5.v).
 - iii. Summarize concept plan peak flows and volumes.
- d. Preliminary Alternative Development
 - i. Based on input from the concept review, prepare up to two concepts will be developed into preliminary alternatives.
 - 1. Preliminary alternatives will include both regional detention facilities, drainage features, with consideration of the connection between Hay Creek and Silver Ranch (see Task 5.v).
 - ii. Develop preliminary locations, sizes, plan view layouts, construction costs, and typical sections for key facilities within each of the two preliminary alternatives.
 - iii. Summarize preliminary alternatives peak flows and volumes.
- e. Preferred Alternative
 - i. Based on comments and discussion with the City Working Group, finalize a “Preferred Alternative” for documentation in the Master Plan Report.
 - ii. Note easement requirements, calculated floodplains, and proposed stormwater facilities, including both detention and conveyance facilities.
 - iii. Use the P8 Urban Catchment Model to quantitatively estimate the treatment of total suspended solids by the facilities described in the preferred alternative.

6. Preliminary Grading Plan

- a. Determine key profile elevations and structure sizes for major drainage crossings or other hydraulically significant locations.

- b. Develop preliminary grading for key facilities such as detention basins, conveyance locations, and other hydraulically significant locations where appropriate.

7. Phased Implementation Plan

- a. Prepare a phased implementation plan including opinions of probable construction costs for the two preliminary alternatives and the preferred alternative.

8. Master Plan Report

- a. Create a draft master plan for presentation to the City and project stakeholders. Six paper copies and one electronic copy (PDF) will be provided to the City.
- b. Finalize master plan incorporating comments on the draft master plan. Six paper copies and one electronic (PDF) copy will be provided to the City.
- c. Prepare an Executive Summary of the final master plan for presentation to the City Commission.
- d. Develop a Quick Reference Guide for use by both City review staff and developer's engineers to determine compliance with the master plan for new developments.

Study and Report Phase – Hay Creek / Silver Ranch Connection Improvements Evaluation (Phase 021)

1. Connection Scenarios

- a. Using the InfoSWMM analysis, evaluate the benefits and drawbacks on both Silver Ranch and Hay Creek for maintaining existing connection, eliminating connection, or improving the connection capacity.
- b. Of particular interest is whether Silver Ranch can provide additional flood capacity for Hay Creek.

2. Prepare grading / improvement plans to illustrate conceptual design of potential alternatives.

3. Prepare opinion of probable costs for alternatives.

4. Prepare additional report text, figures, and exhibits for Master Plan report.

Times for Rendering Services

- A. Engineer shall use commercially reasonable efforts to complete services under this agreement by August 31, 2017.
- B. Revise the Report in response to Owner's and other parties' comments, as appropriate, and furnish 4 final copies of the revised Report to the Owner within 30 calendar days after completion of reviewing it with Owner.
- C. Engineer's Assignment will be considered complete when all deliverables set forth in Exhibit SR-E are submitted to Owner.

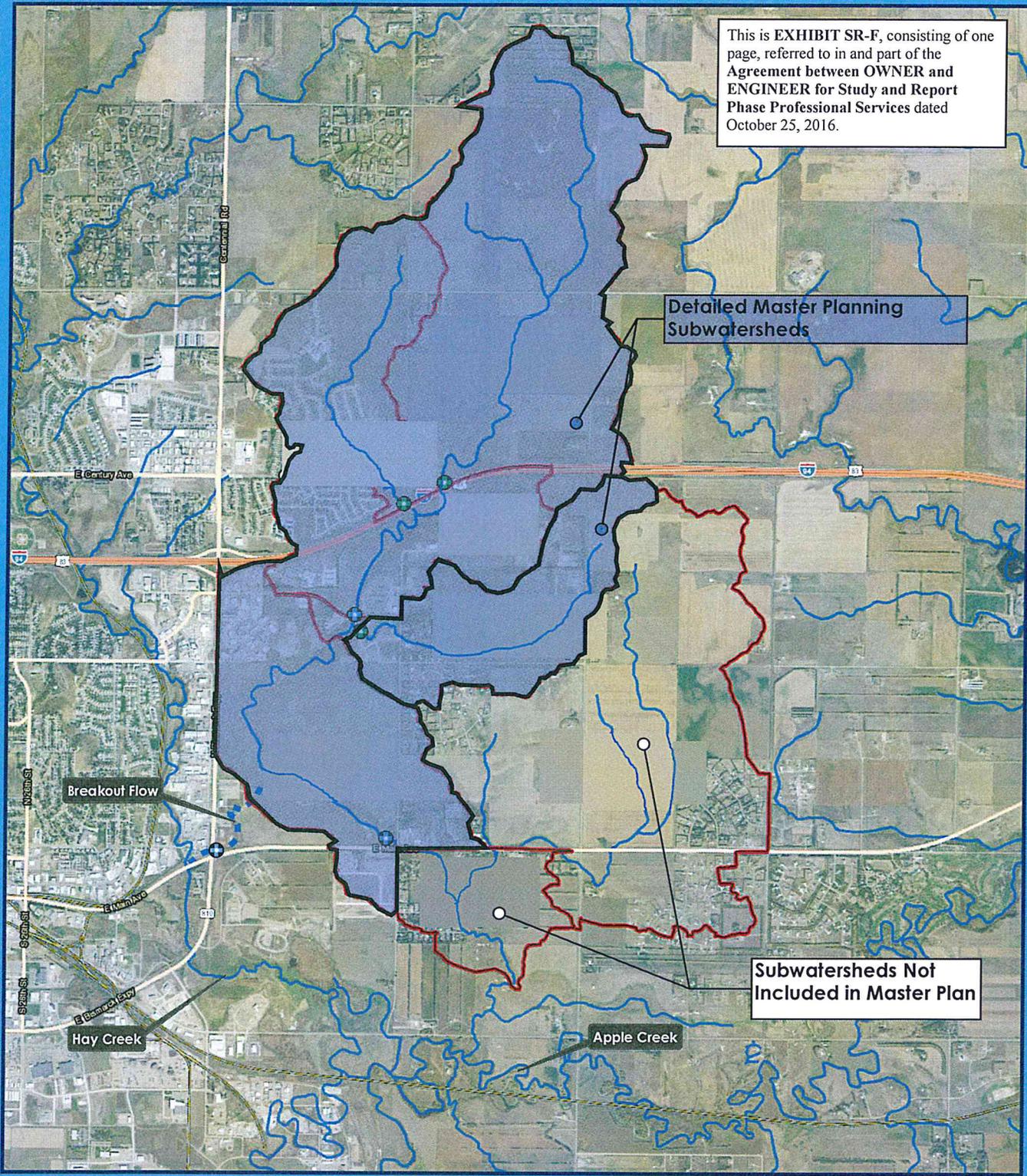
ADDITIONAL SERVICES

Additional Services Requiring Owner's Written Authorization

- A. If authorized in writing by Owner, Engineer shall furnish or obtain from others Additional Services of the types listed below.

1. Preparation of applications and supporting documents (in addition to those furnished under Basic Services) for private or governmental grants, loans, or advances in connection with the Assignment or Project; preparation of environmental assessments and impact statements; and assistance in obtaining approvals of authorities having jurisdiction over the anticipated environmental impact of the Project.
2. Services to make measured drawings of or to investigate existing conditions or facilities, or to verify the accuracy of drawings or other information furnished by Owner or others.
3. Services resulting from significant changes in the scope, extent, or character of the of the Assignment including, but not limited to, changes in size, complexity, Owner's schedule, character of construction, or method of financing; and revising previously accepted studies and reports when such revisions are required by changes in Laws and Regulations enacted subsequent to the Effective Date or are due to any other causes beyond Engineer's control.
4. Services resulting from Owner's request to evaluate additional potential solutions beyond those identified in Paragraph SR-E.A.5.
5. Services required as a result of Owner providing incomplete or incorrect information to Engineer.
6. Providing renderings or models for Owner's use.
7. Undertaking investigations and studies including, but not limited to, detailed consideration of operations, maintenance, and overhead expenses; the preparation of financial feasibility and cash flow studies, rate schedules, and appraisals; assistance in obtaining financing for the Project; evaluating processes available for licensing, and assisting Owner in obtaining process licensing; detailed quantity surveys of materials, equipment, and labor; and audits or inventories required in connection with construction performed by Owner.
8. Providing assistance in responding to the presence of any Constituent of Concern at the Site, in compliance with current Laws and Regulations.
9. Preparing to serve or serving as a consultant or witness for Owner in any litigation, arbitration, or other dispute resolution process related to the Assignment.
10. Other services performed or furnished by Engineer not otherwise provided for in this Agreement.

This is EXHIBIT SR-F, consisting of one page, referred to in and part of the Agreement between OWNER and ENGINEER for Study and Report Phase Professional Services dated October 25, 2016.



Any reliance upon this map is at user's own risk. AE2S does not warrant the map or its features are either spatially or temporally accurate or fit for a particular use.

Exhibit SR-F
Silver Ranch Watershed Master Plan Detail

