Ivins City Staff Report
City Council Meeting 12/20/18

Agenda Item: Discuss and consider approval of selection of consultant and expenditure for Coyote Gulch Wash Letter of Map Revision

Submitted by: Thomas J. Jorgensen, P.E., Assistant Public Works Director

Recommended City Council Action:
Approve selection and expenditure of $24,920 for engineering services for Coyote Gulch Wash Letter of Map Revision, plus an additional $5,000 for contingency for a total of $29,920

BACKGROUND:
In 2014, two major storm events caused severe flooding in the Coyote Gulch Wash, resulting in major property damage. Ivins City applied for funding from the Natural Resources Conservation Service and subsequently received funding and constructed two dams on the major tributaries. With such a significant change to the hydraulics of the wash, Ivins City is proposing an update to the affected Flood Insurance Rate Maps to reflect current conditions of the wash. The reach of the Coyote Gulch Wash to be revised shall extend from the Ivins City border to the location where the Coyote Gulch Wash intersects with the Santa Clara River, a total distance of approximately 2.8 miles. Staff has submitted a request for proposals (RFP) for engineering services to prepare a Letter of Map Revision (LOMR) for the Coyote Gulch Wash. Additional details are identified in the attached RFP.

FINDINGS AND ANALYSIS:
We received three proposals where the costs are summarized below:

	Cost
Alpha Engineering	**$ 49,358.00**
Rosenberg Associates	**$ 24,920.00**
Sunrise Engineering	**$ 29,000.00**

The various proposals were scored based on several factors including qualifications, design approach, past performance, and scope of work. Once the proposals were scored using the above criteria, preparation costs were evaluated as shown in the table above. Staff has evaluated the proposals and determined that Rosenberg Associates best met the pricing criteria while reasonably meeting the criteria listed above. Staff recommends selection of Rosenberg Associates and requests a total expenditure of $29,920, which includes a contingency of $5,000 to help account for possible unforeseen expenditures during preparation of the LOMR.

SUPPORT MATERIALS:
- Request for Proposals
- Rosenberg Associates Proposal

FINANCIAL IMPACT:
The expenses have been budgeted.
GL 53-42-879: $29,920

Respectfully Submitted:

Thomas J. Jorgensen, P.E., Assistant Public Works Director

Content Review:

Dale Coulam, City Manager

Ivins City
Request for Proposals/Qualifications for
Engineering Services
for Coyote Gulch Wash Letter of Map Revision (LOMR)

Ivins City, Utah is seeking a qualified engineering firm to provide the services necessary to perform a FEMA Letter of Map Revision (LOMR) for the Coyote Gulch Wash in Ivins, Utah. The firm selected will be responsible for completing the project through the FEMA review and adoption process.

I. Information:

This request for proposals (RFP) is for engineering services to perform a FEMA letter of Map Revision for the Coyote Gulch Wash. The City will hold a pre-RFP meeting to discuss the project on Tuesday, November 27th at 10:30 a.m. at the Ivins City Offices at 55 North Main Street, Ivins, UT 84738.

Although this RFP includes a suggested scope of work, the City is requesting if an item has been omitted or if the consultant feels an item would enhance or better the project, please include these items in the proposal.

II. Background:

In 2014, two major storm events caused severe flooding in the Coyote Gulch Wash, resulting in major property damage. Ivins City proceeded to apply for Emergency Watershed Program funding from the Natural Resources Conservation Service and was subsequently received funding to construct two debris basins on two of the major tributaries to the Coyote Gulch Wash. The two dams have been constructed and are currently in service. With such a significant change to the hydrology of the wash, Ivins City is proposing an update to the affected Flood Insurance Rate Maps to reflect current conditions of the wash. The reach of the Coyote Gulch Wash to be revised shall extend from the Ivins City border to a location where the Coyote Gulch Wash intersects with the Santa Clara River, a total distance of approximately 2.8 miles. Refer to the attached map.

The FEMA FIRM Panels anticipated to be affected by this project area:

04025C1775G
04025C1775G
04025C1775G

The purpose of this RFP/RFQ is to retain an engineering firm to provide all the services and materials necessary to perform a FEMA Letter of Map Revision (LOMR) for the Coyote Gulch Wash along the specified study area.

The following information will be provided by the City:

- 2016 Aerial Photography by Pictometry, 3-inch pixels

- 2017 Lidar Topography (available on AGRC)

III. Scope of Services:

The City has compiled an anticipated scope of work for this project, but we'd ask the consultant to add or delete items from this list as necessary based on experience performing LOMR submittals.

A. Provide base mapping for the study area. Mapping should include 2' contours reflecting current conditions and survey data for the existing debris basins and existing crossings (Old HWY 91, Kayenta Pkwy in two locations, Kwavasa Dr, and Keleva Trail). Indicate if existing data are sufficient or if additional data must be collected. Mapping must conform to current FEMA guidelines.
B. Provide a hydraulic analysis of the Coyote Gulch Wash within the specified study areas using FEMA approved methods. The analysis must tie into effective study at upstream and downstream limits.
C. Provide a delineation of the Coyote Gulch Wash 100 year floodplain and floodway within the study area and provide all work maps, annotated FIRMs, and other exhibits required for a FEMA LOMR.
D. Provide as-built drawings of the previously mentioned culvert crossings conforming to current FEMA standards for those structures within the floodplain that are not currently mapped. As built data for the Kayenta Debris Basins will be provided to the consultant.
E. Complete all necessary FEMA forms required for this project (i.e. MT-2), project narrative, sediment consideration letter, and any other supplemental documents or appendices required for the LOMR submittal.
F. Provide affected property owner notification letters and exhibits for all property owners affected by the revision. Exhibits shall include aerial photography and property boundary information. The Consultant shall respond to property owner inquiries regarding the revision.
G. Coordinate and follow through with FEMA review redlines until LOMR approval.
H. Provide all data included in the LOMR submittal in digital and hard copy format to Ivins City.

IV. Project Schedule:

The City would like to proceed with the study as soon as possible. Please indicate the quickest timeframe for which the consultant can solidly commit to provide the scope of services upon execution of a contract.

V. Contracting and Compensation for Services:

Ivins City intends to enter into a professional services contract with the successful engineer. The terms of the Ivins City standard contract are attached to this document. Compensation for the services rendered, is to be based upon a time-expended basis with an agreed maximum not to exceed value. The consultant must be willing to sign the attached engineering services contract. Ivins City may negotiate

with and award contract to the Consultant whose proposal is determined to be most advantageous to the City. The contract will incorporate the provisions of this RFP.

V. Proposal Letter Format and Content

The proposal shall be in a letter format with company letter head and shall be organized in the following format:

1. Cover Letter – Should include an introduction of the Consultant, the name, address, phone number, and email of the project manager along with others who are authorized to represent the company in dealing with the RFP.
2. Executive Summary - An executive summary should thoroughly describe the Consultant's approach and methodology in providing services (one-page maximum). It should also indicate any major requirements that cannot be met by the Consultant.
3. Detailed Discussion – This section should constitute the major portion of the proposal and should include the following:
    a. Consultant's and sub-consultants' understanding of project requirements.
    b. Key personnel and sub-consultants who would be assigned to the project including Utah State licenses. Provide information regarding the consultant's Certified Floodplain Manager (CFM) if applicable.
    c. Consultant's and sub-consultants' experience with similar projects including references; brief description of three projects similar in scope and size for which the Consultant has provided professional services; a discussion of whether the projects were completed on time and within budget; and the names of persons responsible for the owner and his/her telephone number.
    d. Names and qualifications (including professional training, licenses, experience, etc.) of personnel to be assigned to this project; the time commitments of these personnel to the Owner's other projects; the role of each in the referenced projects listed and the proposed role of each in the performance of this project contract.
    e. Suggested scope of services and project schedule.
4. Cost - The Consultant must submit a cost proposal allowing costs to be evaluated independently of other criteria in the proposal. The cost proposal should include the method of determining compensation for the required services. This cost is to be complete and include the all items mentioned under "Scope of Work" previously described; cost is firm, and no additional fees will be accepted without prior approval by Ivins City.
5. Work Plan and Schedule – The Consultant must submit a timeline including project milestones, key tasks, and meetings.

VI Proposal Evaluation

The criteria used to evaluate proposals are as follows:

1. Qualifications and previous work with Ivins City.
2. Project understanding and approach
3. Project work schedule
4. Cost

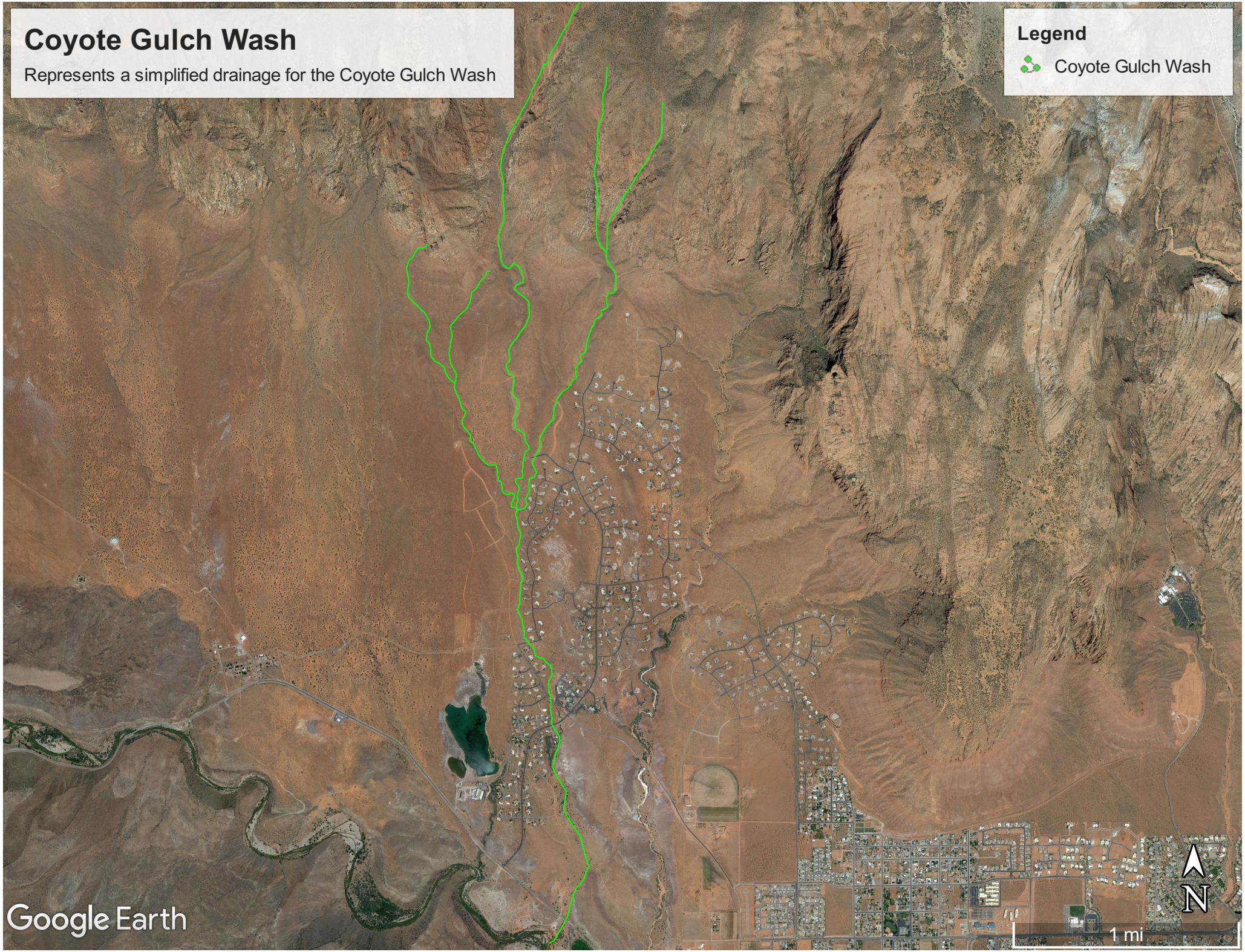
The City reserves the right to disqualify any proposal that includes significant deviations or exceptions to the specifications of this RFP. The City also reserves the right to be the sole judge as to the overall acceptability of the proposals. Selection will be based on qualifications and overall value to the City. The "low bidder" may not present the best overall value to the City and therefore may not be selected. The City reserves the right to reject any or all proposals and to waive any informality or technicality in any proposal in the interest of the City.

VII Submittal Requirements

Submit letter proposal by email to Thomas Jorgensen, P.E., Assistant Public Works Director at tjorgensen@ivins.com by 3:00 p.m., Tuesday, December 11th, 2018. If only one proposal is received in response to the request, the selection committee may recommend an award of a contract to the single Consultant or alternatively the City may resolicit for obtaining additional proposals.

Attachment A: Location Map

Attachment B: Sample Engineering Services Contract


Coyote Gulch Wash
Represents a simplified drainage for the Coyote Gulch Wash
Legend
Coyote Gulch Wash
Google Earth
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PROFESSIONAL SERVICES CONTRACT
FOR
PROFESSIONAL ENGINEERING SERVICES
FOR
(PROJECT)

1. **CONTRACTING PARTIES:** This contract is between the Ivins City, referred to as the CITY and,

   (CONSULTANT)

   referred to as CONSULTANT.

2. **REASON FOR CONTRACT:** The CITY does not have sufficient qualified staff to complete the work required in the suggested time frame and the CONSULTANT is professionally qualified and willing to assist the CITY with Professional Engineering services as further described in Attachment B.

3. **PROJECT/CONTRACT PERIOD:** The project/contract will terminate (DATE), unless otherwise extended or canceled in accordance with the terms and conditions of this contract.

4. **CONTRACT COSTS:** The CONSULTANT will be paid a maximum of (DOLLARS) for costs authorized by this Contract as further described in Attachment C.

5. **ATTACHMENTS INCLUDED AS PART OF THIS CONTRACT:**
   Attachment A – Standard Terms and Conditions
   Attachment B – Scope of Services Provided by the Consultant
   Attachment C – Fees

The parties below hereto agree to abide by all the provisions of this contract. IN WITNESS WHEREOF, the parties sign and cause this contract to be executed.

CONSULTANT – (CONSULTANT NAME)		**IVINS CITY**	
By: _____	_____	By: _____	_____
Title:	Date	Title: Public Works Director	Date

ATTACHMENT A – STANDARD TERMS AND CONDITIONS

1. **CONTRACT JURISDICTION AND COMPLIANCE WITH LAWS:** The provisions of this contract shall be governed by the laws of the State of Utah. Also, the CONSULTANT and those engaged by the CONSULTANT shall comply with all Federal, State and local laws, regulations and other legally binding requirements that pertain to the services provided under this contract. Proof of the CONSULTANT'S compliance with licensing requirements shall be furnished to the CITY upon request.

2. **RECORDS ADMINISTRATION:** The CONSULTANT shall maintain all books, papers, documents, accounting records and other evidence to support costs billed for under this contract. These records shall be retained by the CONSULTANT for a period of at least four (4) years after the contract terminates, or until all audits initiated within the four years have been completed, whichever is later. These records shall be made available at all reasonable times during the four year period for audit and inspection by the CITY and other authorized State and Federal auditors. The CONSULTANT'S records supporting the cost proposal shall also be retained and made available for review by authorized CITY staff. Copies of requested records shall be furnished to the CITY upon request.

3. **CONSULTANT, AN INDEPENDENT CONTRACTOR:** The CONSULTANT shall be an independent contractor, and as such, shall have no authority, express or implied to bind the CITY to any agreement, settlement, liability, or understanding whatsoever; and agrees not to perform any acts as agent for the CITY, except as specifically authorized and set forth herein. Persons employed by the CITY and acting under the direction of the CITY shall not be deemed to be employees or agents of the CONSULTANT. Compensation provided to the CONSULTANT herein shall be the total compensation payable hereunder by the CITY.

4. **INDEMNITY - LIABILITY:** The CONSULTANT shall hold harmless and indemnify the CITY and its officers, agents and employees from and against any and all claims, suits and cost, including attorneys fees, for injury or damage of any kind to the extent arising out of the negligent acts, wrongful acts, errors, or omissions of the CONSULTANT, or its subconsultants when acting within the scope of their subcontract, or their respective agents, employees or representatives.

   The CONSULTANT is an independent contractor contracted with the CITY. Any periodic plan and specification review or construction inspection performed by the CITY arising out of the performance of the contract, does not relieve the CONSULTANT of its duty in the performance of the contract, or ensure compliance with customary standard of professional care.

5. **SEPARABILITY:** The declaration by any court, or other binding legal source, that any provision of this contract is illegal and void and shall not affect the legality and enforceability of any other provision of this contract, unless said provisions are mutually dependent.

6. **LIABILITY INSURANCE:** Services to be provided by the CONSULTANT under this contract are required to be covered by insurance. The CONSULTANT shall furnish the CITY a Certificate of Insurance applying to this contract for each type of insurance required, to be approved by the CITY, before the CONSULTANT begins work under this contract. The CONSULTANT'S insurer must be authorized to do business in Utah and must meet the specified A.M. Best rating or better at the time this contract is executed. The following insurance shall be maintained in force until all activities which are required by this contract or as changed by contract modification are completed and accepted by the CITY:

   (a) General Liability and Automobile Liability insurance with a limit of not less than $1,000,000 per occurrence and not less than $2,000,000 aggregate and having an A.M. Best rating of A-class VIII or better. If this coverage is written on a claims-made basis, the Certificate of Insurance shall so indicate.

   The CONSULTANT represents that as long as commercially available the insurance shall remain in effect such that claims reported up to three (3) years beyond the date of substantial completion of this contract are covered.

   (b) Architect and/or Engineers Professional Liability (errors and omissions) insurance having an A.M. Best rating of A-class VIII or better, is required at the coverage amount of $1,000,000 per claim and $2,000,000 aggregate. If this coverage is written on a claims-made basis, the Certificate of Insurance shall so indicate. The CONSULTANT represents that as long as commercially

available the insurance shall remain in effect such that claims reported up to three (3) years beyond the date of substantial completion of this contract are covered (on construction contracts or modifications for construction management the insurance, shall remain in effect for one (1) year after completion of the project).

(c) Valuable Papers & Records Coverage and/or Electronic Data Processing (Data and Media) Coverage for the physical loss or destruction of the work product including drawings, plans, specifications and electronic data and media. Such insurance shall be of a sufficient limit to protect the CONSULTANT, its sub-consultants and the CITY from the loss of said information.

(d) Aircraft Liability in the amount of $1,000,000 per occurrence if aircraft are utilized in connection with this contract.

(e) The CONSULTANT shall provide evidence that his employees and sub-consultant employees are covered by Workers Compensation. If they are covered by Workers Compensation Fund of Utah, then the A.M. Best rating is not required in this area.

(f) The CONSULTANT shall require the insurance company that issues the Certificates of Insurance for the evidence of the required insurance coverage to endeavor to provide the CITY with 30 days written notice in the event that coverage is canceled before the policy expiration date stated in the Certificate. The CONSULTANT further agrees to provide the CITY with 30 days written notice prior to making an alternation or material change to the required insurance coverage.

Policies referred to in 6(a) and 6(d) above are required to be endorsed naming Ivins City as Additional Insureds and, on General Liability and Aircraft Liability, indicate they are primary and not contributing coverage. All required policies, endorsements, insurance companies issuing same, and self insured programs are subject to review and approval by the CITY.

17. REVIEW AND INSPECTION OF WORK: It is expressly understood and agreed that authorized representatives of the CITY shall have the right to review and inspect the work in process, and the CONSULTANT'S facilities, at any time during normal business hours or by appointment.

18. NON DISCRIMINATION PROVISIONS: The CONSULTANT agrees to abide by the provisions of the Utah Anti-discrimination Act, Title 34 Chapter 35 U.C.A. 1953, as amended, and Title VI and Title VII of the Civil Rights Act of 1964 (42 USC 2000e), which prohibits discrimination against any employee or applicant for employment, or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246 entitled "Equal Employment Opportunity," as amended by Executive order 11375 and as supplemented in Department of Labor Regulations (41CFR Part 60), which prohibits discrimination on the basis of age; and Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap. The CONSULTANT agrees to abide by Utah's Executive Order, dated June 30, 1989, which prohibits sexual harassment in the work place. Sections 49 CFR 21 through Appendix H and 23 CFR 710.405(b) are applicable by reference in all contracts and subcontracts financed in whole or in part with Federal funds. The CONSULTANT further agrees to furnish reports to the CITY upon request for the purpose of determining compliance with these statutes identified in this section. The CONSULTANT shall comply with the Americans With Disabilities Act (ADA).

19. OWNERSHIP OF DOCUMENTS: All tracings, plans, manuscripts, specifications, data, maps, etc., prepared or obtained by the CONSULTANT, as a result of working on this contract, shall be delivered to and become the property of the CITY. All documents and data pertaining to work required by this contract shall be the property of the CITY and shall be delivered to the CITY within 10 working days after termination of the contract, regardless of the reason for termination; and without restriction or limitation on their further use. Costs of all the above items shall be considered as included in the basic contract compensation for the work as referenced to in this Contract.

The CONSULTANT shall not be responsible for another party's application of information contained in the contract documents to other projects, or for uses other than that for which the information was intended. Should patentable discoveries or inventions result from work required by this contract, all rights to them shall be the sole property of the CONSULTANT. Except, the CONSULTANT agrees to grant to the CITY a non exclusive, non transferable, paid up, license to use the discovery or invention. The CONSULTANT is permitted to copyright reports and other contract products provided that the CITY has a royalty free,

non exclusive, irrevocable right to reproduce, publish, or otherwise use and authorize others to use for governmental purposes.

20. ASSIGNMENT AND SUBCONTRACTING: The CONSULTANT shall not subcontract any of the work required by this contract, or assign monies to be paid to the CONSULTANT hereunder, without the prior written approval of the CITY. All payments made by the CONSULTANT to the subcontractor for services required by this contract shall be subject to audit by the CITY. All subcontracts must include all the same terms and conditions and provisions included in this contract. However, the prime CONSULTANT is responsible for ensuring that all work performed by sub-consultants is insured under their insurance policy, or they require that the sub-consultants meet the insurance provisions required under this contract.

21. DISPUTES: Claims for services, materials, or damages not clearly authorized by the contract, or not ordered by the CITY by prior written authorization, will not be paid. The CONSULTANT shall notify the CITY in writing, and wait for written approval, before it begins work not previously authorized. If such notification and approval is not given or the claim is not properly documented, the CONSULTANT shall not be paid the extra compensation. Proper documentation alone shall not prove the validity of the claim. The parties agree to use arbitration or mediation after exhausting applicable administrative reviews to resolve disputes arising out of this contract where the sole relief sought is monetary damages $100,000 or less, exclusive of interest and costs.

22. CLAIMS - DELAYS AND EXTENSIONS: The CONSULTANT agrees to proceed with the work previously authorized by the contract, or in writing, continually and diligently, and will make no charges or claims for extra compensation for delays or hindrances within its control during the progress of this contract. The CITY may allow an extension of time for the contract, for a reasonable period as agreed by the parties, should a delay or hindrance occur. The CITY shall not waive any of its rights under the contract by permitting the CONSULTANT to proceed with the contract after the established completion date.

23. CONSULTANT'S ENDORSEMENT ON PLANS, ETC.: The CONSULTANT (if a firm, the responsible principal) is required to endorse and affix its seal to plans, reports, and engineering data furnished to the CITY under this contract.

24. CONTRACT MODIFICATIONS: This contract may be amended, modified, or supplemented, as it is mutually agreed to by the parties by written contract modification, executed by the parties hereto and attached to the original signed contract.

Claims for services furnished by CONSULTANT that are not specifically authorized by this contract or by appropriate modification, shall not be paid by the CITY. When a contract modification has been agreed to by the parties no claim for the extra work done or material furnished shall be made by the CONSULTANT until the written modification has been fully executed. Any verbal agreements not confirmed in writing are non-binding.

25. TERMINATION: This contract may be terminated as follows:

(a) Mutual agreement of the parties; in writing and signed by the parties.

(b) By either party for failure of the other party to fulfill its obligations, as set forth with the provisions of this contract. Reasonable allowances will be made for circumstances beyond the control of the CONSULTANT and the CITY. Written notice of intent to terminate is required and shall specify the reasons supporting termination.

(c) By the CITY for the convenience of the CITY upon written notice to the CONSULTANT.

(d) Upon satisfactory completion of required contract services.

On termination of this contract all accounts and payments will be processed in accordance with contract terms. An appraisal of the value of work performed to the date of termination shall be made to establish the amount due to or from the CONSULTANT. Upon determining the final amount due the CONSULTANT, or to be reimbursed by the CONSULTANT, in the manner stated above, the final payment will be processed in order to close out the contract.

26. DESIGN/CONSTRUCTION: The CONSULTANT will utilize all current CITY standards and be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by the CONSULTANT under this contract. The CONSULTANT will, without additional compensation, correct or revise any errors or omissions in its design, drawings, specifications and other services. This contract may remain open for modifications for any unforeseen work that may be deemed necessary by the CITY going into the construction phase to accommodate future work by the prime CONSULTANT or sub-consultant. CONSULTANT will perform the services in accordance with the customary standard of professional care.

27. ELECTRONIC DOCUMENTATION: It is the CONSULTANTS responsibility to provide all plans, specifications, surveys, and associated data in CITY acceptable electronic formats on one or more CD's.

Computer Aided Drafting and Design acceptable formats are as follows:

(a) Drafting: AutoCAD Civil 3D or AutoCAD Map (.dwg) 2008 or lower.

(b) Survey and Photogrammetry: Survey point files will be in ASCII format, (point number, Northing, Easting, Elevation and code). Raster Images (aerial photos) will be in AutoCAD and GIS compatible formats.

i) Horizontal coordinate systems shall be 1983 North American Datum (NAD 83) State Plane Utah South (FIPS 4303) in U.S. feet and referenced to the monuments listed in the Ivins City Horizontal Control Network.

ii) Vertical datum shall be North American Vertical Datum 1988 (NAVD 88) and referenced to the monuments listed in the Ivins City Horizontal Control Network.

(c) Plotting: Provide (.tif or .jpg) images of each individual plot sheet with engineer's certification and any other required signatures. Provide (.pdf) file for the entire drawing package in a single file unless file size necessitates breaking package into manageable sections.

(d) Contract Documents: Provide in Microsoft Word 2007 (.docx or .doc) or lower. Also provide an Adobe Acrobat version (.pdf) with searchable text except on individual pages that include scanned signatures, stamps, or other certifications.

The CONSULTANT will be responsible for the accuracy of any converted data.

28. GOVERNMENT RECORDS ACCESS AND MANAGEMENT ACT: Pursuant to the Government Records Access and Management Act, Title 63G, Chapter 2, Utah Code Annotated, the CONSULTANT understands that if it believes that any records it submits to the CITY should be considered confidential for business purposes under Utah Code Ann. §63G-2-309, it must attach written notice of that opinion to the record when it first submits it. The CONSULTANT understands that the CITY will not treat any such record as confidential under Section 63G-2-309 absent such written notification. Additionally, the CONSULTANT agrees that neither the CITY, nor any of their agents or employees are responsible for disclosure of any record that the CONSULTANT considers confidential if a court orders it released.

29. WORK ACCEPTANCE:

(a) All work performed under this contract shall be performed in accordance with Standards, Specifications, Manuals of Instruction, Policies and Procedures established by the CITY. All work shall be subject to the approval of the CITY through its designated representatives.

(b) Reviews and Quality Assurance: All contracts require a quality control / quality assurance plan.

30. NO THIRD PARTY BENEFICIARIES: The parties enter in to this contract for the sole benefit of the parties, in exclusion of any third party, and no third party beneficiary is intended or created by the execution of this contract.

31. USE OF CITY LOGO: The CONSULTANT will not misrepresent their employees as CITY employees. The CONSULTANT will not use the City logo on business cards for their employees nor use City letterhead on correspondence signed by their employees with the following exception: the CONSULTANT may incorporate the CITY logo on their business cards stating, "In partnership with Ivins

City" in addition to the CONSULTANT'S own logo. The CONSULTANT may prepare correspondence for the approval and signature of appropriate Ivins City employees.

32. DUTIES OF THE CITY:

(a) Guarantee Access: The CITY shall guarantee access to and make all provisions for the CONSULTANT to enter upon all lands, both public and private which in the judgment of the parties hereto are necessary to carry out such work as may be required.

(b) Prompt Consideration: The CITY shall give prompt consideration to all reports, plans, proposals and other documents presented by the CONSULTANT.

(c) Documents: The CITY shall furnish Standards, Specifications, Manuals of Instruction, Policies and Procedures, and other available information, including any material previously prepared for this work.

(d) Services: The CITY will perform standard services relating to this contract

ROSENBERG ASSOCIATES™
CIVIL ENGINEERS LAND SURVEYORS

December 11, 2018

Thomas Jorgensen, PE
Assistant Public Works Director
Ivins City
55 North Main Street
Ivins, Utah 84738

Subject: Statement of Qualification and Proposal for Engineering Services
Coyote Gulch Wash Letter of Map Revision

Dear Thomas:

Rosenberg Associates will bring the following advantages to preparing the Ivins City Coyote Gulch Wash Letter of Map Revision:

- A fully local, in-house staff that will perform all the anticipated engineering services.
- An experienced design team who have personally prepared FEMA Letters of Map Change (LOMCs) for towns and cities in Washington County for nearly 30 years.
- A team having positive working relationships with the Ivins City staff and with the regional review staff at FEMA.

The principal and individual authorized to negotiate contracts and answer any questions concerning this proposal is Rick Rosenberg, PE, who can be reached by contacting our office, or by email at rickr@racivil.com. The project manager who can also answer questions for this proposal is Jared Bates, PE, CFM, who can be reached at jaredb@racivil.com.

We look forward to partnering with Ivins City on this exciting project. If you have any questions or require any additional information, please don't hesitate to contact us.

Sincerely,

Rick Rosenberg, PE
Principal Engineer

1.0 FEMA LOMR PROJECT EXPERIENCE

Rosenberg Associates has nearly 30 years of project experience working on major hydraulic design elements including watershed hydrologic studies; hydraulic flow computer modeling for water surface profiles and floodplain delineations; floodplain management and regulations development; FEMA LOMR and CLOMR approvals; bridge hydraulics and scour analysis; roadway drainage and culvert design; storm drain design; erosion hazard delineation and mitigation design; sedimentation considerations; and detention basin design. We have worked successfully with regulatory and oversight agencies including UDOT, FEMA Region 8, US Army Corps of Engineers, US Fish and Wildlife Service, NRCS, Virgin River Program, State Department of Natural Resources, State Department of Wildlife Resources, County and Local Government Officials and private property owners. Modeling capabilities include HEC-HMS, HEC-RAS, Storm-CAD, Flow-Master and Culvert-Master. Our staff includes professional engineers, geologists, GIS specialists, certified floodplain managers and surveyors.

Rosenberg Associates has provided letters of map revision for numerous reaches along the Santa Clara River and Virgin River drainage basins. The company has also recently completed a project on the Bloomington Wash and has current projects in progress on the Sand Hollow Wash and Tuacahn and Lava Flow Washes. All three of these projects have included the following work:

- Detailed base mapping preparation including field survey channel cross-sections.
- Hydraulic analysis with HEC-RAS software.
- Delineation of the 100-year floodplain.
- Analysis of existing culvert crossings and of impacts to existing development.
- Notification of impacted property owners.
- Preparation of FEMA forms and reports.
- Submittal to – and coordination with – FEMA through the LOMR review process.

Bloomington Wash LOMR – City of St. George (2016-2018): Performed a hydrologic and hydraulic analysis and prepared a letter of map revision (LOMR) for the Bloomington Wash; extending from the confluence with the Virgin River upstream to the northern limits of the Bloomington development a distance of 8,300 feet. The study reach included the Bloomington Gardens & Country Club Subdivisions, Bloomington Country Club Golf Course, and Bloomington Drive culvert crossings. *Engineering Fee $25,000. Contact Jay Sandberg, City Engineer (435) 627-4122, jay.sandberg@sgcity.org.*

Sand Hollow Wash LOMR – City of St. George (2016-2018): Performed a hydraulic analysis and prepared a letter of map revision (LOMR) for a reach of Sand Hollow Wash extending from Snow Canyon High School downstream a distance of 5,400 feet. The study reach included the Sunset Drive culvert crossing, Country Lane development, Sunset Plateau Development, Villa Bonita development, and Twin Creeks development. *Engineering Fee $18,200. Contact Jay Sandberg, City Engineer (435) 627-4122, jay.sandberg@sgcity.org.*



Reach of Tuacahn Wash for LOMR prepared in 2016-2018

Tuacahn Wash and Lava Flow Wash LOMR – Ivins City and Santa Clara City (2015-2018): Performed a hydraulic analysis and prepared a letter of map revision (LOMR) for a reach of Tuacahn Wash extending from Pioneer Parkway (Santa Clara) upstream a distance of 18,800 feet and a reach of the adjoining Lava Flow Wash a distance of 2,400 feet. The study reach included the Pioneer Parkway culvert crossing, Bella Sol development, Harmon's grocery store, Padre Canyon Estates development, Center Street culvert crossing, Tuacahn Drive culvert crossing, the Springs at Snow Canyon development, Alborada development, and Eagle Rock development. *Engineering Fee $31,500. Contact Corey Bundy, Floodplain Administrator, (435) 628-7338, cbundy@sccity.org.*

2.0 LOMR PROJECT TEAM

The team selected for the project is listed below. Additional support staff from the office will also be utilized as needed. No outside team members will be needed to perform the anticipated scope of work.

Name	Role	Certification	Description
Jared Bates, PE, CFM	Project Manager	PE UT-7886812 CFM 08-03954	Modeling, design, coordination, administration *(up to 50% time commitment)*
Garrett Felling, EIT	Staff Engineer	EIT	Modeling, design, exhibit preparation, GIS support *(up to 50% time commitment)*
Brandon Anderson, PLS	Survey Support	PLS UT-4938716	Field survey, cross-sectional mapping *(up to 25% time commitment)*
Rick Rosenberg	Engineering Support	PE UT-0174192	Project review, QA/QC support as needed *(up to 15% time commitment)*



Jared Bates, PE, CFM – Project Manager: Jared Bates has been with Rosenberg Associates since graduating from Utah State University in 2006. Jared performs hydraulic design, being directly involved in modeling, map preparation, and FEMA review. Jared is a Certified Floodplain Manager (CFM), certified by the Association of State Floodplain Managers, which demonstrates proficiency in floodplain mapping, management, and related ordinances.

Jared has designed and managed numerous hydraulics projects including several FEMA funded erosion protection repair projects following the 2010 flood, channel sediment removal and restoration projects, new roadway drainage and culvert designs and storm drain designs. Jared is currently managing the Sand Hollow Wash LOMR for the City of St. George.



Rick Rosenberg, PE – Engineering Support: Engineering support including technical review will be provided by Rick Rosenberg. A graduate of Utah State University, he has more than 30 years of experience working with hydraulic structures, drainage design, floodplain management and erosion hazard mitigation.

Rick was recognized as an area leader for his response to the local flooding emergencies in Washington County in January 2005, mobilizing his company staff to support local community leaders and impacted property owners. The flooding of 2005 gave Rick new insights, understanding, and respect for the nature of the area's rivers, which enabled him to provide unique solutions as he consulted with federal, state and local government agencies on the complexities of the riverine flooding. Subsequent floods in 2010 and again in 2012 expanded his role as an area leader in river hydraulics and erosion mitigation permitting and construction. He has worked to repair or replace hydraulic structures damaged during three federally declared disasters in Washington County over the last seven years.

Rick takes pride in his team's ability to produce high quality engineering plans that satisfy governmental funding requirements, environmentally sensitive regulatory agency and client time and funding constraints. He also has a keen ability to work through project obstacles, enabling government agency officials, and other stakeholders to work cooperatively on solutions that are cost effective and timely.



Brandon E. Anderson, PLS – Survey Support: Hydraulic survey and mapping work is managed by Brandon Anderson. Brandon has had full-time working experience in the land surveying industry since 1998. Brandon and his field crews understand the parameters needed to develop accurate hydraulic models and include adequate survey tie-in documentation, aerial mapping survey control, channel cross-section surveys, and right-of-way surveys.

3.0 PROPOSED SCOPE OF WORK

We would anticipate the scope of work for the Coyote Gulch Wash LOMR to proceed as outlined in the table below. The anticipated schedule assumes a project start date of **January 2, 2019**, and delivery of the completed LOMR package for review by Ivins City on **March 8, 2019**. Individual timeframe milestone are included in the table, which represents our best estimate of the time required to complete the work.

A BASE MAP: Perform a field mapping survey utilizing ground crews to supplement 2017 LIDAR data provided by the City. Include as-built survey/verification of existing crossings on Old Highway 91, Kayenta Parkway (south), Kwavasa Drive, Keleva Trail, and Kayenta Parkway (north). Research property right-of-way and identify property ownership within the study reach.

January 18, 2019: Meet to review completed base mapping with Ivins City.

Deliverable: Project base map with detailed colored digital aerial photograph showing project boundary, anticipated cross-sections, and topographic information.

B1 HYDROLOGIC ANALYSIS: Perform a hydrologic delineation and determine peak storm water flow values at desired key locations along the wash reach. Consult with FEMA to determine the acceptable methods to use for analysis and review the proposed parameters with Ivins City.

January 25, 2019: Meet with city staff to review the hydrologic analysis results.

Deliverable: Hydrologic analysis and draft technical memorandum to be included with the final FEMA review submittal.

B2 HYDRAULIC ANALYSIS: Prepare a hydraulic model and analysis of the Coyote Gulch Wash using the USACE HEC-RAS program and the topographic base map. The model will include analysis of the 100-year (1% annual chance) event and floodway. Tie into effective upstream and downstream limits. As- built drawings of the Kayenta debris basins will be provided by Ivins City.

February 8, 2019: Meet with city staff to review study results.

Deliverable: Hydraulic analysis and draft technical memorandum to be included with the final FEMA review submittal.

C FLOODPLAIN DELINEATION AND EXHIBITS

Produce a delineation of the wash 100-year (1% annual chance) floodplain and floodway through the study reach based on the topographic base map and hydraulic analysis. Provide an as-built floodplain delineation work map for the study area and applicable annotated FIRMS.

February 22, 2019: Review/coordination meeting to review preliminary delineations.

Deliverable: Preliminary (60% complete) report document and exhibit documents.

March 8, 2019: Provide completed floodplain delineation work maps for review.

D AS-BUILT DRAWINGS

Prepare a drawing of record for the existing Coyote Gulch Wash culvert crossings on Old Highway 91, Keleva Trail, and Kayenta Parkway (north). The drawings will include a plan view and an upstream and downstream profile view of each crossing with spot elevations.

February 22, 2019: Submit drawings of record for review.

Deliverable: completed drawings of record.

E LOMR APPLICATION DOCUMENTS

Complete the appropriate FEMA MT-2 forms for the project. Finalize the technical memorandum to include with a summary of data, description of engineering methods used, and the results of the floodplain revision. Provide a

sediment considerations technical memorandum to discuss the impact of the project to local sediment transport. Provide appendices and other supporting documents as required. Prepare a submittal package to be approved by the City and delivered to FEMA. Provide all submittal data in digital and hard copy format.

March 8, 2019: Submit completed FEMA package to Ivins City for review.

Deliverable: completed FEMA submittal package.

F AFFECTED PROPERTY OWNER NOTIFICATION

Produce affected property owner notification letters discussing the changes to the 100-year (1% annual chance) floodplain and floodway resulting from the revision. Produce affected property owner exhibits that show all property owners affected by the revision. Deliver notification letters to property owners and answer property owner inquiries as necessary.

March 8, 2019: Submit letters for review.

Deliverable: completed letters.

G FEMA REVIEW

Submit package to FEMA following the Ivins City review. Follow through with FEMA review process. Work assumes acceptance by FEMA with minor redlined changes.

Note that the anticipated FEMA review fee of $8,000 is to be provided by the City and is not included in this scope.

The estimated cost breakdown is included in the following table. Fees are based on current bill rates and estimated hours to complete the tasks as defined.

FEE ESTIMATE

A	**BASE MAP**						**$3,320**
	Project Engineer 1	2	hours	$120	=	$240	
	Land Surveyor 2	4	hours	$100	=	$400	
	Drafter 2	8	hours	$65	=	$520	
	Survey Crew 2-Man	16	hours	$135	=	$2,160	
B1	**HYDROLOGIC ANALYSIS**						**$4,560**
	Principal Engineer 1	4	hours	$140	=	$560	
	Project Engineer 1	12	hours	$120	=	$1,440	
	Staff Engineer 1	32	hours	$80	=	$2,560	
B2	**HYDRAULIC ANALYSIS**						**$4,560**
	Principal Engineer 1	4	hours	$140	=	$560	
	Project Engineer 1	12	hours	$120	=	$1,440	
	Staff Engineer 1	32	hours	$80	=	$2,560	
C	**FLOODPLAIN DELINEATION AND EXHIBITS**						**$4,080**
	Principal Engineer 1	4	hours	$140	=	$560	
	Project Engineer 1	8	hours	$120	=	$960	
	Staff Engineer 1	32	hours	$80	=	$2,560	

D	**AS-BUILT DRAWINGS**						**$2,080**
	Project Engineer 1	4	hours	$120	=	$480	
	Staff Engineer 1	20	hours	$80	=	$1,600	
E	**LOMR APPLICATION DOCUMENTS**						**$2,240**
	Project Engineer 1	8	hours	$120	=	$960	
	Staff Engineer 1	16	hours	$80	=	$1,280	
F	**AFFECTED PROPERTY OWNER NOTIFICATION**						**$1,200**
	Project Engineer 1	2	hours	$120	=	$240	
	Staff Engineer 1	8	hours	$80	=	$640	
	Administration 2	4	hours	$80	=	$320	
G	**FEMA REVIEW**						**$2,880**
	Project Engineer 1	24	hours	$120	=	$2,880	
TOTAL PROJECT							**$24,920**