

**ADAMS COUNTY  
PROFESSIONAL SERVICE AGREEMENT  
FOR E. 88<sup>TH</sup> AVE OVER LOCAL DRAINAGE ENGINEERING DESIGN CONSULTING  
SERVICES**

THIS AGREEMENT ("Agreement") is made this 22 day of October 2018, by and between the Adams County Board of County Commissioners, located at 4430 South Adams County Parkway, Brighton, Colorado 80601, hereinafter referred to as the "County," and Alfred Benesch & Company, located at 7979 E. Tufts Ave, Suite 800, Denver, CO 80237 hereinafter referred to as the "Contractor." The County and the Contractor may be collectively referred to herein as the "Parties."

The County and the Contractor, for the consideration herein set forth, agree as follows:

**1. SERVICES OF THE CONTRACTOR:**

1.1. All work shall be in accordance with the attached RFP 2018.634 and the Contractor's response to the RFP 2018.634 / E. 88<sup>TH</sup> Ave Over Local Drainage Engineering Services attached hereto as Exhibit A, and incorporated herein by reference. Should there be any discrepancy between Exhibit A and this Agreement the terms and conditions of this Agreement shall prevail.

1.2. Emergency Services: In the event the Adams County Board of County Commissioners declares an emergency, the County may request additional services (of the type described in this Agreement or otherwise within the expertise of the Contractor) to be performed by the Contractor. If the County requests such additional services, the Contractor shall provide such services in a timely fashion given the nature of the emergency, pursuant to the terms of this Agreement. Unless otherwise agreed to in writing by the parties, the Contractor shall bill for such services at the rates provided for in this Agreement.

**2. RESPONSIBILITIES OF THE COUNTY:** The County shall provide information as necessary or requested by the Contractor to enable the Contractor's performance under this Agreement.

**3. TERM:**

3.1. Term of Agreement: The Term of this Agreement shall be through and including March 31, 2019.

**4. PAYMENT AND FEE SCHEDULE:** The County shall pay the Contractor for services furnished under this Agreement, and the Contractor shall accept as full payment for those services, the NOT TO EXCEED sum of: Ninety-nine Thousand Eight Hundred Sixty Dollars (\$99,860.00).

4.1. Payment pursuant to this Agreement, whether in full or in part, is subject to and contingent upon the continuing availability of County funds for the purposes hereof. In the event that funds become unavailable, as determined by the County, the County may immediately terminate this Agreement or amend it accordingly.









- 8.2. Comprehensive Automobile Liability Insurance: to include all motor vehicles owned, hired, leased, or borrowed.
- 8.2.1. Bodily Injury/Property Damage: \$1,000,000 (each accident)
- 8.2.2. Personal Injury Protection: Per Colorado Statutes
- 8.3. Workers' Compensation Insurance: Per Colorado Statutes
- 8.4. Professional Liability Insurance: to include coverage for damages or claims for damages arising out of the rendering, or failure to render, any professional services, as applicable.
- 8.4.1. Each Occurrence: \$1,000,000
- 8.4.2. This insurance requirement applies only to the Contractors who are performing services under this Agreement as professionals licensed under the laws of the State of Colorado, such as physicians, lawyers, engineers, nurses, mental health providers, and any other licensed professionals.
- 8.5. Adams County as "Additional Insured": The Contractor's commercial general liability, and comprehensive automobile liability, insurance policies and/or certificates of insurance shall be issued to include Adams County as an "additional insured" and shall include the following provisions:
- 8.5.1. Underwriters shall have no right of recovery or subrogation against the County, it being the intent of the parties that the insurance policies so affected shall protect both parties and be primary coverage for any and all losses resulting from the actions or negligence of the Contractor.
- 8.5.2. The insurance companies issuing the policy or policies shall have no recourse against the County for payment of any premiums due or for any assessments under any form of any policy.
- 8.5.3. Any and all deductibles contained in any insurance policy shall be assumed by and at the sole risk of the Contractor.
- 8.6. Licensed Insurers: All insurers of the Contractor must be licensed or approved to do business in the State of Colorado. Upon failure of the Contractor to furnish, deliver and/or maintain such insurance as provided herein, this Agreement, at the election of the County, may be immediately declared suspended, discontinued, or terminated. Failure of the Contractor in obtaining and/or maintaining any required insurance shall not relieve the Contractor from any liability under this Agreement, nor shall the insurance requirements be construed to conflict with the obligations of the Contractor concerning indemnification.

- 8.7. Endorsement: Each insurance policy herein required shall be endorsed to state that coverage shall not be suspended, voided, or canceled without thirty (30) days prior written notice by certified mail, return receipt requested, to the County.
- 8.8. Proof of Insurance: At any time during the term of this Agreement, the County may require the Contractor to provide proof of the insurance coverage or policies required under this Agreement.

## **9. DAMAGES ARISING FROM BREACH OF PERFORMANCE OBLIGATIONS**

- 9.1. Notwithstanding anything else set forth in this Agreement, if Contractor fails to comply with all terms of this contract, including but not limited to, its obligation to perform its work in a workmanlike manner in accordance with all codes, plans, specifications and industry standards, Contractor shall be liable to County for all damages arising from the breach, including but not limited to, all attorney fees, costs and other damages.

## **10. WARRANTY:**

- 10.1. The Contractor warrants and guarantees to the County that all work, equipment, and materials furnished under the Agreement are free from defects in workmanship and materials for a period of one year after final acceptance by the County. The Contractor further warrants and guarantees that the plans and specifications incorporated herein are free of fault and defect sufficient for Contractor to warrant the finished product after completion date. Should the Contractor fail to proceed promptly in accordance with this guarantee, the County may have such work performed at the expense of the Contractor. This section does not relieve the Contractor from liability for defects that become known after one year.

## **11. TERMINATION:**

- 11.1. For Cause: If, through any cause, the Contractor fails to fulfill its obligations under this Agreement in a timely and proper manner, or if the Contractor violates any of the covenants, conditions, or stipulations of this Agreement, the County shall thereupon have the right to immediately terminate this Agreement, upon giving written notice to the Contractor of such termination and specifying the effective date thereof.
- 11.2. For Convenience: The County may terminate this Agreement at any time by giving written notice as specified herein to the other party, which notice shall be given at least thirty (30) days prior to the effective date of the termination. If this Agreement is terminated by the County, the Contractor will be paid an amount that bears the same ratio to the total compensation as the services actually performed bear to the total services the Contractor was to perform under this Agreement, less payments previously made to the Contractor under this Agreement.

## **12. MUTUAL UNDERSTANDINGS:**

- 12.1. Jurisdiction and Venue: The laws of the State of Colorado shall govern as to the interpretation, validity, and effect of this Agreement. The parties agree that jurisdiction and venue for any disputes arising under this Agreement shall be with Adams County, Colorado.
- 12.2. Compliance with Laws: During the performance of this Agreement, the Contractor agrees to strictly adhere to all applicable federal, state, and local laws, rules and regulations, including all licensing and permit requirements. The parties hereto aver that they are familiar with § 18-8-301, et seq., C.R.S. (Bribery and Corrupt Influences), as amended, and § 18-8-401, et seq., C.R.S. (Abuse of Public Office), as amended, , the Clean Air Act (42 U.S.C. 7401-7671q), and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended, and that no violation of such provisions are present. The Contractor warrants that it is in compliance with the residency requirements in §§ 8-17.5-101, et seq., C.R.S. Without limiting the generality of the foregoing, the Contractor expressly agrees to comply with the privacy and security requirements of the Health Insurance Portability and Accountability Act of 1996 (HIPAA).
- 12.3. OSHA: The Contractor shall comply with the requirements of the Occupational Safety and Health Act (OSHA) and shall review and comply with the County's safety regulations while on any County property. Failure to comply with any applicable federal, state or local law, rule, or regulation shall give the County the right to terminate this agreement for cause.
- 12.4. Record Retention: The Contractor shall maintain records and documentation of the services provided under this Agreement, including fiscal records, and shall retain the records for a period of three (3) years from the date this Agreement is terminated. Said records and documents shall be subject at all reasonable times to inspection, review, or audit by authorized Federal, State, or County personnel.
- 12.5. Assignability: Neither this Agreement, nor any rights hereunder, in whole or in part, shall be assignable or otherwise transferable by the Contractor without the prior written consent of the County.
- 12.6. Waiver: Waiver of strict performance or the breach of any provision of this Agreement shall not be deemed a waiver, nor shall it prejudice the waiving party's right to require strict performance of the same provision, or any other provision in the future, unless such waiver has rendered future performance commercially impossible.
- 12.7. Force Majeure: Neither party shall be liable for any delay or failure to perform its obligations hereunder to the extent that such delay or failure is caused by a force or event beyond the control of such party including, without limitation, war, embargoes, strikes, governmental restrictions, riots, fires, floods, earthquakes, or other acts of God.

12.8. Notice: Any notices given under this Agreement are deemed to have been received and to be effective:

- 1) Three (3) days after the same shall have been mailed by certified mail, return receipt requested;
- 2) Immediately upon hand delivery; or
- 3) Immediately upon receipt of confirmation that an E-mail was received. For the purposes of this Agreement, any and all notices shall be addressed to the contacts listed below:

Department: Adams County Public Works  
Contact: Mark McDonald  
Address: 4430 S. Adams County Parkway  
City, State, Zip: Brighton, CO 80601  
Phone: 720.523.6809  
E-mail: [mmcdonald@adcogov.org](mailto:mmcdonald@adcogov.org)

Department: Adams County Purchasing  
Contact: Shannon E. Sprague, CPPB  
Address: 4430 South Adams County Parkway  
City, State, Zip: Brighton, Colorado 80601  
Phone: 720.523.6052  
E-mail: [ssprague@adcogov.org](mailto:ssprague@adcogov.org)

Department: Adams County Attorney's Office  
Address: 4430 South Adams County Parkway  
City, State, Zip: Brighton, Colorado 80601  
Phone: 720.523.6116

Contractor: Alfred Benesch & Company  
Contact: Daniel J. Bechtold, PE  
Address: 7979 E. Tufts Ave, Suite 800  
City, State, Zip: Denver, CO 80237  
Phone: 303.771.6868  
E-mail: [dbechtold@bensch.com](mailto:dbechtold@bensch.com)

12.9. Integration of Understanding: This Agreement contains the entire understanding of the parties hereto and neither it, nor the rights and obligations hereunder, may be changed, modified, or waived except by an instrument in writing that is signed by the parties hereto.

12.10. Severability: If any provision of this Agreement is determined to be unenforceable or invalid for any reason, the remainder of this Agreement shall remain in effect, unless otherwise terminated in accordance with the terms contained herein.

12.11. Authorization: Each party represents and warrants that it has the power and ability to enter into this Agreement, to grant the rights granted herein, and to perform the duties and obligations herein described.

- 12.12. Confidentiality: All documentation related to this Agreement will become the property of Adams County. All documentation maintained or kept by Adams County shall be subject to the Colorado Open Records Act, C.R.S. 24-72-201 *et seq.* ("CORA"). The County does not guarantee the confidentiality of any records.

### **13. AMENDMENTS, CHANGE ORDERS OR EXTENSIONS:**

- 13.1. Amendments or Change Orders: The County may, from time to time, require changes in the scope of the services of the Contractor to be performed herein including, but not limited to, additional instructions, additional work, and the omission of work previously ordered. The Contractor shall be compensated for all authorized changes in services, pursuant to the applicable provision in the Solicitation, or, if no provision exists, pursuant to the terms of the Amendment or Change Order.
- 13.2. Extensions: The County may, upon mutual written agreement by the parties, extend the time of completion of services to be performed by the Contractor.

### **14. COMPLIANCE WITH C.R.S. § 8-17.5-101, ET. SEQ. AS AMENDED 5/13/08:**

Pursuant to Colorado Revised Statute (C.R.S.), § 8-17.5-101, *et. seq.*, as amended May 13, 2008, the Contractor shall meet the following requirements prior to signing this Agreement (public contract for service) and for the duration thereof:

- 14.1. The Contractor shall certify participation in the E-Verify Program (the electronic employment verification program that is authorized in 8 U.S.C. § 1324a and jointly administered by the United States Department of Homeland Security and the Social Security Administration, or its successor program) or the Department Program (the employment verification program established by the Colorado Department of Labor and Employment pursuant to C.R.S. § 8-17.5-102(5)) on the attached certification.
- 14.2. The Contractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract for services.
- 14.3. The Contractor shall not enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract for services.
- 14.4. At the time of signing this public contract for services, the Contractor has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this public contract for services through participation in either the E-Verify Program or the Department Program.
- 14.5. The Contractor shall not use either the E-Verify Program or the Department Program procedures to undertake pre-employment screening of job applicants while this public contract for services is being performed.

- 14.6. If the Contractor obtains actual knowledge that a subcontractor performing work under this public contract for services knowingly employs or contracts with an illegal alien, the Contractor shall: notify the subcontractor and the County within three (3) days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and terminate the subcontract with the subcontractor if within three days of receiving the notice required pursuant to the previous paragraph, the subcontractor does not stop employing or contracting with the illegal alien; except that the Contractor shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.
- 14.7. Contractor shall comply with any reasonable requests by the Department of Labor and Employment (the Department) made in the course of an investigation that the Department is undertaking pursuant to the authority established in C.R.S. § 8-17.5-102(5).
- 14.8. If Contractor violates this Section, of this Agreement, the County may terminate this Agreement for breach of contract. If the Agreement is so terminated, the Contractor shall be liable for actual and consequential damages to the County.

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IN WITNESS WHEREOF, the Parties have caused their names to be affixed hereto:

County Manager

[Signature]  
Raymond H. Gonzales

22 OCT 2018  
Date

Alfred Benesch & Company

[Signature]  
Signature

10.16.18  
Date

William H. Epp  
Printed Name

S.R. V.P.  
Title

Attest:

Stan Martin, Clerk and Recorder

[Signature]  
Deputy Clerk

Approved as to Form:

[Signature]  
Adams County Attorney's Office

NOTARIZATION OF CONTRACTOR'S SIGNATURE:

COUNTY OF DENVER)

STATE OF COLORADO) SS.

Signed and sworn to before me this 16 day of October, 2018,

by WILLIAM H. EPP,

Deborah A. Risch  
Notary Public

DEBORAH A RISCH  
NOTARY PUBLIC - STATE OF COLORADO  
Notary Identification #20124000487  
My Commission Expires 05/23/2020

My commission expires on: 05/23/2020



## CONTRACTOR'S CERTIFICATION OF COMPLIANCE

Pursuant to Colorado Revised Statute, § 8-17.5-101, *et seq.*, as amended 5/13/08, as a prerequisite to entering into a contract for services with Adams County, Colorado, the undersigned Contractor hereby certifies that at the time of this certification, Contractor does not knowingly employ or contract with an illegal alien who will perform work under the attached contract for services and that the Contractor will participate in the E-Verify Program or Department program, as those terms are defined in C.R.S. § 8-17.5-101, *et seq.* in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under the attached contract for services.

### CONTRACTOR:

Alfred Benesch & Co. 10-16-18  
Company Name Date

  
Signature

William H. Epp  
Name (Print or Type)

Sr. V. P.  
Title

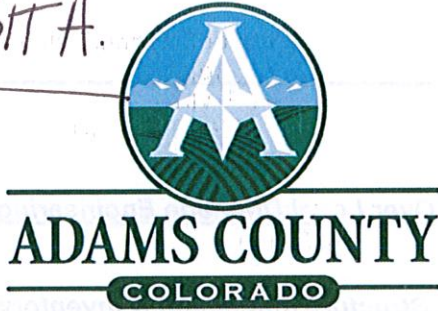
Note: Registration for the E-Verify Program can be completed at:  
<https://www.vis-dhs.com/employerregistration>.

It is recommended that employers review the sample "memorandum of understanding" available at the website prior to registering





EXHIBIT A.



Adams County Finance Department  
Purchasing Division  
4430 South Adams County Parkway  
Brighton, Colorado 80601

**2018.634 - E. 88th Ave Over Local  
Drainage Engineering Design Services  
PROPOSAL COVER SHEET**

RFP Issue Date: 8/15/2018  
RFP Number: RFP-SS-2018.634  
RFP Title: **E. 88<sup>TH</sup> AVE OVER LOCAL DRAINAGE ENGINEERING  
DESIGN SERVICES**  
RFP Questions Due: 8/29/2018 400 PM MT  
Proposal will be received until: 9/6/2018 2:00 PM MT, Our Clock  
**Emailed to the Contract Specialist Listed Below**

For additional information please contact: Shannon E. Sprague, CPPB, Contract Specialist II  
720-523-6052  
Email Address: ssprague@adcogov.org

If any of the documents listed above are missing from this package, contact Adams County Purchasing.  
If you require additional information, call the Purchasing Division contact person.

The undersigned hereby affirms that (1) he/she is a duly authorized agent of the Surveyor, (2) he/she has read all terms and conditions and technical specifications which were made available in conjunction with this solicitation and fully understands and accepts them unless specific variations have been expressly listed in his/her Proposal, (3) the Proposal is being submitted on behalf of the Surveyor in accordance with any terms and conditions set forth in this Solicitation, and (4) the Surveyor will accept any awards made to it as a result of the Proposal submitted herein for a minimum of 120 calendar days following the date of submission.

**PRINT OR TYPE YOUR INFORMATION**

Name of Surveyor: \_\_\_\_\_ Fax: \_\_\_\_\_  
Address: \_\_\_\_\_ City/State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Title: \_\_\_\_\_ Phone: \_\_\_\_\_  
Authorized Representative's Signature: \_\_\_\_\_ Phone: \_\_\_\_\_  
Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_  
Email Address: \_\_\_\_\_

## I. INTRODUCTION:

### A. Scope of Services:

1. Attachment A. – Scope of Work: E. 88th Ave Over Local Drainage Engineering Design Services
2. Attachment B. – Routine Inspection CDOT: Structure Inspection & Inventory Report

#### I. Objective:

##### **PROVIDE DESIGN SERVICES FOR REHABILITATION OF STRUCTURE NO. ADA088-27.5N131 / E. 88<sup>TH</sup> AVENUE OVER LOCAL DRAINAGE**

- a. Adams County is seeking engineering design and construction document preparation services for the rehabilitation of Structure No. ADA088-27.5N131, the existing bridge carrying E. 88<sup>th</sup> Avenue over a local drainage, located approximately 0.58 mile west of Manilla Road, (6.5 miles west of Highway 79). This project, (including design and construction), will be paid for with Adams County approved funds.

#### II. Fee:

- ◆ Design engineering work shall be itemized to capture all service hours and hourly fees per firm position service level into logical tasks, and their associated fees. Task descriptions shall be written to clearly define the complete project.
- ◆ Provide estimated hours per task.

#### III. PRICING FORM SAMPLE: 2018.634

##### **1. PROPOSAL ITEMS FOR EVALUATION – PROPOSER MUST SUBMIT AN ITEMIZED PRICING SHEET BY LOGICAL TASK WITH AN OVERALL TOTAL PROJECT AMOUNT.**

##### **Pricing Itemized Sheet - Sample**

Task No.	Task Description:	Position Titles	Total Task Project Hours	Average Cost per Hour	Overall Total Cost of Project Task
1.				\$	\$
2.				\$	\$
3.				\$	\$
4.				\$	\$
5.				\$	\$
6.				\$	\$
<b>Overall Total Design Fee Amount :</b>					

1. Pricing submittal must include all Professional Wage Hourly Rates per Position Title:
  - Position Title                      °Regular Rate                      Overtime Rate
2. Any and all additional expenses beyond the itemized logistical tasks that may occur shall be submitted as an itemized wage rate sheet for evaluation consideration.



**ADAMS COUNTY, COLORADO**  
**DESIGN SERVICES FOR REHABILITATION OF STRUCTURE NO. ADA088-27.5N131**  
**E. 88<sup>TH</sup> AVENUE OVER LOCAL DRAINAGE**

**Attachment A. - SCOPE OF WORK**

Adams County is seeking engineering design and construction document preparation services for the rehabilitation of Structure No. ADA088-27.5N131, the existing bridge carrying E. 88<sup>th</sup> Avenue over a local drainage, located approximately 0.58 mile west of Manilla Road, (6.5 miles west of Highway 79). This project, (including design and construction), will be paid for with Adams County approved funds.

The existing single-span bridge is approximately 51 feet long by 48 feet wide, with two (2) 12-foot travel lanes and two (2) 12-foot shoulders; superstructure consists of W33x130 painted steel girders with diaphragms supporting a corrugated steel bridge plank and asphalt deck system, and side-mount w-beam bridge railings; substructure consists of H-pile bent abutments with corrugated steel bridge plank backwalls and wingwalls. Due to advanced rust, corrosion, and section loss throughout, the existing deck is in Poor Condition and the superstructure is in Serious Condition, specifically both exterior girders. The bridge received an Essential Repair Finding (ERF) during the latest biennial inspection, and subsequently, the County has closed both bridge shoulders (over both exterior bays) to traffic. The latest bridge inspection report, dated Dec. 11, 2017, is provided with this scope of work for reference.

The County would ideally like to accomplish the following to rehabilitate the bridge:

1. Fully replace the deck with an eight 8 inch concrete slab made composite with the steel girders, three 3 inch asphalt overlay on a waterproofing membrane and Type 3 bridge rails. (Actual replacement deck system and details to be determined by structural analysis and evaluation.)
2. Fully replace both exterior steel girders.
3. Repair, strengthen, or replace individual interior steel girders and diaphragms, or replace all steel girders and framing, as required based on a detailed structure condition evaluation and analysis.
4. Clean and repaint all existing exposed structure steel intended to remain, (superstructure and substructure)
5. Modify upper abutment backwalls and wingwalls only as needed to coordinate with the superstructure rehabilitation. Otherwise, maintain and reuse the existing substructure unchanged, except for possible minor modifications to structure steel, such as repairs, strengthening, stiffeners, etc., as might be identified during the design phase.
6. Define a new longitudinal profile for the roadway, (60 mph design speed), and mill and overlay the existing pavement over a length as needed to tie into the new bridge deck. Full depth pavement replacement shall be limited to only what is needed at each end of the bridge and shall at least match the original pavement thickness.

7. Provide new approach guardrail systems extending from all four (4) corners of the bridge, based on length of need or as otherwise directed by the County.
8. Regrade the dry channel under the bridge and possibly add armoring or protection to control future erosion under normal conditions, based on engineering judgment and as directed by the County. (This is not intended to be full scour mitigation.)

The final extent of the rehabilitation project and the exact details for individual subjects will have to be determined and developed based on a combination of engineering analysis, evaluation, cost estimating, and judgment during the design phase. The Consultant will work closely with the County Project Manager to complete all phases of the project and perform all work necessary to efficiently achieve the design and construction documents that best meet the County's needs.

Design work and construction documents shall be in accordance with all pertinent AASHTO, CDOT, County, and MUTCD manuals, specifications, and standards, (current editions), and other documents as directed by the County Project Manager. Construction documents shall be prepared based on standard CDOT formats, except as otherwise directed by the County Project Manager. The project should follow the CDOT FIR, FOR, and Final Construction Documents approach for progress submittals and reviews, except as otherwise directed by the County Project Manager.

Due to budget constraints and the desire to move to construction as soon as possible in 2019, the County requests that the Consultant perform the project on an aggressive schedule to complete as much of the work as possible before the end of the 2018 calendar year. To help expedite the project, the County would be open to a modified approach that would allow the design work for the bridge and roadway to be performed on separate, but parallel schedules, as much as possible between the project kickoff and the FOR submittal. It is already understood the new deck has to fit on the existing structure and the new profile has to adjust to the new deck. Therefore, it would be fine with the County if the evaluation and preliminary design for the bridge could be completed, submitted, and reviewed while the topographic survey work and early roadway design work are still being performed. The preliminary design for the roadway, including proposed alignments, typical section, guardrail layouts, etc., could be submitted and reviewed at a later date while the final design and detailing work for the bridge is underway. The bridge and roadway designs need to coordinate, but maybe not wait on each other in the early and intermediate parts of the project.

Consultant services that are needed for this project include, but are not limited to, the following:

- **Civil/Roadway Engineering** – Horizontal and vertical roadway alignments; typical cross sections; roadway/pavement/miscellaneous details; approach guardrail systems; paving striping; construction traffic control (evaluate full detour versus one-lane alternating with traffic signals); existing utilities, (identify through locates or communications with companies, show locations, and determine and resolve conflicts); channel grading; permanent erosion control; stormwater management plan; roadway design memo; etc.
- **Structural/Bridge Engineering** – Structure condition evaluation; structural analysis; removal of parts of present structure; structural steel girders and framing; reinforced concrete deck; paint structural steel; bridge rails; bridge deck elevations; basic structure selection report; evaluate staged construction; etc.

- **Surveying** – Administer access permits; topographic site survey (tied to current County datum and State Plane Coordinate System) and base drawing by Civil 3D software; establish project benchmark and control points from Section Corners; right of way research and locating; develop legal descriptions and exhibits for 1 permanent right of way acquisition and up to 3 temporary easements, (CDOT Right of Way Plans are not required); staking of local project control points, right of way, and temporary easements, (during later site trips as needed); etc.
- **Construction Document Preparation** – Plans prepared with Civil 3D/AutoCAD; project specifications consisting of 200 through 700 series project special provisions and standard special provisions, (100 series special provisions will be the County's responsibility); construction cost estimates (preliminary and final); quantity calculations; etc.

The County assumes the plans will approximately include the following sheets or subjects; (list provided for reference only; some subjects may require more than one sheet):

Title Sheet	Roadway Plan and Profile	Removal Details
Standard Plans List	Channel Grading	Abutment and Wingwall Details
General Notes	Stormwater Management Plan	Steel Girder Details
Typical Sections	Striping Plan	Superstructure Details
Summary of Approx. Quantities	Construction Traffic Control	Bridge Rail Details
Tabulations	Bridge General Information	Bridge Deck Elevations
Details	Bridge General Layout	
Survey Control / Geometric Plan	Construction Layout	

**I. Services that are excluded from this scope of work include:**

- No hydrologic or hydraulic analysis; no scour analysis or design of scour countermeasures
- No geotechnical investigation
- No environmental studies
- No utility potholing
- No public meetings
- No bid phase or construction support services

**II. Project Deliverables include:**

- Plans for Construction, PDF version and all AutoCAD DWG and supporting files
- PE stamped and signed Plans for Construction
- Project Specifications, PDF and DOCX versions
- Final Construction Cost Estimate, PDF version
- Design Reports or Memos, PDF version
- Quantity Calculations, PDF version
- Design Calculations for all subjects, (combined hand calculations and computer outputs), PDF version

Proposal Submittal Requirements

The County is soliciting proposals from the on-call Structural (Bridge) Engineering Consultant List. Therefore, the Prime Consultant's qualifications have been accepted previously and are not required again. The Consultant's proposal submittal shall include the following:

1. Cover Letter – Address letter to *Shannon E. Sprague, CPPB , Adams County Contract Specialist*; express your interest in the project; list any subconsultants for the project and briefly provide their qualifications; certify that the information and data submitted is true and complete to the best knowledge of the individual signing the letter; name, phone number, and email address of the individual to contact regarding the submitted proposal; clearly identify the project name and RFP number in the subject line; the County requires an original signature signed in ink by the authorized principal, partner, or officer of the firm.
2. Project Approach four (4) pages maximum) – State your understanding of and proposed approach to the project; identify and briefly discuss your thoughts about the project's most significant issues; provide any recommendations you may have for how to expedite the design work to both complete as much as possible before the end of 2018 and complete the entire project as soon as possible.
3. Project Schedule – Provide your proposed design schedule, from NTP through submittal of Final (100%) Construction Documents; assume two (2) weeks from submittal to review meeting for each FIR and FOR review.
4. Cost of Services – Provide a Total Design Fee and a detailed breakdown of the man hours and costs by tasks, including for any subconsultants; assume attendance at five (5) meetings to be held at the Adams County Government Center, (Kick-Off, separate bridge FIR and roadway FIR, combined FOR, and 1 miscellaneous), and one (1) meeting at the bridge site; show any billable expenses, such as mileage allowance; provide billing rate sheets for prime consultant and any subconsultants.

**Routine Inspection**  
**Colorado Department of Transportation**  
**Structure Inspection and Inventory Report (English Units)**

Highway Number (ON) 5D: 00000 V  
Mile Post (ON) 11: 0.000 mi

Bridge Key: ADA088-27.5N131      Inspection Date: 12/11/2017      Sufficiency Rating: 45.6      SD

NBI Reporting ID:	ADA088-27.5N131	Main Mat/Desgn 43A/B:	3	02	Bridge Cost 94:	\$0
Rgn/Sect 2E/2M:	15	Appr Mat/Desgn 44A/B:	0	0	Roadway Cost 95:	\$0
Tran Region 2T:	02	Main Spans Unit 45:	1		Total Cost 96:	\$0
County Code 3:	001	Approach Spans 46:	0		Year of Cost Estimate 97:	1980
ADAMS		Horiz Clr 47:	47.40	ft	Brdr Brdg Code/% 98A/B:	-2      0
Place Code 4:	00000	Max Span 48:	48.0	ft	Border Bridge Number 99:	
non-city		Str Length 49:	50.7	ft	Defense Highway 100:	0
Rte.(On/Under) 5A:	1	Curb Wtd L/R 50A/B:	0.0	ft      0.0	Parallel Structure 101:	N
Signing Prefix 5B:	4	Width Curb to Curb 51:	47.40	ft	Direction of Traffic 102:	2
Level of Service 5C:	1	Width Out to Out 52:	48.0	ft	Temporary Structure 103:	—
Direction Suffix 5E:	0	Deck Area:	2434		Highway Systems 104:	0
Feature Intersected 6:		Min Clr Ovr Brdg 53:	99.99		Fed Lands Hiway 105:	0
LOCAL DRAINAGE		Min Undrclr Ref 54A:	N		Year Reconstructed 106:	
Facility Carried 7:		Min Underclr 54B:	0.0	ft	Deck Type 107:	6
88TH AVENUE		Min Lat Clmce Ref R 55A:	N		Wearing Surface 108A:	6
Alias Str No.8A:		Min Lat Undrclr R 55B:	0.0	ft	Membrane 108B:	0
		Min Lat Undrclr L 56:	0.0	ft	Deck Protection 108C:	0
Prli Str No. 8P:		Deck 58:	4		Truck ADT 109:	15.00 %
N/A		Super 59:	3		Trk Net 110:	0
Location 9:		Sub 60:	5		Pier Protection 111:	!
0.5 MI WEST OF MANILLA RD		Channel/Protection 61:	8		NBIS Length 112:	Y
Max Clr 10:	99.99	Culvert 62:	N		Scour Critical 113:	8
BaseHiway Net12:	0	Oprtn Rtg Method 63:	1	LF Load Fact	Scour Watch 113M:	N
IrsinvRout 13A:	0000000000	Operating Rating 64:	45.7		Future ADT 114:	1,517
IrsSubRout No13B:	00	Operating Factor 64:			Year of Future ADT 115:	2033
Latitude 16:	39d 51' 17.20"	Inv Rtg Method 65:	1	LF Load Fact	CDOT Str Type 120A:	SSM
Longitude 17:	104d 32' 16.01"	Inventory Rating 66:	27.4		CDOT Constr Type 120B:	00
Detour Length 19:	4 mi	Inventory Factor 66:			Inspection Indic 122A:	-
Toll Facility 20:	3	Asph/Fill Thick 68T:	8.0	in	Inspection Trip 122AA:	Unknown
Custodian 21:	02	Str. Evaluation 67:	3		Scheduling Status 122B:	—
Owner 22:	02	Deck Geometry 68:	9		Maintenance Patrol 123:	0
Functional Class 26:	06	Undrclr Vert/Hor 69:	N		Expansion Dev/Type 124:	O
Year Built 27:	1983	Posting 70:	5	At/Above Lega	Brdg Rail Type/Mod 125A/B:	XX      0
Lanes On 28A:	2	Waterway Adequacy 71:	8		Posting Trucks 129A/B/C:	0.0      0.0      0.0
Lanes Under 28B:	0	Approach Alignment 72:	8		Str Rating Date 130:	02/04/2008
ADT 29:	852	Type Of Work 75A:	-2		Special Equip 133:	0.00
Year of ADT 30:	2013	Work Done By 75B:	1		Vert Clr N/E 134A/B/C:	X      -1.00      -1.00
Design Load 31:	5 MS 18 (HS 20)	Length of Improvment 76:	0		Vert Clr S/W 135A/B/C:	X      -1.00      -1.00
Apr Rdwy Width 32:	23.00 ft	Insp Team Indicator 90B:	SAN ENGINEER		Vertical Clr Date:	01/01/1901
Median 33:	0	Inspector Name 90C:	ZEIDJ		Weight Limit Color 139:	0, White
Skew 34:	0 °	Frequency 91:	12 months		Str Billing Type:	IIB
Structure Flared 35:	0	FC Frequency 92A:			Userkey 1, Insp System:	OFFSYS
Sfty Rail 36a/b/c/d:	0      0      0      0	UW Frequency 92B:			Userkey 4, Insp Sched:	Central FY EVN
Rail ht36h:	28.0 in	SI Frequency (Pin) 92C:			Userkey 5, UW Sched:	
Hist Signif 37:	5	FC Inspection Date 93A:			Userkey 6, Pin Sched:	
Posting status 41:	A	UW Inspection Date 93B:			Userkey 7, 113 Doc Date:	
Service on/un 42A/B:	1      5	SI Date (Pin) 93C:			Inspection Key:	WUSW

Inspection Type: Regular NBI

Inspector Name: ZEIDJ

**Routine Inspection**  
**Colorado Department of Transportation**  
**Structure Inspection and Inventory Report (English Units)**

Highway Number (ON) 5D: 00000 V  
Mile Post (ON) 11: 0.000 mi

**Element Inspection Report**

Elm/Env	Description	Unit	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
30/1	Steel Deck - Orthotropic	sq.ft	2434	0%	0	14%	342	47%	1142	39%	950

R4 rusting and heavy corrosion in bays A, B, H and I. Moderate to heavy pack rust at corrugations in contact with girder top flanges at most locations in bays A, B, H and I. R2 to R3 rusting, heaviest at the joints, at various locations throughout the interior bays. R4 rusting with 100% section loss (perforations) of the steel edge plate along the south edge of deck. R2 to R3 rusting of the steel edge plate along the north edge of deck. Deflection under live load visible on the deck. ERF letter sent to Adams County on 2/12/2018 (dated 2/9/2018). Quantity in CS4 for the corrosion defect has been reviewed by an Engineer in 2017.

510/1	Wearing Surfaces	sq.ft	2434	99%	2404	1%	30	0%	0	0%	0
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New asphalt overlay between 2015 and 2017 inspections. Light asphalt cracking and slight warping along south edge of deck where deck edge plate is heavily corroded.

3220/1	Crack (Wearing Surface)	sq.ft	30	0%	0	100%	30	0%	0	0%	0
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515/1	Steel Protective Coating	sq.ft	2434	0%	0	14%	342	47%	1142	39%	950
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Steel protective coating at areas of R1 and R2 rusting is substantially effective. In areas of R3 rusting, the steel protecting coating has limited effectiveness and in areas of R4 rusting it has failed. ERF letter sent to Adams County on 2/12/2018 (dated 2/9/2018). Quantity in CS4 for the steel protective coating defect has been reviewed by an Engineer in 2017.

3440/1	Eff (Stl Protect Coat)	sq.ft	2434	0%	0	14%	342	47%	1142	39%	950
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1000/1	Corrosion	sq.ft	2434	0%	0	14%	342	47%	1142	39%	950
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107/1	Steel Opn Girder/Beam	ft	507	0%	0	46%	232	41%	210	13%	65
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R3 to R4 rusting and moderate to heavy laminar rusting at bottom 8 inches and top 6 inches of girder web and at various locations of top and bottom flanges of exterior girders A and I. R1 to R2 rusting at various locations of interior girders. Paint fading and peeling at various locations of all girders throughout. R2 to R4 rusting at most end diaphragms. Top flange of Girders A and J exhibit heavy laminar rusting, R3-R4 rusting, and up to 1/4 inch ± section loss, full length. Top flanges of Girders A-C and E-J with heavy laminar rusting, R3-R4 rusting, and up to 1/4 inch ± section loss near A1. Same at Girders A-C and G-J near A2. Several locations (2 foot 8 inches from A2, 10 feet from A2, and 5 feet to the east of mid-span) were chosen to remove the heavy laminar rusting that is typical on bottom 8 inches of the girder web. This revealed a 1 inch diameter perforation, 18 inch x 2 inch perforation, and a 3 inch diameter perforation respectively. Girders A and J have areas of web with up to 40% ± section loss, not at perforations, where laminar rust has been removed. See photos for defects described herein. An ERF letter was sent to Adams County on 2/12/2018 (dated 2/9/2018). Quantity in CS4 for the corrosion defect has been reviewed by an Engineer in 2017.

515/1	Steel Protective Coating	sq.ft	507	0%	0	46%	232	41%	210	13%	65
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Steel protective coating at areas of R1 and R2 rusting is substantially effective. In areas of R3 rusting, the steel protecting coating has limited effectiveness and in areas of R4 rusting it has failed. ERF letter sent to Adams County on 2/12/2018 (dated 2/9/2018). Quantity in CS4 for the steel protective coating defect has been reviewed by an Engineer in 2017.

3440/1	Eff (Stl Protect Coat)	ft	155	0%	0	46%	71	41%	64	13%	20
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1000/1	Corrosion	ft	507	0%	0	46%	232	41%	210	13%	65
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**Routine Inspection**  
**Colorado Department of Transportation**  
**Structure Inspection and Inventory Report (English Units)**

Highway Number (ON) 5D: 00000 V

Mile Post (ON) 11: 0.000 mi

202/1	Steel Column	each	20	0%	0	100%	20	0%	0	0%	0
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Light R1 rust at all piles.

515/1	Steel Protective Coating	sq.ft	20	0%	0	100%	20	0%	0	0%	0
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Steel protective coating at areas of R1 rusting is substantially effective.

3440/1	Eff (Stl Protect Coat)	each	2	0%	0	100%	2	0%	0	0%	0
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1000/1	Corrosion	each	20	0%	0	100%	20	0%	0	0%	0
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219/1	Stl Abutment	ft	96	0%	0	50%	48	50%	48	0%	0
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Heavy R1 to R2 rusting with several areas of R3 rusting at the backwall between the girders and near top of corrugated panels behind the piles.

515/1	Steel Protective Coating	sq.ft	96	0%	0	50%	48	50%	48	0%	0
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Steel protective coating at areas of R1 rusting is substantially effective and areas of R2-R3 rusting has limited effectiveness. Paint on abutment backwall between girders has areas of peeling, bubbling and cracked paint.

3440/1	Eff (Stl Protect Coat)	ft	29	0%	0	50%	15	50%	15	0%	0
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1000/1	Corrosion	ft	96	0%	0	50%	48	50%	48	0%	0
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231/1	Steel Pier Cap	ft	96	0%	0	50%	48	50%	48	0%	0
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R1 to R2 rusting throughout both caps. R3 rusting on top of cap with moderate to heavy pack rust and areas of heavy soil build up, mostly at exterior bays.

515/1	Steel Protective Coating	sq.ft	96	0%	0	50%	48	50%	48	0%	0
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Steel protective coating at areas of R1 rusting is substantially effective and areas of R2-R3 rusting has limited effectiveness.

3440/1	Eff (Stl Protect Coat)	ft	29	0%	0	50%	15	50%	15	0%	0
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1000/1	Corrosion	ft	96	0%	0	50%	48	50%	48	0%	0
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311/1	Moveable Bearing	each	20	0%	0	80%	16	20%	4	0%	0
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R1 to R2 rusting at most bearings with heavy soil/debris built up at all corners. R3 rusting at the exterior bearings, heaviest at Abutment 1, Girder A.

515/1	Steel Protective Coating	sq.ft	20	0%	0	80%	16	20%	4	0%	0
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Steel protective coating at areas of R1 rusting is substantially effective and areas of R2-R3 rusting has limited effectiveness.

3440/1	Eff (Stl Protect Coat)	each	2	0%	0	80%	1	20%	0	0%	0
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Routine Inspection  
Colorado Department of Transportation  
Structure Inspection and Inventory Report (English Units)

Highway Number (ON) 5D: 00000 V

Mile Post (ON) 11: 0.000 mi

1000/1	Corrosion	each	20	0%	0	80%	16	20%	4	0%	0
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330/1	Metal Bridge Railing	ft	101	82%	83	18%	18	0%	0	0%	0
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R1 rusting at all posts. Minor scrapes and bends on both sides, no backer tubes.

515/1	Steel Protective Coating	sq.ft	101	82%	83	18%	18	0%	0	0%	0
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Steel protective coating at areas of R1 rusting is substantially effective.

3440/1	Eff (Stl Protect Coat)	ft	31	82%	25	18%	5	0%	0	0%	0
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1000/1	Corrosion	ft	18	0%	0	100%	18	0%	0	0%	0
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9326/1	Bridge Wingwalls	(EA)	4	0%	0	100%	4	0%	0	0%	0
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Light R1 rusting at the piles and wingwalls throughout.

1000/1	Corrosion	(EA)	4	0%	0	100%	4	0%	0	0%	0
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9501/1	Channel Cond	(EA)	1	100%	1	0%	0	0%	0	0%	0
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Open field with mud and grasses. Heavy tumbleweeds built up upstream, downstream, and under bridge.

9504/1	BankCond	(EA)	1	100%	1	0%	0	0%	0	0%	0
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Open field/pasture with grasses.

9520/1	AppRdAlign	(EA)	1	100%	1	0%	0	0%	0	0%	0
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Slash panels present at all (4) corners of the bridge near the abutments.

9530/1	Approach Guardrail A	(EA)	1	100%	1	0%	0	0%	0	0%	0
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Approach rails not long enough, transition not double nested and ends are turned down.

9600/1	Genl Remarks	(EA)	1	100%	1	0%	0	0%	0	0%	0
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Sept. 2013 Flood: 9/21/2013, No significant scour observed.

ERF letter sent to Adams County on 2/12/2018 (dated 2/9/2018).

Maintenance Activity Summary

MMS Activity	Description	Recommended	Status	Target Year	Est Cost
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Routine Inspection  
Colorado Department of Transportation  
Structure Inspection and Inventory Report (English Units)

Highway Number (ON) 5D: 00000 V

Mile Post (ON) 11: 0.000 mi

**306.00	Bridge Rail-Replace	12/11/2017	_	2018
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URGENT: Install barriers to restrict traffic from shoulders on both sides of the bridge per recommendations in ERF letter sent 2/12/2018.

**353.05	Deck-Replace	12/11/2017	_	2018
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Replace metal decking, deck edge plate, and repave with waterproof membrane.

**398.00	Superstructure-Rehab	12/11/2017	_	2019
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Rehab or replace Girders A and J.

306.02	Approach Railing	12/11/2017	_	2019
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Install transitions, approach rails, and rail ends to meet current AASHTO/CDOT standards.

306.04	Bridge Rail-Upgrade	12/11/2017	_	2019
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Install bridge rail to meet current AASHTO/CDOT standards.

355.02	Misc-Paint ID	12/11/2017	_	2019
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Clean, prime and paint girders, abutments, pile caps and bearings.

357.00	Bearings-Clean Assemblies/Paint	12/11/2017	_	2019
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Clean soil/debris from all bearings and rehab as necessary.

**Routine Inspection**  
**Colorado Department of Transportation**  
**Structure Inspection and Inventory Report (English Units)**

Highway Number (ON) 5D: 00000 V  
Mile Post (ON) 11: 0.000 mi

**Bridge Notes**

Inventory Route is west to east.  
South side is upstream.  
Superstructure is named Girder A through J from north to south.  
Substructure is numbered Abutment 1 through Abutment 2 from west to east.

**Inspection Notes**

Date: 12/11/2017  
Time: 2:00 PM  
Temp: 55 degrees  
Weather: Sunny/Light Breeze  
Inspectors: JAZ/ES  
  
ERF letter sent to Adams County on 2/12/2018 (dated 2/9/2018).

**Scope:**

☒ NBI    ☒ Element    ☐ Underwater    ☐ Fracture Critical    ☐ Other    Type: Regular NBI

**Team Leader Inspection Check-off:**

☐ FCM's    ☐ Vertical Clearance  
☐ Posting Signs    ☐ Stream Bed Profile  
☐ Essential Repair Verification

**Inspection Team:** SAN ENGINEERING

**Inspection Date:** 12/11/2017

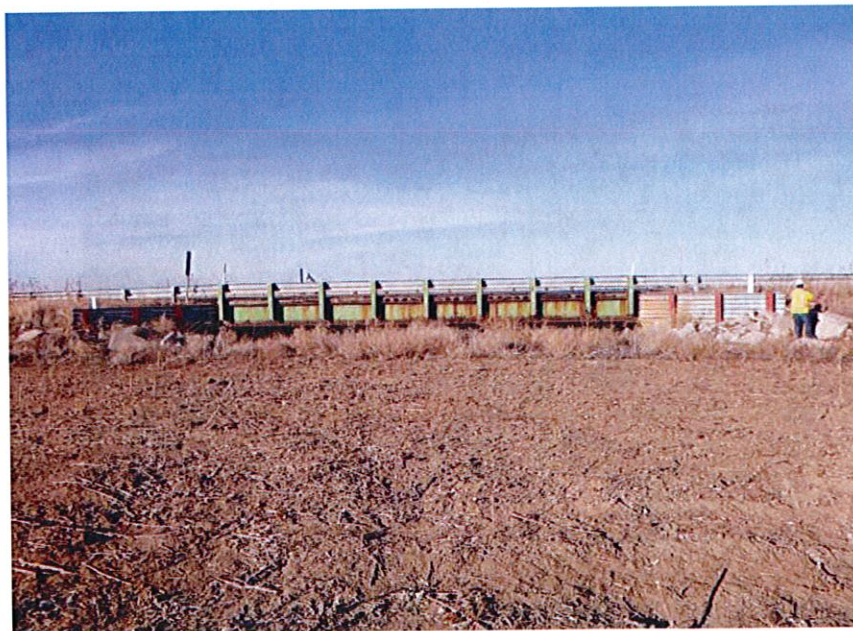
\_\_\_\_\_  
**Inspector:** Eduardo San

\_\_\_\_\_  
**Inspector (Team Leader):** JEREMY ZEID



View 1

Roadway Looking East



View 2

Elevation from Upstream Looking North

STRUCTURE NO.: ADA088-27.5N131  
CITY - Non-City, COUNTY - Adams County

88TH AVENUE over LOCAL DRAINAGE  
INSPECTION DATE 12/11/2017

PREPARED BY SAN ENGINEERING, LLC. FOR THE COLORADO DEPARTMENT OF TRANSPORTATION





View 3

General View of Superstructure from Underneath Looking East



View 4

Upstream Channel Looking South

STRUCTURE NO.: ADA088-27.5N131  
CITY - Non-City, COUNTY - Adams County

88TH AVENUE over LOCAL DRAINAGE  
INSPECTION DATE 12/11/2017

PREPARED BY SAN ENGINEERING, LLC. FOR THE COLORADO DEPARTMENT OF TRANSPORTATION





View 5

Downstream Channel Looking North



View 6

Cracking in Asphalt at Locations of South Side Deteriorated Deck Edge Plate

STRUCTURE NO.: ADA088-27.5N131  
CITY - Non-City, COUNTY - Adams County

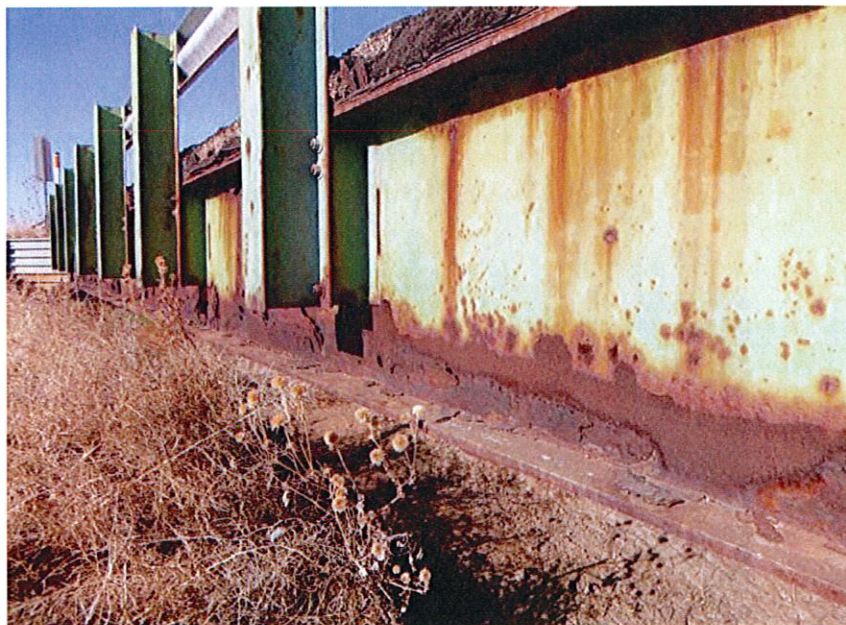
88TH AVENUE over LOCAL DRAINAGE  
INSPECTION DATE 12/11/2017

PREPARED BY SAN ENGINEERING, LLC. FOR THE COLORADO DEPARTMENT OF TRANSPORTATION



View 7

Approximate 11'-6" Shoulder on Bridge South Side - North Side Similar



View 8

South Side of Girder J with Heavy R3-R4 Rusting - Girder A Similar

STRUCTURE NO.: ADA088-27.5N131  
CITY - Non-City, COUNTY - Adams County

88TH AVENUE over LOCAL DRAINAGE  
INSPECTION DATE 12/11/2017

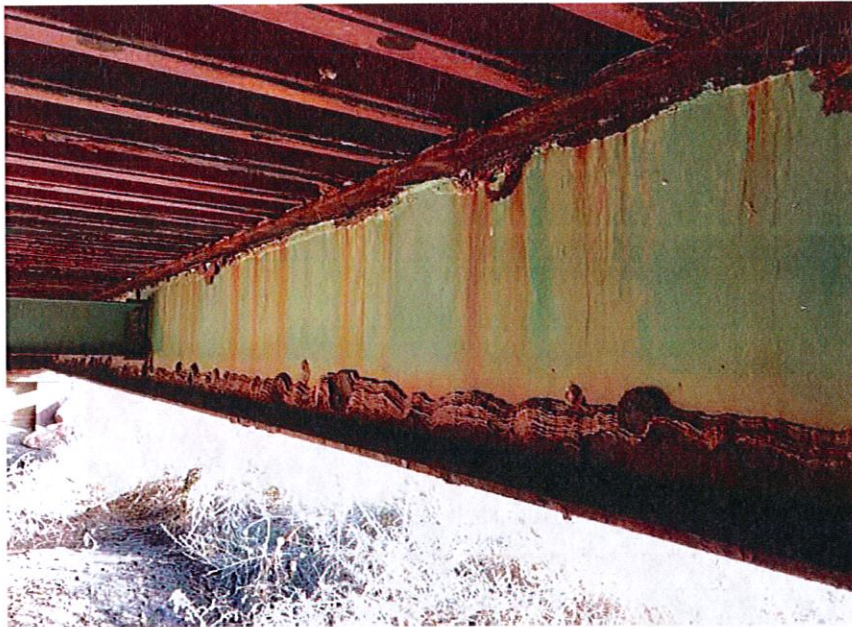
PREPARED BY SAN ENGINEERING, LLC. FOR THE COLORADO DEPARTMENT OF TRANSPORTATION





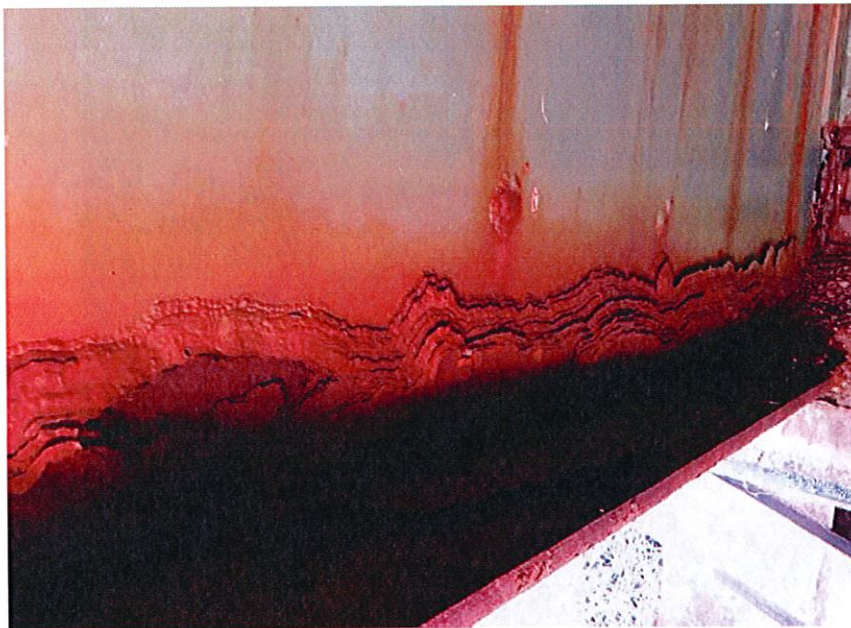
**San Engineering LLC**  
Civil and Structural Engineering

San Engineering LLC  
1000 10th Avenue, Suite 100  
Boulder, CO 80502  
Phone: 303.440.1000  
Fax: 303.440.1001  
Email: info@san-engineering.com



View 9

North Side of Girder J with Heavy R3-R4 Rusting - Girder A Similar



View 10

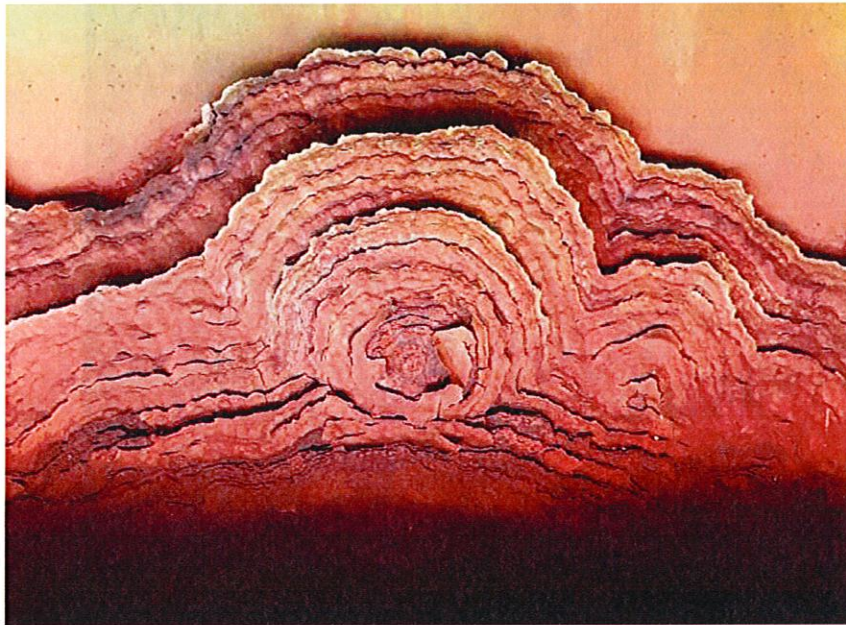
Heavy Laminar Rusting at Bottom of Girder J Web - Girder A Similar

STRUCTURE NO.: ADA088-27.5N131  
CITY - Non-City, COUNTY - Adams County

88TH AVENUE over LOCAL DRAINAGE  
INSPECTION DATE 12/11/2017

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View 11

Heavy Laminar Rusting at Bottom of Girder J Web - Girder A Similar



View 12

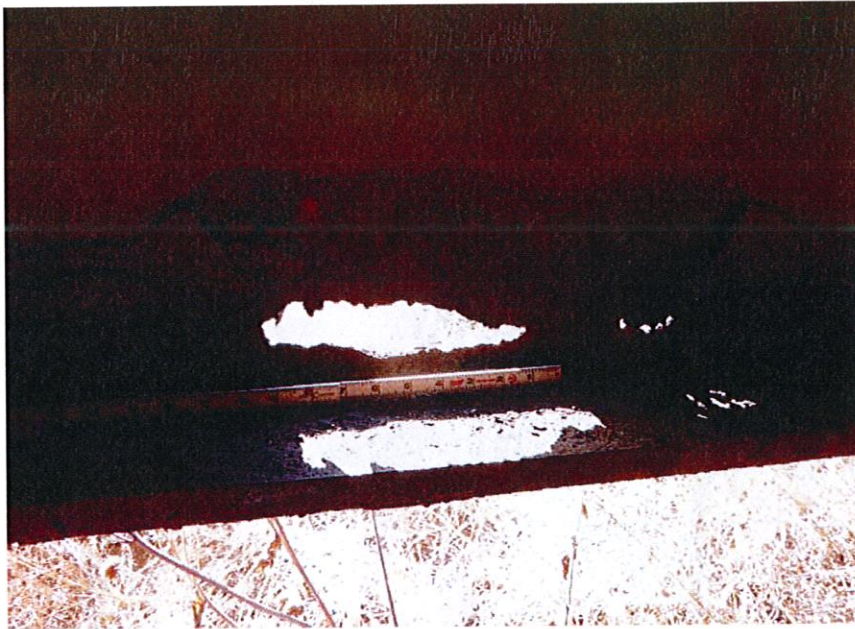
Heavy Laminar Rusting and 1" Diameter Perforation at Bottom of Girder J Web 2'-8" From  
Abutment 2

STRUCTURE NO.: ADA088-27.5N131  
CITY - Non-City, COUNTY - Adams County

88TH AVENUE over LOCAL DRAINAGE  
INSPECTION DATE 12/11/2017

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View 13

Heavy Laminar Rusting and 18" x 2" Perforation at Bottom of Girder J Web 10'-0" from Abutment 2



View 14

Heavy Laminar Rusting and 3" Diameter Perforation at Bottom of Girder J Web 5'-0" East of Mid-Span

STRUCTURE NO.: ADA088-27.5N131  
CITY - Non-City, COUNTY - Adams County

88TH AVENUE over LOCAL DRAINAGE  
INSPECTION DATE 12/11/2017

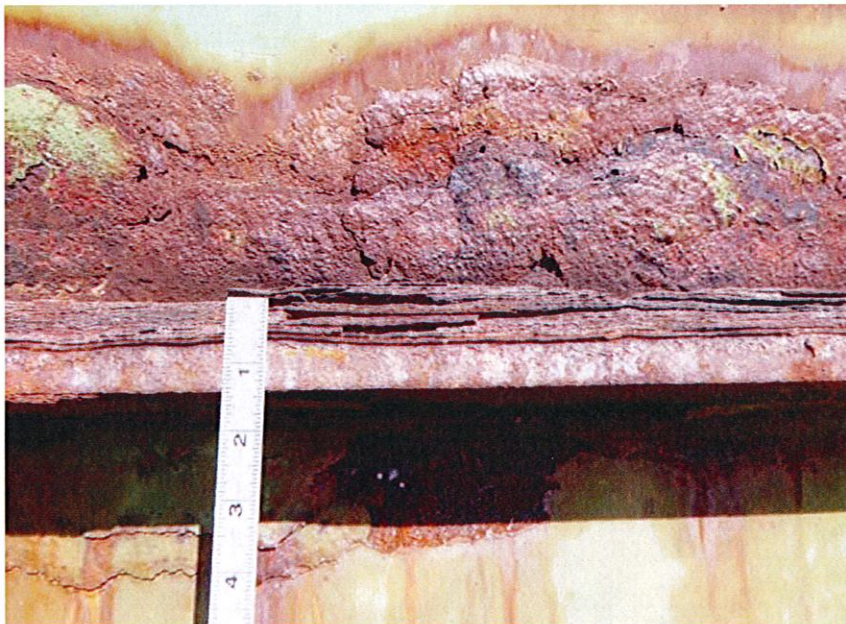
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View 15

Heavy R4 Rusting and Perforations of South Side Deck Edge Plate - North Side Similar



View 16

Heavy Laminar Rusting at Top Flange of Girder J - Girder A Similar

STRUCTURE NO.: ADA088-27.5N131  
CITY - Non-City, COUNTY - Adams County

88TH AVENUE over LOCAL DRAINAGE  
INSPECTION DATE 12/11/2017

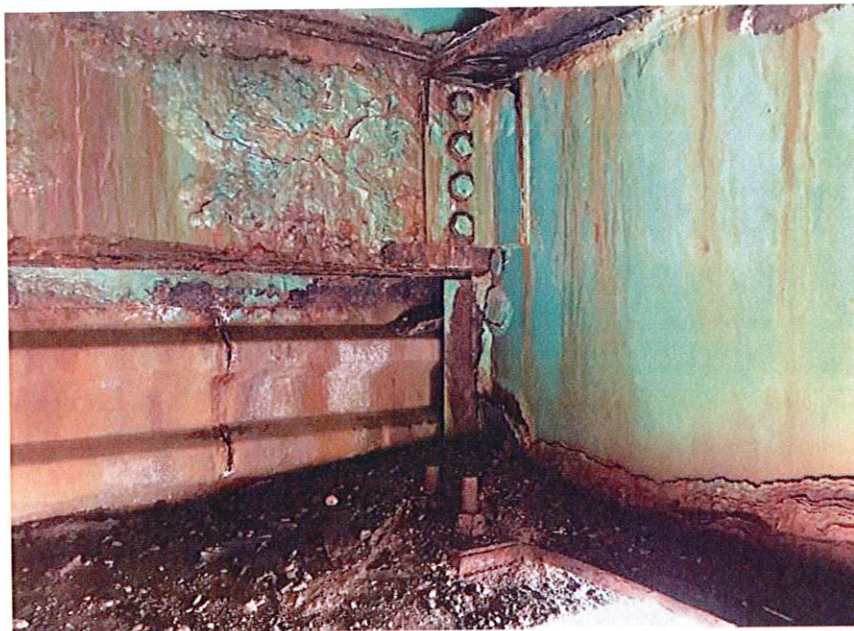
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View 17

Laminar Rusting at Top Flange of Girder J at Abutment 2 - Typical Multiple Locations



View 18

End Diaphragm and Bearing Area Corrosion of Girder J at Abutment 2 - Typical Multiple Locations

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CITY - Non-City, COUNTY - Adams County

88TH AVENUE over LOCAL DRAINAGE  
INSPECTION DATE 12/11/2017

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View 19

Soil/Debris up to 9" High on Bearing Seat of Girder J at Abutment 1 - Typical Multiple Locations



View 20

R3-R4 Rusting of Deck in Bay I - Typical Bays A, B, and J (1)

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CITY - Non-City, COUNTY - Adams County

88TH AVENUE over LOCAL DRAINAGE  
INSPECTION DATE 12/11/2017

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View 21

R3-R4 Rusting of Deck in Bay I - Typical Bays A, B, and J (2)



View 22

R3-R4 Rusting of Deck in Bay I - Typical Bays A, B, and J (3)

STRUCTURE NO.: ADA088-27.5N131  
CITY - Non-City, COUNTY - Adams County

88TH AVENUE over LOCAL DRAINAGE  
INSPECTION DATE 12/11/2017

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View 23

Turned Down Approach Rail End Treatments - Typical All Corners

STRUCTURE NO.: ADA088-27.5N131  
CITY - Non-City, COUNTY - Adams County

88TH AVENUE over LOCAL DRAINAGE  
INSPECTION DATE 12/11/2017

PREPARED BY SAN ENGINEERING, LLC. FOR THE COLORADO DEPARTMENT OF TRANSPORTATION

ADA088-27.5N131

WINGWALLS:  
(3) H-PILES 8 1/4"x8 1/8"x  
tf=3/8" w/6 1/2"x2 1/2"  
CORR. MTL. BACKWALL

↑ FLOW  
LOCAL  
DRAINAGE



23'-0"  
APPR. RDWY.

48'-0" O/O

50'-8"  
STR. LENGTH

DIRECTION OF  
INVENTORY

88TH AVENUE  
(ASPHALT)

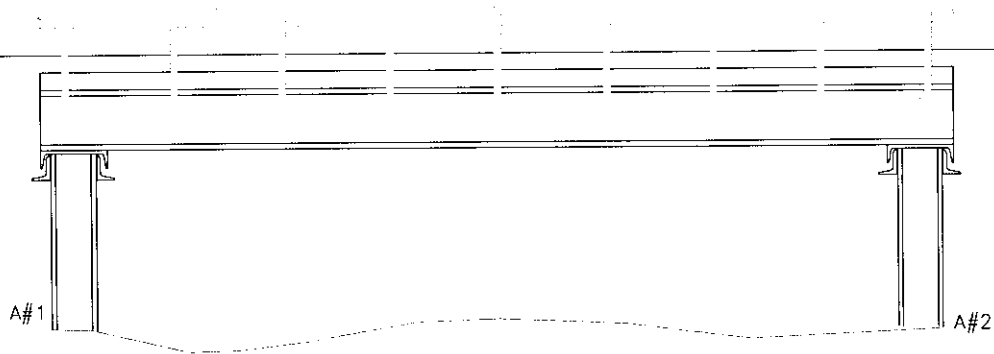
PLAN

ABUTMENTS:  
(1) MC18" CAP w/(2)  
L6"x3 1/2"x3/8" ON  
(10) HP12" PILES &  
6 1/2"x2 1/2" CORR.  
MTL. BACKWALL

C BRG.

48'-8"

C BRG.



48'-0" MAX SPAN

ELEVATION

LOOKING NORTH

47'-5" R/R

(9) W8x24 POSTS  
AT 6'-3" o.c. w/  
GALV. "W" FLEX  
BM. RAIL

1/4"x6" EDGE  
PLATE

8" ASPHALT ON  
12"x4 1/2"x7ga.  
STL. BRIDGE PLANK

2'-4"

GIR.  
#A

GIR.  
#J

63 1/2" 63" 63 1/2" 64" 63" 64" 63 1/2" 63 1/2" 63"

W16x26 DIAP.  
AT MIDSPAN

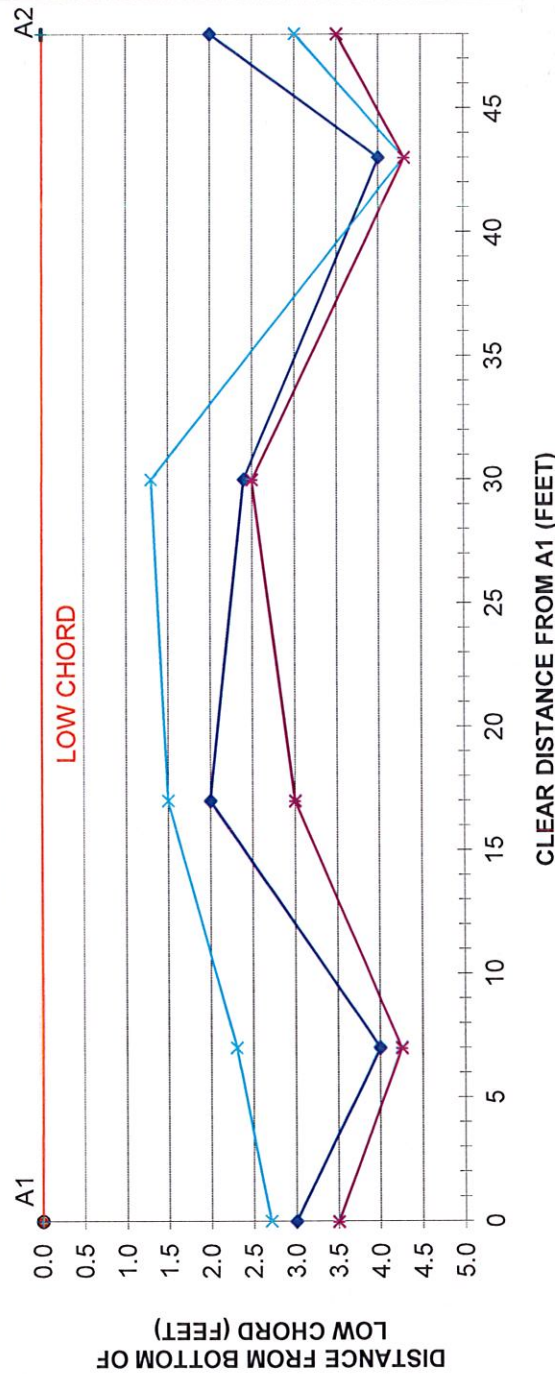
SECTION

LOOKING EAST

(10) W33x130 STEEL GIRDERS



# STREAMBED HISTORY



	0	7	17	30	43	48	WTR LVL
2011	3.0	4.0	2.0	2.4	4.0	2.0	N/A
2013	2.7	2.3	1.5	1.3	4.3	3.0	N/A
2017	3.5	4.3	3.0	2.5	4.3	3.5	DRY

STRUCTURE NUMBER: ADA088-27.5N131  
INSPECTION DATE: 12/11/2017

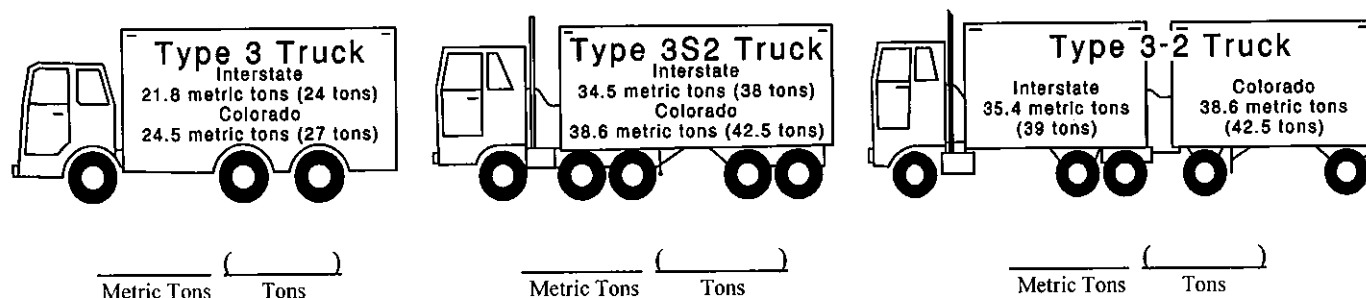
PERFORMED BY: JAZ



<b>COLORADO DEPARTMENT OF TRANSPORTATION</b> <b>LOAD FACTOR RATING SUMMARY</b>	Structure # ADA088-27.5N131	
	Abbr. Str. #	
	Road or Street # 88 <sup>TH</sup> AVENUE	
	Batch I.D.	
	Structure Type SSM	
Rated Using: Asphalt Thickness: 205 mm (8 in.) <input checked="" type="checkbox"/> Colorado Legal Loads <input type="checkbox"/> Interstate Legal Loads	Parallel Structure # N/A	

Structural Member	DECK		GIRDER			
	Metric Tons	(Tons)	Metric Tons	(Tons)	Metric Tons	(Tons)
Inventory MS 18 (HS20)	24.8	(27.4)	26.6	(29.4)		
Operating MS 18 (HS20)	41.4	(45.7)	44.5	(49.1)		

Type 3 Truck				
Type 3S2 Truck				
Type 3-2 Truck				
Permit Truck				



Comments:  8" asphalt above corrugations on 4 1/4" x 12" x 7 gage corrugated metal deck, $F_y = 50,000$ psi. Section reduced 25% due to rust.  Girder rated is interior W33x130, spanning 48'-8", spaced at 5'-3 3/4", $F_y = 33,000$ psi. Section reduced 10% due to rust.  <b>NO POSTING REQUIRED</b>			
Rated By: Cem Ayan	Date: 2/05/08	Checked By: Jason Triplett	Date: 2/06/08
INSPECTED BUT NOT RATED SHORT ELLIOTT HENDRICKSON, INC.		By:	Date:



## ESSENTIAL REPAIR FINDING – ADA088-27.5N131

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### ESSENTIAL REPAIR FINDING MEMO

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<b>TO:</b>	Mr. Mark McDonald, PE, SE Sr. Bridge Engineer, Public Works, Adams County	<b>DATE:</b>	February 09, 2018
		<b>FROM:</b>	Jeremy Zeid, PE Inspection Team Leader
	Adams County 4430 South Adams County Parkway 1 <sup>st</sup> Floor, Suite W2000B Brighton, CO 80601		San Engineering, LLC 1150 W. Littleton Blvd, Suite 200 Littleton, CO 80120

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### Essential Repair Finding – ADA088-27.5N131

Essential Repair Findings (ERF's) are existing conditions which require repairs to ensure the safe and continued service of a structure. The documentation below identifies an ERF found during a recent bridge inspection.

**Structure Number:** ADA088-27.5N131

**Inspection Date:** December 11, 2017

**Facility Carried:** 88<sup>th</sup> Avenue

**Feature Intersected:** Local Drainage

**ERF Color Code Classification:** Orange (See definition at end of letter)

**Structure Description:** ADA088-27.5N131 is a single span structure which consists of an asphalt wearing surface on steel stringers with corrugated metal flooring, and founded on steel piles with corrugated metal abutment wall lagging. The 10 girders vary in spacing from 63" to 64" inches. The south edge of deck is approximately 11'-6" from the edge of the eastbound travel lane. The north exterior girder, Girder A, is approximately 11'-9" from the edge of the westbound travel lane. The approach roadway width is approximately 23'-0"; however, the face of rail to face of rail width on the bridge is approximately 47'-5".

#### Findings

The exterior girders (Girders A and J) have heavy R3 to R4 rusting along the entire length of the girder on both sides of the lower 6"-8" of the girder web with heavy laminar rusting. Girder J is

markedly worse than Girder A. This laminar rust varies, averaging approximately 0.5" in thickness. At the time of inspection, the interior (north) side of Girder J had more substantial laminar rusting built up.

The top flange and top several inches of the girder web of the exterior girders also have heavy R3 rusting with laminar rust. Again, Girder J is markedly worse than Girder A. The laminar rust is present along various areas along the length of the girder on both sides of the web, heaviest at the girder ends, on the exterior face of the girder near the heavily corroded deck edge angle, and at locations in contact with the corrugated metal deck above. Similar to the bottom flange, the laminar rust varies in thickness, with a maximum of approximately 0.5" in thickness.

At the time of the inspection, several small areas were selectively chosen to remove the laminar rust to aid in determining the extent of the corrosion and section loss. When the flaking laminar rust was removed, perforations in the girder web were revealed. A 1" diameter perforation was exposed at 2'-8" from the east end, an 18" x 2" perforation was exposed at 10'-0" from the east end, and a 3" diameter perforation was exposed at 5'-0" to the east from mid-span.

In areas where it could be measured, the section loss of the girder webs was approximately 1/8" to 3/16" at the lower 8" of the web. The top flanges have approximately 1/8" section loss.

Furthermore, heavy R3 to R4 rusting of the corrugated decking in the 2 exterior bays is present. R2 to R3 rusting exists at the joints at various locations throughout the remaining interior bays. The north deck edge plate has R2 to R3 rusting along the entire length, while the south deck edge plate has R3 to R4 rusting with large perforations along the entire length.

Without a full and proper cleaning of the girders, the full extent of the section loss and potential for additional perforations can only be assumed at the time of inspection. The observed conditions could potentially significantly reduce the strength and effectiveness of the exterior girders and two exterior bays of decking on both sides of the bridge. It should be noted that, when vehicles pull over on the shoulders of the bridge, the exterior girders will receive direct live load distribution.

### **Recommendations**

In the short term, it is recommended that the travel way of this structure be restricted to the two existing lanes by use of traffic barriers preventing vehicles from driving on the shoulders. These traffic barriers should be placed such that the inside face of barrier is 10'-0" minimum from the edge of deck. The barrier should be significant enough that the traveling public cannot move them, such as concrete Jersey barriers or similar. Adequate signage, taper of the barriers and attenuators should be provided adhering to all applicable AASHTO/CDOT standards. In the



## ESSENTIAL REPAIR FINDING – ADA088-27.5N131

long term, the exterior girders, the two exterior bays (at a minimum) of corrugated decking, and deck edge angles should be removed and replaced.

Please let me know if you have any questions or if I can provide any additional information regarding this inspection.

Regards,

Jeremy Zeid, PE  
Inspection Team Leader  
Phone: 303-953-9014, ext. 112  
[jeremy@sanstructural.com](mailto:jeremy@sanstructural.com)  
Attachments:

- Definitions of Color Code Classification
- Photos

### Classification and Prioritization

When identifying a needed repair as essential, the Bridge Inspection Program Manager will classify the repair based on the appropriate time frame for addressing the problem as follows:

Orange	Accomplish repairs within the timeframe specified by the memo or within 30 days maximum.
Yellow	Recommend accomplishing repairs within the next 90 days.
Green	Recommend accomplishing repairs within the next year or as funding allows.
Blue	Monitoring by maintenance in lieu of repairs. The type and frequency of monitoring as specified by the repair notice.





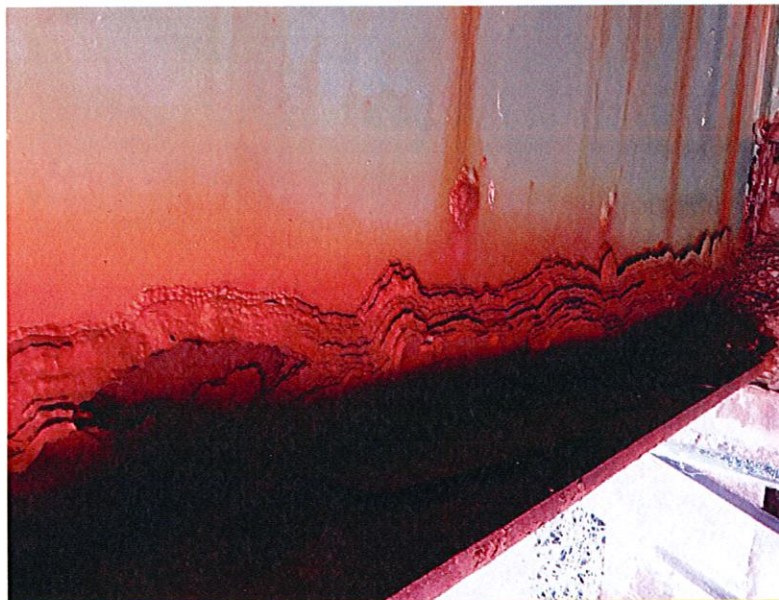
11.5' Eastbound Shoulder on South Side, Looking West – Westbound on North Side Similar



South Side of Exterior Girder J with Heavy R3-R4 Rusting – Girder A Similar

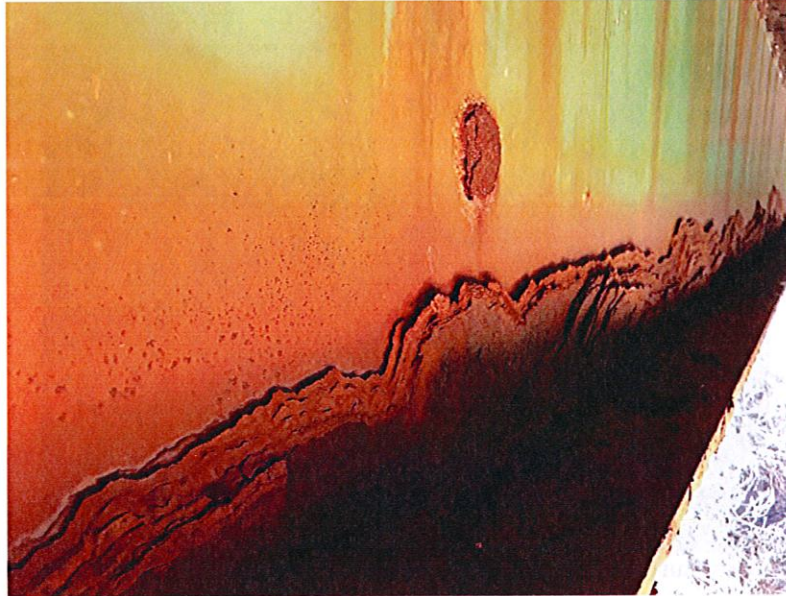


North Side of Exterior Girder J with Heavy R3-R4 Rusting – Girder A Similar

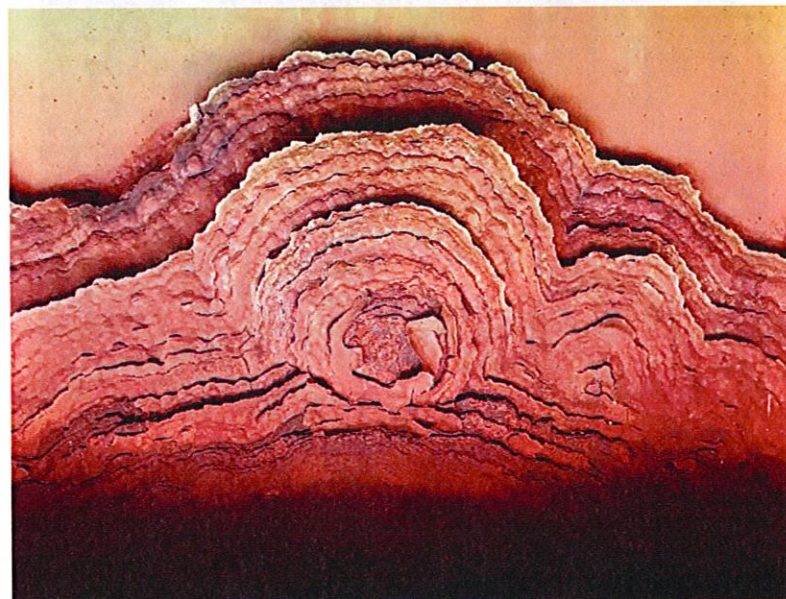


Heavy Laminar Rust at Bottom of Web of Exterior Girder J – Girder A Similar





Heavy Laminar Rust at Bottom of Web of Exterior Girder J – Girder A Similar



Heavy Laminar Rust at Bottom of Web of Exterior Girder J – Girder A Similar

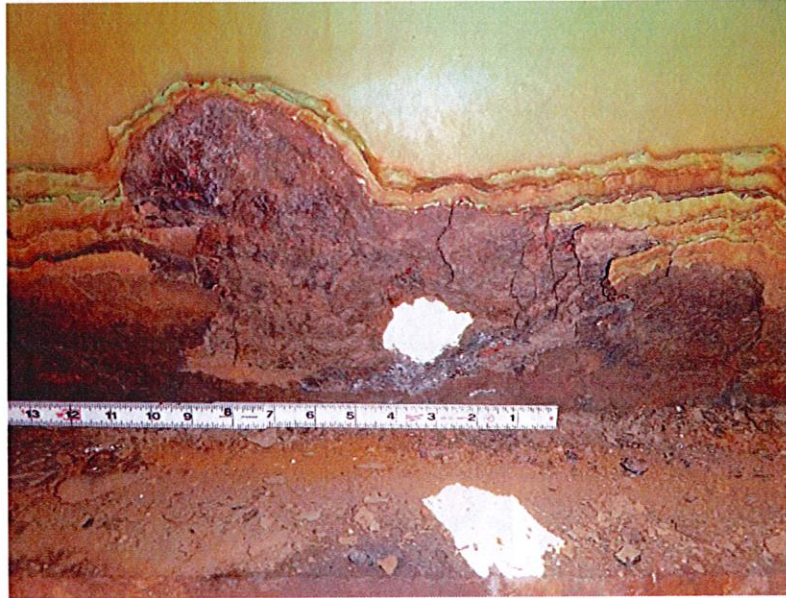


Heavy Laminar Rust and 1" Diameter Perforation at Bottom of Web of Exterior Girder J  
2'-8" from Abutment 2



Heavy Laminar Rust and 18" x 2" Perforation at Bottom of Web of Exterior Girder J  
10'-0" from Abutment 2

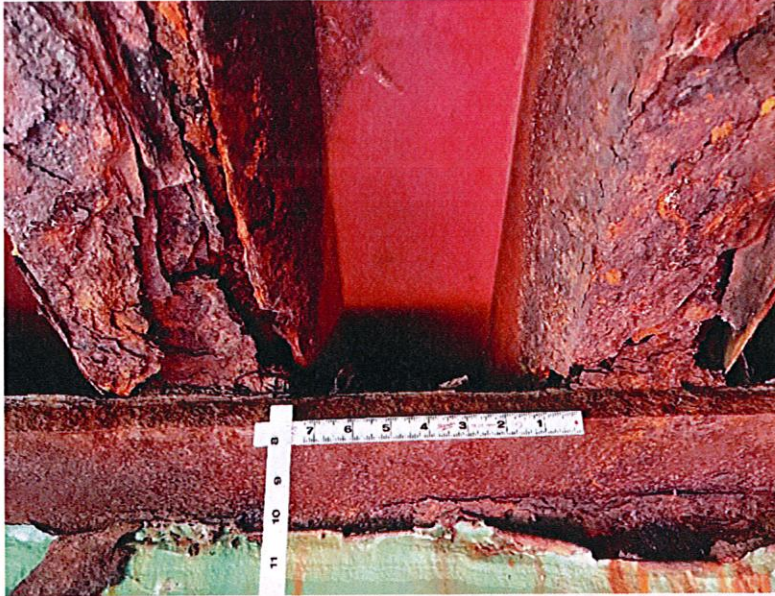




Heavy Laminar Rust and 3" Diameter Perforation at Bottom of Web of Exterior Girder J  
5'-0" to the East of Mid-Span



Heavy Laminar Rust at Top Flange of Exterior Girder J – Girder A Similar



Heavy R3-R4 Rusting of Corrugated Deck in Exterior Bay I – Bays A, B, and H Similar



Heavy R3-R4 Rusting of Corrugated Deck in Exterior Bay I – Bays A, B, and H Similar





Heavy R3-R4 Rusting and Perforations of Deck Edge Angle on South Side – North Side Similar





# Benesch Proposal

**E. 88<sup>th</sup> Ave. Over Local Drainage Engineering Design Services**

**Structure No.: ADA088-27.5N131**

**RFP Number: RFP-SS-2018.634**

PREPARED FOR  
**Adams County**

September 2018



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Hudson Road over Coyote Run Creek – City of Aurora

September 6, 2018

Adams County Finance Department  
Purchasing Division  
4430 South Adams County Parkway  
Brighton, CO 80601

Attn: Shannon E. Sprague, CPPB  
Adams County Contract Specialist

**Subject: E. 88<sup>th</sup> Ave. over Local Drainage Engineering Design Services - RFP-SS-2018.634**

Dear Ms. Sprague and Selection Committee;

Alfred Benesch & Company (Benesch) is very pleased to submit this proposal for engineering services for the rehabilitation of the **88<sup>th</sup> Avenue Bridge over Local Drainage (ADA088-27.5N131)**. Benesch has completed many rehabilitation projects for clients throughout Colorado. We have also inspected many bridges in Adams County. We have demonstrated our ability to successfully complete bridge projects for a wide variety of structure types and types of deterioration including the following:

- **Hudson Road over Coyote Run Creek**, City of Aurora (rehabilitation)
- **Woodmen Road Bridge Rehabilitation**, City of Colorado Springs (Rehabilitation)
- **Myers Gulch Road over Bear Creek**, Jefferson County (rehabilitation)

The Hudson Road project is very similar in scope to this Adams County project. Hudson Road was completed early this summer. Since the project was recently completed, the important lessons learned are still fresh in our minds and will benefit the County's project accordingly.

To address some of the special concerns presented by this project, we have asked one other firm to join our team and address a specific technical area. Our team and their respective areas of responsibility are as follows:

- **Benesch** – Project Management, Bridge Rehabilitation Design, Roadway Design
- **Farnsworth Group, Inc.** – Surveying, Right of Way

Benesch has worked with this consultant on a number of projects and we have a well-established working relationships with them.

Our proposed Project Manager is Daniel Bechtold, P.E. Dan has over 28 years of bridge engineering experience, all of it at Benesch/LONCO. Dan has been our Project Manager and lead bridge engineer



for many projects throughout Colorado. Dan's experience on projects such as these makes him an excellent choice for this project.

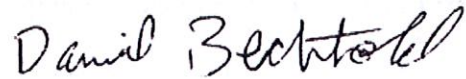
We hope the attached proposal demonstrates that we are the best team for this project. We give Adams County our full commitment to this project and look forward to working with you again. The information and data submitted is true and complete to our best knowledge. Please call if you have any questions.

Sincerely,



---

William H. Epp, PE  
Senior Vice President and Colorado Division Manager  
(303) 771-6868  
[wepp@benesch.com](mailto:wepp@benesch.com)



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Daniel J. Bechtold, PE  
Project Manager  
(303) 771-6868  
[dbechtold@benesch.com](mailto:dbechtold@benesch.com)



## PROJECT APPROACH:

### Project Understanding:

The existing bridge has a steel stringer with asphalt filled corrugated metal deck superstructure. As is typical with these type of structures, poor drainage characteristics have caused substantial deterioration to the existing metal deck as well as the exterior (fascia) girders. The bridge is listed as Structurally Deficient in the current bridge inspection report and has been issued an Essential Repair Finding (ERF). The County has closed both bridge shoulders to traffic. The County wants to replace the existing deck (with a composite concrete deck) and the exterior girders, at a minimum.

Schedule is a mission critical element of this project. Benesch will incorporate a Schematic Design Phase as a way to accelerate the design development. The schematic phase will allow the project to commence prior to collecting the project survey. Our familiarity with this type of bridge and project will also assist us in moving the project forward rapidly.

### Schematic Design

Benesch will initiate a field inspection of the existing bridge shortly after notice-to-proceed (NTP) and the Kick-off meeting. We will verify the existing conditions as reported in the bridge inspection report as well as document the conditions that will impact the design. With field measurements and the bridge inspection report, we will begin to develop a concept level study of how to rehabilitate the structure. We will also review the available options for construction phase traffic control. These options include a full closure (with off-site detour) and phased construction (potentially using a single lane with alternating traffic). It is assumed that existing right-of-way limits will preclude an on-site (shoefly) detour approach to construction phase traffic control. We will submit a letter report with supporting 11"x17" exhibits to document our results from the concept study. This concept study will be submitted to the County for review.

### Preliminary Design (FIR):

By the start of the preliminary design phase, we will have our design survey. With this survey an alignment will be set to best tie into the existing roadway. After the horizontal alignment has been set, design for the vertical alignment will commence. One challenging aspect of developing the roadway profile on a rehabilitation project is the need to match the existing conditions (top of girder elevations). We have recently completed a very similar project, so we are very familiar with this process. The roadway typical section will also be developed and discussed with the County. Two cross sections will be required; one for the typical roadway section and one for the significantly wider bridge section. A transition between these two sections will be shown in the roadway plan.

A structure type selection report will not be necessary, since it is assumed the County wants to install a composite concrete deck. The existing exterior girders will be removed and replaced. Welded shear studs will be attached to the top flanges of the new and existing girders. It is assumed that the new composite deck will raise the capacity (load rating) of the bridge. We will provide a preliminary rating and report the new capacity in the preliminary report. At this point in the project, a separate bridge FIR meeting can be held.

Traffic phasing plans will be developed from the concept studied in the schematic design phase. We will submit a preliminary design package, which will include most of the roadway drawings. The existing Right-of-Way (ROW) will be determined, but CDOT style ROW plans will not be provided. We will make a preliminary recommendation of easements that may be required for construction. A preliminary level opinion of construction cost will be developed. The preliminary roadway design will be submitted for review.

We will attend a Field Inspection Review (FIR) meeting to discuss the roadway design with the County. After we received comments on the preliminary submittal, we will proceed to final design.

Final Design (FOR):

The final design of the roadway will include guardrail configuration, signing and striping, and a stormwater management plan. All required sheets will be started and substantially complete (90% or more complete). We will download and assemble CDOT standard special provisions and prepare project special provisions (technical specifications) that apply to our work. Other specifications (boiler plate) necessary to bid the project to contractors are not included in our work and we assume they will be prepared by the County.

Bridge design documents will be advanced to at least 90% complete. The bridge design will be coordinated with the phased construction plan (if phased construction is used). All anticipated repairs will be included for review by the County.

We assume the following drawings will be required and will produce them during the final design phase.

Final Design Phase Drawing List:

1. Title Sheet
2. Standard Plans List
3. General Notes
4. Typical Sections
5. Summary of Approximate Quantities (2 sheets)
6. Tabulations
7. Survey Tabulation Sheet
8. Land Survey Control Diagram
9. Plan and Profile Sheet
10. Channel Grading
11. Traffic Control Plan
12. Traffic Control Notes
13. Phasing/Work Zone Sheet
14. Stormwater Management Plan (2 Sheets)
15. Erosion Control Plan
16. Striping Plan
17. Bridge General Information
18. Bridge General Layout
19. Construction Layout
20. Abutment and Wingwall Details
21. Steel Girder Details
22. Superstructure Details
23. Deck Reinforcing Plan
24. Bridge Rail Type 10M
25. Bridge Rail Details
26. Bridge Deck Elevations

Minor variations on the naming and number of the drawings produced are likely, but this list is given to demonstrate the overall level of effort. We will submit these drawings and specification for review at about a 90% level of completion. We will attend the Final Office Review (FOR) meeting. When comments have been received from the County, we will proceed to preparing the For Bid Documents.

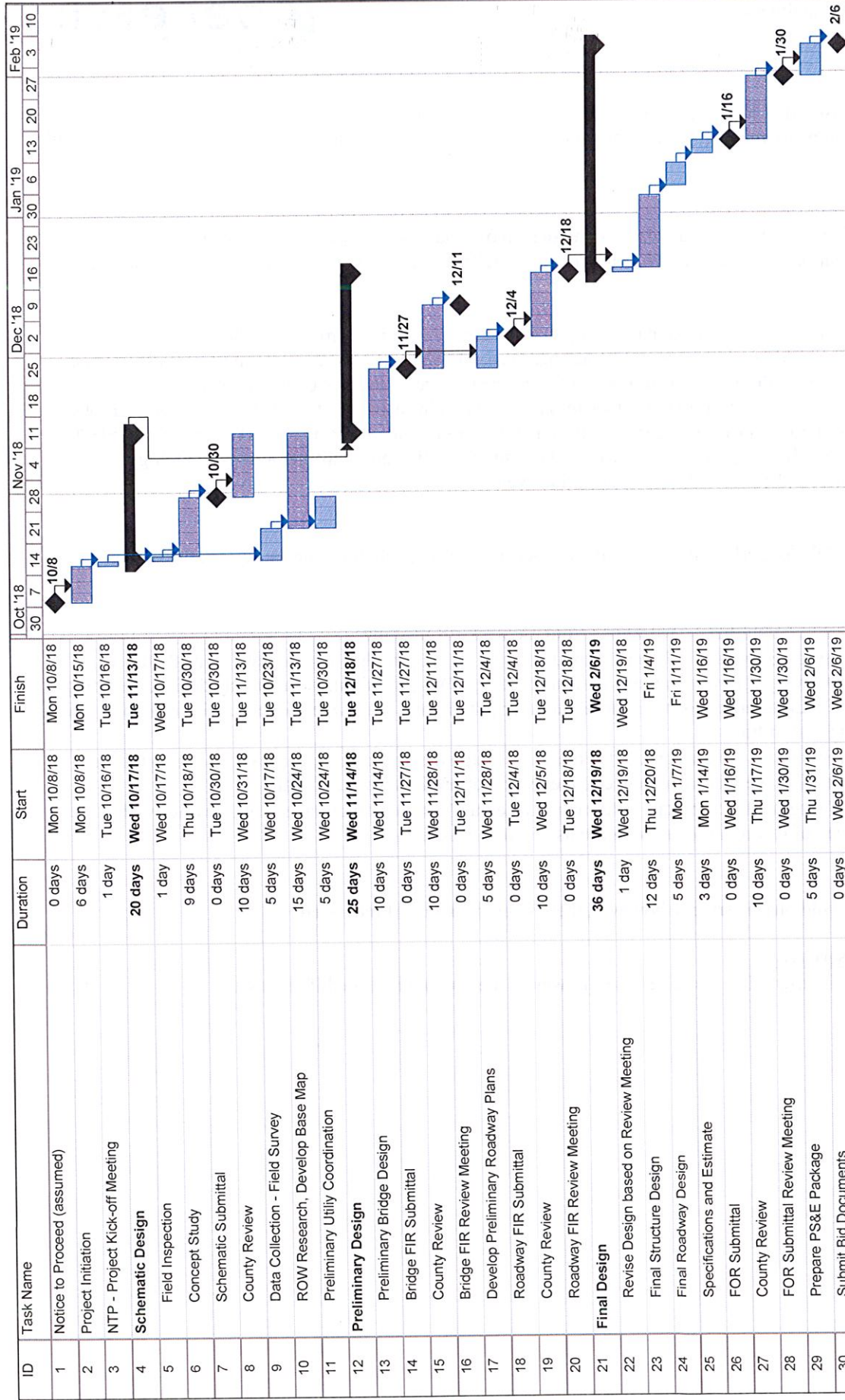
For Bid Documents:

We will make drawing or specification changes as required to accommodate review comments received from the County.

Assumptions:

The following assumptions are included in this project approach. If these assumptions do not meet the goals of the County, please let us know so that the scope can be modified.





Task

Split

Progress

Milestone

Summary

Project Summary

External Tasks

External Milestone

Deadline

Project: 88th Ave Rehab Schedule

Date: Wed 9/5/18

We assume that acquisition of ROW (permanent or temporary) is not included in the scope of work. Our work will include construction easements (3 parcels maximum) and one legal description for a permanent acquisition, if necessary.

Excluded Items:

Hydrologic and hydraulic analysis, scour analysis and design of scour countermeasures are excluded. Geotechnical investigations are excluded. No substructure modifications or significant deficiencies are anticipated that would require a report.

Since environmental studies are excluded, it is assumed that the County will either provide the 404 permit or has determined that there are no Waters of the U.S. or jurisdictional Wetlands within the project site. Similarly, we assume that the County has determined that there are no Threatened or Endangered Species in the project site. Normally, our environmental subconsultant would conduct the historic resources survey. Given that the structure is less than 50 years old, our proposal is based on the assumption that coordination with the Colorado State Historic Preservation officer (SHPO) will not be required. Finally, our proposal is based on the assumption that air quality, noise, paleontology, archeology, Section 4(f) and Section 6(f) are excluded as well.

Schedule:

Our preliminary schedule for performing this work is attached. The schedule for major milestones is shown below.

- Schematic Design Submittal – Two weeks from the Kick-off meeting.
- Preliminary Design Submittal – We can provide our preliminary bridge design drawing in about two weeks from receiving comments on our schematic design. We can submit our roadway design, assuming no unusual difficulties are encountered in obtaining right of entry to private property, within about a week after the bridge submittal.
- Final Design Submittal – We can provide our final design drawings and specifications in about four weeks from the time we receive review comments on our preliminary submittal.
- Construction Documents Submittal – We can provide our “For Construction” set of drawings within about one week of receiving review comments on our final design.

Bid Phase Services:

We have not included bid phase services, however, these could be added if requested.

Construction Phase Services:

We have not included construction phase services, however, these could be added if requested.



88th Avenue Bridge Rehabilitation  
Adams County



9/6/2018

Hourly Rate	Position	Employee
\$181.00	Manager In Charge (MIC)	Steven C. Banks
\$181.00	Project Manager (PM)	Daniel Bechtold
\$128.00	Project Engineer (PE)	
\$147.00	Hydraulic Project Eng (PE)	
\$97.00	Design Engineer (DE)	
\$87.00	CAD Drafter (CAD)	
\$66.00	Clerical	

Task	Hours by Employee						Expenses	Total
	MIC	PM	PE	DE	CAD	Clerical		

SCHEMATIC DESIGN

Data Collection / Kickoff	0	2	0	4	0	0	\$0.00	\$750.00
Field Inspection	0	6	0	6	0	0	\$29.00	\$1,697.00
Concept Study	0	40	0	40	0	0	\$0.00	\$11,120.00
Prepare Schematic Submittal	0	2	0	2	0	1	\$0.00	\$622.00
Survey Field Work	0	1	0	0	0	0	\$2,600	\$2,781.00
Survey Office Work	0	0	0	0	0	0	\$6,100	\$6,100.00
Review Meeting	3	3	0	0	0	0	\$15.00	\$1,101.00
Preliminary Design Hours	3	54	0	52	0	1		

Schematic Design Fee \$24,171.00

PRELIMINARY DESIGN

Roadway Design - Alignment	0	8	20	0	0	0	\$0.00	\$4,008.00
Roadway Design - Profile	0	12	8	0	0	0	\$0.00	\$3,196.00
Stormwater Management Plan	0	8	8	0	0	0	\$0.00	\$2,472.00
Preliminary Bridge Design	0	20	0	16	0	0	\$0.00	\$5,172.00
Preliminary Utility Coordination	0	2	0	12	0	0	\$0.00	\$1,526.00
Preliminary ROW and Easements	0	8	0	0	0	0	\$1,000	\$2,448.00
Opinion of Probable Const. Cost	0	4	0	0	0	0	\$0.00	\$724.00
Quality Control Review	4	0	0	0	0	0	\$0.00	\$724.00
Prepare FIR Submittal	0	4	0	0	0	1	\$0.00	\$790.00
FIR Review Meeting	3	3	0	0	0	0	\$18.00	\$1,104.00
Preliminary Design Hours	7	69	36	28	0	1		

Preliminary Design Fee \$22,164.00

88th Avenue Bridge Rehabilitation  
Adams County



Task	Hours by Employee						Expenses	Total
	MIC	PM	PE	DE	CAD	Clerical		
FINAL DESIGN								
Cover Sheet	0	4	0	2	0	0	\$0.00	\$918.00
Standards Plans List	0	2	0	2	0	0	\$0.00	\$556.00
General Notes Sheet	0	2	4	2	0	0	\$0.00	\$1,068.00
Typical Sections Sheet	0	2	4	0	0	0	\$0.00	\$874.00
Summary of App. Quantities Sheets	0	4	8	8	0	0	\$0.00	\$2,524.00
Tabulations Sheet	0	2	4	0	0	0	\$0.00	\$874.00
Survey Tabulation Sheet	0	0	0	2	0	0	\$0.00	\$194.00
Land Survey Control Diagram	0	2	0	0	0	0	\$500	\$862.00
ROW/Easements	0	4	8	0	0	0	\$2,600	\$4,348.00
Plan and Profile Sheet	0	4	8	0	0	0	\$0.00	\$1,748.00
Channel Grading	0	2	8	0	0	0	\$0.00	\$1,386.00
Traffic Control / Phasing Sheets	0	16	8	0	0	0	\$0.00	\$3,920.00
SWMP Plans	0	4	8	0	0	0	\$0.00	\$1,748.00
Erosion Control Plans	0	4	8	0	0	0	\$0.00	\$1,748.00
Signing and Striping Plan	0	0	4	2	0	0	\$0.00	\$706.00
Bridge General Information	0	2	0	2	0	0	\$0.00	\$556.00
Bridge General Layout	0	12	0	16	0	0	\$0.00	\$3,724.00
Construction Layout	0	8	0	8	0	0	\$0.00	\$2,224.00
Bridge Removals Plan	0	4	0	8	0	0	\$0.00	\$1,500.00
Abutment Modification Details	0	8	0	8	0	0	\$0.00	\$2,224.00
Girder Modification Details	0	8	0	16	0	0	\$0.00	\$3,000.00
Superstructure Details	0	8	0	16	0	0	\$0.00	\$3,000.00
Bridge Rail Sheet (2 sheets)	0	4	0	2	0	0	\$0.00	\$918.00
Bridge Deck Geometry	0	2	0	12	0	0	\$0.00	\$1,526.00
Roadway Approaches	0	2	0	4	0	0	\$0.00	\$750.00
Project / Standard Spec. Provisions	0	8	0	4	0	0	\$0.00	\$1,836.00
Opinion of Probable Cost	0	8	8	4	0	0	\$0.00	\$2,860.00
Quality Control Review	4	0	4	0	0	0	\$0.00	\$1,236.00
Appraisal Staking	0	2	0	0	0	0	\$1,400	\$1,762.00
FOR Review Meeting	3	3	0	0	0	0	\$15.00	\$1,101.00
Revise Dwgs and Submit Bid Docs	0	2	0	8	8	0	\$0.00	\$1,834.00
Final Design Hours	7	133	84	126	8	0		
Final Design Fee								\$53,525.00

**Total Project Fee     \$99,860**

*Survey Subconsultant Fee (included in total project fee)*

*\$14,200.00*



OFFICE OF THE SECRETARY OF STATE  
OF THE STATE OF COLORADO

**CERTIFICATE OF FACT OF GOOD STANDING**

I, Wayne W. Williams, as the Secretary of State of the State of Colorado, hereby certify that,  
according to the records of this office,

Alfred Benesch & Company

is an entity formed or registered under the law of Illinois, has complied with all  
applicable requirements of this office, and is in good standing with this office. This entity has  
been assigned entity identification number 20091563996.

This certificate reflects facts established or disclosed by documents delivered to this office on  
paper through 09/14/2018 that have been posted, and by documents delivered to this office  
electronically through 09/17/2018 @ 14:08:57.

I have affixed hereto the Great Seal of the State of Colorado and duly generated, executed, and issued this  
official certificate at Denver, Colorado on 09/17/2018 @ 14:08:57 in accordance with applicable law.  
This certificate is assigned Confirmation Number 11120037.



Secretary of State of the State of Colorado

\*\*\*\*\*End of Certificate\*\*\*\*\*

*Notice: A certificate issued electronically from the Colorado Secretary of State's Web site is fully and immediately valid and effective. However, as an option, the issuance and validity of a certificate obtained electronically may be established by visiting the Validate a Certificate page of the Secretary of State's Web site, <http://www.sos.state.co.us/biz/CertificateSearchCriteria.do> entering the certificate's confirmation number displayed on the certificate, and following the instructions displayed. Confirming the issuance of a certificate is merely optional and is not necessary to the valid and effective issuance of a certificate. For more information, visit our Web site, <http://www.sos.state.co.us/> click "Businesses, trademarks, trade names" and select "Frequently Asked Questions."*







ALFRBEN-01

VSANTOSUOSSO

## CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

09/27/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Ames & Gough 859 Willard Street Suite 320 Quincy, MA 02169	<b>CONTACT NAME:</b>	<b>PHONE (A/C, No, Ext):</b> (617) 328-6555	<b>FAX (A/C, No):</b> (617) 328-6888
	<b>E-MAIL ADDRESS:</b> boston@amesgough.com		
<b>INSURED</b>  Alfred Benesch & Company 35 West Wacker Drive, Suite 3300 Chicago, IL 60601-5927	<b>INSURER(S) AFFORDING COVERAGE</b>		<b>NAIC #</b>
	<b>INSURER A:</b> Travelers Indemnity Co. of America A++, XV		25666
	<b>INSURER B:</b> Travelers Property Casualty Company of America		25674
	<b>INSURER C:</b> Phoenix Insurance Company A+, XV		25623
	<b>INSURER D:</b> Berkshire Hathaway Specialty Insurance Company		22276
	<b>INSURER E:</b>		
<b>INSURER F:</b>			

## COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC OTHER:	X		630-0D870755	05/31/2018	05/31/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	X		BA-1E721939	05/31/2018	05/31/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
C	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input checked="" type="checkbox"/> Y/N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		UB-5K723986	05/31/2018	05/31/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	<input checked="" type="checkbox"/> Professional Liab			47-EPP-305297-01	05/31/2018	05/31/2019	Per Claim 1,000,000
D				47-EPP-305297-01	05/31/2018	05/31/2019	Aggregate 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
RE: E. 88th Ave over Local Drainage Design Services Benesch Project #TBD (PM: Dan Bechtold)

Adams County shall be included as additional insured with respects to General and Auto Liability where required by written contract.

## CERTIFICATE HOLDER

## CANCELLATION

Adams County  
Attn: Shannon Sprague, CPPB  
4430 S Adams County Pkwy Ste C4000A  
Brighton, CO 80601

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

