PURCHASE OF SERVICE AGREEMENT

THIS AGREEMENT ("Agreement") is made this 19th day of November 2014, 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 URS Corporation, located at 8181 East Tufts Avenue, 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 2014.369 Bridge Scour Structural and Environmental Design Services and the Contractor's response to the RFP 2014.369 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 commence upon receipt of Notice to Proceed and be completed by March 1, 2015.

   3.2. Extension Option: The County, at its sole option, may offer to extend this Agreement as necessary for up to two, one year extensions providing satisfactory service is given and all terms and conditions of this Agreement have been fulfilled. Such extensions must be mutually agreed upon in writing by the County and the Contractor.

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 sum of one hundred seventy-eight thousand four hundred thirty-one dollars ($178,431.00)

   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.

5. **INDEPENDENT CONTRACTOR:** In providing services under this Agreement, the Contractor acts as an independent contractor and not as an employee of the County. The Contractor shall be solely and entirely responsible for his/her acts and the acts of his/her employees, agents, servants, and subcontractors during the term and performance of this Agreement. No employee, agent, servant, or subcontractor of the Contractor shall be deemed to be an employee, agent, or servant of the County because of the performance of any services or work under this Agreement. The Contractor, at its expense, shall procure and maintain workers' compensation insurance as required by law. **Pursuant to the Workers' Compensation Act § 8-40-202(2)(b)(IV), C.R.S., as amended, the Contractor understands that it and its employees and servants are not entitled to workers' compensation benefits from the County. The Contractor further understands that it is solely obligated for the payment of federal and state income tax on any moneys earned pursuant to this Agreement.**

6. **NONDISCRIMINATION:**

   6.1. **The Contractor shall not discriminate against any employee or qualified applicant for employment because of age, race, color, religion, marital status, disability, sex, or national origin. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices provided by the local public agency setting forth the provisions of this nondiscrimination clause. Adams County is an equal opportunity employer.**

   6.1.1. The Contractor will cause the foregoing provisions to be inserted in all subcontracts for any work covered by this Agreement so that such provisions will be binding upon each subcontractor, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.

7. **INDEMNIFICATION:** The Contractor agrees to indemnify and hold harmless the County, its officers, agents, and employees for, from, and against any and all claims, suits, expenses, damages, or other liabilities, including reasonable attorney fees and court costs, arising out of damage or injury to persons, entities, or property, caused or sustained by any person(s) as a result of the Contractor's performance or failure to perform pursuant to the terms of this Agreement or as a result of any subcontractors' performance or failure to perform pursuant to the terms of this Agreement.

8. **INSURANCE:** The Contractor agrees to maintain insurance of the following types and amounts:

   8.1. Commercial General Liability Insurance: to include products liability, completed operations, contractual, broad form property damage and personal injury.
   8.1.1. Each Occurrence: $1,000,000
   8.1.2. General Aggregate: $2,000,000

   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, comprehensive automobile liability 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. TERMINATION:

9.1. 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.

9.2. 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.

10. MUTUAL UNDERSTANDINGS:

10.1. 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.

10.2. 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, 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).

10.3. 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.

10.4. 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.

10.5. Assign Ability: 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.

10.6. 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.

10.7. 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.

10.8. 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 Transportation Department
Contact: Russ Nelson, Assistant Engineering Manager
Address: 4430 South Adams County Parkway
City, State, Zip: Brighton, CO 80601
Phone: 720.523.6966
E-mail: rnelson@adcogov.org

Department: Adams County Purchasing
Contact: Liz Estrada
Address: 4430 South Adams County Parkway
City, State, Zip: Brighton, Colorado 80601
Phone: 720.523.6052
E-mail: lestrada@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: URS Corporation
Contact: Mark C. Schaefer, PE
Address: 8181 E. Tuffs Avenue
City, State, Zip: Denver, CO 80237
Phone: 303.694.3946
E-mail: mark.schaefer@urs.com

10.9. 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.

10.10. 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.

10.11. 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.

11. CHANGE ORDERS OR EXTENSIONS:

11.1. 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 Invitation to Bid, or, if no provision exists, pursuant to the terms of the Change Order.

11.2. Extensions: The County may, upon mutual written agreement by the parties, extend the time of completion of services to be performed by the Contractor.

12. 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:

12.1. 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.

12.2. The Contractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract for services.

12.3. 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.

12.4. 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.

12.5. 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.

12.6. 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.

12.7. 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).

12.8. 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.

The remainder of this page is left blank intentionally.

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

Board of County Commissioners

Chairman — Date: 11-19-14

URS Corporation

Signature — Date: 11-14-2014

Mark C Schaefer — Printed Name

Vice President — Title

Attest:

Karen Long, Clerk and Recorder

Deputy Clerk

Approved as to Form:

Adams County Attorney's Office

NOTARIZATION OF CONTRACTOR'S SIGNATURE:

COUNTY OF Denver)

STATE OF Colorado)**SS.**

Signed and sworn to before me this 14th **day of** November **, 2014,**

by Mark C. Schaefer, Vice President

Notary Public

HELEN BINGERMAN
Notary Public
State of Colorado

My commission expires on: My Commission Expires November 04, 2015

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:

URS Corporation
Company Name

11-14-2014
Date

Signature

Mark C. Schaefer
Name (Print or Type)

Vice President
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

PROPOSAL FOR PROFESSIONAL SERVICES

BRIDGE SCOUR

STRUCTURAL DESIGN AND ENVIRONMENTAL SERVICES

PUBLIC WORKS

URS

October 24, 2014

URS

8181 East Tufts Ave.
Denver, CO 80237
Tel: 303.694.2770
Fax: 303.694.3946

October 24, 2014

Ms. Liz Estrada
Contract Administrator
Adams County Government Center
Finance Department
4430 South Adams County Parkway, Ste C4000A
Brighton, Colorado 80601

RE: Proposal for Professional Services
Bridge Scour Structural Design and Environmental Services

Dear Ms. Estrada and Members of the Selection Committee:

The floods of September 2013 reminded all Colorado residents of the importance of our public transportation infrastructure to our quality of life, public safety, and financial well-being. The scour mitigation and structural engineering improvements proposed for the structures at E. 168th Avenue over the South Platte River; McKay Road over the South Platte River; Washington Street over Clear Creek; and Henderson Road over the South Platte River will remedy identified deficiencies and ensure that these structures continue to perform their vital transportation linkage function as required by County residents.

URS has been the County's partner in identifying deficiencies at each bridge, and developing economical and effective structural solutions. As the County now moves to finalize and implement these solutions, the URS environmental and structural team will now be engaged to provide the appropriate environmental clearance documentation for the proposed improvements and prepare contractor documents for more extensive engineering improvements required for the Henderson Road Bridge over the South Platte River.

We have prepared this proposal in compliance with the RFP requirements. Our project approach discusses the thought process we used to originally develop the scope of environmental and structural engineering services for the County. We have shown an aggressive schedule for completion of the project tasks. Using our depth of technical specialists, our scheduling approach emphasizes the use of parallel tasks, allowing for the schedule to be met with defined review periods for Adams County staff and the County's agency partners of this project. Our project staffing plan assigns a seasoned technical specialist to each of the project's varied technical areas. In additional to our current work on the FHWA Emergency Relief Program and implementation of the associated CDOT Local Agency processes, our Denver-based staff has been engaged on many similar transportation infrastructure improvement projects across the Front Range, including a structural mitigation project on the 6th Avenue bridge for the City and County of Denver that included the use of micropiles.

We look forward to working with you on this interesting and challenging project. If we can be of any assistance to you during your review of our proposal, please contact me at 303-796-4761 or mark.schaefer@urs.com.

Sincerely,

URS CORPORATION

Mark C. Schaefer, PE
Project Manager/Vice President

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SECTION 1. BACKGROUND/APPROACH TO PROJECT

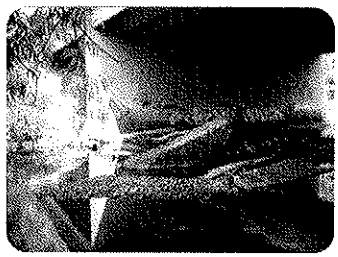
Project History and Context

Soon after the historic flooding of September 2013, URS Corporation (URS) was retained by Adams County Public Works to evaluate scour at the E. 168th Avenue, Henderson Road, and McKay Road bridges over the South Platte River. Following a scour analysis, URS initiated the design of scour countermeasures at each location.

Stantec, under contract to Colorado Department of Transportation (CDOT), inspected the Henderson Road Bridge and identified a loss of structural capacity due to corrosion in the bridge's steel pile section, which was compounded by the scour depth experienced during the flood. A weight restriction was placed on the structure.

Working with the results of the Stantec inspection, URS developed a scour mitigation and structural rehabilitation plan for the Henderson Road Bridge that included the use of micropiles.

Scour assessments at the Washington Street Bridge over Clear Creek have also been conducted by URS. Preliminary recommendations include the removal of the old bridge remnants from the channel with additional countermeasures to be designed under a separate task order with Adams County.



Although CDOT has provided expedited environmental clearances for emergency flood-related work, the federally-funded permanent repairs envisioned under this project for the E. 168th Avenue, McKay Road, and Henderson Road bridges will require formal environmental clearances and standard review processes (anticipated at this time to be Categorical Exclusions). Environmental studies and clearances for non-federally-funded projects apply to the Washington Street Bridge.

This project will use state and federal funds for design and construction, managed by Adams County through the CDOT Local Agency Contract Administration (LACA) program.

Proposed Action

The environmental clearance process requires a thorough understanding of the "proposed action." For the E. 168th Avenue and McKay Road Bridges, the proposed action is to install pier protection to remedy susceptibility to scour. Riprap and similar materials will be placed at each pier. River flows will not be diverted to accomplish this work. The contractor will work from a bankside staging area, which may require the construction of a temporary access road. Adjacent bike/ped facilities may be temporarily closed/rerouted during construction using approved trail closure/detour signing and access control.

As noted above, the proposed improvements at the Washington Street Bridge over Clear Creek are still under discussion with County staff. Actions will likely include the removal of the old bridge remnants from the channel, among other possible improvements.

The anticipated pier work at the Henderson Road Bridge requires the installation of micropiles. River flows must be diverted (using cofferdams) to allow these micropiles to be constructed.

URS Approach to Scope of Work

URS and Adams County developed a comprehensive scope of services for the environmental investigations of the four bridge locations, and structural engineering services for the Henderson Road Bridge. Scour mitigation design services and construction document production for the E. 168th Avenue, McKay Road, and Washington Street bridges will be completed under separate task orders with Adams County.

The County envisions a cooperative process where Adams County will provide certain technical information to the Consultant to complete the engineering design (geotechnical data and base mapping), and that the County's agency partners will be key to efficiently defining mitigation requirements and processing the required clearances and permits.

Project Management

Following award of the project, our Project Manager Mark Schaefer will prepare a Project Execution Plan (PXP), which will be used by the team throughout the life of the project for managing costs, quality, and schedule. The PXP contains the scope of work, design standards and criteria, cost worksheets, project schedule, applicable Health & Safety Plan, and protocols for quality, communications, and documentation. The PXP will be available to County and team staff.

As Project Manager, Mark also will be responsible for controlling labor and expense costs on this project. He will work continuously with the project's task leaders to make certain there is a clear understanding of the work to be done and the associated budget. Communication is essential to budget management; they will maintain the cost control dialogue to make sure the team stays on track. Project expenditures will be tracked using URS' Enterprise One accounting system. On a weekly basis, project charges will be analyzed and compared to percent-complete. If corrective measures are needed, they will work with the production team to develop a work-out plan and monitor its successful implementation. We will also provide monthly budget reports to the County.

Our team will implement URS' ISO 9001-compliant Quality Management System (QMS), described later in this proposal. Our system is designed to deliver quality work products that meet the County's standards.

Project scheduling will be one of the most challenging aspects of this assignment. Our team includes Craig Parent who has been a key URS representative on the 2013 flood Federal Highway Administration (FHWA) Emergency Relief Program and the implementation of the associated CDOT Local Agency processes. He has recent hands-on experience with the external agency coordination process for environmental clearances. With Craig's guidance, we will gain commitments from the reviewing agencies early in the project process and will closely monitor the project schedule based on these commitments, communicating regularly with the County's project management team when schedule variances are anticipated.

So that the Consultant team can start work immediately on the environmental studies, we suggest that the kick-off meeting with CDOT and other key agency partners be scheduled now for the week immediately after the anticipated consultant Notice-to-Proceed (NTP).

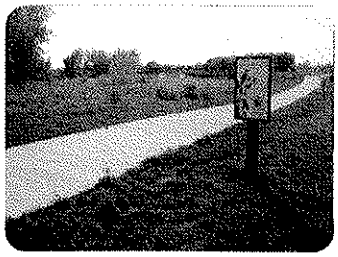
Environmental Clearance and Permitting

The scope of work contained in the RFP addresses the environmental resources anticipated to be encountered at each bridge location. Resource investigations for each location will be confirmed with CDOT at the project kick-off meeting. Detailed field investigations may identify previously unidentified resources that require evaluation and potentially, development of mitigation strategies.

To expedite the schedule, URS will conduct the environmental resource assessments on a parallel track, assigning a separate technical specialist to each resource area to conduct the field and/or desktop assessment and prepare the required documentation.

Environmental surveys will be initiated immediately after NTP to avoid weather-related challenges with field evaluations. As noted in the schedule discussion above, we suggest that the CDOT kick-off meeting be scheduled now, so that there is early consensus on the area of potential direct and indirect impact (APE) for the field teams. We anticipate that the APE for direct project effects will be defined as the physical footprint of the directly impacted areas with a 100-foot buffer, as well as any access roads/routes and mobilization. We expect that no on-site borrow areas are proposed; all materials will be imported. Material removed from the river bottom also will be exported. No long-term indirect (visual, auditory, or atmospheric) effects are anticipated, so we expect that the APE for indirect project effects will be coincident with the direct APE.

During the project kick-off meeting with CDOT, we will also define technical documents that are required by CDOT so that they can initiate the coordination efforts that they have agreed to lead (tribes, State Historic Preservation Officer (SHPO), etc.). We will identify project documentation required of URS so that CDOT can conduct the elements of these processes. CDOT/FHWA also will prepare the required Air Quality and Noise determination as part of the environmental clearances, and URS has identified technical specialists on our team in each of these areas to support CDOT/FHWA with technical documentation as needed.



The following discussion documents our approach to the detailed environmental resource studies. Our approach reflects URS' long history of successfully completed wetland-related projects including wetland delineation, functional assessment, general mapping, wetland classification, National Environmental Policy Act (NEPA) documentation, mitigation site design and construction, and success monitoring. Additionally, URS has prepared hundreds of Section 404 nationwide permit applications for submittal to USACE, involving consultation with USACE districts and regional field offices on jurisdictional determinations and permitting requirements. The URS team also provides expert wildlife resource services including threatened and endangered (T&E) species assessments and ESA Section 7 consultation, wildlife habitat and range mapping, and characterization. Our team is experienced in assessing resource effects and quantifying loss of habitat, displacement, habitat fragmentation, and changes in habitat quality. Over the years, URS has built strong professional relationships with the regulatory agencies including U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS), tribes, SHPO, and state wildlife agencies.

Wetland Delineation and USACE 404 Permit

Under the direction of Susan Hall, Senior Wetland Scientist, we will delineate wetlands and other waters of the U.S. subject to USACE jurisdiction under Section 404 of the Clean Water Act within the project area, including a 100-foot buffer. The field survey will be documented using Routine Wetland Determination forms as specified in the 1987 Corps of Engineers Wetland Delineation Manual, and wetland boundaries will be mapped using Global Positioning System (GPS) handheld units.

A formal wetland delineation report will be submitted to the County and USACE. The report will include a description of the wetlands and other waters of the U.S. on the project site; the methodology and rationale for determining their boundaries; photographs of representative wetlands; wetland and waters of the U.S. GIS map; and

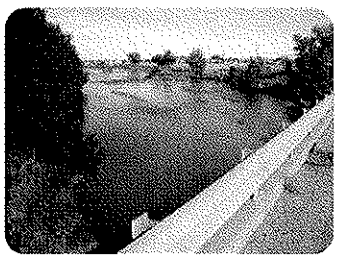
FACWest Analysis. As part of the wetland delineation submittal, we will request a jurisdictional determination from the USACE for the bridge locations to determine if the Clean Water Act (Section 404) authorization will be necessary. This task typically involves a field visit with USACE to obtain their determination, and will yield guidance from USACE on content and permit/consultation requirements.

As a final step, and after collaboration with USACE, our scientists will prepare Nationwide Permit (NWP) applications for each of the bridge locations identified by the USACE as requiring a permit (if there is less than 1/10th of an acre of wetland impacts, no mitigation will be necessary). It is anticipated that a NWP #14 for Linear Transportation Crossings will be required.

Threatened and Endangered (T&E) Species Survey and Consultation

Dr. Robert DeBaca will direct the T&E Species task. His experience and specialized training include compliance with the Endangered Species Act (ESA), endangered species habitat evaluations and surveys, NEPA compliance, biological resources studies, and development of resource management plans.

A list of potential T&E and Species of Concern for the County will be obtained from the USFWS and from the Colorado Parks and Wildlife (CPW) to determine the species with potential to occur on the project site(s) or access paths. Based on our knowledge of the project sites, it is anticipated that, as a minimum, the Preble's Meadow Jumping Mouse (PMJM) will be a potential species requiring evaluation at the E. 168th Avenue bridge location.



Based on the identified species to be evaluated, we will conduct SB40 field evaluations of each project site to evaluate habitat, including the vegetation, topography, and hydrologic conditions.

To satisfy requirements of the Migratory Bird Treaty Act of 1918, any disturbance that will occur in known nesting areas during the nesting season of migratory birds must be reported to the USFWS. During the field survey, the URS team will identify migratory bird nesting areas within the project area and make construction schedule recommendations to avoid these areas during nesting season.

Following the desktop analysis and field survey, we will prepare a technical memorandum describing the findings of the field investigation for federally listed species, including existing conditions, appropriateness of the habitat for each species, and likelihood of each species to occupy the project area. GIS-based mapping will be prepared for each site to document the site conditions. The findings will be included in a Threatened and/or Endangered Species Clearance Letter to be submitted to the USFWS for concurrence that no additional evaluation would be required, if a negative finding is made based on field work, and/or to determine wildlife and plant species clearance requirements.

Cultural Resources Investigation and Consultation

Dr. Gordy Tucker will direct the cultural resource investigations for each site, bringing to this project more than 40 years of experience in cultural resources management.

The URS team will perform a desktop literature review of available agency information, technical information, and other mapped and published sources. The results of the desktop review will be coupled with the field survey results and reported in the technical report.

URS will complete an intensive pedestrian inventory of the APE for direct Project effects. Before fieldwork is initiated, the site records maintained by the Office of Archaeology and Historic Preservation (OAHP) at History Colorado (formerly the Colorado Historical Society) will be searched for all previous surveys and known cultural resources within one-quarter mile of the Project area. One or two archaeologists will then walk multiple parallel transects across the direct APE; each transect spaced 15-20 meters (50-60 feet) apart. The archaeologist(s) will carefully inspect the ground surface for any evidence of past, patterned human activity, 50 years or older. If any

such evidence is found, the archaeologist(s) will determine if it is a site (five or more artifacts, or a cultural feature, in close proximity) or an isolated find (four or less artifacts in close proximity). Any identified resource(s) will be properly and thoroughly documented on the appropriate OAHP recording forms, the National Register of Historic Places (NRHP) eligibility of the resource(s) will be assessed, and the site or isolated find will be mapped and photographed.

The background, methods, and results of the survey will be summarized in a technical report. Because each Project area is less than the threshold size of 160 acres, if no sites are found, or four or fewer isolated finds are identified, then the OAHP Limited-Results Cultural Resource Survey Form will be used, along with maps and photographs, to summarize the survey and findings. The summary report will include recommendations of NRHP eligibility and assessment of Project effects. The report will be submitted for review to CDOT for determinations of eligibility and effect. CDOT will, in turn, seek concurrence from the SHPO with the determinations of eligibility and effect. URS will provide support and technical assistance to CDOT in preparation of draft consultation letters and guidance to the agency in navigating through the consultation process. The bridges themselves are resources, but none of them are 50 years or older. It is not anticipated that this task will be necessary at any of the bridge locations.

CDOT Form 128 Programmatic CatEx Documentation

URS will prepare an Environmental Clearance Letter (CDOT Form #128, Categorical Exclusion Determination) to document the results of the wetland delineation, provide an opinion of the likelihood of the existence of rare or endangered species or their habitat in the project area, and present the results and recommendations of the various federal and state agencies responsible for environmental regulation. The Environmental Clearance Letter also will address other resources areas including paleontology, archaeology, history, and historic bridges. The recommendations will apply to current design requirements and any anticipated future requirements, as well as the environmental performance requirements during construction to avoid construction delays, including any requirements from international treaties.

The Environmental Clearance Form #128 will also include a technical evaluation for Hazardous Waste. An Initial Site Assessment (ISA) checklist for hazardous waste (CDOT Form #881) will be prepared. The ISA form documents hazardous materials concerns related to construction at the project site, with results documented in a technical memorandum. Based on the project locations within the streambed, subsurface investigations are not warranted.

Permitting

Early in the project process, URS will confirm the permits that will be secured during the design phase versus permits secured by the contractor prior to construction. Since the design work (including the proposed construction phasing plans) have not been finalized for the E. 168th Avenue, McKay Road, and Washington Street bridges, the permits for these locations may need to be deferred until that design information is available. Permits secured by the Contractor will reflect their proposed means and methods to implement the scour mitigation and associated structural repairs.

Work on all bridges will require coordination and approval from the Urban Drainage and Flood Control District.

Based on our initial review of the work to be performed and likely methods to accomplish the work, we anticipate the following permit requirements:

Henderson Road (124th Avenue) – Access to the bridge will be from the existing gravel road from Henderson Road in the southwest quadrant of the bridge. The gravel road provides access to the pedestrian trail beneath the bridge. The equipment needed to construct the coffer dams and install the micropiles will need to cross the pedestrian path with a proposed staging area between the pedestrian trail and the River. A temporary detour of the pedestrian path will be coordinated with Adams County Parks personnel and presented in the plans. Permits that may be needed to gain access and perform the work include:

- Adams County Floodplain Use Permit

- Adams County Stormwater Quality Permit

McKay Road – Access to the Bridge will be through the Williams Monaco Wastewater Treatment Plant on the southeast quadrant of the bridge. This facility is operated by the South Adams County Water and Sanitation District. Permits that may be needed to gain access and perform the work include:

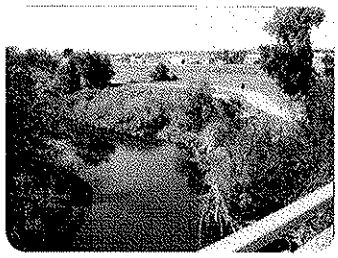
- Adams County Floodplain Use Permit
- Adams County Stormwater Quality Permit

Washington Street Bridge – Access to the bridge is from Highway 224 (70th Avenue) south across the CDOT open space and then across the pedestrian trail north of Clear Creek. Pedestrian safety signage will be provided for the trail. Permits that may be needed to gain access and perform the work include: CDOT State Highway Access Permit

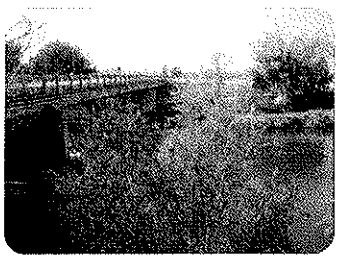
- CDOT SWMP Permit
- Adams County Floodplain Use Permit
- Adams County Stormwater Quality Permit

E. 168th Avenue Bridge – Permits that may be needed to gain access and perform the work include:

- City of Brighton ROW Permit
- Adams County Floodplain Use Permit
- Weld County Flood Hazard Development Permit
- Weld County Grading and Erosion Control Permit
- City of Brighton Erosion and Sediment Control Permit
- Adams County Stormwater Quality Permit

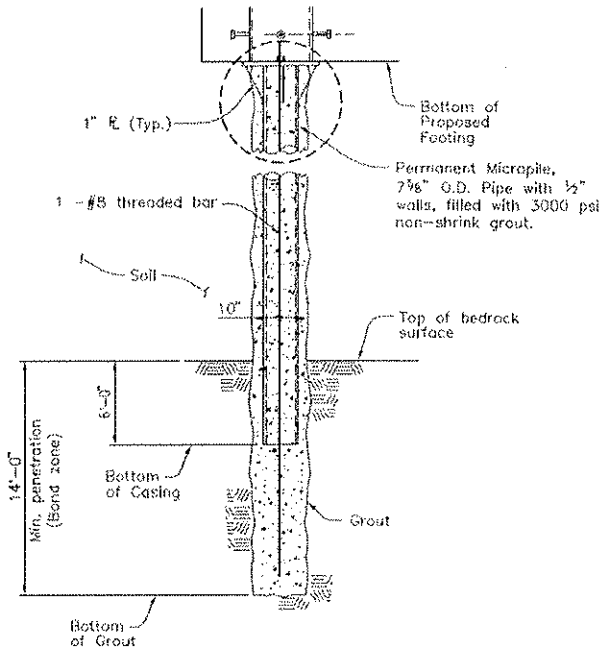


Engineering Design

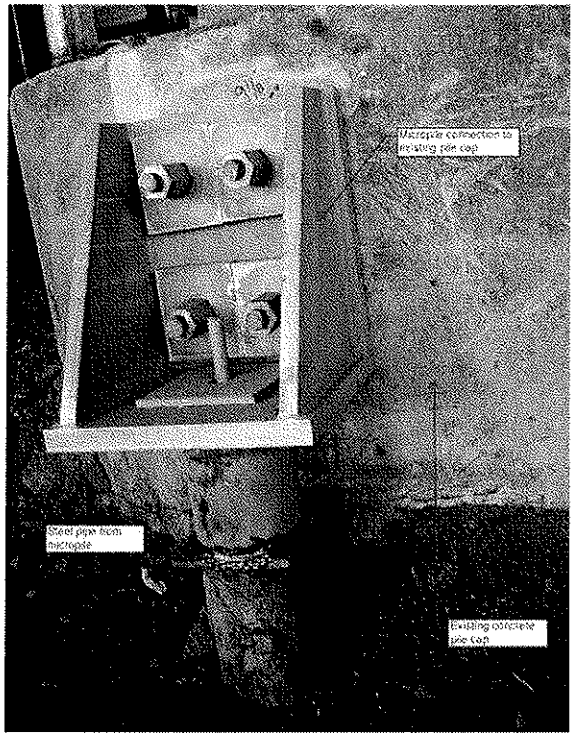


As noted in the Project History section of this proposal, the Henderson Road bridge over the South Platte River has substructure elements that have been rated as structurally deficient. The bridge's steel H-piles have undergone extensive corrosion and scour from the 2013 flood which has further reduced the load-carrying capacity of the bridge.

Under a previous task order, URS determined that a structural retrofit to the substructure is required to remove the bridge load restrictions. Evaluation of several options ranging from reinforcing the existing piles to installing additional H-piles led to the selected retrofit option of installing micropiles. URS has extensive experience with micropile design, construction, and testing based on our work on projects such as the westbound 6th Avenue Viaduct for the City and County of Denver.



Micropiles, which consist of a drilled hole filled with concrete grout, reinforcing bars and a steel pipe, were selected as the recommended option for a number of reasons including: (1) minimize disturbance to the river by using smaller equipment, (2) minimize vibration to the existing bridge, (3) installation control is maximized, and (4) micropiles may be attached directly to the existing piers



whereas H-piles likely would require adding a concrete footing in the riverbed.

The engineering design will begin with an in-depth analysis of the design loads and coordination with local micropile contractors. Design plans and specifications will address the structural design of micropile retrofit, construction phasing plan, and construction traffic control plan (including pedestrian and bicyclist access). All design will be completed per the 6th Edition of the AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specification with current interims, current CDOT specifications, and geotechnical information provided by County staff. A design memo will submitted that confirms that implementation of the proposed design will allow for the removal of the current bridge load restrictions.

SECTION 2. WORK EXPERIENCE AND CAPABILITY

In addition to our directly relevant task order experience in evaluating the needed improvements for the Washington Street, E. 168th Avenue, Henderson Road, and McKay Road bridges, as well as our team's current experience with the FHWA Emergency Relief Program and implementation of the associated CDOT Local Agency processes, URS has proven capabilities managing, planning, designing, and constructing federal and state funded transportation projects. The following sampling of our project experience highlights our expertise in on-call contracts; preliminary and final design of arterial roadways and bridges; environmental clearance processes; development of innovative alternatives; which directly reflect the County's needs for this contract.

56th Avenue (Havana Street to Peña Boulevard) Environmental Assessment and PEL | Denver, CO
References: Jess Ortiz, City and County of Denver, 720.913.1781 and Roger Mutz, 720.913.4512

The City and County of Denver Public Works Department engaged URS to provide comprehensive environmental planning and roadway design services for the improvement of 56th Avenue from Quebec Street to Peña Boulevard. As one of the few continuous east-west arterial corridors in this part of the Denver metro area, 56th Avenue will serve growing regional traffic resulting from ongoing development adjacent to the corridor, including commercial development in the Denver International Airport gateway area, operation of an expanded visitors' center at the Rocky Mountain Arsenal National Wildlife Refuge, the growing mission of the Martinez Army Reserve Center, and construction of the Dick's Sporting Goods Park/Prairie Gateway development in Commerce City. Specific assignments in this corridor included:

Relevance:
- Federal aid project
- Local agency coordination
- Transportation civil/structural engineering
  - Multimodal
  - Traffic engineering
  - Pavement design
  - Roadway/bridge design
  - Utility coordination
- Environmental clearances
- Land surveying
- Construction management

Planning-Environmental Linkage (PEL) Study (56th Avenue, Havana Street to Peña Boulevard). The 56th Avenue PEL Study used a NEPA-like process to define corridor needs, identify and assess alternatives, and identify valued environmental resources in the 56th Avenue corridor from Havana Street to Peña Boulevard. The PEL process included a comprehensive program of public involvement that engaged the adjacent Montbello and Parkfield neighborhoods.

Environmental Assessment (56th Avenue, Quebec Street to Havana Street). Conducted under a formal NEPA process, the 56th Avenue Environmental Assessment defined the needs and a preferred alternative for implementation for the segment of 56th Avenue from Quebec Street to Havana Street. The study engaged numerous stakeholders including the City and County of Denver, Denver Aviation, FHWA, CDOT, USFWS, US Postal Service, ProLogis, and the Forest City Stapleton/Park Creek Metropolitan District.

Preliminary Design, Final Design, and Construction Phase Services (56th Avenue, Quebec Street to Havana Street). URS was retained to provide the preliminary and final design and construction management support for the preferred alternative identified in the 56th Avenue Environmental Assessment. The major project components included reconstruction and widening of the roadway with concrete pavement, traffic signals, repair of the existing Haul Road bridge, construction of a new bridge parallel to the Haul Road bridge, and widening of the Havana Interceptor bridge. The URS team's services included public and agency involvement and coordination, traffic engineering, civil engineering, geotechnical engineering, structural engineering, pavement design, drainage design, utility coordination, surveying, construction observation, and materials testing.

On-Call Professional Services | Adams County, CO

Reference: Russ Nelson, Adams County, 720.523.6966

URS was selected by Adams County for on-call professional services in the roadway and structural engineering service categories. Through this on-call contract, URS has completed infrastructure improvement task orders. Two projects were part of Adams County's annual street paving program to reconstruct streets and improve industrial access and roadway drainage. The third project was a bridge scour analysis with mitigation recommendations, and the fourth involved URS serving as an extension of staff in Adams County's structural engineering department. These projects involved roadway modifications, hydraulic analysis, Americans with Disabilities Act of 1990 (ADA) driveway access and sidewalk designs, structural design, surveying, geotechnical study, and coordination support with property owners and utilities in the project areas.

Relevance:

- Multi-year, multidisciplinary on-call contract
- Transportation civil/structural engineering
  - Multimodal
  - Roadway design
  - Bridge hydraulics
  - Drainage improvements
  - ADA pedestrian access
  - Intersection improvements
- Land surveying

West 6th Avenue Viaduct Rehabilitation | Denver, CO

Reference: James Barwick, City and County of Denver, 720.913.4535

URS was selected by the City and County of Denver (CCD) to design the rehabilitation for the Eastbound (EB) Viaduct and later selected to design the rehabilitation for the Westbound (WB) Viaduct. The rehabilitation to the EB Viaduct involved steel bent replacement and foundation retrofit due to damage caused by excessive thermal movement and deficient live load capacity. The WB Viaduct rehabilitation included the replacement of 18 single-column concrete piers due to damage mostly caused by torsional superstructure rotation. The work consisted of three components: condition assessment and analysis, rehabilitation design, and construction services.

"URS' accessibility and responsiveness to unexpected issues was greatly appreciated and their exceptional knowledge of the project also provided significant cost and schedule benefits to the City. ... I've received excellent professional services from them in the past, and I've learned to expect a superb effort from them in the future."

-James Barwick, Chief Infrastructure Engineer, City and County of Denver

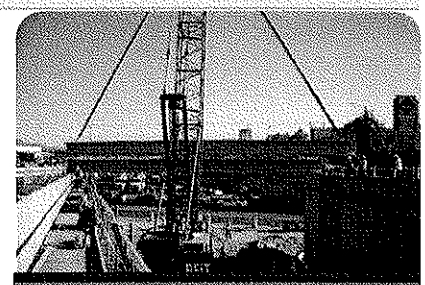
Relevance:

- Transportation civil/structural engineering
  - Multimodal
  - Roadway design
  - Bridge hydraulics
  - Drainage improvements
  - ADA pedestrian access
- Micropile design
- Construction services

Woodmen Road/Academy Boulevard Interchange Environmental Assessment | Colorado Springs, CO

Reference: Mike Chaves, City of Colorado Springs, 719.385.5408

URS completed an environmental assessment, alternatives analysis, roadway and bridge design, landscaping and aesthetics, and significant public involvement for Woodmen Road from I-25 in Colorado Springs to US 24 in Falcon. The first design project along the Woodmen Road Corridor was the Woodmen Road/Academy Blvd. Single Point Urban Interchange (SPUI). Located in an existing, busy urban environment, the project had a tight project footprint and required multi-faceted and creative roadway, structural (two major bridges, retaining walls, noise walls, etc.), utility, and drainage design. The project also included right-of-way (ROW) acquisition, procurement, construction phasing, and construction management services. The project received $35M of ARRA funding—making it the largest stimulus project in Colorado.



Relevance:

- Local agency coordination
- Environmental clearances
- Transportation civil/structural engineering
  - Multimodal
  - Roadway design
  - Bridge hydraulics
  - Drainage improvements
  - ADA pedestrian access
  - Intersection Improvements
- Construction management

Due to the complex geometry of the interchange itself, the bridge is unique. Although it has relatively short spans, it is over 300-feet-wide. This presented several structural challenges. In the end, the bridge is actually three bridges which abut one another at longitudinal joints. The high abutment walls and soil conditions necessitated a specially designed Mechanically Stabilized Earth wall behind the abutments to relieve the lateral earth pressure. Other structural complexities included more than a dozen retaining walls and six different wall types including: soil nail, Mechanically Stabilized Earth, cast-in-place cantilever, drilled shaft, boulders, and L-shape cast-in-place.

URS developed a best value procurement process to select a construction contractor based on "best overall value and quality." URS worked with CDOT, the FHWA, and the City to assure the process met federal guidelines and served the needs of the community. The result was a reduction in the projected construction schedule from 33 to 21 months, and $2M under budget.

"URS' Construction Management team continues to perform at a high level on the Woodmen/Academy Interchange Project. They continue to meet or exceed all of CDOT's expectations, especially when it comes to Federal-Aid documentation and reporting requirements."

- Dole Grebenik, PE, CDOT Project Manager

Sage Creek Bridge Replacement | Routt County, CO

Reference: Clint Moyer, CDOT, 970.826.5189

URS is the prime consultant for this bridge replacement project that also involves reconstruction of approximately 1400 feet of the US 40 roadway approaches to correct deficient geometrics. Project elements include design surveys and ROW mapping, roadway and bridge design, traffic control, environmental studies, drainage and hydraulic analysis, and geotechnical investigation. URS evaluated three options for maintaining traffic during construction and prepared a constructability technical memorandum that documented the costs and benefits for each alternative.

Relevance:

- Local agency coordination
- Transportation civil/structural engineering
  - Roadway/bridge design
  - Traffic engineering
  - Bridge hydraulics
- Environmental studies
- Land surveying

Qualifications of Key Personnel

URS has assembled a highly qualified team of senior professionals to lead the project management and key technical tasks for the Bridge Scour Structural Design and Environmental Services. As shown on the project organizational chart (**Exhibit 1**), we have organized our team resources to meet the challenging technical and schedule requirements of this contact.

Project Management Team

Travis Boone, PE | Principal-in-Charge

Travis has 19 years of transportation engineering and construction experience. He has managed small and large CDOT and local agency projects from inception through construction.

As project principal, Travis will ensure that the right resources are available and will act on behalf of URS on contractual matters. Beyond fulfilling the County's contractual requirements, Travis will maintain proactive involvement in the team's performance, providing input on critical project issues.

Mark C. Schaefer, PE, PTOE | Project Manager

Mark has more than 30 years of transportation engineering and planning experience. He has directed and participated in nearly every aspect of transportation engineering and transportation planning including: traffic impact assessments, parking demand and design, environmental assessment, transportation corridor planning, municipal transportation master planning, on-call transportation services contracts, capacity and level-of-service evaluations, capital costing, project phasing, traffic safety studies, signalization, public participation programming, engineering expert witness, and the design of arterials and intersections.

He pioneered Colorado local agency PEL studies (56th Avenue PEL) and has qualified as an expert in traffic engineering and access management in Colorado District Courts. Mark is a *URS Certified Project Manager*, having completed extensive in-house training and demonstrated capability in project planning, contracts and procurement, client relations, financial management, and project administration.

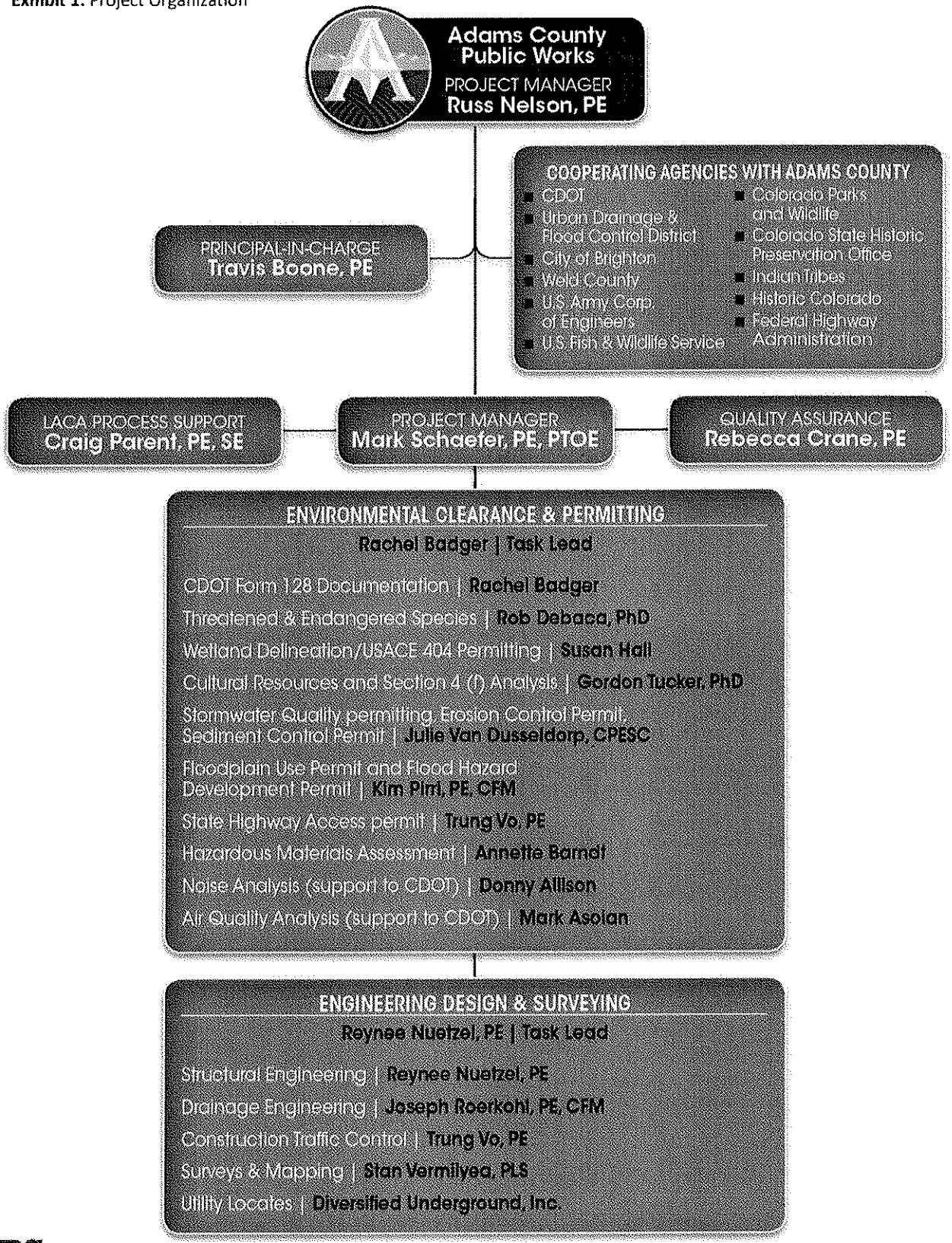
Craig Parent, PE, SE | LACA Process Support

Craig has 22 years of experience in bridge and structural engineering, including finite element analysis, seismic analysis, reinforced and prestressed concrete, and structural steel. These areas of expertise have been applied in his work involving bridge design and rehabilitation, design-build, and other fast track projects. Craig has also assisted with over 100 transportation PXPs and quality management plans for projects totaling over $17M in design fees. He is currently a key member of our 2013 flood team, assisting with the FHWA Emergency Relief Program and the implementation of the associated CDOT Local Agency processes.

Rebecca Crane, PE | Quality Assurance

Rebecca has seven years of design experience as a civil engineer in roadway design, specifically geometric design, drainage design, pavement design, and the preparation of contract plans and engineer's cost estimates for rural and urban transportation projects. She is also the URS Colorado Transportation Department Quality lead, where she is responsible for the overall implementation of the URS Quality Management System on all projects completed within the Department.

Exhibit 1. Project Organization



Technical Leads

Rachel Badger | Environmental Clearance and Permitting Task Lead/CDOT Form 128 Documentation

Rachel is a Senior Environmental Planner and a URS Certified Project Manager. She has 20 years of experience including project and program management as well as technical support, coordination/facilitation, and preparation of multidisciplinary NEPA compliance documentation including Environmental Assessments (EAs) and Environmental Impact Statements (EISs), as well as other local and state-level planning and permitting documents. She served as Environmental Task Leader for the Woodmen Road Corridor project, working with various state and local agencies for a host of environmetnal clearances.

Rob DeBaca, PhD | Threatened & Endangered Species

Rob has worked as a professional biologist for more than 20 years, using GIS, multivariate statistics, and landscape ecology techniques to investigate and model habitat suitability, ecological potential, and distributions of vertebrates and insects in North America. His work involves developing resource management plans, authoring NEPA and ESA compliance documents, conducting Section 404 surveys and reporting, and preparing biological resource studies. He has worked on various federal and local planning projects, linear infrastructure projects, as well as renewable and conventional energy developments.

Susan Hall | Wetland Delineation/USACE 404 Permitting

Susan is an ecologist and botanist with 10 years of professional experience. She has been the technical lead on numerous applied ecological studies and NEPA analyses in diverse resource areas such as surface and ground water, wetlands, weeds, vegetation, wildlife, and sensitive plant and animal species. Susan specializes in wetland and stream mitigation and reclamation. She is experienced in all phases of aquatic terrestrial restoration, including assessment, USACE 404 permitting, design, and compliance monitoring, and has numerous successful reclamations to her credit. She also has experience designing aquatic and riparian filtering systems.

Gordy Tucker, PhD | Cultural Resources and Section 4(f) Analysis

Gordy has 40 years of experience in cultural resources management. He has conducted and managed hundreds of investigations including surveying, testing, excavation, and monitoring for a variety of project types in different settings. His research experience includes fieldwork in 18 states throughout the U.S., including Colorado. He has worked closely with the SHPO, as well as federal and state regulatory agencies, in each of those states. He has authored or co-authored hundreds of cultural resources management reports, contributed to EA/EIS documents, published several articles and monographs, and presented papers at professional meetings. Gordy exceeds the Professional Qualifications Standards of the Secretary of Interior's Standards and Guidelines for Archeology and Historic Preservation.

Julie VanDusseldorp, CPESC | Stormwater Quality Permitting, Erosion Control Permit, Sediment Control Permit

Julie is a Certified Professional in Erosion and Sediment Control (CPESC) and has 15 years of professional experience as an environmental scientist, specializing in stormwater quality permitting and management. She has experience in environmental regulatory research, permitting support, and Stormwater Management Plan (SWMP) development. Julie has been working on construction projects and industrial facilities with field experience developing and implementing SWMPs and best management practices for erosion and sediment control. Over the last five years she has been working on various construction projects throughout Colorado for utility projects such as

power and water distribution systems and oil and gas field systems. Additionally, Julie has experience developing spill prevention, control, and countermeasure plans, conducting environmental compliance audits, and interpreting federal and state environmental policies and regulations at a variety of facilities.

Kim Pirri, PE, CFM | Floodplain Use Permit and Flood Hazard Development Permit

Kim has 16 years of experience in hydraulic and hydrologic design, floodplain and stormwater management, drainage analysis, and master planning, including necessary permit requirements. She has served as Project Manager or Task Leader on stormwater master plans, stormwater facility design, FEMA CLOMRs and LOMRs, flood mapping projects, floodplain management on-call service contracts, and floodplain analyses.

Trung Vo, PE | State Highway Access Permit/Construction Traffic Control

Trung has 15 years of transportation engineering experience. He has been involved in various projects including multimodal transportation corridor analysis, engineering, conceptual design, and implementation; traffic impact analysis/studies; traffic signal design, and construction; transit operational analysis, design, and protocol development/implementation; development engineering roadway network planning, and operational analysis. Trung has extensive experience in dense urban multimodal traffic operations and served as the City of Denver's Downtown Traffic Engineer.

Annette Barndt | Hazardous Materials Assessment

Annette has 21 years of experience providing review and analyses of U.S. Solid Waste Disposal Act (SWDA), Resources Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Clean Water Act, Clean Air Act, Safe Drinking Water Act, Toxic Substances Control Act (TSCA), Occupational Safety and Health Act, Atomic Energy Act, and other environmental laws and regulations. She has technical expertise in interdisciplinary aspect of projects, permitting, remediation, regulatory analysis, project permit planning, due diligence assessments, ISO14000, and compliance auditing.

Donny Allison | Noise Analysis (in support to CDOT)

Donny has 26 years of experience providing technical support for URS' transportation engineering group. He is proficient in various traffic engineering software, including Highway Capacity Software, SYNCHRO, PASSER, and CORSIM. He has been involved in various traffic engineering assignments for Interchange Justification Reports (IJRs), Interchange Modification Reports (IMRs), EISs, EAs, Master Plans, and FDOT and CDOT corridor studies. He is experienced in Noise Modeling and is proficient in TNM and STAMINA noise modeling software. He was responsible for the noise analysis, traffic modeling, and traffic analysis for the Wooden Road EA.

Mark Asoian | Air Quality Analysis (in support to CDOT)

Mark has 35 years of experience providing air quality permitting and compliance services. His primary technical focus has been on air quality permitting and compliance; including Prevention of Significant Deterioration (PSD), Title V and state permitting, dispersion modeling and impact analysis, emission inventory development, Best Available Control Technology (BACT) analysis, and pre-construction and compliance monitoring systems. Mark has developed and provided expert testimony and depositions regarding air quality permitting, impact assessment, and the development and interpretation of air quality regulations.

Reynee Nuetzel, PE | Engineering Design & Surveying Task Lead/Structural Engineering

Reynee is a bridge engineer with 16 years of experience in design of bridges, culverts, and buildings. Her work experience includes design of several types of bridge structures including precast prestressed concrete I-girders, box girders, steel plate girders, and concrete box culverts. She has completed wall design using both masonry blocks and cast in place concrete. She served as a bridge designer for the 56th Avenue project and for the Woodmen Road Reconstruction project and assisted with the micropile design for the 6th Avenue Viaduct.

Joseph Roerkohl, PE, CFM | Drainage Engineering

Joe has seven years of experience as a drainage engineer. He is experienced in transportation drainage design, bridge hydraulic design, scour analysis, revetment design, floodplain mapping, surveying, and construction. He has helped perform bridge scour analysis, produce drainage sheets, and prepare USACE 404 permitting and draining reports.

Stan Vermilyea, PLS | Surveys & Mapping

Stan has 35 years of experience with all phases of transportation project development, including project scoping, preliminary surveys, public hearings/meetings, design reviews, ROW plans development, appraisal showings, value findings, and the acquisition of parcels and easements. While Stan was employed by CDOT, he was responsible for maintaining statewide standards in surveying and ROW Plans. His duties included supervising the authorization of ROW plans for the acquisition and relocation phases, obtaining federal approvals, preparation of project clearance letters, preparation of deeds and easements, preparation of licenses and agreements, filing of condemnations, preparation of court exhibits, real estate records management, survey processes, and standards.

SECTION 3. CONFLICT IDENTIFICATION

URS is submitting this proposal in compliance with the RFP requirements. Our completed Certification of Compliance is included in **Appendix B** of this Proposal.

URS has ongoing professional services contracts with many of the federal, state, and local agencies that are cooperating with Adams County on this project. Of particular relevance to this contract, we have identified the following assignments:

- URS prepared the scour analysis which serves as the basis of this project through a previous on-call task order with Adams County. Our services on this task order are ongoing.
- Under a current task order with Adams County, Sam Abraham, PE, of URS is augmenting the County's engineering staff for structural engineering services.
- URS is currently engaged by CDOT/FHWA for continuing services on the FHWA Emergency Relief Program which provides funding and oversight for emergency and permanent repair of transportation facilities damaged in the September 2013 floods. While our services include support to local agencies under the CDOT LACA program, URS services for CDOT/FHWA do not include support for Adams County LACA projects.

SECTION 4. QUALITY PLAN

URS maintains an ISO 9001-compliant Quality Management System (QMS) that sets out procedures through which our team will deliver quality work products that are well aligned with Adams County's objectives to complete construction projects on time, as budgeted.

Our QMS (**Exhibit 2**) enables us to deliver services in a manner that is consistent with the generally accepted professional standard of care and meets our clients' expectations. The URS QMS provides guidelines for work activities, aimed at promoting effective management of programs and projects. Procedures in the QMS define the systematic requirements for ensuring that the day-to-day performance and the milestone submittal review process of the Bridge Scour Structural Design and Environmental Services project meets the quality standards of URS.

Our QMS addresses both Quality Assurance (QA) and Quality Control (QC) procedures:

QA is the organized system of actions taken by project-independent people (who are not part of the project team) to verify that QC is effectively exercised by confirming objective evidence of QC actions. It provides confidence that the deliverable will satisfy the given requirements for quality.

QC is the organized system of actions taken by the project team under the responsibility of the Project Manager to verify that ongoing quality has been achieved. QC is exercised to minimize defective deliverables.

Each project participant is responsible for first-level quality control of his/her own work and shall exercise a standard of practice that seeks to:

- achieve accuracy
- promote clarity
- eliminate errors
- conserve time
- provide uniformity of planning, design, and products
- maintain consistency for all project products and deliverables

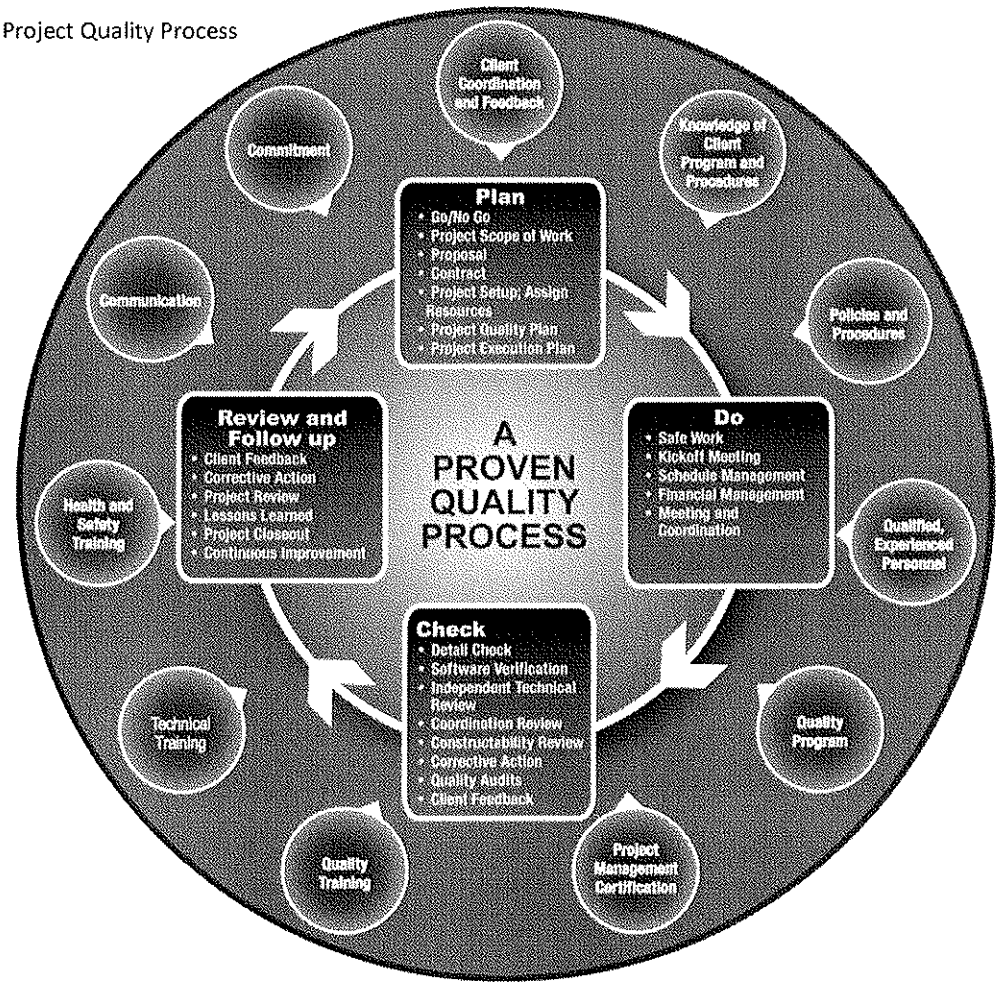
The following sections outline the specific QA/QC procedures that will be implemented for this Bridge Scour Structural Design and Environmental Services project.

Quality Management Team

Each of the major managers of the Consultant Team has specific QA/QC responsibilities:

- Rebecca Crane, PE will serve as the QA manager for this project. In this role, she will be responsible for conducting periodic quality verification, including audits, of the work to assure compliance with these procedures.
- The URS Project Manager (Mark Schaefer) is ultimately responsible for the execution of QA/QC of the project.

Exhibit 2. URS Project Quality Process



Quality Management Plan Processes

Project Execution Plan (PXP)

The purpose of the Bridge Scour Structural Design and Environmental Services PXP is to thoroughly plan the execution of the project, to document that plan, and to communicate that plan to all project team members. The PXP contains the following items:

- Client Information
- Project Organization
- Project Scope and Work Breakdown Structure (Tasks)
- Project Quality Management Plan
- Project Health and Safety Plan
- Project Schedule and Budget
- Project Organization Chart
- Methods of Communication and Documentation
- Project Standards
- Work Product/Deliverables

Filing System/Document Control

Project files will be set up and maintained in the URS-Denver central file system. Project files will contain all original hard copy and digital project documentation.

Project Criteria

At the project kick-off meeting with the County management team, we will confirm the County and CDOT (2011 Standard Specifications for Road and Bridge Construction) design standards that will apply to this project.

Verification and Control of Computer Programs

Industry-standard computer programs will be used for all work. While these programs are not subject to verification, they will be reviewed for proper application. Industry-standard computer programs would include:

- Nontechnical software such as electronic catalogs, word processing software, and administrative software; and
- Technical software such as spreadsheet (e.g., Microsoft Excel), database (e.g., Microsoft Access), plotting and drawing, and analysis software, although software applications developed within such technical software are potentially subject to verification.

Consistent with the requirements of the RFP, AutoCAD, and AutoCAD Civil 3D will be used to create the construction plans for this project.

Deliverables

A comprehensive list of deliverables will be prepared at the onset of the project. For this project, the anticipated deliverables (as shown on the Project Schedule) include a series of environmental technical reports and the Form 128; progress and final construction plans, specifications, and cost estimates for the Henderson Road bridge rehabilitation design; and project management deliverables including meeting minutes, progress reports, and monthly invoices.

Detail Checking

Detail Checking is a verifying procedure whereby all information of a deliverable given to a client is verified for correctness, completeness and technical accuracy by a senior professional who is independent from the originator of the document to be checked, but part of the project team as assigned by the Project Manager. Detail checkers will be assigned to work deliverables as the study proceeds.

Independent Technical Reviews

Prior to submission to the County/CDOT, all substantive work performed or identified as a significant deliverable shall undergo an independent technical review (ITR) to verify the quality and integrity of the project work products, to verify that the deliverables are in accordance with the scope of work, and to verify compliance with the standard of professional practice. The review is conducted by qualified reviewers who are independent from the origination of the activity or document under review.

Design Coordination Reviews

Design Coordination Review verifies coordination between project elements that are developed and reviewed in different disciplines (for example, structures and underground utilities). Coordination takes place throughout development of project deliverables. A Design Coordination Review verifies that critical conflicts and gaps among various elements identified during project development have been resolved and elements are adequately supportive. The Project Manager is responsible for identifying in those deliverables or work products that require Design Coordination Review, when they are scheduled, and who will perform them.

Review of Client-Supplied and Subconsultant Information

Our QMS includes a provision for the review of information and work products that are provided by the client or third parties. For example, the County will provide geotechnical information for the design of the Henderson Road bridge improvements that will be reviewed by the structural engineering team, in consultation with Mark Schaefer (project manager) and Rebecca Crane (QA manager).

Project Close-out

Within a reasonable time period after the close of the project, Mark Schaefer will update the project central file, purge it of unnecessary information, specify the retention time (a minimum of 10 years), and transmit all project and quality-related records to the County, as required, and to the office non-active files (offsite storage) for retention.

SECTION 5. SCHEDULE OF SERVICE

We have prepared the following Gantt time line schedule (**Exhibit 3**) to describe and document our approach to the sequencing and timing of the project deliverables.

Of note in our schedule is the use of parallel tasks for the environmental resource evaluation. We have assigned a diverse team of technical specialists to the environmental resource assessments, allowing these assessment activities to proceed in parallel.

For the engineering design, we are showing one formal submittal (FOR submittal) that includes the full two-week review period by the County and CDOT. To expedite the schedule, we suggest that the FIR (30%) submittal be handled as a more informal "over the shoulder" review. If, however, a more formal submittal is desired, we can readily adjust our deliverables schedule accordingly.

Our schedule is responsive to the County's goal of advertising the project for construction in late January of 2015. We recognize, however, that there are a number of reviews/approvals that are required from third party cooperating agencies, and the duration of their review/approval times cannot be directly controlled by the County or the consultant team. Of note, we understand that the expedited reviews that were offered by these agencies for the emergency flood repair projects are no longer available. During the study scoping process we will work with the reviewing agencies to outline document production and commit to review schedules, and we will keep the County project management team apprised of any anticipated variances to the schedule.

Exhibit 3. Project Schedule

TASK	WEEKS FOLLOWING NOTICE-TO-PROCEED									
	1	2	3	4	5	6	7	8	9	10
NOTICE-TO-PROCEED	●									
KICK-OFF MEETING WITH COUNTY TEAM	●									
ROUTINE COORDINATION WITH COUNTY TEAM		●		●		●			●	
ENVIRONMENTAL SCOPING MEETING WITH COUNTY/CDOT	●									
SECURE RIGHTS OF ENTRY FOR FIELD WORK	■	■								
WETLAND DELINEATION/404 PERMIT										
Field survey		■	■							
On-site meeting for 404 permit determination				●						
Report preparation				■	■	■				
Submit reports and permit applications						▮				
Agency review							■	■		
Revisions and resubmittal									■	
THREATENED AND ENDANGERED SPECIES SURVEY										
Obtain species list from USFWS and CPW		▮								
Field survey		■	■							
Report preparation				■	■	■				
Submit reports and USFWS clearance letter						▮				
Agency review							■	■		
Revisions and resubmittal									■	
CULTURAL RESOURCE INVESTIGATIONS AND CONSULTATION										
Desktop survey		■	■							
Field survey		■	■							
Report preparation				■	■	■				
Submit report						▮				
Agency review							■	■		
Revisions and resubmittal									■	
Assist CDOT with SHPO concurrence process									■	
CDOT FORM 128 DOCUMENTATION										
Prepare ISA checklist for hazardous waste				■	■					
Compile air quality and noise assessments (by CDOT)				■	■	■				
Submit Form 128						▮				
Agency review							■	■		
Revisions and resubmittal									■	
HENDERSON ROAD STRUCTURAL ENGINEERING										
Confirm required design remedy with County/CDOT staff	▮									
Prepare structural plans		■	■	■	■	■				
Prepare construction phasing and traffic control plans				■	■	■				
Specifications and cost estimate					■	■				
Submit 90% FOR plans for County/CDOT review						▮				
Agency review							■	■		
FOR review meeting								▮		
Revisions and Final Plan submittal									■	
ADVERTISE PROJECT (COUNTY)										▮

APPENDIX A. RESUMES

1. Travis Boone, PE | Principal-in-Charge
2. Mark C. Schaefer, PE, PTOE | Project Manager
3. Rebecca Crane, PE | Quality Assurance
4. Rachel Badger | Environmental Clearance and Permitting Task Lead/CDOT Form 128 Documentation
5. Rob DeBaca, PhD | Threatened & Endangered Species
6. Susan Hall | Wetland Delineation/USACE 404 Permitting
7. Gordon Tucker, PhD | Cultural Resources and Section 4(f) Analysis
8. Julie Van Dusseldorp, CPESC | Stormwater Quality Permitting, Erosion Control Permit, Sediment Control Permit
9. Kim Pirri, PE, CFM | Floodplain Use Permit and Flood Hazard Development Permit
10. Trung Vo, PE | State Highway Access Permit/Construction Traffic Control
11. Annette Bandt | Hazardous Materials Assessment
12. Donny Allison | Noise Analysis (support to CDOT)
13. Mark Asoain | Air Quality Analysis (support to CDOT)
14. Reynee Nuetzel, PE | Engineering Design & Surveying Task Lead/Structural Engineering
15. Joseph Roerkohl, PE, CFM | Drainage Engineering
16. Stan Vermilyea, PLS | Surveys & Mapping

URS

Mark C. Schaefer, PE, PTOE

Project Manager

Areas of Expertise

Traffic/Transportation Engineering

Transportation Planning

Corridor Access Management

Transportation Design/Build

Engineering Expert Witness

Public/Agency Participation

Years of Experience

With URS: 11 Years

With Other Firms: 22 Years

Education

Master of Business Administration/ University of Colorado at Denver

Bachelor of Science/Civil Engineering/ Marquette University

MIS Training Course/National Transit Institute

Registrations/Certifications

Professional Engineer: CO (23671), AZ (24720), IA (11972), KS (12191), MT (13073PE), NE (E-7082), NV (12777), NM (15317) TX (84209), UT (34081)

Professional Traffic Operations Engineer (National)

Professional Societies/ Affiliations

Fellow, Institute of Transportation Engineers (ITE)

American Consulting Engineers Council

Downtown Denver Partnership Member

Overview

Mr. Schaefer has more than 30 years of transportation engineering and management experience. He has directed and participated in nearly every aspect of traffic engineering and transportation planning including: traffic impact assessments; parking demand and design; environmental assessment; transportation corridor planning; municipal transportation master planning; on-call transportation services contracts; capacity and level-of-service evaluations; capital costing; project phasing; traffic safety studies; signalization, signing and marking plans; public participation programming; engineering expert witness; and the functional design of rail, mass transit, highways and intersections.

Project Specific Experience

Transportation Expansion Project (T-REX), Aurora and Southeast Denver metro area, CO: Corridor Discipline Manager of Traffic Engineering for $1.7 billion project to improve 17 miles of I-25 and I-225, and 19 miles of a new light rail transit line including 13 new transit stations. Coordinated all design and construction elements related to permanent traffic engineering features on the project including major and minor signing, pavement markings, and traffic signals. Provided traffic engineering planning and design direction to all related disciplines including roadway/interchange design, intelligent transportation systems, construction traffic control, and LRT systems and station design.

City and County of Denver General Services Contract, CO: Project Manager responsible for project oversight and task management for multi-year on-call services contract for the City and County of Denver. Disciplines include traffic engineering, roadway design and bridge engineering. Projects completed under this assignment have included 8th Avenue, Federal to Knox; Northside Park access roadways; Broadway Streetscape Improvements; Washington Park Loop Road Improvements; concept design for 23rd Avenue, York to Colorado; radium streets reconstruction; and pedestrian access improvements at Civic Center Park.

Quebec Street (State Highway 35)/I-270 Interchange, Denver, CO: Task Manager responsible for the preparation of all documentation for the System- and Project-level Interchange Feasibility Studies and approvals (Colorado Department of Transportation 1601 process, and FHWA interstate access request).

56th Avenue, Quebec Street to Havana Street, Environmental Assessment, and **56th Avenue, Havana Street to Peña Boulevard Planning-Environmental Linkage Study, Denver, CO:** Project Manager for environmental studies of proposed improvements to East 56th Avenue – a major arterial adjacent to the Rocky Mountain Arsenal National Wildlife Refuge.

URS

Travis Boone, PE

Principal-in-Charge

Areas of Expertise

Project Manager
Group Leader
Public Communication and Involvement
Structural Design
Bridge Design
Structural Inspection
Highway Design
Construction Engineering

Years of Experience

With URS: 14 Years
With Other Firms: 5 Years

Education

BS/Civil-Structural Engineering/ New Mexico State University

Registration/Certification

Certified Project Manager
Professional Engineer: CO (36308)
USDOT FHWA Certified Bridge Inspection Team Lead
Certified Welder

Professional Societies/ Affiliates

American Society of Civil Engineers – Southern Colorado Branch President, 2005-2006
Structural Engineering Institute

Specialized Training

Field Safety
First Aid/CPR
Rules and Regulations of Workplace Safety and OSHA Compliance
Confined Space Entry
Fall Protection

Overview

Mr. Boone has more than 19 years of management, construction, and design experience on various types of projects including transportation structures, highways, commercial and residential buildings, utilities, and construction engineering. He has managed small and large projects from inception through construction, including NEPA processes, project scoping, and preliminary and final design. His expertise includes transportation project management, bridge engineering, utilities, and construction issues. He is adept at developing and maintaining public trust through honest, straight-forward communication.

Project Specific Experience

Project Manager, North Hancock Avenue Bridge Replacement Project, Colorado Springs, CO: The Hancock project includes alternatives analysis, public involvement, and preliminary through final design of a bridge over the Templeton Gap Floodway. This PPRTA funded project will replace a functionally obsolete and structurally deficient pony truss bridge connecting two neighborhoods. Components of the project include bridge hydraulics, drainage, intersection redesign, and the bridge.

Project Manager, West 11th Street Bridge Replacement Project, Pueblo, CO: Project includes NEPA documentation, conceptual, preliminary, and final design. Coordination efforts with CDOT, the City, utilities, and the public will continue through the completion of design efforts. The project is funded through federal CML money and Colorado FASTER funding. The bridge will carry 11th Street over Wild Horse Creek and a FEMA levee.

Project Manager, El Paso Boulevard/Platte Avenue Bridges Rehabilitation Project, Colorado Springs, CO: Project includes field documentation and inspection of conditions of retaining walls and two bridges. Repair and rehabilitation details will be included in final reports to assist the City in programming funding requirements and developing construction packages for rehabilitation.

Project Manager, Woodmen Road Corridor Improvements Project, Colorado Springs, CO: Phase 1 includes preliminary and final design of Woodmen Road over Academy Boulevard Single Point Urban Interchange (SPUI) and roadway project. Project includes large prestressed concrete bridge, significant retaining walls, evaluation of existing structures, noise walls, and drainage structures. Other key components of the project include significant public communication and involvement, major utility coordination and relocation, complex construction phasing plans, and special drainage construction. Phase 1 project value is approximately $50 million.

Project Manager, South Durango Trail and Bridge Project, Durango, CO: Project Manager responsible for design of 240-foot single span pedestrian bridge over the Animas River and a 60-foot single span pedestrian bridge over a small canyon. Project also included multiple retaining walls and heavy aesthetic requirements.

URS

Craig B. Parent, PE, SE

LACA Process Support

Areas of Expertise

Bridge Design/Analysis
Drainage Structures
Retaining Wall Design
Bridge Rehabilitation/Inspection
Seismic Design and Risk Analysis
Design/Build Projects
Quality Management

Years of Experience

With URS: 16 Years
Division QA Officer: 6 Years
Office Quality Officer: 4 Years

Education

MS/Civil Engineering/ Columbia University
BS/Civil Engineering/Penn State University

Registration/Certification

Professional Engineer: CA (C59856), CO (36117), WA (38639), AZ (45401), NM (21748)
Professional Structural Engineer: UT (6379388-2202)
NCEES: 20135
URS Certified Project Manager

Overview

Mr. Parent is experienced in many facets of bridge and structural engineering including finite element analysis, seismic analysis, reinforced and prestressed concrete, structural steel, and Quality Management. These interests have been extensively applied in his work with URS Corporation in bridge design and rehabilitation, design-build and other fast track projects, and earthquake risk analysis.

Project Specific Experience

2013 Colorado Flood Disaster Repair Project – CDOT: Local Agency representative for Boulder County and the Town of Ward for damage assessments and repair reimbursement. Boulder County has over 20 sites that were damaged in the federally declared flood disaster that caused an estimated $450M in damages throughout Colorado. Provided site assessments for an estimated $45M in damages in Boulder County including severe damage to a 10 mile stretch of Lefthand Canyon Drive and two potential bridge replacements. Assessments included site visits, estimation of the scope of repairs, and developing cost estimates for reimbursement from FHWA to the County. Providing design oversight for all Boulder County Projects which currently includes Lefthand Canyon Drive and East County Line Road Bridge over St. Vrain Creek.

SH92 over UPRR Railroad – CDOT Region 3: Structural design lead for a three-span prestressed concrete girder bridge spanning a UPRR track. The piers are designed in accordance with heavy construction requirements of the UPRR due to limited horizontal clearance. The project also involves the design of an MSE wall adjacent to the UPRR Right-of-Way with a maximum height of 46 feet. The wall is complicated by poor foundation material which necessitated foundation improvement design including drilled caissons to satisfy stability requirements.

Kennecott Utah Copper (KUC)– Structural Evaluation of the Tailings Pipeline Bridge: Structural lead for the structural analysis of the existing bridge for both proposed service loads and seismic loads in accordance with AASHTO LRFD and MCEER/ATC-49 LRFD codes. Developed retrofit concepts and an order-of-magnitude cost estimate for retrofit verses replacement. The existing pipeline bridge is a multi-span steel truss with an overall length of 1448 feet and a maximum pier height of 150 feet that crosses Highway 201 and the KUC railroad in Magna, UT. The bridge is a critical link for copper mining operations in that it transmits tailings from a copper mine to a tailings impoundment.

6th Avenue Westbound Viaduct Rehabilitation, City and County of Denver, Denver, CO: Project Engineer responsible for the oversight of complex 3-dimensional structural modeling, structural design and temporary shoring design. The design includes stabilizing the existing structure with reinforced concrete hammerhead piers. The foundation rehabilitation includes the use of conventional steel piles and micropiles. Responsible for the design, budget and scheduling of project staff.

URS

Rebecca Crane, PE

Quality Assurance

Areas of Expertise

Roadway and Interchange Design

Pavement Materials

Years of Experience

With URS: 7 Years

With Other Firms: 2 Years

Education

BS/Civil & Environmental Engineering/Brigham Young University

Registration/Certification

Professional Engineer: IN, CO

Professional Societies/ Affiliates

American Society of Civil Engineers

Society of Women Engineers

Awards

2006 Bunderson Women in Science Mentoring Grant

2006 Office of Research and Creative Activities, Brigham Young University, Mentoring Grant

Overview

Ms. Crane has 7 years of design experience as a civil engineer including roadway design, specifically in geometric design, drainage design, pavement design using Mechanistic-Empirical Pavement Design Guide (MEPDG), and the preparation of contract plans and engineer's cost estimates for rural and urban transportation projects. In addition to working along with others in designing roadways, she has also had the opportunity to manage and direct other engineers and CADD technicians in the design process. Ms. Crane will be responsible for the overall implementation of the URS Quality Management System (QMS) on this project.

Project Specific Experience

Reconstruction of SH 92, CDOT, Delta County, CO: Project Engineer. Responsibilities include the management of roadway plan development, design documentation and submittals. The project involves the reconstruction and realignment of approximately 2 miles of SH 92.

Pavement Design, Lafayette Road over CSX Railroad, City of Indianapolis, Marion County, IN: Roadway Designer. Responsibilities included pavement design analysis utilizing MEPDG. The project consists of rehabilitation of an existing steel beam bridge carrying Lafayete Road over CSX Railroad.

Reconstruction of I-465 from White River Bridge to 82nd Street Bridge, I-465 Northeast Corridor Reconstruction, INDOT, Hamilton and Marion Counties, IN: Project Engineer, Design Lead. Responsibilities include the management of roadway plan development, design documentation and submittals, and the coordination with surrounding contracts. Other duties include geometric, storm sewer, and maintenance of traffic design. The project involves the reconstruction of approximately 1.5 miles of I-465.

SR 58, INDOT, Bartholomew County, IN: Project Engineer. Responsibilities included roadway and drainage design, quantities, and engineer's cost estimates. The project involved widening the SR 58 Bridge over I-65 and the reconstruction of the interchange ramps.

Brigham Young University, Provo, UT: Research Assistant. Performed field tests on pavements and bridge decks using destructive and nondestructive techniques. Conducted laboratory tests to assess chloride concentrations in bridge decks, and freeze-thaw effects on stiffness of cement-treated bases. Conducted and managed extensive research and analysis on cement-treated bases using long-term pavement performance program data and performed statistical analyses on cement-treated bases.

Platte Valley Reservoir No. 1, Platteville, CO: Staff Engineer. Responsibilities consisted of performing a breach analysis and assisting in reservoir design. The project involved the determination of the Jurisdictional Status and Hazard Classification of the Reservoir.

URS

Rachel Badger

Environmental Clearance and Permitting Task Leader, CDOT Form 128 Documentation

Areas of Expertise

NEPA Compliance and Environmental Planning

NEPA Program and Project Management

Mine Planning and Permitting

Federal Land Management Agency Planning

Energy (oil and gas, pipeline) and Power (transmission)

Water Supply Planning and Permitting

Transportation Planning

Socioeconomic and Environmental Justice Evaluations

Public Involvement and Stakeholder Engagement

Agency Coordination

Natural Resources and Cultural Resources Coordination

Site Assessments and Investigations/ Hazardous Materials Surveys / Emergency Preparedness Contingency Planning

Years of Experience

With URS: 20 Years

Education

BA/Environmental Conservation and Biology/University of Colorado, Boulder

Cloud Forest Ecology Program/ School for Field Studies/ Northeastern University/Monteverde, Costa Rica

Professional Societies/ Affiliates

URS Colorado Leadership Program

URS Certified Project Manager

American Planning Association

The Bullet Proof® Manager Certification

Overview

Ms. Badger is a Senior Environmental Planner with 20 years of experience includes project management as well as technical support, coordination, and preparation of multidisciplinary National Environmental Policy Act (NEPA) compliance documentation including Environmental Assessments (EAs) and Environmental Impact Statements (EISs), as well as other local and state-level planning and permitting documents. Ms. Badger serves as the NEPA Program Manager in Denver and has served as the Planning and Assessment Team of up to 14 direct reports responsible for mentoring, training, and team-level sales planning. She now serves as the Environmental Planning Client Service Area Leader for the Denver Office, representing planning and permitting, and biological and cultural resource practice areas.

Project Specific Experience

Colorado Department of Transportation, State Highway 119/ U.S. Highway 6 (Gaming Area Access) Environmental Impact Statement (EIS), Gilpin and Clear Creek Counties, CO: Environmental Planner responsible for development of an EIS to identify transportation improvements into the gaming communities of Central City and Black Hawk, Colorado. The EIS process included coordination of Technical Advisory Team meetings and other public involvement activities, field environmental studies, and close coordination with over 20 local, state and federal agencies. Local agency coordination involved communication with planners and engineers from Gilpin, Clear Creek and Jefferson Counties. This complex project included two privately proposed alternatives; a tunnel and a new road, each promoted by special interest groups. Responsible for environmental justice analysis and Section 4(f) Evaluation, assistance with development of purpose and need statement, assistance with wetland delineation and other natural resource field work throughout the corridor, and document coordination.

Montana Department of Transportation, Environmental Assessment (EA), State Route 35, Lake County, MT: Environmental Planner responsible for preparation of Final EA and Finding of No Significant Impact (FONSI) for proposed reconstruction of a portion of S.R. 35, east of Polson, Montana. Issues included threatened and endangered species, water quality and wetlands. Public coordination and comments as well as project mitigation measures were addressed in the FONSI.

U.S. Army, Environmental Assessment (EA), Golf Course, Fort Gordon Military Installation, GA: Environmental Planner responsible for EA of a proposed 9-hole golf course. Activities included evaluating the impacts to threatened and endangered species, wetlands, and other biological resources, including review of a forage habitat tree survey for the Red-Cockaded Woodpecker, biological assessments for over 20 endangered species, and a wetland delineation.

URS

Robert DeBaca, PhD

Threatened and Endangered Species

Areas of Expertise

Mammal, Bird, Reptile Ecology
Plant and Wildlife Field Surveys
Federally Listed Species
Vertebrate Biology
NEPA Documentation
Biological Assessments

Years of Experience

With URS: 7 Years
With Other Firms: 18 Years

Education

PhD/Texas Tech University
MS/Biology/Fort Hays State University
BA/EPO Biology/ University of Colorado
BA/Environmental Conservation/ University of Colorado

Training/Certification

Flat-tailed Horned Lizard Survey Workshop/BLM
Southwestern Willow Flycatcher Survey Workshop/USFWS
Western Yellow-billed Cuckoo Survey Workshop/USFWS
Biological Assessment Workshop/ USFWS
Desert Tortoise Council Survey Techniques Workshop
24-hour MSHA, New Miner
MSHA, Experienced Miner

Professional Societies

American Society of Mammalogists (Life Member)
Great Plains Natural Science Society (Life Member)
Southwestern Association of Naturalists (Life Member)
Society for Conservation Biology
International Biogeography Society

Mr. DeBaca has worked as a professional biologist for 25 years, and has filled multiple roles as principal investigator, project manager, task manager, and specialist in ecological resource studies, design and execution of field-based surveys, and biological regulatory compliance. He worked for many years as a research scientist, and has performed ecosystem level research throughout the deserts, mountains, and grasslands of the western United States. He has used GIS, multivariate statistics, and landscape ecology techniques to investigate and model habitat suitability, ecological potential, and distributions of vertebrates and insects in North America. Mr. DeBaca's work in consulting involves developing resource management plans, authoring NEPA and ESA compliance documents, running section 404 surveys and reporting, and conducting biological resource studies. He has worked on various federal and local planning projects, linear infrastructure projects, as well as renewable and conventional energy developments.

Project Specific Experience

White River RMP/EIS Oil and Gas Amendment, BLM White River Field Office, Meeker, CO: Natural Resource Specialist, Analyzed and wrote impacts sections for wildlife, vegetation, special status species, wild horses, wildland fire, and livestock grazing for an oil and gas RMP amendment.

Baseline Biological Surveys; Tallgrass PXP Pipeline, OK and KS: Biologist/Survey Team Leader. Led a survey team to delineate wetlands and streams and to document baseline information on special status species, habitats, vegetation, land use, and existing infrastructure. Used a field computer and an ArcGIS Mobile Application to collect data, perform QA/QC tasks, and manage data. Assisted with Section 404 and state permitting.

Jurisdictional Delineation Survey; BrightSource Energy; Hidden Hills, San Bernardino County, CA: Biologist. Conducted field surveys in a jurisdictional delineation for section 404 permitting.

Valencia Road Widening and Improvements; Pima County Department of Transportation; Tucson, AZ: Biologist. Conducted native plant and wildlife surveys for road improvements. Authored a biological assessment for project impacts to listed species, and wrote a native plant survey report. Assisted with section 404 permitting and stream delineations.

Indian Bend Wash 404 Permit Vegetation Monitoring, City of Scottsdale, AZ: Lead Biologist. Designed and implemented vegetation monitoring protocols. Reported mitigation findings in annual reports. Managed task elements and budget.

La Cholla Boulevard Improvements Project; Pima County Department of Transportation; AZ: Biologist. Conducted wildlife and native plant surveys and habitat assessments. Authored a biological evaluation to analyze impacts to the lesser long-nosed bat and cactus ferruginous pygmy owl. Co-authored Section 404 Jurisdictional Determination report for the project and authored an Environmental Assessment for project permitting.

URS

Susan Hall

Wetland Delineation, USACE 404 Permitting

Areas of Expertise

Ecological Restoration/ Reclamation Design

Reclamation Monitoring and Compliance

Constructed Wetlands

Wetland Delineation, Functional Assessments, Permitting, and Mitigation

Habitat/Endangered Species Assessments

Compliance Consulting

Years of Experience

With URS: 8 Years

With Other Firms: 2 Years

Education

BS/Environmental Science, Fresh Water Systems/University of Wisconsin

MS/Ecological Restoration/ University of Denver (in process)

Registration/Certification

Wetland Delineation Certification

Colorado Native Plant Master Certification (5 years)

Section 10 and 404 Nationwide and Permitting

Colorado FACWet Functional Assessment Training

Master Gardener Certification

Colorado Outdoor Training Initiative Crew Leader Certification

Overview

Ms. Hall is an ecologist and botanist with 10 years of professional experience and has served as a technical lead on projects in industries such as transit, water resources, mining, and oil and gas. She has been the technical lead on numerous applied ecological studies and NEPA analyses in diverse resource areas such as surface and ground water, wetlands, weeds, vegetation, wildlife, and sensitive plant and animal species. Ms. Hall has been a resource specialist involving federal agencies such as the Bureau of Land Management, Federal Energy Regulatory Commission, U.S. Forest Service, U.S. Fish and Wildlife Service, National Park Service, and the U.S. Army Corps of Engineers.

Ms. Hall specializes in wetland and stream mitigation and reclamation. She is experienced in all phases of aquatic terrestrial restoration, including assessment, permitting, design, and compliance monitoring, and has numerous successful reclamations to her credit. She also has experience designing aquatic and riparian filtering systems.

Selected Experience

RTD FastTracks Light Rail Corridors, Denver, CO: Wetlands Task Lead. Conducted wetland delineations on 77 miles of proposed alignments for three light rail lines in Denver. Authored technical memoranda and resource sections for two EIS's and an EA. Responsible for Section 404 permitting. Lead Agency – USACE.

CDOT, State Highway 92 Reconstruction, CO: Wetland Task Lead. Conducted wetland delineations along 16 miles of state highway. Other responsibilities included reporting functional assessments, T&E habitat, and mitigation banking permitting.

Bradner Reservoir Expansion, Las Vegas, NM: Lead Ecologist. Responsible for Section 404 permitting on two reservoir projects in San Miguel County. Work included conducting delineations, subcontractor coordination, and agency consultation. Contributor to NEPA funding documents for the project. Lead agency – USACE, Albuquerque District.

USACE, Stream Habitat Restoration, Town of Castle Rock, CO: Mitigation Task Lead. Designed and monitors urban stream restoration, including creating habitat for federally threatened Preble's meadow jumping mouse (*Zapus hudsonius preblei*).

Woods Creek Restoration, Henderson-Urad Mine, Clear Creek County, CO: Lead Ecologist. Designed and oversaw construction of wetland and riparian zone plantings in a subalpine stream valley for two reaches and a pond along Woods Creek, incorporating enhancements to boreal toad (*Anaxyrus boreas boreas*) habitat.

USFWS, Muskrat Dam Wetland Mitigation, CO: Lead Ecologist. Developed wetland enhancement planting and monitoring plan for the Arapaho National Wildlife Refuge. Oversaw installation.

URS

Gordon C. Tucker Jr., PhD

Cultural Resources and Section 4(f) Analysis

Areas of Expertise

Cultural Resources Surveys
Archaeological Excavations
Archaeological Monitoring
Prehistoric and Historic Research
Artifact Analyses
Significance Evaluations
Cultural Resource Management Plans
National Register Nominations

Years of Experience

With URS: 14 Years
With Other Firms: 25 Years

Education

PhD/Anthropology (archaeology emphasis)/ University of Colorado
MA/Anthropology (archaeology emphasis)/ Idaho State University
BA/Sociology/Anthropology/ Western Washington State College

Overview

Dr. Tucker has 39 years of experience in cultural resources management. He has conducted and managed hundreds of investigations including surveying, testing, excavation, and monitoring projects. His research experience includes fieldwork throughout the western U.S. and Midwest. He has authored or co-authored hundreds of cultural resources management reports, contributed to EA/EIS documents, published several articles and monographs, and presented papers at professional meetings. Dr. Tucker exceeds the Professional Qualifications Standards of the Secretary of Interior's Standards and Guidelines for Archeology and Historic Preservation.

Relevant Experience

Colorado Department of Transportation, Gaming Area Access EIS, Gilpin and Clear Creek Counties, CO: Lead Archaeologist for cultural resources inventory of improved access alternatives to gaming towns.

City of Fargo, Fargo Southside Flood Control Project, Cass County, ND: Project Manager for intensive cultural resources survey of flood control project.

Regional Transportation District, North Metro FasTracks Corridor, Denver and Adam counties, CO: Task Manager for environmental impact statement.

Colorado Department of Transportation, US 36 DEIS, Adams, Boulder, Broomfield, Denver, and Jefferson counties, CO: Senior Archaeologist for inventories of highway railroad corridors.

Colorado Department of Transportation, U.S. Highway 550 South, La Plata County, CO: Senior Archaeologist for survey related to environmental assessment.

Regional Transportation District, Central Platte Valley LRT Spur, Denver County, CO: Lead Archaeologist for test excavations and construction monitoring along light rail transit spur line.

Dames & Moore, Jewell Avenue Extension, Arapahoe County, CO: Principal Investigator for survey and evaluative testing related to environmental impact statement.

South Dakota Department of Transportation, I-29 Design Improvements Project, Lincoln and Minnehaha Counties: Principal Investigator for a road improvement project in Sioux Falls, SD.

Cities of Fargo and Moorhead, Fargo-Moorhead Metro Flood Risk Management Project, Cass County, North Dakota, and Clay County, MN: Project Manager for survey, shovel testing, and deep testing for flood control project.

Texas State Department of Highways, Site 51BW422, Bowie County, TX: Principal Investigator for data recovery at site affected by highway construction.

URS

Julie Van Dusseldorp, CPESC

Stormwater Quality Permitting, Erosion Control Permit, Sediment Control Permit

Areas of Expertise

Stormwater Permitting and Management

Spill Prevention, Control, and Countermeasure Plans

Environmental Regulatory Compliance

Field Investigations

Years of Experience

With URS: 7 Years

With Other Firms: 7 Years

Education

BS/Earth Science, Environmental Studies/Western Michigan University

Registration/Certification

Certified Professional in Erosion and Sediment Control #4791

Certified Stormwater Inspector/NPDES- National Stormwater Center

10-hour OSHA Construction Safety & Health

Erosion Control Supervisor Training – Colorado Department of Transportation/Red Rocks Community College

Professional Societies/ Affiliates

Geological Society of America

International Erosion Control Association & Mountain States Chapter

Overview

Ms. Van Dusseldorp is a Certified Professional in Erosion and Sediment Control (CPESC) and 15 years of professional experience in the environmental field. She has developed and implemented stormwater compliance programs; developed spill prevention and response plans; performed field investigations and audits; and developed various other plans and technical reports to support environmental compliance for a variety of facilities.

Project Specific Experience

Various Oil & Gas Clients, CO and WY: Developed stormwater and erosion and sediment control plans, and assisted with the stormwater permitting process for various confidential oil and gas industry clients. Key projects include construction stormwater plans and permitting for long linear intra- and inter-state gas pipelines and state point source discharge permitting. Also developed project-specific spill response plans.

SourceGas LLC, Various States: Provide stormwater program support for various gas projects located in Colorado, Wyoming, Nebraska, and Arkansas. Projects include developing stormwater plans, erosion and sediment control plans, coordinating with field personnel, and providing stormwater training support.

Tallgrass Energy Partners, Various States: Technical lead for providing stormwater program support for various oil and gas projects associated with construction activities and water discharge permitting. Project duties include assessing various state regulations, developing compliant stormwater plans, and preparing erosion and sediment control plans.

Atmos Energy, KS: Technical lead for preparing and certifying stormwater plans and erosion and sediment control plans for gas pipeline construction projects located in Kansas.

Xcel Energy, Public Service Company of Colorado, Various Locations, CO: Project Manager for several stormwater permitting and Spill Prevention, Control, and Countermeasure (SPCC) projects. Project duties also include the development of Stormwater Management Plans (SWMPs) for industrial sites and construction projects, including long-linear sites, assisting with permitting processes, field observations for SPCC Plan development, and site audits/inspections. SPCC Support Provided for all Xcel substation and power plant facilities located throughout Colorado. Provided groundwater monitoring support for Harrison Substation in Denver, Colorado following the explosion of a transformer in 2010 and the release of mineral oil to the ground and subsurface.

Other Relevant Experience: Developed SWMPs, SWPPPs, and erosion and sediment control plans, and assisted with the stormwater permitting process for various other clients in the construction, industrial, municipal, and mining sectors. Key projects include construction stormwater plans and permitting, as well as SPCC Plans.

URS

Kimberley A. Pirri, PE, CFM

Floodplain Use Permit and Flood Hazard Development Permit

Areas of Expertise

Hydrologic Analysis & Modeling
Hydraulic Analysis & Modeling
Floodplain Management
Floodplain Analysis
Floodplain Permitting
Bridge Hydraulics
Stormwater Management
Master Planning
Hydraulic Structure Design
Mitigation Planning
SWMP/GESC Plans

Years of Experience

With URS: 7 Years
With Other Firms: 8 Years

Education

BS/Civil Engineering/University of Colorado

Registration/Certification

Professional Engineer: CO (40453), VA (037783)
ASFPM Certified Floodplain Manager

Professional Societies/ Affiliates

Association of State Floodplain Managers (ASFPM)
Colorado Association of Stormwater and Floodplain Managers (CASFM)

Overview

Ms. Pirri is a Design Engineer and Project Manager with 16 years of experience in hydraulic and hydrologic design, floodplain and stormwater management, drainage analysis, and master planning. Ms. Pirri has served as the Project Manager or Task Leader on several projects, including stormwater master plans, stormwater facility design, FEMA CLOMRs and LOMRs, flood mapping projects, floodplain management on-call service contracts, and floodplain analyses.

Ms. Pirri is also the URS Regional Office Coordinator (ROC) for FEMA Region VIII. These duties include regular communication with FEMA and URS regarding the RiskMAP and Hazard Mitigation Technical Assistance Programs and regular coordination with other URS ROCs regarding lessons learned, technical applications, etc.

Project Specific Experience

Project Engineer, 120th Avenue Extension Project LOMR, Adams County, CO: As part of construction close-out services, Project Engineer responsible for preparation and certification of Letter of Map Revision (LOMR) application to the Federal Emergency Management Agency to reflect the as-constructed condition of the bridge crossing and request modification of the Flood Insurance Rate Map for Adams County. Coordinated as-built survey of bridge structure and associated channel grading. Preparing as-constructed HEC-RAS hydraulic analysis of the South Platte River, including two floodway analyses and updated analysis of an existing inline diversion structure. Responsible for report, profile, and map preparation associated with LOMR.

Senior Project Engineer, SH 82 Basalt Upper Bypass Bridge Levee Investigation & Preliminary Design, CDOT, Pitkin County, CO: Senior Project Engineer responsible for providing analysis guidance and for detail checking the hydraulic analysis associated with the preliminary levee alignment for the proposed levee extension along the Roaring Fork River near the Town of Basalt, Colorado.

Design Engineer & Task Lead, West 11th Street Sanitary Sewer Encasement and Grade Control Structure, City of Pueblo, CO: URS is completing the design work for realignment and replacement of the West 11th Street Bridge in the City of Pueblo. The proposed roadway modifications led to need to realign an 18" sanitary sewer. The realigned sewer now crosses Wild Horse Creek above grade. Therefore, the sewer must be encased and the encasement must be protected. As design lead on the project, coordinated work to design the encasement and completed design of the grouted-sloping boulder grade control structure to protect the encasement. Progressed the design through 30% and 90% level submittals, including design plans, Engineer's Estimates of Cost, and stormwater management plans. Also responsible for completing the floodplain analysis associated with both the sanitary encasement and the bridge project, to include a CLOMR submittal to FEMA to obtain comment on the impacts of both projects.

URS

Trung Vo, PE

State Highway Access Permit, Construction Traffic Control

Areas of Expertise

Traffic Signal Timing
Traffic Signal Design/Construction
Traffic Modeling
Traffic Operations
Transit Operations
Construction Traffic Control

Years of Experience

With URS: <1 Year
With Other Firms: 14 Years

Education

BS/Architectural Engineering, College of Engineering and Applied Science/University of Colorado, Boulder, CO

Registration/Certification

Professional Engineer: CO (43915)

Overview

Mr. Vo has 15 years of transportation engineering, project engineering, and project management experience. He has been involved in various projects including multimodal transportation corridor analysis, engineering, conceptual design, and implementation; traffic impact analysis/studies; traffic signal design, and construction; transit operational analysis, design, and protocol development/implementation; development engineering roadway network planning, and operational analysis. Mr. Vo has extensive experience in dense urban multimodal traffic operations having been the City of Denver's Downtown Traffic Engineer. He is proficient in the use of many different transportation engineering and simulation software programs.

Project Specific Experience

Denver Union Station, Denver, CO: Transportation Engineer. Devised traffic operations solutions for the shuttle, circulator, and light rail that would enable multimodal use of 16th St. in the Central Platte Valley. Solutions included signal timing, signal and roadway design that allows shuttle, bicycles, and autos to share the roadway safely and efficiently.

14th Street Reconstruction, Denver, CO: Transportation Engineer. Coordinated all aspects of traffic and transportation related activities for a 10 block major downtown roadway reconstruction that included full depth concrete paving. Performed signal design and signal relocation reviews, developed and approved lane closures/transitions, road closures and detours.

Tremont St Realignment, Denver, CO: Transportation Engineer. Helped design realignment of Tremont St & Colfax Ave. Existing condition was a multi-point intersection with three signalized intersections. Design brought the intersection to a single point and simplified operations.

Stapleton Filing 18, Denver, CO: Transportation Engineer. Responsible for the operational, geometric, and safety review of the roadway network for various filings in Stapleton including Filing 18 which included two regional arterials and various collector roadways. The filing redeveloped over 100 acres of land into a mix-used development. Reviewed TIS and warrant analyses for traffic/transportation planning.

Safety Hazard Elimination, Denver, CO: Traffic Engineer. Led the design review, approval, and construction of six traffic signals located on Hampden Ave at Poplar St, Akron St, and Florence St, Colfax Ave & Krameria St, Colfax Ave & Glenarm Pl/Fox St, and Federal Blvd & 44th Ave based on Colorado Department of Transportation recommendations. Ensured signal designs met standards and criteria for The City and County of Denver and CDOT. On site engineering support during construction of all signals in the design package.

URS

Annette Barndt

Hazardous Materials

Areas of Expertise

Regulatory Compliance Auditing

Environmental Permit and Plan Preparation

Regulatory Processes

Environmental Site Assessments

Years of Experience

With URS: 18 Years

With Other Firms: 3 Years

Education

MA/Environmental Management, Water and Air Resources/Duke University

BA/Environmental Studies, Biology/Cornell College

Registration/Certification

ISO 14001 Qualified EMS Auditor (EARA and ANSI-RAB)

Specialized Training

ISO 14001 Qualified EMS Auditor (EARA and ANSI-RAB)

Red Cross First Aid and CPR

MSHA 8-Hr Health and Safety Training

OSHA 40-Hr Health and Safety Training

Overview

Ms. Barndt is a regulatory compliance specialist with 21 years of experience. She has provided review and analyses of US Solid Waste Disposal Act (SWDA), Resources Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Clean Water Act, Clean Air Act, Safe Drinking Water Act, Toxic Substances Control Act (TSCA), Occupational Safety and Health Act, Atomic Energy Act, and other environmental laws and regulations. She has technical expertise in interdisciplinary aspect of projects, permitting, remediation, regulatory analysis, project permit planning, due diligence assessments, ISO14000, and compliance auditing. She has conducted multi-media environmental compliance audits at industrial, utility, mining, and United States Air Force facilities throughout the United States, South America, and Greenland.

Project Specific Experience

Permitting and Environmental Assessment of Interstate 70 Corridor between Havana Street and Peoria Street, Denver, CO, Highway 85/87 Expansion, Fountain, Colorado, and Proposed 38th Street Bicycle Path, Denver, CO: Responsible for preparation of environmental assessment (EA) sections on potential hazardous substances sites for a proposed highway interchange, highway expansion, and a proposed bicycle path. EA prepared in accordance with NEPA and CDOT requirements, including the impacts of highway and bicycle path construction. Presented results of each assessment to CDOT and advised CDOT on potential liability associated with hazardous substances at the various sites. Supporting documentation prepared included a modified Phase I audit report for each project and list of permits and/or approvals required to be obtained prior to construction.

Environmental Compliance Audit and Preparation of Compliance Manual, NV: Conducted a multi-media environmental compliance audit at a gold mine in Nevada. Assisted in the preparation of a compliance manual for international mining company. Compliance manual covered air, water discharge, drinking water, SPCC, wetlands restoration, Forest Service lands, water rights, solid and hazardous wastes, and mine land reclamation. Project coordinated with company's senior counsel.

RCRA Compliance Assessments, Treatment, Storage, & Disposal Facilities Various States, Including CO: Performed third party environmental compliance audits for commercial RCRA treatment, storage and disposal facilities (TSDFs) located in the States of California, Colorado, and Nebraska for various clients. Compliance assessment involved such RCRA waste units as storage pads, tanks, wastewater treatment units, landfills, waste treatment units, and incinerators. Analyses provided included compliance with the hazardous waste incineration/ industrial furnace regulations for organic and metal emissions as well as NPDES and storm water permits and practices, and SPCC requirements. Prepared a separate report for all sites.

URS

Donald E. Allison

Noise Analysis (support to CDOT)

Areas of Expertise

Corridor and Intersection Operations Analysis

Freeway and Interchange Operations Analysis

Traffic Simulation Modeling

Noise Modeling

Signing, Striping, and Signal Design

Years of Experience

With URS: 26 Years

With Other Firms: 0 Years

Education

Undergraduate Studies/Civil Engineering and Computer Sciences/Hillsborough Community College, University of South Florida

Overview

Mr. Allison has 26 years of experience providing technical support for URS' transportation engineering group. His background includes both private and public sector projects. He is proficient in various traffic engineering software, including Highway Capacity Software, SYNCHRO, PASSER, and CORSIM. He has been involved in various traffic engineering assignments for Interchange Justification Reports (IJRs), Interchange Modification Reports (IMRs), Environmental Impact Statements (EISs), Environmental Assessments (EAs), Master Plans, and FDOT and CDOT corridor studies. He is also experienced in Noise Modeling and is proficient in TNM and STAMINA noise modeling software.

Recent Project Specific Experience

Woodmen Road Environmental Assessment and Final Design, Colorado Springs, CO: The project included alternative development, traffic engineering, environmental study, public involvement, implementation recommendations, preliminary and final design of a project to improve a major east/west urban arterial in the city of Colorado Springs. The solutions considered for implementation ranged from additional lanes and interchanges to possible improvements as a major east/west corridor in the city. Responsible for traffic modeling, traffic analysis, and noise analysis for the Environmental Assessment. Prepared signing, striping and signal plans for the final design bid plans. Project environmental documentation was completed in January 2007. Final Design was completed in September 2009.

Milton E. Proby Parkway Project, City of Colorado Springs, CO: The project included the design of a multi level interchange and expressway facility project for the City of Colorado Springs. Milton E. Proby Parkway will connect Academy Boulevard to Powers Boulevard with a 55mph expressway and freeflow "Y-Type" interchange at Academy Boulevard and Proby Parkway. Responsible for the signing, striping and signal design plans. The Final Design was completed in September, 2009. The project is currently estimated to cost $40 million and is the second largest project to be awarded under the City's Pikes Peak Rural Transportation Authority (PPRTA).

Other Noise Studies:

- US 189, Utah Valley to Heber Valley FEIS Re-evaluation, 2011, Utah
- Heber City Daniels Connector Road, Utah
- Seward Highway Improvements Project, Alaska
- 3500 South, 8400 West to Redwood Road EIS, Utah
- Bangerter Highway (SR-154) at 7000 South, Utah
- Bangerter Highway (SR-154) at 7800 South, Utah

URS

Mark Asoian

Air Quality Analysis (support to CDOT)

Areas of Expertise

Program/Project Management

Air Quality Permitting and Compliance

Strategic Regulatory Planning

Agency Negotiations

Emissions Inventory Development

Dispersion Modeling and Impact Assessment

Ambient Air Quality Monitoring for Criteria and Hazardous Air Pollutants

Meteorological and Noise Monitoring

Air Quality Data Collection, Interpretation, Management, and Reporting

Years of Experience

With URS: 10 Years

With Other Firms: 25 Years

Education

BS/Meteorology/Lowell Technological Institute

Masters Course Work in Mechanical Engineering (including Environmental Law)/University of Massachusetts, Lowell

Overview

Mr. Asoian has 35 years of experience providing air quality permitting and compliance services to a variety of industrial and governmental clientele. He is currently the Air Team Leader for URS's Denver, Colorado office.

Mr. Asoian's primary technical focus has been on air quality permitting and compliance; including Prevention of Significant Deterioration (PSD), Title V and state permitting, dispersion modeling and impact analysis, emission inventory development, Best Available Control Technology (BACT) analysis, and pre-construction and compliance monitoring systems. He has had leadership responsibility for developing permitting and compliance strategies and negotiating on client's behalf with various agencies, including state, EPA, and federal land managers. He has developed and provided expert testimony and depositions regarding air quality permitting, impact assessment, and the development and interpretation of air quality regulations.

Project Specific Experience

Colorado Department of Transportation (CDOT): Responsible for overall project management and provided air quality monitoring and data reporting services to CDOT for the I-70 and Brighton Boulevard Interchange Modifications. The air quality data collected included TSP and PM10, arsenic, and lead, as well as the meteorological parameters of wind speed, wind direction, temperature, atmospheric pressure, and atmospheric stability. The primary concern that CDOT and the surrounding community had was that the dust generated from construction activities, suspected of containing arsenic and lead based on soil sample analysis, could pose a hazard to the community. CDOT proposed a voluntary monitoring program including three monitoring locations to collect data and to provide quarterly reports to the community and the Colorado Department of Health. Responsible for developing the monitoring program and preparing the Monitoring Plan for the program that CDOT presented to the community. Also prepared the quarterly reports and developed procedures and trigger levels for notifying CDOT project management of potential violations of applicable standards or action levels.

Kaiser-Francis Oil Company: Provided senior oversight for source testing compliance activities and development of testing protocols in compliance with both state of Wyoming and EPA Subpart JJJJ source testing requirements. Also responsible for reviewing test reports to ensure compliance with applicable permit and regulatory requirements. Additionally, developed a successful strategy and supporting justification resulting in EPA Region 8 delegating Subpart JJJJ emissions testing authority to the State of Wyoming. The impact of EPA's decision is that KFOC may now employ the Wyoming Source Testing Protocol, in lieu of EPA's more lengthy and costly Subpart JJJJ test method.

URS

Reynee Nuetzel, PE

Engineering Design and Surveying Task Leader/Structural Engineering

Areas of Expertise

Bridge/Culvert Design
Bridge Widening
Retaining Wall Design
Building Design
Fast Tract Design Build Projects
Bridge Evaluation

Years of Experience

With URS: 13 Years
With Other Firms: 2 Years

Education

BS/Land Surveying/Purdue University
BS/Civil Engineering/Purdue University

Registration/Certification

Professional Engineer: CO (38154), WY (12025)

Overview

Ms. Nuetzel is a bridge engineer with 16 years of experience in design of bridges, culverts, and buildings. Her work experience includes design of several types of bridge structures including precast prestressed concrete I-girders, box girders, steel plate girders, and concrete box culverts. She has completed wall design using both masonry blocks and cast in place concrete. She is experienced in design-build projects and construction management.

Project Specific Experience

120th Avenue, Denver, CO: Bridge engineer for a five-span twin bridge, 120th Ave. over the South Platte River. Precast prestressed concrete bulb-tee girders were used for the superstructure. The substructure consisted of integral abutments on driven steel piles and the interior bents were concrete columns on drilled caissons. This bridge also included architectural accent columns and form liner details for aesthetic effect. During this project Reynee was also responsible for the design of a concrete box culvert at Brantner Ditch as well as the independent check of two pedestrian underpasses constructed from precast concrete arches, at Quebec St. and at the entrance to the Adams County Regional Park.

E-470 Widening, Denver, CO: Responsible for the widening of a two-span twin bridge, at E-470 over Peoria St, and two single span twin bridges, at E-470 over Jordan Road and E-470 over Happy Canyon Creek. The final design increased the existing roadway from 2 lanes in each direction to 4 lanes in each direction. The widening at Peoria St. included the addition of new prestressed-precast bulb-tee girders with abutments founded on driven piles and a center pier on caissons. Happy Canyon was widened by use of precast, prestressed Bulb tee girders on Expansion bearings, the Jordan Road Bridge used 60" Welded steel plate girders on expansion bearings. The AASHTO Standard Specifications for Highway Bridges code was used in the design of all structural elements.

56th Ave, Havana to Quebec St., Denver, CO: Construction Engineer for the City and County of Denver project consisting of two single span bridges, one prefabricated pedestrian bridge and modifications to two existing bridge superstructures. Provided construction support, including the review of shop drawings and field inspections.

I-64 Design/Build, St. Louis, MO: Responsible for the structural design of Kingshighway over I-64 and the Clayton Ave Eastbound On-Ramp to I-64. Kingshighway bridge is a two-span single-point urban interchange (SPUI) consisting of splayed prestressed concrete girders supported by reinforced concrete bents. The Clayton on-ramp bridge is a two-span curved bridge, consisting of splayed girders on concrete bents. Both bridges were subject to seismic loadings.

RTD FasTracks North Metro Corridor Design Build, Denver, CO: Engineer responsible for the 30% layout, design, quantities, plan preparation, and structure selection report for several bridges along the proposed RTD FasTracks North Metro Corridor.

URS

Joe Roerkohl, PE, CFM

Water Resources Engineer

Areas of Expertise

Hydrologic and Hydraulic Modeling

Open Channel Hydraulics

Scour Analysis and Revetment Design

Floodplain Mapping

Coordinated Needs Management Strategy

Modeling Experience

HEC Programs, Flowmaster, CulvertMaster, StormCAD, PeakFQ, TR-20, TR-55, NSS, WISE, SEDCAD, ArcGIS, AutoCAD, Microstation

Years of Experience

With URS: 6 Years

With Other Firms: 1 Year

Education

BS/Civil Engineering/University of Wisconsin, Milwaukee

Registration

Professional Engineer: NM (21582), CO (48047)

Certified Floodplain Manager Certificate (US-12-06186)

Specialized Training

NFIP Refresher Course

FIRM Map Revision Technical and Administrative Process

FLO-2D Training Course

Overview

Mr. Roerkohl is a project engineer with 7 years of experience in the engineering industry. He has experience in floodplain mapping tasks including: field reconnaissance, refinement, and hydrologic and hydraulic analyses. He is experienced in transportation drainage design, bridge hydraulic design, scour analysis, and revetment design. He also has experience within the survey field and as a construction inspector.

Project Specific Experience

New Mexico Department of Transportation (NMDOT) US62/US180/US285 (Canal Street), City of Carlsbad, NM: Assisted in the storm drain design associated with the Canal Street (US62/US180 /US285) improvements through Carlsbad. Worked with NMDOT roadway and utilities staff to develop storm drain plans.

Pikes Peak Rural Transportation Authority, Woodmen Road Corridor Improvement Project Phase II, Colorado Springs, CO: Woodmen Road Phase II consisted of widening Woodmen Road from two lanes to three lanes from Woodmen Commons to Lexington. Completed hydraulic design of roadside ditches and culverts. Completed ditch and culvert sizing calculations and material recommendations.

CDOT, Powers (SH21) Widening – Fountain to Platte, Colorado Springs, CO: Served as drainage design lead for road widening project. Designed transportation drainage components for expanded roadway and extended detention basins for water quality purposes. Prepared drainage plan set, project cost estimate, and drainage report.

NMDOT, NM4 Bridges, Jemez Springs, NM: Completed HEC-HMS hydrology model and HEC-RAS hydraulic model to determine new sizing for replacement of two highway bridges. Evaluated the hydraulic performance of three structures to aid in selection of final bridge design. Conducted necessary field reconnaissance and prepared drainage report.

NMDOT, Task Order 9, BR8116 Replacement, San Juan County, NM: Completed detailed HEC-RAS model for bridge replacement. Performed scour analysis for proposed structure and designed necessary embankment protection. Drafted new grading plan for project area and produced drainage sheet sets for client. Helped with preparation of USACE 404 permit and drainage report.

Pikes Peak Rural Transportation Authority, Austin Bluffs Parkway Bridge & Roadway Improvements, Colorado Springs, CO: Completed hydraulic modeling of Cottonwood Creek and bridge waterway sizing. Preformed bridge sour analysis and revetment design for proposed bridge. Designed transportation drainage components for expanded roadway and proposed bridge. Prepared drainage plan set, project cost estimate, and drainage report.

Nueces County, Nueces County Master Drainage Plan, Nueces County, TX: Performed twenty miles of limited detailed riverine analysis that contained five bridge structures using HEC-GeoRAS methods.

URS

Stanley K. Vermilyea, PLS

Survey/Mapping

Areas of Expertise

Right-of-Way Plans

Surveying

Years of Experience

With URS: 14 Years

With Other Firms: 19 Years

Education

Mathematics and Industrial Arts Major/1976-1978/University of Northern Colorado

Registration/Certification

Professional Land Surveyor: SD, OK, UT, CO

Certified Surveyor-In-Training: CO

Professional Societies/ Affiliates

Colorado State Managers' Association, Past Director

Professional Land Surveyors of Colorado, Past Director

Northern Chapter of Professional Land Surveyors of Colorado, Past President, Past Secretary/Treasurer, Past Director

Specialized Training

2006 Mine Safety & Health Administration Certification

2005 Presented Seminar on Highway ROW Retracement at the Colorado School of Mines

Overview

Mr. Vermilyea has 35 years of experience with all phases of transportation project development, including project scoping, preliminary surveys, public hearings/meetings, design reviews, Right-of-Way (R/W) plans development, appraisal showings, value findings, and the acquisition of parcels and easements. His thorough understanding of the R/W process from initial project scoping to final monumentation gives him the unique ability to analyze specific situations and develop an alternative analysis. While Mr. Vermilyea was employed by CDOT, he was responsible for maintaining statewide standards in surveying and R/W Plans. His duties included Supervising the authorization of R/W plans for the acquisition and relocation phases, obtaining Federal approvals, preparation of Project Clearance letters, preparation of Deeds and Easements, preparation of Licenses and Agreements, filing of Condemnations, preparation of Court Exhibits, Real Estate records management, survey processes and standards.

Project Specific Experience

CDOT Project, US 34 Business Route, City of Greeley Project, 36" Waterline Relocation, Greeley, CO: Survey Project Manager for the major widening of the US 34 Business Route, which included the relocation of a 36" water main, and a 24" water main. Established partial or complete section breakdowns on all sections affected by the 4-mile corridor. Searching for the existing R/W and boundary documents, and rectifying the record information against the physical evidence. Once the R/W model and ownership model (over 50 ownerships) was completed, identified locations on the project where R/W or easement will be required for construction. Staked out the location of the proposed waterline relocation, and performed a topographic and improvement survey of the corridor, and surveyed in the utility locates and pothole locations to enable the final pipeline design to proceed.

CDOT Project, Eagle Airport Interchange, Eagle, CO: Survey Project Manager for the new I-70 Eagle Airport Interchange and virgin alignment of a roadway to the Eagle Airport. Consisted of establishing Project Control tied to the Colorado HARN and NAVD 88. Section breakdown affected by the new Interchange, tie all BLM Tract and Lot corners in the corridor. Perform a complete TMOSS survey of the 350 acres affected by the project. TMOSS the Airport Runway and associated features for the calculation of the glide path and avigation easements.

CDOT Project, US Highway 287, Berthoud Bypass, Berthoud, CO: Project Manager for all aspects of R/W design for a virgin alignment. This project consisted of establishing a partial or complete section breakdown on all sections affected by the 8-mile corridor. Searching for existing R/W and boundary documents, and rectifying the record information against the physical evidence. Once the R/W model and ownership model (over 100 ownerships) was completed, identified locations on the project where R/W or easement will be required for construction. Prepared R/W plans and Legal Description for CDOT to use for the acquisition of the additional R/W and easements

APPENDIX B. REQUESTED FORMS

- Consultant's Certificate of Compliance
- Proposal Form

CONSULTANT'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 Consultant hereby certifies that at the time of this certification, Consultant does not knowingly employ or contract with an illegal alien who will perform work under the attached contract for services and that the Consultant 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.

CONSULTANT:

URS Corporation
Company Name

October 24, 2014
Date

Mark C. Schaefer, PE, PTOE
Name (Print or Type)

Signature

Vice President
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

ADAMS COUNTY
COLORADO

PROPOSAL FORM

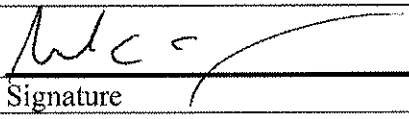
2014.369 Bridge Scour Structural and Environmental Design Services

VENDOR'S STATEMENT

I have read and fully understand all the special conditions herein set forth in the foregoing paragraphs, and by my signature set forth hereunder, I hereby agree to comply with all said special conditions as stated or implied. In consideration of the above statement, the following proposal is hereby submitted.

WE THE UNDERSIGNED HEREBY ACKNOWLEDGE RECEIPT OF

Addenda #___1_____Addenda #_____
If None, Please write NONE.

URS Corporation	October 24, 2014
Company Name	Date
8181 East Tufts Avenue	
Address	Signature
Denver, CO 80237	Mark C. Schaefer, PE, PTOE
City, State, Zip Code	Printed Name
Denver	Vice President
County	Title
303.740.2600	303.694.3946
Telephone	Fax
mark.schaefer@urs.com	
E-mail Address	