#### **RESOLUTION NO. 2020-**

#### A RESOLUTION APPROVING A SERVICES AGREEMENT WITH DAVID EVANS AND ASSOCIATES INC. FOR THE DESIGN OF THE FOUR CORNERS INTERSECTION IMPROVEMENT PROJECT

**WHEREAS**, Town staff solicited design proposals for the design of the Four Corners (Founders Parkway, State Highway 86, Fifth Street and Ridge Road) Intersection Improvement Project ("Project"); and

**WHEREAS**, the Project selection team has determined David Evans and Associates, was best qualified to complete the design of the Project; and

WHEREAS, the Town of Castle Rock and David Evans and Associates, have agreed to the terms and conditions by which David Evans and Associates, will provide design services for the Project.

#### NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF CASTLE ROCK, COLORADO AS FOLLOWS:

Section 1. <u>Approval</u>. The Town of Castle Rock Services Agreement (Four Corners Intersection Improvement) in the form attached as *Exhibit 1* is hereby approved. The Mayor and other proper Town officials are hereby authorized to execute the Agreement by and on behalf of the Town of Castle Rock, Colorado.

Section 2. <u>Encumbrance and Authorization for Payment</u>. In order to meet the Town's financial obligation under the Contract, the Town Council authorizes the expenditure and payment from the 2020 appropriation account 135-3175-431.78-69, in an amount not to exceed \$933,000, which includes a Town managed contingency of \$85,715, unless authorized in writing by the Town of Castle Rock.

**PASSED, APPROVED AND ADOPTED** this 15<sup>th</sup> day of September, 2020 by the Town Council of the Town of Castle Rock, Colorado, on first and final reading, by a vote of \_\_\_\_\_ for and \_\_\_\_\_ against.

#### **ATTEST:**

### TOWN OF CASTLE ROCK

Lisa Anderson, Town Clerk

Jason Gray, Mayor

Approved as to form:

Approved as to content:

Michael Hyman, Town Attorney

Daniel Sailer, P.E. Director of Public Works

#### TOWN OF CASTLE ROCK SERVICES AGREEMENT (FOUR CORNERS INTERSECTION IMPROVEMENT PROJECT)

## **DATE:** \_\_\_\_\_, 2020.

**PARTIES:** TOWN OF CASTLE ROCK, a Colorado municipal corporation, 100 N. Wilcox Street, Castle Rock, Colorado 80104 ("Town").

**David Evans and Associates, Inc.**, a Oregon Corporation, 1600 Broadway, Suite 800, Denver, CO 80202, ("Consultant").

#### **RECITALS:**

- A. The Town issued a Request for Proposals from qualified firms with expertise in owner representation services.
- B. Consultant timely submitted its proposal.
- C. Town wishes to engage Consultant to provide the services more fully described in the following Agreement and Exhibits.

#### **TERMS:**

**Section 1.** <u>Scope of Services.</u> Consultant shall provide professional services related to the Four Corners Intersection Improvement project, in accordance with the scope of work attached as *Exhibit A* ("Services").

**Section 2.** <u>Payment</u>. Consultant shall invoice Town on a monthly basis for the Services rendered in accordance with the rate and fee scheduled identified in *Exhibit A*. Town shall pay such invoices within 30 days receipt, and approval of such invoice. In no event shall the cumulative payment to Consultant exceed \$847,285, unless authorized in writing by Town.

**Section 3.** <u>Completion.</u> Consultant shall commence the Services on September 21, 2020 and complete the Services by September 3, 2021. Consultant shall devote adequate resources to assure timely completion of the Services. Consultant shall perform the Services under this Agreement using a standard of care, skill and diligence ordinarily used by members of Consultant's profession currently performing under circumstances similar and in a similar locale to those required by this Agreement.

Town shall have the right to terminate this Agreement at any time with 30 days written notice to Consultant. In addition, this Agreement shall terminate December 31, 2020 in the event funds to support payment under this Agreement are not appropriated for calendar year 2021. The Town's only obligation in the event of termination shall be payment of fees and expenses incurred up to and including the effective date of termination. Consultant shall turn over all work product produced up to the date of termination. Any reuse of modifications of

the work product without the prior written consent of the consultant shall be at the sole risk of the Town.

**Section 4.** <u>Subcontractors.</u> Consultant may utilize subcontractors to assist with specialized works as necessary to complete the Services. Consultant will submit any proposed subcontractor and the description of their services to the Town for approval.

**Section 5.** <u>Assignment.</u> This Agreement shall not be assigned by Consultant without the written consent of the Town.

**Section 6.** <u>Notice.</u> Any notice required or permitted by this Agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes if sent by certified mail or registered mail, postage and fees prepaid, addressed to the party to whom such notice is to be given at the address set forth on the first page of this Agreement, or at such other address as has been previously furnished in writing to the other party or parties. Such notice shall be deemed given when deposited in the United States mail.

**Section 7.** <u>Prohibition Against Employing Illegal Aliens</u>. Consultant shall not knowingly employ or contract with an illegal alien to perform work under this contract. Consultant shall not enter into a contract with a subcontractor that fails to certify to the Consultant that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this contract.

Consultant has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under the public contract for services through participation in either the E-verify program or the Department program, as defined in C.R.S. §§ 8-17.5-101(3.3) and 8-17.5-101(3.7), respectively. Consultant is prohibited from using the E-verify program or Department program procedures to undertake pre-employment screening of job applicants while this contract is being performed.

If Consultant obtains actual knowledge that a subcontractor performing work under this Agreement for services knowingly employs or contracts with an illegal alien, Consultant shall:

A. Notify the subcontractor and the Town within three days that the Consultant has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and

B. Terminate the subcontract with the subcontractor if within three days of receiving notice required pursuant to this paragraph the subcontractor does not stop employee or contracting with the illegal alien; except that the Consultant shall not terminate the contract with the subcontractor if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

Consultant shall comply with any reasonable request by the Department of Labor and Employment 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).

If Consultant violates a provision of this Agreement required pursuant to C.R.S. §8-17.5-102, Town may terminate the Agreement for breach of contract. If the Agreement is so terminated, the Consultant shall be liable for actual and consequential damages to the Town.

**Section 8.** <u>Insurance.</u> Consultant agrees to procure and maintain, at his own cost, the following policy or policies of insurance. Consultant shall not be relieved of any liability, claims, demands or other obligations assumed pursuant to this Agreement by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance, or types.

A. Consultant shall procure and maintain, and shall cause each subcontractor of the Consultant to procure and maintain a policy with the minimum insurance coverage listed below. Such coverage shall be procured and maintained with forms and insurers acceptable to the Town. All coverage shall be continuously maintained from the date of commencement of services hereunder. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.

1. Workers Compensation insurance to cover obligations imposed by the Workers Compensation Act of Colorado and any other applicable laws for any employee engaged in the performance of Work under this contract, and Employer's Liability insurance with minimum limits of FIVE HUNDRED THOUSAND DOLLARS (\$500,000) each accident, FIVE HUNDRED THOUSAND DOLLARS (\$500,000) disease-policy limit, and FIVE HUNDRED THOUSAND DOLLARS (\$500,000) disease-each employee.

2. Comprehensive General Liability insurance with minimum combined single limits of ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000) aggregate. The policy shall be applicable to all premises and operations. The policy shall include coverage for bodily injury, broad form property damage (including for contractual and employee acts), blanket contractual, independent contractors, products, and completed operations. The policy shall contain a severability of interests provision.

3. Comprehensive Automobile Liability Insurance with minimum combined single limits for bodily injury and property damage of not less than ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000) aggregate with respect to each of Consultant 's owned, hired and/or non-owned vehicles assigned to or used in performance of the services. The policy shall contain a severability of interests provision.

4. Professional Liability insurance with minimum limits of ONE MILLION DOLLARS (\$1,000,000) per claim and ONE MILLION DOLLARS (\$1,000,000) aggregate.

B. The policies required above, except Workers' Compensation insurance, Employers' Liability insurance and Professional Liability insurance shall be endorsed to include the Town, its officers and employees, as an additional insured. Every policy required above, except Workers' Compensation and Professional Liability insurance, if applicable, shall be primary insurance, and any insurance carried by the Town, its officers, or its employees, shall be excess and not contributory insurance to that provided by Consultant. The additional insured endorsement for the Comprehensive General Liability insurance required above shall not contain any exclusion for bodily injury or property damage arising from completed operations. The Consultant shall be solely responsible for any deductible losses under each of the policies required above.

C. Certificates of insurance shall be completed by Consultant's insurance agent as evidence that policies providing the required coverage, conditions and minimum limits are in full force and effect, and shall be subject to review and approval by the Town. Each certificate shall identify the Project and shall provide that coverage afforded under the policies shall not be cancelled, terminated or materially changed to not meet the requirements of this agreement until at least 30 days prior written notice has been given to the Town. If the words "endeavor to" appear in the portion of the certificate addressing cancellation, those words shall be stricken from the certificate by the agent(s) completing the certificate. The Town reserves the right to request and receive a certified copy of any policy and any endorsement thereto which may be redacted at the Consultant's or the Consultant's insurers' discretion to protect confidential or proprietary elements of the policies.

D. Failure on the part of Consultant to procure or maintain policies providing the required coverage, conditions, and minimum limits shall constitute a material breach of contract upon which at the Town's discretion may procure or renew any such policy or any extended connection therewith, and all monies so paid by the Town shall be repaid by Consultant to the Town upon demand, or the Town may offset the cost of the premiums against any monies due to Consultant from the Town.

E. The parties understand and agree that the Town is relying on, and does not waive or intend to waive by any provision of this contract, the monetary limitations (presently \$387,000 per person, \$1,093,000 for two or more persons, per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, \$24-10-101, *et seq.*, C.R.S., as from time to time amended, or otherwise available to Town, its officers, or its employees.

**Section 9.** <u>Indemnification.</u> Consultant expressly agrees to indemnify and hold harmless Town or any of its officers or employees from any and all claims, damages, liability, or court awards including attorney's fees that are or may be awarded as a result of any loss, injury or damage sustained or claimed to have been sustained by anyone, including, but not limited to, any person, firm, partnership, or corporation, to the extent caused by the negligent acts, errors or omissions of Consultant or any of their employees or agents in performing work pursuant to this Agreement. In the event that any such suit or action is brought against Town, Town will give notice within ten (10) days thereof to Consultant.

**Section 10.** <u>Delays.</u> Any delays in or failure of performance by any party of his or its obligations under this Agreement shall be excused if such delays or failure are a result of acts of God, fires, floods, strikes, labor disputes, accidents, regulations or orders of civil or

military authorities, shortages of labor or materials, or other causes, similar or dissimilar, which are beyond the control of such party.

**Section 11.** <u>Additional Documents.</u> The parties agree to execute any additional documents or take any additional action that is necessary to carry out this Agreement.

**Section 12.** <u>Entire Agreement.</u> This Agreement represents the entire agreement between the parties and there are no oral or collateral agreements or understandings. This Agreement may be amended only by an instrument in writing signed by the parties. If any other provision of this Agreement is held invalid or unenforceable, no other provision shall be affected by such holding, and all of the remaining provisions of this Agreement shall continue in full force and effect.

**Section 13.** <u>Time of the Essence.</u> Time is of the essence provide that Consultant's services must in all events be governed by the exercise of sound professional practices. If any payment or any other condition, obligation, or duty is not timely made, tendered or performed by either party, then this Agreement, at the option of the party who is not in default, may be terminated by the non-defaulting party, in which case, the non-defaulting party may recover such damages as may be proper.

**Section 14.** <u>Default and Remedies</u>. In the event either party should default in performance of its obligations under this agreement, and such default shall remain uncured for more than 10 days after notice of default is given to the defaulting party, the non-defaulting party shall be entitled to pursue any and all legal remedies and recover its reasonable attorney's fees and costs in such legal action. In addition, no Party will be entitled to lost profits, economic damages, or actual, direct, incidental, consequential, punitive or exemplary damages in the event of a default.

**Section 15.** <u>Waiver.</u> A waiver by any party to this Agreement of the breach of any term or provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by either party.

Section 16. <u>Governing Law.</u> This Agreement shall be governed by the laws of the State of Colorado.

**Section 17.** <u>Independent Contractor.</u> Consultant and Town hereby represent that Consultant is an independent contractor for all purposes hereunder. As such, Consultant is not covered by any worker's compensation insurance or any other insurance maintained by Town except as would apply to members of the general public. Consultant shall not create any indebtedness on behalf of the Town.

**Section 18.** <u>No Third Party Beneficiaries.</u> It is expressly understood and agreed that enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to Town and Consultant, and nothing contained in this Agreement shall give or allow any such claim or right of action by any other third party on such Agreement. It is the express intention of the parties that any person other than Town

or Consultant receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.

Section 19. Federal Funds. Consultant understands and acknowledges that this Agreement is wholly or partially funded by the Federal Highway Administration (FHWA) under Title 23, U.S.C. Accordingly, Consultant agrees to be subject to the terms and conditions set forth in Form FHWA-1273, which form is incorporated herein by reference as Exhibit B. Consultant also agrees to incorporate Form FHWA-1273 in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

**ATTEST:** 

## **TOWN OF CASTLE ROCK**

Lisa Anderson, Town Clerk

Approved as to form:

Jason Gray, Town Mayor **Approved** as to content:

Michael Hyman, Town Attorney

Daniel Sailer, P.E. Director of Public Works

**CONSULTANT:** 

**David Evans and Associates, Inc.** DaraKciasto By:

Stacy STichnor

Associate Vice President Its:

August 12, 2020

# TOWN OF CASTLE ROCK

Request for Qualifications & Proposals for Consulting Engineering Services

# FOUR CORNER INTERSECTION IMPROVEMENTS PROJECT









DAVID EVANS AND ASSOCIATES INC. August 12, 2020

Aaron Monks Town of Castle Rock Public Works Department 4175 N. Castleton Ct. Castle Rock, CO 80401

# **RE:** Request for Qualifications & Proposals for Consulting Services for the Four Corners Intersections Improvements Project

Dear Mr. Monks and Members of the Selection Committee:

With rapid population growth and limited funding for transportation improvements, municipalities across Colorado are striving to implement much-needed improvements in cost-effective and efficient ways. The Town of Castle Rock (Town) is one of the fastest growing cities in Colorado and is experiencing resultant traffic safety and operational issues due to rapid growth and limited funding. The Town of Castle Rock Transportation Master Plan (TMP) was completed in 2017 and analyzed existing and future transportation conditions and identified conceptual solutions for facilities throughout the town, including safety and operational improvements for the Four Corners intersection. Castle Rock was successful in obtaining DRCOG TIP funding for design, which requires compliance with FHWA and CDOT standards, including obtaining clearances from CDOT specialty units.

David Evans and Associates, Inc. (DEA) and our subconsultant partners provide a comprehensive team of planning and design professionals who will collaborate with the Town, the community, and other stakeholders, to deliver a creative, cost-effective, and implementable solution that provides the necessary safety and operational benefits. Sara Ciasto, PE, will serve as project manager. The DEA team provides:

- Deep Understanding of the Colorado Department of Transportation (CDOT) Local Agency Process: We have navigated CDOT's clearance processes and understand how to effectively balance clearance requirements that are tied to the funding with efficient and streamlined progress.
- Efficiency: Our blend of planning and design professionals will efficiently develop and assess costefficient alternatives to determine an optimized solution for the intersection. Our staffing model keeps our team agile as we analyze alternatives and apply engineering best practices throughout the process, allowing us to meet the advertisement date.
- **Balanced and Cost-Conscious Solutions:** We will deliver a result that maximizes operational improvements while maintaining perpetual budget awareness and seeking value-added and affordable solutions during both the alternatives and the design tasks.

We are excited for this opportunity to provide the Town with a comprehensive, responsive, and creative team, leading to an efficient approach and successful result. Please contact Sara Ciasto at 303.242.7632 or SCiasto@deainc.com if you have any questions or require additional information.

Sincerely, David Evans and Associates, Inc.

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Sara Ciasto, PE Project Manager

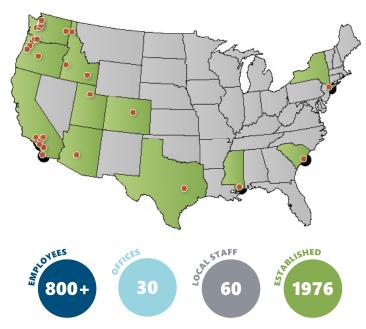
Doseph a. Hara

Joe Hart, PE Principal-In-Charge

# Section 1 Firm History and Background

### **Brief History**

DEA's Denver, Colorado office opened in 1998, and it is currently composed of over 60 highly committed professionals whose careers have focused on projects along the Front Range. Over the past 21 years, DEA's Denver staff have completed a wide variety of projects in Colorado for local and state agencies. Our extensive transportation engineering capabilities include roadway/street design, structural engineering, traffic engineering and transportation planning, environmental planning, urban design, land surveying and right-of-way definition, drainage and hydraulic/hydrology design, and construction management. Our technical and managerial staff provide the technical depth, the professional maturity, and the dedication to evaluate problems and develop solutions for complex transportation issues. Our lasting relationship with out clients has fostered lifelong professional connections and imparted the successful delivery of a multitude of diverse transportation projects. We are a multidisciplinary firm with a comprehensive mix of planners and engineers who are ready to reach the right operational and design solutions.



## **Brief Background Information and Past Experience**

Although we have not worked directly for the Town of Castle Rock in recent years, our staff have enjoyed collaborating with Town staff for important projects with CDOT and Douglas County.

Douglas County 2040 Transportation Master Plan: In 2019, DEA updated the Douglas County Transportation Master Plan to address new development and transportation needs associated with tremendous changes that have occurred throughout the County. The updated plan included an evaluation of travel demands and public and stakeholder involvement to identify opportunities for an improved, reliable, multimodal transportation system in Douglas County. Town of Castle Rock was included in the planning efforts as a key agency stakeholder.



Clarity of expectations Effective communication Accountability Collaboration and teamwork Initiative and creativity

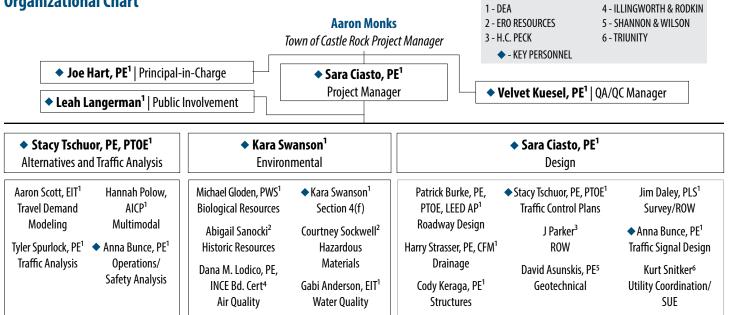
**The DEA Difference:** Our philosophy and values shape our unique culture—one of service, innovation, and social and professional responsibility. We take pride in our integrated multidisciplinary approach to design and planning, and our in-house expertise includes urban designers, land use planners, landscape architects, transportation and transit experts engineers, surveyors and natural resources scientists.

Trust

# **Section 2 Project Team Qualifications**

The schedule and physical constraints of the Four Corner Intersection Improvements Project require a team which can deliver an optimum combination of expertise and creative, cost-effective solutions. The DEA team was assembled to include experts in each discipline and proven subconsultants who have worked together successfully on similar projects in the past.

## **Organizational Chart**



## **Key Personnel**

Full resumes for key personnel are located starting on page 13.



## SARA CIASTO, PE

Project Manager; Design Lead Sara has 19 years of experience in

carrying projects from development through design and into construction. She supports local agencies on projects spanning from smaller task orders to major intersection reconfigurations and operational improvements. Several of her projects have included DRCOG TIP funding. Sara has been responsible for strategizing approaches and presenting information to the public and stakeholders and navigating alternatives processes ahead of design.



## **ANNA BUNCE, PE** Traffic Operations/Safety Analysis

Anna has 18 years of experience in transportation engineering. Her skill set includes traffic signal design; traffic signal construction management and inspections; signal timing and operations including signal programming, configuration, and implementation; specifications review; and crash analysis and safety mitigation.



### **JOE HART, PE** Principal-in-Charge

Joe has extensive experience in

traffic engineering and transportation planning; with a focus on solutions that improve traffic flow and enrich quality of life. He has the authority to mobilize DEA resources as needed.



#### **VELVET KUESEL, PE** QA/QC Manager

Velvet brings 18 years of experience in transportation engineering, designing transportation infrastructure and integrating multiple disciplines. On several recent large design programs, Velvet was responsible for guality management and project delivery.



#### **KARA SWANSON Environmental Lead**

Kara brings strong environmental compliance expertise to the project team. Kara's knowledge of internal CDOT processes benefits the Town's ability to gain timely clearances that will keep the project moving forward.



LEGEND

# **STACY TSCHUOR, PE,** Alternatives and Traffic Analysis Lead

Stacy has 24 years of experience with a focus on traffic operations. She is able to provide a keen understanding of the effects of specific design treatments on traffic operations, safety, and multimodal circulation. She has recently provided traffic analysis and evaluation of improvement alternatives for DRCOG TIP projects on state highways, efficiently navigating CDOT coordination and schedule needs.



## LEAH LANGERMAN **Public Engagement**

Leah has 15 years of experience facilitating public involvement and agency coordination. Her experience includes organizing public, agency, and committee meetings (including virtual formats); coordinating media coverage; and preparing outreach information. She tailors involvement opportunities to best fit each community and project.

## **Project Approach and Methodology**

With rapid population growth and limited funding for transportation improvements, municipalities across Colorado are striving to implement needed improvements in cost-effective and efficient ways. The Town of Castle Rock Transportation Master Plan (TMP), completed in 2017, analyzed existing and future transportation conditions and identified conceptual solutions for facilities in the town, including safety and operational improvements for the Four Corners intersection. Castle Rock was successful in obtaining DRCOG TIP funding, which requires compliance with FHWA and CDOT standards, including obtaining clearances from CDOT specialty units.

The following section describes our approach and methodology, including our project management approach and responses to the key questions from the RFP, for the major tasks identified to deliver this project. Major tasks contain subtasks and/or discipline approach discussion, followed by a breakdown of the scope of work.

## **Project Management**

Our team features project leadership staff who bring experience and lessons learned from TIP-funded local agency transportation projects throughout the metropolitan area. Sara will lead the team's activities. Key elements of our management approach include:

- Continuous communication between Sara and Aaron Monks, or designee
- Clear establishment of budgets and schedules
- Completion of regular internal project reviews
- Immediate identification and communication of project challenges and opportunities
- Confirmation of the use of the latest design and construction standards, practices, and procedures
- Completion of quality reviews of every submittal

### **Objectives and Goals Development**

Our communication and conversations with Town staff focus on developing our understanding of your goals. We extend this engagement to CDOT and Douglas County personnel as well. **On previous projects,** we have found success in blending our technical expertise and experiences with the agencies' vision for project outcomes. Information gathered regarding your priorities and focus areas will extend into every aspect of the project – from the way that Sara communicates with you and with other agencies; to how we establish screening criteria for the alternatives; and through how we assemble, review, and submit our final plans and specifications.

Critical to projects such as this is an approach that balances immediate operational needs with long-term challenges and the realities of program budgets. An interim solution that requires complete reconstruction or reconfiguration in ten years is unacceptable; a cost-effective immediate solution that can flex to accommodate future travel patterns and multimodal demand will provide greater value. For every project, one of our closeout activities is a check-in with you to discuss our performance. Our project managers are focused on providing the DEA Difference (see page 1) in our project delivery, and our clients' feedback on how we do against those intangibles contributes to the internal annual assessment of our performance.

### Cost, Schedule, and Quality Control

Joe Hart, PE, will assist Sara in monitoring project costs versus progress. Sara's monthly review will include the work of subconsultants to monitor their progress. Upon Notice to Proceed (NTP), we will begin with scoping meetings and discussions with Castle Rock, CDOT, Douglas County, and other agency representatives to confirm specific scope elements and communicate critical schedule milestones.

#### Cost Control

We begin by developing a detailed work breakdown structure (WBS) that aligns scope elements with budgets in our internal system. DEA uses the Solomon accounting system for budget tracking and invoicing. We can produce monthly invoice reports that align with the Town's expectations in the RFP.

Sara will utilize several tools out of Solomon to inform her of our project progress and expenditures:

- Earned Value: Our earned value tool compares actual cost expended against Sara's assessment of our percentage complete with each task. This will be included with monthly invoices as requested.
- Cost to Complete: Our cost to complete tool allows Sara to monitor budgets versus actual costs weekly, as time charges are accrued.
- Project Analyst: Sara can quickly review our overall status in costs expended, invoicing and payment status, and project completion dates.

#### **Schedule Control**

Sara will be responsible for monitoring the project schedule. A monthly progress report on the schedule status (as well as budget and work status) will be provided to Aaron Monks or his designee. Issues critical to maintaining the schedule will be identified early in the project and monitored throughout the project to maintain the schedule. The DEA team subconsultants will be kept informed of all critical issues, and Sara will monitor their progress carefully.

# (I) CRITICAL ISSUE: SCHEDULE

The completion date of September 3, 2021 presents unique challenges to delivery of this project. Our draft schedule demonstrates our ability to meet that requirement. Considerations to achieve this include:

- Agreement from all agency reviewers to provide comments during defined review periods.
- Efficient execution of the alternatives phase of the work to reserve as much time as possible for design.
- Timely public and stakeholder engagement so that input is meaningful and serves a project purpose.

Achieving CDOT clearances, securing permits (if needed), and fully acquiring right-of-way are risks to the design schedule and must be mitigated by acting as early as possible.

#### **Quality Assurance**

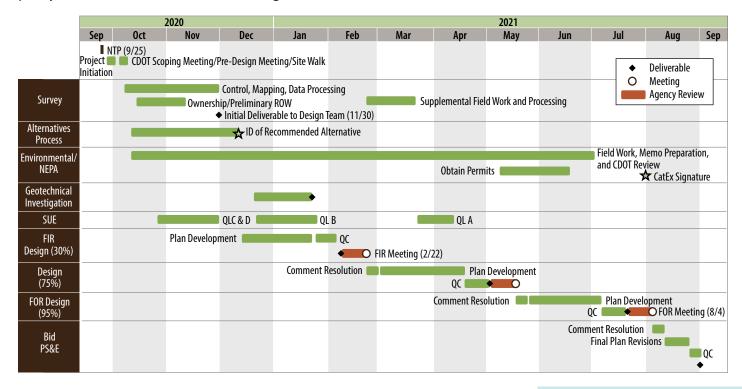
DEA's quality program enhances our services and facilitates communications between disciplines. The quality of DEA's work is maintained through:

- Strict adherence to our clear internal quality requirements and processes.
- Alignment with Town and agency stakeholder requirements for quality.
- Constant communication with Town staff beginning before the contract is signed.
- Problem-solving through project team and peer review meetings, at project milestones, and at critical project decision points.
- Over-the-shoulder and in-process reviews.

The development of and adherence to a tailored project Quality Control Plan is a required part of DEA's internal project setup and management procedures.

Our approach to managing quality starts with the structure of our team. Sara will monitor the overall quality control activities. Velvet Kuesel will provide independent quality reviews, "over the shoulder" design reviews at appropriate times, and quality assurance, overseeing these quality processes and confirming that checks are made at appropriate times.

Additionally, we strive to be timely and thorough in project documentation. Meeting minutes are drafted and submitted to attendees promptly so that critical meeting decisions and outcomes are communicated and implemented. Emails are saved with project files, and team members take careful notes during calls so that discussions can be revisited if needed.



#### Town of Castle Rock A TA Four Corner Intersection Improvements Project

#### **Report and Presentation Preparation**

Our quality processes extend to any deliverable we generate, including public-facing project materials, reports, and collateral for Town leadership. We apply our internal quality process to each document, completing a comprehensive review prior to submittal.

We strive for visual and technical excellence in our printed materials. Visual tools such as SketchUp, InDesign, Illustrator, and others are utilized as appropriate for the content. When possible, we create a standard look and feel for all project documents with consistent headers, fonts, and styles so that all project documents (memos, scope, reports, and others) visually tie to the project. Our team focuses on clear, concise, and crisp writing styles to convey project information.

#### **Project Management Scope and Deliverables**

- Prepare a detailed Microsoft Project schedule and update monthly
- Prepare a Project Management Plan (PMP), including the scope and draft schedule, and a Quality Management Plan (QMP)
- Prepare monthly invoices and detailed progress reports
- Sara will meet with Aaron Monks biweekly to discuss project status (phone or video conference or in person)
- Coordinate, prepare for, and conduct a project pre-design meeting/ site walk with Castle Rock; a scoping meeting with Castle Rock, Douglas County, and CDOT; an internal consultant kick-off meeting; and monthly status meetings with Castle Rock and CDOT (additional meetings are included in the specific tasks)
- Quality Assurance/Quality Control documentation

**Deliverables:** Project schedule; PMP; QMP; invoices and progress reports; and agendas, meeting materials, and meeting notes.

## **Public and Stakeholder Involvement**

Based on the schedule and the Town's desire for a cost-effective project, we recommend two main public engagement points to seek input at key milestones. One during alternatives development and the other following 30% design. This will allow us to provide targeted outreach and hold meetings only when there are milestones that would benefit from public input. In addition, our process will keep the public informed throughout the project to provide transparency. Use of established Town communication channels will maximize exposure and lead to increased involvement.

COVID-19 has changed the way we connect with others, but there are plenty of ways to facilitate meaningful involvement. At this time, we envision the first outreach point being conducted virtually and through distributed print materials, with the hope that the second outreach point could be held as a combination of in-person and electronic forums. Efforts will be made to involve all types of corridor users, including nearby residents, businesses, and commuters. Listening to diverse perspectives and needs is critical to developing a balanced solution.

#### **Project Notices**

Depending on how much notification the Town, CDOT, and other stakeholders want to provide, we can inform users, community residents, businesses, and through travelers of the corridor of the project in a variety of ways, including:

- Direct mailers (update and utilize the TMP mailing list where appropriate)
- Email
- Town web page
- Town's Facebook, Twitter, and Next Door
- Flyers and signs in gathering places
- Variable message
- boards

### Virtual Engagement (Outreach Point #1)

The first main outreach point would occur during evaluation criteria and alternatives development. Once the team has developed an initial list of evaluation criteria and potential types of improvements are identified, the public will be asked to review and provide input prior to finalizing alternatives development and evaluation. This outreach could include a brief project introduction video, online survey, interactive maps, questions and answers, and a conversation/idea wall.

### Public or Virtual Open House (Outreach Point #2)

This meeting will allow the project team to present the preliminary (30%) design following Town and CDOT review. Public comments gathered will be considered and incorporated by the project team before the 75% design submittal. Alternatively, existing dispersed events such as farmer's markets could be used for convenient public involvement.

#### **Public Involvement Scope and Deliverables**

- Development and distribution of meeting agendas, notices, and minutes for all engagement opportunities
- Development and maintenance of contact list
- Development, production, and distribution of project notices (electronic and hard copy)
- Coordination, delivery, and documentation of public in-person or virtual meetings (2)
- Coordination, delivery, and documentation of small-group meetings as needed.

**Deliverables**: Contact list; collateral and copy for meetings; and agendas, meeting materials, and meeting notes

# **Project Conceptual Engineering Approach**

#### **Area Conditions**

Our project assessment will utilize available traffic data from the Castle Rock TMP, CDOT, and Douglas County, compared and updated with regional data so older turning movement counts reflect "existing" base conditions (unaltered by COVID-19). Crash data will be evaluated to identify crash trends and potential safety issues with an updated safety assessment in accordance with CDOT methods. Fieldwork will be conducted to understand the nature of the pedestrian and bicyclist movements through the intersection. The environmental fieldwork will also be conducted to provide information on environmental resource constraints.

Travel demand forecasting will be performed based on the most current DRCOG regional travel model. We will compare those forecasts with area forecasts from the Douglas County travel demand model developed for the Douglas County 2040 Transportation Master Plan, completed by DEA in 2019. Bicycle and pedestrian mobility issues will consider existing and future pedestrian and bicycle origins and destinations, such as the surrounding residential neighborhoods and retail developments.

#### **Alternatives Development and Evaluation**

The alternatives development and evaluation will focus on the project goals of improving traffic operations and enhancing safety and mobility through the intersection. We will use the recommendations from the Castle Rock TMP and the lane configuration options identified in the RFP as a starting point to develop additional opportunities. An initial development of intersection alternatives may include the concepts shown here. The FHWA Capacity Analysis for Planning of Junctions (CAP-X) tool will be used with the future traffic forecasts to provide initial planning-level guidance on intersection concepts to meet the intersection's future traffic conditions. Additional concepts will be developed and explored with input from the Town, Douglas County, and CDOT.

Realizing the multiple impacts that are associated with a transportation project within a tightly-constrained area, our design team will work

collaboratively to consider roadway, drainage, utilities, and construction phasing to make sure each improvement concept to be evaluated is feasible and the associated impacts are identified.

The streamlined alternatives evaluation will focus on optimizing project goals and identifying fatal flaws that would hinder implementation, such as significant impacts and/or costs related to the area's physical constraints, like right-of-way, drainage facilities, and utilities. The screening process will consider criteria to assess traffic operations, safety, multimodal mobility, environmental factors, and constructability. A key consideration will be the cost of improvements, recognizing the budget established with the TIP funding. This brief, one-step alternatives evaluation will be documented with the selection of the recommended alternative in an efficient and useful format that can be easily used for agency and public outreach to communicate the project moving forward.

DEA's experience with planning studies, NEPA studies has yielded valuable knowledge for taking a project from a concept through the CDOT design processes to a construction project. We focus on analysis and documentation that will bolster the alternative selection moving into the categorical exclusion and design.

### Survey and Right-of-Way

Survey tasks will be conducted to obtain base-level information on existing roadway cross sections, project topography, physical features, utilities, and ROW limits. Obtaining this information early provides the team current aerial photo and mapping to use for alternatives. The survey and mapping tasks will build on each other. We will create a survey control diagram and provide it to the Town so all parties will have open access to the survey control system. This access will prevent multiple systems being used by different organizations throughout the project life cycle and prevents unnecessary data and file manipulation.



**Existing Conditions** 

#### **Potential Alternatives**







## **Conceptual Design Scope and Deliverables Alternatives Development**

- Identify/confirm project goals for alternatives • development
- Compile existing traffic and safety data and identify multimodal movements
- Develop traffic forecasts
- Conduct initial environmental fieldwork
- Develop initial alternatives based on previous studies and CAP-X analysis
- Conduct Design Workshop with Town, County, and CDOT to develop initial alternative concepts

#### **Alternatives Evaluation**

- Develop evaluation criteria •
- Apply screening criteria to alternatives
- Compile evaluation summary for review
- Review draft evaluation results and recommendations with Town, County, and CDOT and then stakeholders
- Revise based on meeting input and stakeholder feedback
- Document existing and future conditions and alternatives development and evaluation in Traffic Study

**Deliverables:** Conceptual Design Report detailing requirements, screening criteria, intersection alternatives, and selected intersection configurations. Report to also include traffic measures of effectiveness, conceptual opinion of cost, potential land acquisition requirements, and conceptual drawings.





The intersection operates poorly with heavy SB left turn movements in the PM peak period. The east side of the intersection has retail development and the west side area is constrained by walls and stormwater detention within ROW.

### Traffic Signal with Added Lanes

Additional through and turn lanes at the traffic signal would provide increased capacity and queue area for all movements. Shared-right lanes on the SB, EB, and NB approaches would reduce ROW needs and potential issues with downstream merging of the through and acceleration lanes.

### **Continuous Flow Intersection (CFI)**

A CFI may provide operational benefits, particularly for the NB and SB approaches with heavy left turns. The crossover signals may be located at the existing retail accesses, with careful signage and channelization.



#### Multi-lane Roundabout

A roundabout could improve safety with slower speeds and reduced conflict points. Providing multiple lanes through the roundabout and right turn bypass lanes may increase capacity, but would need to be evaluated with future traffic forecasts.



#### **Bowtie Intersection**

Removing the left turn movements at the main intersection would greatly increase throughput. Left turn movements would be shifted to adjacent roundabouts, which could be located at the existing retail accesses. The roundabouts would also lower speeds approaching the signal

**Preliminary and Final Design Approach** 

Our overall approach to preliminary and final design will utilize the CDOT process (30% (FIR) and 90% (FOR) plan reviews), modified slightly to accommodate the Town's request in the scope for an additional (75%) design review. Once the alternative is selected, we will proceed into design and advance design detail as we progress through this process.

#### Design Criteria, Standards, and Specifications

High-quality design starts with early and clear definition of design criteria. Defining design parameters early limits backtracking during design and aids in clear and efficient quality control processes.

This project will utilize a blend of CDOT, County, and Town standards. Our design and quality review processes aim to eliminate points of confusion so as to limit the Town's risk in contractor pricing.

We have recent, relevant experience in working through the CDOT Local Agency process with a set of contract documents, specifications, and special provisions that draw from the leading local agency as well as CDOT's standards. Our work on the Westerly Creek and Toll Gate Creek Connections to Florida Station project, Iliff Avenue project, and South Boulder Road project, as well as others, capitalized on the strengths and preferences of the local agency and the depth and detail of CDOT's backbone specifications.

### Roadway

Civil design will utilize the existing roadway pavements and facilities where feasible. Roadway cross sections and intersection configuration will be selected during the alternatives phase. Queue lengths, taper lengths, median and shoulder conditions, roadside conditions, accessible multimodal facilities (including curb ramps), and paving plans will be advanced during the design phase. Depending on the alternative, we will work with Shannon and Wilson to leverage their familiarity and previous work to efficiently support decisions regarding pavement widening or reconstruction.

### CRITICAL ISSUE: CONSTRUCTION COST MANAGEMENT THROUGH DESIGN

Creative efforts through the alternatives and design process must persistently seek value-based solutions that achieve the project goals while demonstrating fiscal responsibility to the project budget. On the lliff Avenue project in Arapahoe County, Sara and her team developed detailed paving plans that economized paving costs by leveraging use of the existing pavement.

## Drainage and Water Quality

Storm drainage, temporary water quality (erosion control), and permanent water quality (if needed) elements will be considered, developed, and designed.

A comprehensive drainage report will be developed and submitted at plan submittal milestones. This report will document existing conditions and demonstrate compliance of the proposed facilities with applicable criteria and requirements.

#### **Structures**

Should retaining walls or other structural elements be required to limit ROW impacts, DEA's structural engineers will work with Shannon and Wilson's geotechnical team to evaluate wall types and select a solution that addresses subgrade conditions in a cost-effective manner. Our team can support specialty structural elements if required.

### Traffic

Once the intersection alternative has been identified, we will advance design of signing, striping, traffic control, and if applicable, traffic signal and Intelligent Transportation Systems (ITS) elements as appropriate.

If the recommended alternative is some form of a traffic signal, additional recommendations may be made for optimized intersection operations including advance detection and timing concepts. The challenge of the intersection's location may prove to ultimately be a benefit lending to greater flexibility in operation. This may also provide increased benefits for safety and multimodal operations.

### **Construction Phasing**

We will evaluate phasing options and develop a phasing plan that is constructible while also optimizing duration and impacts to the traveling public. Phasing options that reduce traffic shifts and maintain the highest level of safety will be prioritized.

### **Utilities/SUE**

Gathering existing utility information, coordinating potential impacts with utility companies, and completing the subsurface utility engineering (SUE) process will occur as needed. For efficient budget deployment, we will develop basic utility mapping (QL C or D) early in the project so the team is aware of existing facilities during preliminary design work. Once the recommended alternative is identified, we will execute a tailored amount of SUE to manage the overall cost. We will complete utility clearance efforts, in accordance with CDOT process, and coordination of utility impacts ahead of construction.

#### **Right-of-Way Acquisition**

We will employ a stepped approach to the ownership map, existing property determination, and ROW plan preparation in support of the project. Each completed step will improve the base property information and lead to the final deliverables efficiently.

Should additional ROW be required, the team will commence this process as early as possible in the schedule. We will complete ROW plans in accordance with the CDOT ROW Manual, go through the ROW plan review (ROWPR) process, and commence acquisition activities once plans are approved.

## CRITICAL ISSUE: RIGHT-OF-WAY

Seeking opportunities for improvements to intersection operations that fit within existing ROW will be important for success within the project schedule.

#### Environmental

(!)

Due to the award of TIP funding, the project will adhere to CDOT requirements for environmental documentation. DEA and Castle Rock will hold a formal environmental scoping meeting with CDOT to confirm the appropriate environmental resource requirements and level of NEPA documentation, which is assumed to be a programmatic categorical exclusion (CE).

Our team provides the experience, efficiency, and relationships for environmental clearances through CDOT Region 1, which is critical to maintain the project schedule. We have determined that the following resources may require analysis:

- Hazardous Materials: low risk for contributing to soil and/or water contamination. We will conduct an Initial Site Assessment (ISA) to determine the location and extent of potential contamination sources.
- Biological Resources: Given the developed nature of the corridor and no obvious evidence of wetlands, we will prepare an abbreviated Biological Resources Report.
- *Air Quality:* A hot-spot analysis may be required depending on the recommended alternative.
- Historic: While we do not anticipate any adverse impacts to historic resources, we will conduct a review of the assessor data in the area and coordinate with the CDOT historian regarding potential eligibility.

We do not anticipate any analysis for Section 4(f), Section 6(f), paleontological, or archaeology. A noise analysis would only be triggered if the alternative adds through capacity longer than 2,500 feet.

### Preliminary and Final Design Scope and Deliverables Design Scope

- Conduct field investigations for SUE
- Conduct field sampling and laboratory testing for geotechnical and pavement conditions (if needed)
- Develop and tabulate quantities
- Perform full quality control and quality assurance on deliverables
- Schedule, attend, and document comments from 30%, 75%, and 95% plan review meetings
- Develop roadway typical sections, cross sections, removal plans, paving/trail plans, roadway/trail/drainage profiles, drainage plans, signing/striping plans, signal plans, ITS plans, geometry, intersection and driveway layouts and details, utility and SUE plans, structural selection memorandum and structural plans, erosion control/ SWMP plans, permanent water quality plans, grading plans, and landscaping/irrigation/urban design plans. (All potential elements subject to conditions of the recommended alternative.)
- Develop ROW plans and execute acquisition activities through property closings and filing of recorded deeds.

**Design Deliverables:** Plans, specifications, and cost estimates (30%, 75%, 95%, 100%); drainage and water quality report; geotechnical report; design criteria; structure selection report (if needed); and QA/QC documentation.

#### **Environmental Clearance Scope and Deliverables**

#### **Environmental Clearance Scope:**

Air quality will be determined once an alternative is chosen.

#### **Historic Resources**

- Prepare draft Area of Potential Effect (APE) and meet with CDOT Region 1 historian to finalize APE
- Conduct a file search and literature review for the APE
- Compile the records search results in two letters to CDOT, including an effects determination

#### Hazardous Materials

- Conduct a record and file search pertaining to current and past environmental conditions
- Conduct a visual site inspection of the project area and document the general site setting
- Prepare Initial Site Assessment documentation for review by Golden and CDOT Region 1 hazardous materials specialist

#### **Biological Resources**

- Conduct field visit
- Prepare an abbreviated Biological Resources Report

**Environmental Deliverables:** APE and eligibility and effects letter; biological resources report; and Initial Site Assessment.

## **Responses to Key Questions**

# How does your firm incorporate context-sensitive design into your project planning & design process?

DEA consistently employs the principles of Context Sensitive Design (CSD) through our planning and design efforts. CSD is not a "special occasion" application for DEA; we incorporate this approach on all of our projects that require multidisciplinary technical collaboration. During the planning process, CSD enhances the project by thoroughly considering the way in which transportation facilities are integrated into the community and recognizes the values and desirable features of that community. CSD requires cohesive teamwork and constant communication from all disciplines and stakeholders to facilitate improvement recommendations that are customized to the surroundings of the project area. DEA provides in-house technical staff, from planning through construction, who have established trust and open communication with each other. The seamless integration of team members allows engineering input during the planning process regarding engineering feasibility and planning input during design to keep the project goals at the forefront of the design process, and a thorough CSD approach confirms that the planning and design decisions all consider stakeholder input. DEA team members have practiced the principles of CSD for many years, and we are recognized as local industry leaders in creative project development and community involvement.

While working to provide modern pedestrian and vehicular enhancements to downtown Ridgway, CO, our team also recognized the historic Western feel of this mountain community and integrated occasional boardwalks with concrete sidewalks for pedestrian facilities to perpetuate the community heritage.

## How does your firm provide value-added, costeffective services?

DEA's project delivery philosophy seeks opportunities to add value for our clients. We focus on our clients' goals and needs for each project and align our work to efficiently support those goals. Our local DEA team is composed of comprehensive integrated internal disciplines – roadway, drainage, traffic, structures, planning, environmental, multimodal, surveying, right-of-way, urban design, public involvement, and construction services. Our ability to go straight to internal expertise saves project budget not needed for subconsultant coordination for those disciplines. This collaborative local team also provides us with the ability to organically complete cross-disciplinary deliverable quality reviews and maximize project budget for construction/implementation.

On the US 24 PEL Study, our project manager completed the planning, analysis, and documentation tasks efficiently, resulting in the opportunity for CDOT to use the remaining contract budget to move forward with identified improvements. DEA is currently assisting CDOT with preliminary design for an initial capacity improvement, as well as an Access Control Plan along the corridor.

## How does your firm define exceptional customer service and how do you incorporate this into work activities?

Given the ever-changing nature of transportation conditions and project funding sources, knowledge of client needs is particularly critical for transportation projects. Our strategy in providing effective, proactive transportation planning and engineering services is based on leveraging the expertise of our project manager, establishing an active quality control and management program, assembling a team with expertise that matches the technical needs and availability to provide timely performance, and maintaining frequent and effective project communications with Town staff regarding project status, any anticipated issues, and solutions to resolve problems to keep projects on track.

DEA also requires client surveys at the completion of projects. These surveys are grounded in the "DEA Difference", a company philosophy focused on delivering high-quality and personalized service to all of our clients. These surveys are intended to help contract managers and discipline leads provide quality deliverables, proactive communication, and problemsolving techniques to all our clients.

## What is your firm's internal Quality Assurance/ Quality Control (QA/QC) process?

Please see the Project Management Approach section of this proposal on page 3.

# **Section 3 Related Work Experience**

#### Federal and CDOT Projects

Projects with federal and/or CDOT funding must adhere to strict requirements for design and environmental documentation. For over five years, Kara Swanson worked as an extension of CDOT Region 1 staff, managing Categorical Exclusions (CEs) for both CDOT and local agency projects. She has established relationships with the Region 1 Environmental staff and has a thorough understanding of the intricacies of completing resource evaluations and how they can affect the overall project schedule.

The CDOT Local Agency process can add additional and unnecessary time to a project if not properly followed. CDOT requires their FIR, FOR, and advertisement review processes to include appropriate review durations for all CDOT specialty units. It is important to involve all CDOT specialty units in the project scoping decisions, establishing which CAD platform, sheet layout, and specification standards (CDOT versus the local agency) will be used at the very beginning of a project. It is also critical to keep the CDOT Local Agency representative and appropriate disciplines informed of design decisions and the overall status throughout the project, prior to formal review, in order to minimize surprises with changing CDOT staff or requirements. Sara Ciasto is close to completing the Iliff Avenue Final Design for Arapahoe County, meeting federal funding requirements, as well as coordinating with CDOT Region 1 on the design of the lliff Avenue/ Parker Road (SH 83) intersection.

#### **TIP Process**

**DRCOG TIP funding comes** with additional coordination and schedule obligations. Understanding the project definition, scope, and intent in the original TIP application is critical to full project funding. Stacy Tschuor has recent experience assisting City of Aurora and Arapahoe County with several successful sub-regional TIP applications, and she will utilize her knowledge of the TIP application and decision-making process to keep this project on track with the funding obligations. Sara Ciasto recently managed the TIP-funded Westerly Creek to Toll Gate Creek Connections to Florida Station project for the City of Aurora. With close monitoring of the project scope versus the TIP application and available funding, Sara was able to successfully deliver design for a project that included more than originally expected.

# **Section 4 Special Expertise**

# We provide all major design disciplines in-house

Our blend of environmental, planning, and design professionals in our Denver office is able to efficiently complete the project without the additional coordination needed for a larger subconsultant team, allowing the funding to be used for the actual evaluation, clearance, and design tasks.

# We have a deep understanding of the CDOT Local Agency process

DEA staff are now or have recently navigated CDOT's clearance processes and understand how to efficiently balance clearance requirements that are tied to the funding with efficient and streamlined processes.

In some cases, the availability of environmental subconsultant staff can have dramatic impacts on the overall project schedule. In addition to selecting subconsultants that are trusted DEA and CDOT partners, we also consider their availability and commitment to the schedule and timeliness of deliverables. ERO and Illingworth and Rodkin not only understand the local agency and CDOT clearance process, they also provide timely and quality documentation to facilitate a smooth process.

Special Expertise

# We offer conceptual design to construction experience

Our staff typically coordinates across all of our different discipline groups, which promotes streamlined and efficient transitions from planning through preliminary and final design to the construction phase of a given project. As a result, DEA staff is well-versed in considerations of all phases of the project.

# We have intersection operations and traffic signal expertise

Anna Bunce has a unique municipal traffic signals and traffic operations background, as she was recently the Principal Traffic Engineer for the City of Aurora and responsible for design, construction, and signal timing of all Aurora signals. She brings an integrated perspective on often-overlooked signal and civil design details, such as utility conflicts and accessibility requirements, with practical and affordable solutions.

# **Section 5 Example Projects**



## Parker Rd / Quincy Ave / Smoky Hill Intersection Improvements Study and Design; City of Aurora; Aurora, Colorado

DEA conducted a study of the Parker Road and Quincy Avenue intersection and surrounding area. The purpose of this study was to find low-cost improvements that can improve the transportation system in the near-term, fundable timeframe.

Following work on the study, DEA supported the City of Aurora with analysis, writing, and compilation of an application for DRCOG subregional funding through the Arapahoe County Transportation Forum. The project was awarded funding for design, NEPA, and construction of the recommended improvements from the operational study.

DEA is currently completing the design and NEPA phase of the project for the City, including coordination with the CDOT Local Agency group and specialty units to meet CDOT and TIP funding requirements. Access modifications are also being evaluated along Parker Road and Quincy Avenue to optimize the traffic flow and safety improvements with the Parker/Quincy intersection modifications.

**Relevance:** DRCOG TIP-funded project; Alternatives evaluation considering innovative intersection designs with CDOT Traffic coordination; CDOT and local agency coordination; Categorical exclusion; Public involvement focused on traveling public and adjacent businesses and community land uses

Key Staff and Teaming Partners: Stacy Tschuor, Joe Hart, Anna Bunce, Leah Langerman, Kara Swanson, ERO Resources, Illingworth & Rodkin, Shannon & Wilson

**Schedule:** DEA completed the intersection study on-schedule with documentation for the City's DRCOG TIP application. The NEPA and preliminary design phase is now on-schedule for completion within the one-year schedule.

**Budget:** The intersection study was completed 20% under budget. The NEPA and design project is also currently estimated to be completed under budget.

**Quality:** DEA's Quality Control Plan includes formal, documented reviews of all deliverables with specific technical reviewers identified by design discipline and special expertise.



# lliff Avenue Study and Final Design; Arapahoe County; Arapahoe County, Colorado

DEA led the corridor study for lliff Avenue between Quebec Street and Parker Road, which provided recommendations for improved multimodal transportation mobility, safety, and reliability for commuters and residents. In addition to general public outreach, the study included the coordination of the alternatives evaluation and recommendations with six local and regional agency stakeholders. Building from the work completed on the Corridor Study, DEA is now wrapping up NEPA and final design services. Arapahoe County successfully obtained federal funding for the project, which requires compliance with CDOT standards. The study and design efforts focused on corridor operations, travel time assessments, and public involvement, and the work is resulting in providing acceleration/ deceleration lanes at improved signalized intersections with other improvements such as bus queue jump lanes and bike lanes.

**Relevance:** Intersection alternatives evaluation for operational improvements; DRCOG TIP-funded design; CDOT and local agency coordination; Categorical exclusion

Key Staff and Teaming Partners: Sara Ciasto, Stacy Tschour, Anna Bunce, Kara Swanson, H.C Peck, Shannon & Wilson

**Schedule:** During final design for the corridor, DEA pulled out the design for a new pedestrian bridge at the Cherry Creek Trail as a separate construction package, completing the design and NEPA for that construction will be completed in 2020.

**Budget:** The project corridor study was completed under budget. The design phase is tracking to be completed on budget.

**Quality:** Comprehensive quality reviews and over-the-shoulder design reviews were completed for plan submittals.



#### I-70/Kipling NEPA and Design; CDOT; Wheat Ridge, Colorado,

DEA, in close collaboration with CDOT, led the completion of a template EA document and preliminary design plans to reconstruct the I-70/Kipling interchange for safety and operations improvements. DEA led the PEL study for this interchange to identify the need and recommendations for short- and long-term improvements through a clear and proactive stakeholder involvement program.

Funding for the ultimate reconstruction has not yet been secured. In order to improve the substantial safety and operational issues in the area, CDOT and DEA identified several early action projects. DEA staff are now supporting CDOT for an early action project, the I-70/Kipling North Phase, which will set the ultimate local street connections north of the interchange with signal and intersection reconstruction at four intersections.

**Relevance:** CDOT and local agency coordination from planning through design; Intersection alternatives evaluation to provide optimal traffic flow and safety

Key Staff and Teaming Partners: Stacy Tschuor, Leah Langerman, Kara Swanson

**Schedule:** DEA identified and evaluated early action projects early in the NEPA process to construct with available funding.

**Budget:** DEA budgeted the design and NEPA phase 15% under anticipated CDOT contract cost. The team was able to utilize the remaining contract funding to support CDOT for the early action project.

Quality: "Your support ensured that CDOT was able to consider our options and make the best decision for the project and our stakeholders. DEA met every challenge with solutions and results." – Adam Parks, CDOT Project Manager



## Vasquez Boulevard I-270 to 64th NEPA & Design Engineering; CDOT; Commerce City, Colorado

DEA is working with CDOT as a blended team to implement improvements to Vasquez Blvd between I-270 and 64th Ave to improve safety and operations for passenger vehicles and freight through and adjacent to Vasquez Blvd. The project includes improvements to two complex intersections at 60th/Parkway and 62nd Ave and adjacent local roadway networks. Services provided include survey, subsurface utility investigations, public and agency outreach, intersection alternatives evaluation, NEPA clearance (categorical exclusion), traffic analysis, and preliminary and final design.

**Relevance:** DRCOG TIP-funded project; Intersection alternatives evaluation to provide optimal traffic flow and safety within constrained ROW; CDOT and local agency coordination with project groups and elected official presentations; Categorical exclusion

Key Staff and Teaming Partners: Velvet Kuesel, Stacy Tschuor, Leah Langerman, H.C. Peck

Schedule: The NEPA and design are onschedule for moving into final design. Budget: The scope is estimated to be completed under the original budget. Quality: All deliverables are reviewed by the Quality Manager, or a designated review team, prior to submittal



## Westerly Creek to Toll Gate Creek Connections to Florida Station; City of Aurora; Aurora, Colorado

DEA provided alternatives analysis, public outreach, and engineering services for this project to provide multimodal connections from the two trails to the RTD Light Rail station for area commuters and recreational users. The public outreach process was a key component of this project to help the public and stakeholders understand the importance of and need for the trail connection as well as provide input and feedback on design alternatives. Design efforts included parking evaluation, access considerations, bike signals, ADA-compliant evaluations, and accommodation of bus stops. The project was funded with DRCOG TIP funding and concluded providing more operational improvements and miles of bike lanes than originally scoped within the available budget.

**Relevance:** DRCOG TIP-funded design; CDOT and local agency coordination; Categorical exclusion; Intersection alternatives evaluation for operational improvements

Key Staff and Teaming Partners: Sara Ciasto, Stacy Tschuor, Anna Bunce, Kara Swanson, Shannon & Wilson, H.C. Peck

**Schedule:** DEA held bi-weekly Design Team meetings with City design staff to discuss key details and keep the project moving forward.

**Budget:** DEA built the construction cost estimate early in the design and updated frequently to compare with the available funding. With this budget information, the City was able to add in more project scope to provide additional bicycle connections and signal improvements within the TIP funding.

**Quality:** We kept agency staff involved through frequent design meetings prior to submittals so that comments were limited during plan reviews.



## Sara Ciasto, PE

#### Project Manager/Design Lead

Sara has 19 years of experience in carrying projects from development through design and into construction. She supports local agencies across the Front Range on a range of projects, spanning from smaller task orders to major arterial widenings and projects with intersection reconfigurations and operational improvements. Several of her projects have included DRCOG TIP funding. Sara has been responsible for strategizing approaches and presenting information to the public and stakeholders and navigating alternatives processes ahead of design.

#### Registrations

Professional Engineer CO # 39754

#### Education

BS, Civil Engineering, Colorado State University

#### **Relevant Experience**

#### Iliff Avenue Final Design; Arapahoe County, Colorado

Sara served as project manager for preliminary and final design, which included addition of bike lanes and trail connections, relocation of utilities, ROW impacts, structural improvements, and widening lliff to provide additional acceleration and deceleration lanes.

#### Westerly Creek and Toll Gate Creek Connection to Florida Station; Aurora, Colorado

Sara served as project manager for the alternatives process and final design of bikeway connections to the light rail station from existing trails. Project included coordination with multiple departments at the City, including Public Works and Parks, Recreation, and Open Space, as well as design review through the City's systems and CDOT.

#### Parker Road/Quincy Avenue/Smoky Hill Intersection Improvements Study; Aurora, Colorado

DEA completed this comprehensive transportation study of the Parker Road and Smoky Hill Road intersections along Quincy Avenue. DEA completed a comprehensive alternatives analysis considering traffic operations, multimodal safety, physical impacts, and cost to identify optimized solutions closely coordinated with City staff. On this project, Sara served as the utilities task lead. She gathered data for the existing utilities and summarized it briefly for the existing conditions report.

## SH 62 Improvements; Ridgway, Colorado Sara served as project manager for roadway improvements along SH 62 and local roads in downtown Ridgway, Colorado. The project includes roadway, drainage, utility, landscaping, and lighting elements, as well as a Categorical Exclusion and public involvement program. The project is being completed in a blended team format, with CDOT staff completing portions of the environmental work, geotechnical and pavement design, some utility coordination, and survey/ ROW efforts.

### SH 42 and South Boulder Road Intersection Improvements; Louisville, Colorado

Sara served as project manager for the evaluation of alternatives and production of construction documents for the intersection at SH 42 and South Boulder Road that increased capacity. The alternatives considered safety, right-ofway impacts, access needs, utility impacts, environmental compliance with Categorical Exclusion, and drainage issues.



# Joe Hart, PE

Principal-in-Charge

Joe has extensive experience in traffic engineering, and transportation planning. His projects focus on solutions that improve traffic flow and multimodal mobility to enrich quality of life and advance economic prosperity. He is a Senior Vice President with authority to mobilize DEA resources as needed.

#### Registrations

**Professional Engineer** 

CO # 18310

#### Education

MS, Civil Engineering, University of Colorado

BS, Civil Engineering, University of Dayton

#### **Relevant Experience**

I-70 & Kipling Interchange NEPA and Preliminary Design; Wheat Ridge, Colorado

Joe served as project director and quality control manager for the study to explore feasible alternatives for improvement to the interchange of I-70 with Kipling Street (SH-391) which currently experiences recurring morning and afternoon peakhour congestion.

Douglas County 2040 Transportation Master Plan; Douglas County, Colorado Joe provided QA/QC and served as principal-in-charge for the Douglas County Transportation Plan Update. The updated plan will serve as a key resource for County staff and the community and include evaluation of a range of alternatives to meet future travel demands, roadway network and multimodal infrastructure and services. The plan will enable the County to demonstrate to the stakeholders, residents, and community partners that the complete plan is flexible and responsive to the differing areas of the County.

### Parker Road and Quincy Avenue Operational Improvement Study; Aurora, Colorado

Joe served as QA/QC manager of the study analyses and project deliverables for a study of short-term improvements to address increasing congestion and safety issues at the intersection. The study considers options in support of long-term recommendations made in the Parker Road Corridor Planning and Environmental Linkage Study completed by DEA for Arapahoe County.

### Iliff Avenue Corridor Study; Arapahoe County, Colorado

Joe served as principal-in- charge and quality control manager for corridor study to provide recommendations for improved transportation system mobility, safety, and reliability for commuters and residents along Iliff Avenue between Quebec Street and Parker Road. The study included a public involvement program with coordination and input with County and adjacent local agency staff, as well as the general public.

### Parker Road Corridor Study; Arapahoe County, Colorado

Joe served as project manager for the multimodal corridor study and Access Control Plan for an 8-mile-long major arterial highway (SH 83) corridor, considering the need for grade-separated interchanges at high volume arterial street intersection, addition through travel lanes, safety improvements including center median barrier and auxiliary lanes, bicycle and pedestrian infrastructure and transit service enhancements.



#### Velvet Kuesel, PE QA/QC Manager

Velvet brings 18 years of experience in transportation project management and engineering for infrastructure projects. She has been responsible for managing and designing streets and bikeways and integrating multiple disciplines for both new and reconstruction projects. On several recent large design programs, Velvet was responsible for quality management and project delivery for multidisciplinary and complex projects.

#### Registrations

# Professional Engineer CO # 40170 **Education** BS, Civil Engineering, Colorado School of Mines

#### **Relevant Experience**

# Vasquez Blvd I-270 to 64th NEPA & Design Engineering

Velvet is serving as project manager implementing improvements to Vasquez Blvd between I-270 and 64th Avenue to improve safety and operations through and adjacent to Vasquez Blvd. The project includes improvements to two complex intersections at 60th/Parkway and 62nd Avenue and adjacent local roadway networks. Services provided include survey, subsurface utility investigations, public and agency outreach, PEL to NEPA transition, alternatives evaluation, NEPA clearance, traffic analysis, preliminary and final design and construction documents.

## US 36 Phase 1 Managed Lane Design Build Project; Westminster/Broomfield, Colorado

Velvet served as the Project Engineer responsible for managing preliminary roadway design efforts for improvements on US 36 from Federal Boulevard to the west towards Boulder. This project included reconstructing ten miles of US 36 pavement, the addition of one managed lane in each direction, interchange ramp improvements and bikeway design. The design-build project was funded through Transportation Investment Generating Economic Recovery (TIGER) and Colorado Bridge Enterprise, managed through CDOT.

## **Central 70 Project; Denver, Colorado** Velvet served as the internal quality assurance/quality control (QA/QC) lead responsible for coordinating internal QA/QC efforts for the Central and East Segments of the project. Velvet developed QA/QC procedures in compliance with project quality requirements and conducted QA audits to ensure compliance with the Project Agreement requirements.

#### CCD Staff Augmentation; Denver, Colorado

Velvet served as project manager providing staff augmentation services for CCD. She supported several different types of tasks including TIP applications, program identification and prioritization and project management on behalf of the City. Velvet managed three protected bike lanes projects with similar scope and processes which allows her to identify efficiencies and bring lessons learned to the delivery of these Community Network design services projects.



#### Leah Langerman Public Engagement

Leah has 15 years of experience facilitating public involvement and agency coordination for all phases of transportation projects. Her experience includes organizing public, agency, and committee meetings (including virtual meeting format); coordinating media coverage; and preparing clear and concise outreach information. She tailors public and stakeholder involvement opportunities to best fit each community and project and believes in thorough documentation.

#### **Education**

BS, Psychology, University of Wisconsin – La Crosse

#### **Relevant Experience**

### Parker Road/Quincy Avenue/Smoky Hill Road Intersection Improvement Study; Aurora, Colorado

Leah led the public and agency involvement efforts for this study, which identified implementable near-term operational improvements for two congested intersections. The study area is adjacent to many businesses and residences, and also serves a high volume of regional commuters. Leah developed and executed a Public and Agency Participation Plan, which included agency stakeholder meetings, presentation to a neighborhood group, and three public open house meetings. Leah developed postcard mailers, flyers, project web page content, and the contact list of stakeholders to receive the information. In an effort to inform and involve the adjacent business tenants, she visited nearly 50 businesses to distribute information, discuss the project, and collect feedback.

## I-70 and Kipling Interchange Planning and Environmental Linkage (PEL) Study and Environmental Assessment; Wheat Ridge, Colorado

Leah led public and agency involvement tasks for this PEL study to identify existing conditions and develop a range of improvements to reduce congestion and improve operations and safety of interchange of I-70 and Kipling Street (SH 391). The extensive public and stakeholder involvement program included meetings of local agency technical staff, elected official briefings and environmental resource agency coordination. Public involvement included well-attended general public meetings, Community Focus Group Meetings, door-to-door business outreach, and direct coordination with potentially impacted property owners. Leah prepared outreach tools such as the project web page, news releases, social media posts, flyers and newsletters, and also arranged and staffed a project booth at a local festival, which successfully engaged hundreds of community members.

## Westerly Creek and Toll Gate Creek Connections to Florida Station; Aurora, Colorado

Leah served as the public and stakeholder involvement coordinator for the alternatives process and final design of trail and bikeway connections to the Florida light rail station at I-225 from existing creekside trails to the west and east. The project included extensive coordination with multiple departments at the City of Aurora, including their Public Works, Parks, Recreation, and Open Space team.



## Stacy Tschuor, PE, PTOE

Alternatives and Traffic Analysis Lead

Stacy has 24 years of experience with a focus on traffic operations and multimodal. With her knowledge of both design and operations, she is able to provide a keen understanding of the effects of specific design treatments on traffic operations, safety, and multimodal circulation. She has recently provided traffic analysis and evaluation of improvement alternatives for DRCOG TIP projects on state highways, efficiently navigating CDOT coordination and schedule needs.

#### Registrations

# Professional Engineer CO # 34715 Registered Professional

Traffic Operations Engineer

#### Education

MS, Civil Engineering, University of Texas at Austin

BS, Civil Engineering, University of Miami

BS, Architectural Engineering, University of Miami

#### **Relevant Experience**

I-70 & Kipling Interchange NEPA and Preliminary Design; Wheat Ridge, Colorado

Stacy served as project manager for the preliminary design and a Template EA for reconstruction of the I-70 and Kipling Street (SH 391) interchange. The project included an extensive stakeholder involvement program, as well as thorough documentation of the existing traffic and environmental conditions, alternatives development and evaluation, and recommendations. The interchange will be reconstructed as a Diverging Diamond Interchange (DDI) and the project identified early action projects to provide congestion and safety improvements prior to the full interchange improvements.

#### Vasquez Blvd I-270 to 64th NEPA & Design Engineering; Commerce City, Colorado

Stacy is serving as the PEL-to-NEPA Technical Lead for improvements to Vasquez Blvd between I-270 and 64th Avenue to improve safety and operations through and adjacent to Vasquez Blvd. The project includes improvements to two complex intersections at 60th/ Parkway and 62nd Avenue and adjacent local roadway networks. Services provided include survey, subsurface utility investigations, public and agency outreach, PEL to NEPA transition, alternatives evaluation, NEPA clearance, traffic analysis, preliminary and final design and construction documents.

### Westerly Creek and Toll Gate Creek Connection to Florida Station; Aurora, Colorado

Stacy served as traffic engineer for the alternatives analysis, public outreach, and engineering services for the Westerly Creek to Toll Gate Creek Trail project which provides multimodal connections between the two trails and the RTD R/H-lines Florida Light Rail station for area commuters and recreational users. DEA's process began with analysis, continued through design concepts, and culminated in preparation of final plans and specifications.

Douglas County 2040 Transportation Master Plan; Douglas County, Colorado Stacy served as the alternatives analysis lead for the project that included working with Douglas County to update the existing Douglas County 2030 Transportation Plan. The updated plan serves as a key resource for County staff and the community and includes evaluation of a range of alternatives to meet future travel demands, roadway network and multimodal infrastructure and services.



#### **Kara Swanson** Environmental Lead

Kara brings strong NEPA and environmental compliance expertise to the project team. Kara's knowledge of internal CDOT processes and working relationships with key environmental subconsultants benefit the Town's ability to gain timely, comprehensive clearances that will keep the project moving forward.

#### **Education**

#### Masters of Environmental Science and Policy, Johns Hopkins University

BS, Environmental Science, Iowa State University

#### **Relevant Experience**

Environmental Non-Project Specific Contract - CDOT Region 1; Denver, Colorado

Kara has served as the CDOT Region 1 Environmental project manager on over 50 Categorical Exclusions throughout the Denver metro area. Her responsibilities include coordination with CDOT project managers, resource specialists, local agencies, and consultants. She is responsible for ensuring appropriate mitigation measures are incorporated into design plans and the Form 128s completed and signed prior to the ad date.

#### Parker Road and Quincy Avenue Operational Improvement Study; Aurora, Colorado

Kara led the high-level environmental analysis for this comprehensive study of the Parker Road and Smoky Hill Road intersections along Quincy Avenue. DEA completed a transparent alternatives analysis considering traffic operations, multi-modal safety, physical impacts, and cost to identify optimized solutions closely coordinated with City staff. The environmental analysis looked at existing conditions and potential impacts of the recommended improvements.

#### I-70 & Kipling Interchange NEPA and Preliminary Design; Wheat Ridge, Colorado

Kara served as the Environmental Task Lead for the environmental assessment for this project. Her work included managing the team's environmental resource specialists, writing and reviewing technical memos, and collaboration with the project team on the analysis used to determine the preferred alternative.

### Iliff Avenue Corridor Final Design; Arapahoe County, Colorado

Kara is the Environmental Lead for preliminary and final design, which included bike lanes, trail connections, utility relocation, structural improvements, and widening of lliff to provide additional acceleration and deceleration lanes. Kara assisted with the CDOT clearance process, was responsible for all coordination with the environmental resource specialists on the team, and aided in coordination with current CDOT projects.



#### Anna Bunce, PE

Traffic Operations/Safety Analysis

Anna has 18 years of experience in all facets of transportation engineering. Her skill set includes traffic signal design; traffic signal construction management and inspections; signal timing and operations including both signal programming, configuration, and implementation; specifications development and review; and crash analysis and safety mitigation.

#### Registrations

**Professional Engineer** 

CO # 41647

#### Education

BA, Mathematics & Classical Languages, Randolph-Macon Woman's College

MS, Applied Mathematics, University of Colorado at Boulder

MS, Civil Engineering, University of Colorado at Denver

#### **Relevant Experience**

Westerly Creek and Toll Gate Creek Connections to Florida Station; Aurora, Colorado\*

While at the City of Aurora, Anna provided traffic engineering guidance for the alternatives analysis and engineering services for the project, which provides multimodal connections between two trails and the RTD R/H-lines Florida Light Rail station for area commuters and recreational users. The process began with analysis, continued through design concepts, and culminated in preparation of final plans and specifications.

#### Parker Road and Quincy Avenue Operational Improvement Study; Aurora, Colorado\*

Anna served as the Aurora traffic lead for the study of the Parker Road and Quincy Avenue intersection and surrounding area. The purpose of this study was to find lowcost improvements that can improve the transportation system in the interim while the City works on securing funding to construct the ultimate interchange.

#### Annual Traffic Signal Construction; Aurora, Colorado\*

Anna annually, either personally or as a manager depending on the year and project, designed traffic signal new or rebuild plans; procured materials and labor; reviewed equipment submittals; prepared traffic signal timing and programming; staked traffic signal pole and control equipment locations; managed the labor contractor in the field; and coordinated for punch list inspection and signal acceptance.

## Traffic Signal Plans, Submittal Reviews, and Construction Management & Inspections Support for other City projects involving traffic signals; Aurora, Colorado\*

On an ongoing basis, Anna reviewed and redlined traffic signal, signing and striping, traffic control plans, and roadway plans submitted by other work groups within the City for conformance with national and local standards and specifications as well as good engineering practice while applying engineering judgement as needed. She also regularly staked traffic signal pole and control equipment locations in the field and provided support as needed to City Project Managers on traffic-related items, including citizen contact and construction items.

#### Four Corners Intersection Improvements Hours and Fee Estimate - FINAL

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Project Management Plan	17	17 2	8	4		2												\$3,910	0	\$0 0		\$0	0 \$0	0		\$0	0	0		\$3,910
Meetings Invoicing and Schedule	164 70	164 70 2	50 20		30	8		12	16		16	20	-	4		3:	2 16	\$33,140 \$11,332	0	\$0 0		\$0	0 \$0	0		\$0		0	400	\$33,540 \$11,332
SUBTOTAL		251 4		4	31	10 0	0	12	16	0	0 16	20	0	0 4	0	0 3		\$48,382		\$0 0	0		0 0 \$0	0	0	\$0	0	0 0	\$ 400.	
2. ENVIRONMENTAL CLEARANCE												_	_		_												$ \rightarrow $		—	
Categorical Exclusion - Agency Coordination & Documentation Wetlands & T&E Species (Biological Resources Report)	60 17	48				48 2 15												\$9,600 \$2,770		,560 0 \$0 0		\$0 \$0	0 \$0	0		\$0 \$0	0	\$0 \$0		\$11,160 \$2,770
Noise	2	2				2												\$400	0	\$0 0		\$0	0 \$0	0		\$0	0	\$0		\$400
Air Quality	146	6				2							4					\$940		\$0 0		\$0	0 \$0	0		\$0	140	\$21,78		\$22,725
Stormwater Management Plans Hazardous Materials	66 40	6				2 2	2		2									\$1,320 \$316		9,652 0 9,790 0		\$0 \$0	0 \$0 0 \$0	0		\$0 \$0	0	0		\$10,972 \$5,106
Historic Resources	98	4				4												\$800		9,697 0		\$0	0 \$0	0		\$0	0	\$0		\$10,497
SUBTOTAL	429	85 0	0	0	0	60 17	2	0	2	0	0 0	0	4	0 0	0	0 0	0	\$16,146	204 \$2,083 \$2	5,699 0	\$0	\$0	0 \$0 \$0	0	\$0	\$0	140	\$0 \$21,78	85 0	\$63,630
3. ALTERNATIVES ANALYSIS AND CONCEPTUAL DESIGN Goal Development	6	6	2	+	$\vdash$		+	+		-	4	+	+	├	+	+ $+$		\$1,620	0	\$0 0	-	\$0	0 \$0	0	+	\$0	0	\$0		\$1,620
Compile Existing Traffic and Safety Data	16	16										2	8	4				\$2,500		\$0 0		\$0	0 \$0	0		\$0	0	\$0		\$2,500
Develop Traffic Forecasts	44	44						40			2		16	24				\$5,780		\$0 0		\$0	0 \$0	0		\$0	0	\$0		\$5,780
Develop Initial Alternatives (previous studies, CAP-X, concept layout) Design Workshop (Town, County, CDOT)	166 26	166 2 26	-				12	48 6	1		12	4	16	8	-	6		\$23,260 \$5,136		\$0 0 \$0 0		\$0 \$0	0 \$0 0 \$0	0	-	\$0 \$0	0	\$0 0		\$23,260 \$5,136
Develop Evaluation Criteria	8	8					2				4							\$2,020		\$0 0		\$0	0 \$0	0		\$0	0	0		\$2,020
Screen Alternatives/Documentation/Review	150	150 2				4	20	12 1			4 24		-	20				\$26,312		\$0 0		\$0	0 \$0	0		\$0	0	0		\$26,312
Alternatives Revisions Prepare Conceptual Design Report	62 68	62 68 2					8	16 2 8 4			4		8	4		8	8	\$8,960 \$10.908		\$0 0 \$0 0		\$0 \$0	0 \$0	0		\$0 \$0	0	0		\$8,960 \$10,908
SUBTOTAL		546 6	2	0	0	0 4	52	-	6 0	0			112	60 0	0	0 1		\$86,496		\$0 0		\$0	0 \$0 \$0	0	\$0	\$0	0	\$0 \$0		\$86,496
4. PUBLIC ENGAGEMENT																										$\square$				
Prep, Attendance, Summaries, and Ad Hoc Communications SUBTOTAL	330 330	330 330 0	40	0		20 20 0	0	20 20	0	0	40 0 40		0	0 0	0	0 0	20 20	\$58,200 \$58,200		\$0 0 \$0 0	\$0	\$0 \$0	0 \$0 0 \$0 \$0	0	\$0	\$0 \$0	0	\$0 \$0 \$0		
5. FIELD SURVEY	000											, i					20	\$00,200	· •				· • •							
Field Work	77	77	3											4		50		\$10,140		\$0 0		\$0	0 \$0	0		\$0	0	0	\$ 1,000	•••••
Office Data Processing SUBTOTAL	105 182	105 182 0	3	0	0	0 0	0	4	0	0	4 0	0	0	8 0 12	60 80	26 76 0	0	\$14,880 \$25,020	-	\$0 0 \$0 0	0	\$0 \$0	0 \$0 0 0 \$0	0	0	\$0 \$0	0	0 0 \$0	\$ 1,000	\$14,880 0.00 \$26,020
6. RIGHT OF WAY INFORMATION	102	102 0										, i						\$20,020			Ů									
Verify Existing ROW\survey Information	88	88	4											20		40		\$13,000	0	\$0 0		\$0	0 \$0	0		\$0	0	0		\$13,000
ROW Plan Field Work ROW Plans	120 180	120	-											40	40	80		\$15,000 \$28,300						-		───┦	┢──┼			\$15,000 \$28,300
SUBTOTAL		388 0	4	0	0	0 0	0	0	0	0	0 0	0	0	0 60		120 0	0	\$56,300	0 \$0	\$0 0	\$0	\$0	0 \$0 \$0	0	\$0	\$0	0	0 0	0	\$56,300
7. GEOTECHNICAL INVESTIGATION																								1		$\square$				
Pavement Analysis Geotechnical Engineering Report	10 30	0																\$0 \$0		\$0 9.5 \$0 30		0 \$2,295 0 \$5,160	0 \$0	0		\$0 \$0	0	0		\$2,295 \$5,160
SUBTOTAL		0 0	0	0	0	0 0	0	0	0	0	0 0	0	0	0 0	0	0 0	0	\$0		\$0 30		\$7,455	0 \$0 \$0	0	\$0		0	0 0	0	\$7,455
8. UTILITIES/SUE																								1		$\square$				
Utility Coordination SUE (QL A-D)	170 86	20 6	8				12											\$4,600 \$1,380		\$0 0 \$0 0		\$0 \$0	0 \$0 0 \$0	150 80		\$26,150 \$48,500	0	0		\$30,750 \$49,880
Utility Plans	210	0																\$0		\$0 0		\$0	0 \$0	210	+	\$29,550	0	0		\$29,550
SUBTOTAL	466	26 0	10	0	0	0 0	16	0	0	0	0 0	0	0	0 0	0	0 0	0	\$5,980	0 \$0	\$0 0	\$0	\$0	0 \$0 \$0	440	38000	\$104,200	0	0 0	0	\$110,180
9. PRELIMINARY DESIGN (30%) 30% Design - Submission of Plans for Town Review: One round of comments	694	694	40	50		8	40	60 12	0 40	70	90 12	32	12	80 4	16	12 8		\$105.022	0	\$0 0		\$0	0 \$0	0		\$0				\$105,022
30% Design - Submission of Plans for CDOT FIR Review; One round of comments	150	150 2	16	16		4	12	16 2			12	8	4	16 4		4 2		\$24,772		0		\$0	0 \$0	Ĺ		\$0				\$103,022
SUBTOTAL	844	844 2	56	66	0	4 8	52	76 14	0 46	70	102 12	40	16	96 8	24	16 1	0 0	\$129,794	0 \$0	\$0 0	\$0	\$0	0 \$0 \$0	0	\$0	\$0	0	\$0 \$0	\$0	\$129,794
10. FINAL DESIGN (90%) 90% Design - Submission of Plans for Town Review; One round of comments	734	734	40	50	├	8	50	70 1:	0 40	50	120 16	28	16	80 4	18	16 8		\$110,822			-		0 \$0	0	<u> </u>	\$0				\$110,822
90% Design - Submission of Plans for CDOT FOR Review; One round of comments	178	178 2		16		4	8		2 6	8	12 4		4	16 4	8	4 2		\$29,212	0	\$0 0		\$0	0 \$0	0		\$0	0	0		\$29,212
SUBTOTAL	912	912 2	64	66	0	4 8	58	86 1	2 46	58	132 20	36	20	96 8	26	20 1	0 0	\$140,034	0 \$0	\$0 0	\$0	\$0	0 \$0 \$0	0	\$0	\$0	0	\$0 \$0	\$0	\$140,034
11. BID PS&E Bid PS&E	252	252 2	40	40	$\vdash$		40	40 2	4 8	10	24 2	4		12 2	4	$\vdash$	_	\$44.720	0	\$0 0	_	\$0	\$0			\$0	0			\$44,720
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12. ROW ACQUISITION																										$\square$				
Appraisals (2) Oversight/Coordination	0	0		-	├		-	├── ├─	_	_	+ $+$	_			_	$\vdash$		\$0 \$0	╏╴┤╴┤		_		\$13,000 \$13,000 \$3,424			—	┢──┼	-+		\$13,000 \$3,424
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13. BID SUPPORT Bid Support	28	28	16				-	1	,		+ $-$	_	+			$\left  - \right $		\$5.000	0	\$0 0	_	\$0	\$0		-	\$0	0	0		\$5,000
SUBTOTAL		28 0		0	0	0 0	0		2 0	0	0 0	0	0	0 0	0	0 0	0		0 \$0			\$0 \$0		0	\$0	\$0 \$0		0 0		\$5,000
14. DESIGN SUPPORT DURING CONSTRUCTION																											$\square$		1	
Design Support During Construction SUBTOTAL	112	112 112 0	16 16	8		0 0	12	20 I		0	8 8 0	•	8	12 8 12 8		0 0	0	\$18,040 \$18,040		\$0 0		\$0 \$0	\$0 0 \$0 \$0	•	¢n.	\$0 \$0	0	0 0 0	0	\$18,040 \$18,040
15. AS-BUILT PLAN DEVELOPMENT	112	112 0	10	°			12	20 1	U U				°	·* 8	12		U	\$10,040	0 - 30	** 0	φυ	ου	J 40 \$0	, v	οų	4U	$\vdash$			\$10,040
As-Built Plan Development	182	182	12	1			20		0									\$24,060	0	\$0 0		\$0	0 \$0	0		\$0	0	0		\$24,060
SUBTOTAL	182	182 <b>0</b>	12	0	0	0 0	20	40 1	0 0	0	0 0	0	0	0 0	0	0 0	0	\$24,060	0 \$0	\$0 0	\$0	\$0	0 \$0 \$0	0	\$0	\$0	0	0 0	0	\$24,060
TOTAL LABOR HOURS	4962	4138 16	344	184	221	98 37	252	386 5	2 118	138	274 156	134	160	276 102	350	232 6	5 52	658172	204 2083 2	5699 30	1500	7455	0 13000 26574	440	38000	104200	140	0 2178	5 3400	\$847,285
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#### REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- Implementation of Clean Air Act and Federal Water Pollution Control Act
   Compliance with Governmentwide Suspension and
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

#### ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

#### I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid designbuild contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

#### **II. NONDISCRIMINATION**

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-thejob training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

 Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

#### 6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

#### 10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and nonminority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on <u>Form FHWA-1391</u>. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

#### **III. NONSEGREGATED FACILITIES**

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

#### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-ofway of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

#### 2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federallyassisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

#### 3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee ( e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency...

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract. (3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### 4. Apprentices and trainees

#### a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30. d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

#### 10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

# V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

#### 2. Violation; liability for unpaid wages; liquidated

damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

#### VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

 the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

#### **VII. SAFETY: ACCIDENT PREVENTION**

T h is p r o v i s i o n i s applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

# VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

T h is p r o v i s i o n i s applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federalaid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

# IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

#### X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

#### 1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

\* \* \* \* \*

#### 2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

 Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

#### 2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

#### Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

# XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

#### ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.