



**COLORADO**  
Department of Transportation

---

**SH 139 Douglas Pass North and South Rural Resurfacing  
CONSTRUCTION MANAGEMENT  
SCOPE OF WORK**

Dated November 17, 2021  
Region 3

Project:  
**SH 139 Douglas Pass North and South Rural Resurfacing (STR 139A-035/23500)**

---

The Contract Administrator for this Task Order:

Justin Kuhn, CDOT Region 3, Craig Resident Engineer  
270 Ranney Street, Craig, CO 81625  
Phone: 970-826-5189, 970-846-2420 cell  
Email: [justin.kuhn@state.co.us](mailto:justin.kuhn@state.co.us)

Active day to day administration and monitoring of the construction contract is delegated to:

Justin Kuhn, CDOT Region 3, Craig Resident Engineer  
270 Ranney Street, Craig, CO 81625  
Phone: 970-826-5189, 970-846-2420 cell  
Email: [justin.kuhn@state.co.us](mailto:justin.kuhn@state.co.us)

Task Order End Date: 6/1/2023

**Definitions**

**CDOT Resident Engineer** - The CDOT Resident Engineer is responsible to the Region Program Engineer for the quality and successful completion of a transportation project. The Resident Engineer authorizes interim and final payments and changes to Contracts for Consultants and Contractors.

**Consultant** - The firm or corporation providing personnel under this agreement to perform construction services as outlined herein.

**Consultant Project Engineer (CPE)** - The Consultant Project Engineer is responsible to the Resident Engineer for the quality and successful completion of a transportation project. The CPE shall be assigned full time on the project site. The Consultant Project Engineer works directly for the CDOT Resident Engineer. The CPE shall be licensed in the State of Colorado, unless otherwise approved by the CDOT Resident Engineer, and is in responsible charge of construction contract administration.

**Consultant Assistant Project Engineer** - The Consultant Assistant Project Engineer is the employee on the project who will assist the Consultant Project Engineer in administering the project. The Consultant Assistant Project Engineer will perform construction inspection and other project-related services under the responsible charge of the Consultant Project Engineer/Manager and at the direction of the CDOT Resident Engineer. If the Consultant Assistant Project Engineer is a Professional Engineer, they may be the individual in responsible charge when the Consultant Project Engineer is not on the project if so determined by the Consultant Principal.

**Consultant Principal** - The Consultant employee in responsible charge of Consultant services performed as described in this Contract. The Consultant Principal administers the Consultant contract. The Consultant Principal shall be available during construction and will be utilized as needed to provide engineering guidance and oversight of the Consultant's employees. The number and types of personnel may be adjusted up or down to meet project workload and Contractor's schedule.

**Consultant Inspector** - Consultant employee who performs construction inspection, and other project-related services under the responsible charge of the Consultant Project Engineer/Manager, and at the direction of the CDOT Resident Engineer.

**Consultant Tester** - Consultant employee who performs construction testing, and other project-related materials services under the responsible charge of the Consultant Project Engineer/Manager, and at the direction of the CDOT Resident Engineer.

**Contractor** - The individual, firm, or corporation contracting with CDOT to construct a transportation project.

**CDOT Region Materials Engineer** - The CDOT Region Materials Engineer (RME) assists the Resident Engineer and Project Engineer on this project with materials related issues including concrete, asphalt and steel.

**CDOT Assistant Materials Engineer** - The CDOT Assistant Materials Engineer is responsible to the Region Materials Engineer.

## 23500 – SH 139 Douglas Pass North and South RR - CM SCOPE OF WORK

---

### General Scope of Work, Staffing and Duration

This task order is requesting the Consultant provide the following personnel for construction contract administration for the following R3 Craig Residency Construction Project:

#### **SH 139 Douglas Pass North and South Rural Resurfacing (SH 139 MP 15-30.3 and MP37.5-52.7)**

This is a surface treatment project within Garfield and Rio Blanco Counties along SH 139, with projects on either side of Douglas Pass, separated by a no work zone. The work includes the placement of a 1' HMA leveling course and a 1.5" HMA overlay, guardrail replacement, pavement marking, rumble strips, and traffic control.

The consultant shall provide the following personnel:

- 1 Consultant Project Engineer
- 1 Consultant Inspector
- 1 Consultant Inspector / Tester
- 1 Consultant Tester
- 1 Project Scheduler

The Consultant Project Engineer/Inspector shall be responsible for day-to-day project management and documentation activities, and other duties assigned by the Resident Engineer. Other work consists of construction schedule reviews of initial schedule and progress schedules.

The Consultant Project Inspector shall be responsible for day-to-day documentation activities as assigned by CDOT and/or the Consultant Project Engineer. These responsibilities may include documentation and inspection of construction activities, computing quantities of acceptable of work, oversight and documentation of time and material work (Force Account), and preparation of daily diaries and inspection reports documenting construction activities and relevant observations.

The Consultant Project Tester shall be responsible for day-to-day testing and documentation activities as assigned by CDOT and/or the Consultant Project Engineer and Consultant Bridge Inspector.

The Consultant Scheduler shall be responsible for reviewing the Contractor's Initial Schedule, Baseline Schedule, and Monthly Progress Schedule.

The project has an anticipated start date of May 23, 2022 and a fixed completion date of October 14, 2022. The time period for the work described in this scope of work covers the period for pre-construction, construction, and post construction activities.

#### A. General:

- a. **Pre-Construction:** It is anticipated that the Project Engineer and Tester will work prior to the contractor's start date. Work hours are calculated based on an 8 hour day. The duties will include becoming familiar with the plans and specifications, and other required pre-construction paper work and meetings.
- b. **Construction:** Workweeks may be in excess of or less than the standard 40-hour week. Work hours are calculated based on a 10 hour day. Work may also be periodically required on weekends. Support construction staff will be Consultant personnel and shall remain assigned to the project site during the duration of the construction, unless otherwise directed by the Resident Engineer. CDOT reserves the right to replace consultant personnel with available CDOT personnel, or others.

## 23500 – SH 139 Douglas Pass North and South RR - CM SCOPE OF WORK

---

- c. **Post Construction:** It is anticipated that the Project Engineer and Tester will work after project acceptance. Final documentation is expected to be submitted within 15 days (3 weeks) of project acceptance. Work hours are calculated on an 8 hour work day.
- B. **Conditions Applicable to Consultant Personnel:** Overtime / Travel Pay / Commute Miles / Per Diem -Overtime hours will be paid by CDOT at the same rate as regular, non-overtime hours. Travel time in one direction will be paid/ Commuting mileage (limited to 120 miles per day or actual one-way trip commuting distance, whichever is less), will be paid. In lieu of payment for Travel Time and Commuting mileage CDOT will pay per diem in accordance with State Fiscal Rules.

The following number of hours of work are estimated for this project:

- Project Engineer
  - Pre-Construction 2022 = 240 hours (6 weeks / 30 days)
  - Construction 2022 (May 23 to October 21) = 1,100 hours (22 weeks / 110 days)
  - Post Construction 2022 = 240 hours (6 weeks / 30 days)
    - Total = 1,580 hours
  
- Project Inspector
  - Pre-Construction 2022 = 80 hours (2 weeks / 10 days)
  - Construction 2022(May 23 to October 21) = 1,100 hours (22 weeks / 110 days)
  - Post Construction 2022 = 80 hours (2 weeks / 10 days)
    - Total = 1,260 hours
  
- Project Inspector/Tester
  - Construction 2022(June 20 to October 21) = 900 hours (18 weeks / 90 days)
    - Total = 900 hours
  
- Project Tester
  - Pre-Construction 2022 = 240 hours (6 weeks / 30 days)
  - Construction 2022 (May 23 to October 21) = 1,100 hours (22 weeks / 110 days)
  - Post Construction 2022 = 120 hours (3 weeks / 15 days)
    - Total = 1,460 hours
  
- Scheduler
  - Project Duration = 200 hours

### **Authorization to Proceed**

Work shall not commence until written Notice to Proceed is received by the Consultant, and shall be completed in the time specified.

### **Routine Billing & Reporting**

The Consultant shall provide the following on a regular basis:

- 1) Monthly billing formats, suitable to the CDOT Resident Engineer, for contract activities performed by the Consultant's Project Engineer, Inspector, and Tester.
- 2) Monthly updates showing actual and anticipated expenditures for the Task Order in association with the Task Order timeline and/or the Contractor's construction schedule.
- 3) Monthly reports and billings required by CDOT Procedural Directive 400.2.
- 4) Weekly time cards for consultant personnel. The time cards shall be sent to the Resident Engineer weekly for signature prior to billing.
- 5) Supporting documentation for direct costs.

### **Status of Contract**

The Consultant shall monitor the fiscal status of the contract, and advise the CDOT Resident Engineer of the potential for supplementing their contract or negotiating an additional task order. Failure to monitor contract status and provide timely notification may result in discontinuation of the Consultant's services on the project until a supplemental agreement can be effected.

### **Project Standards**

Documentation shall be in accordance with the latest versions of the Colorado Department of Transportation's Construction Manual, Field Materials Manual, CDOT Laboratory Manual of Test Procedures, Colorado Department of Transportation Inspector's Checklist, Standard Specifications for Road and Bridge Construction, the Supplemental Specifications, applicable M & S standards, and the plans and specifications currently in use when the construction project is advertised or revised under advertisement.

References to "the specifications" shall include applicable CDOT Standard Specifications for Road and Bridge Construction including Supplemental Specifications, Project Standard Revisions and Project Special Provisions, and project plans and specifications.

Proposed work procedures shall be coordinated with the Project Engineer prior to the start of work.

### **Labor, Materials, Vehicles & Equipment**

The Consultant shall furnish personnel, materials, equipment, and transportation required to perform the work. Consultant personnel shall have appropriate vehicles (equipped with flashing amber beacon), cellular phones, computers, and miscellaneous equipment and supplies (inspecting and testing tools/equipment, printers, calculators, manuals, office supplies, safety equipment, etc.) required to perform the work. Personal protective equipment shall be in accordance with CDOT PD 80.1. The project Contractor will furnish office space and a field laboratory.

Personnel qualifications, staffing level, and number and types of vehicles shall be subject to the approval of the Resident Engineer. The Consultant shall assign personnel for the duration of the project unless otherwise approved by the Resident Engineer.

The Consultant Project Engineer, Project Bridge Inspector, and Tester shall be thoroughly familiar with CDOT forms and documentation requirements. This project will use the SiteManager Materials and Laboratory Information Management System (SMM/LIMS) software. Consultant materials personnel will be required to document the materials testing and procedures using the SMM/LIMS software. If the Project Tester is unable to use the SMM/LIMS software, the consultant shall provide someone who can at their own

expense. Personnel provided by the Consultant who do not meet the specified requirements, or who fail to perform their work in an acceptable manner, shall be removed from the project when determined and directed by the CDOT Resident Engineer and/or Consultant Project Engineer.

### **Diaries and Documentation**

Consultant personnel shall maintain a daily diary for each day work is performed on the project. They shall use CDOT Form 103 or automated 103a - Project Diary, or other form recommended by the Consultant Project Engineer or CDOT Resident Engineer. The contents of the diary shall be brief and accurate statements of progress and conditions encountered during the prosecution of the work along with conversations concerning the work. Editorial comments shall not be incorporated in the diaries or on written correspondence applicable to the project. A copy of the daily diary shall become a part of the permanent project record and shall be given to the Project Engineer within one working day of its date.

### **Computer Equipment & Software**

Consultant computers shall include necessary communications hardware and software to perform the work. The Consultant computers shall be capable of running current versions of the following software:

- SiteManager/LIMS
- CDOT QA/QC software
- Microsoft Word
- Microsoft Excel
- ProjectWise
- Software capable of creating, merging, and editing Adobe pdf documents.
- Microsoft Project 2016 (Project Engineer)
- Survey 123

The consultant shall contact CDOT OIT to verify access to applicable software applications (LIMS, Site Manager, ProjectWise etc.) 8 weeks prior to commencement of work.

### **Engineer's Certification**

The Resident Engineer shall be the final authority regarding acceptance of work performed by the Consultant. The Consultant Testing Firm will review and sign the Form 250 as it relates to the testing and acceptance of materials. The CDOT Resident Engineer shall be the final authority regarding acceptance of work not conforming to the plans and specifications.

### **Work Description**

#### **CONSTRUCTION ADMINISTRATION SERVICES**

##### **Task 1.0 Construction Management Support**

Provide CDOT Resident Engineer with the following construction management, inspection and testing support.

- 1.1 **Construction Coordination:** Regularly scheduled weekly and as-needed meetings will be conducted with the Contractor and other involved parties to review, update, and coordinate construction activities. Weekly meetings will include a review of issues that are impacting progress, the cost to complete the work, and significant situations encountered related to the construction of the project. Meeting minutes will be prepared to document items discussed, decisions reached, direction given, and actions to be taken.

## 23500 – SH 139 Douglas Pass North and South RR - CM SCOPE OF WORK

---

- 1.2 Review of Contractor’s Method of Handling Traffic: Review and provide comments on the Contractor’s Method(s) of Handling Traffic (MHT) submittals. During construction, monitor the Contractor’s MHT for implementation of traffic signing, barriers, and other traffic control measures in accordance with the approved plan.
- 1.3 Review of Construction for Conformance with Plans and Specifications: Monitor the Contractor’s construction activities with respect to the contract documents and relevant schedule submittals governing the performance of the work. Resolve construction problems and/or recommend action for their resolution, as they relate to changed field conditions or conflicts in the contract documents. Coordinate with the designer during construction for implementation of revisions to the plans as may be required.
- 1.4 Review of Progress Schedules & Processing Shop/Working Drawings Submitted by the Contractor: Schedule submittals shall be thoroughly reviewed for completeness and accuracy. Appropriate action shall be taken when deficiencies are noted.
- Submittals, design drawings, shop drawings, materials, and test procedures received from the Contractor will be forwarded to appropriate CDOT design personnel for review and approval. Approved drawings will be returned to the Contractor, as well as a copy retained for use during the remainder of the project.
- 1.5 Daily Quality Control Inspection & Quantity Control: Perform daily quality control inspections of construction activities to document activities performed and assessment of conformance with the contract documents in accordance with Section 2 of this Scope. Inspection items may include but are not limited to excavation, backfill, and compaction operations; concrete placement; paving; drainage; utilities; structures; signing and striping; landscaping; and traffic control installations.
- Quantities of work elements constructed will be measured and recorded to support the preparation and processing of progress pay estimates to the Contractor. Quantities will be documented in an interim quantity book for tracking of quantities constructed as compared to the original design quantities on the project. Quantities of work will be agreed upon with the Contractor and then reflected in monthly progress pay estimates prepared by the Consultant’s staff. Assist CDOT in resolving disputes in quantities with the Contractor prior to the preparation of the pay estimate.
- 1.6 Materials Testing: Direct, coordinate, supervise, monitor, manage and administer the materials sampling and testing to verify that the required sampling, materials testing and documentation is obtained in a timely manner and maintained in accordance with the Materials Manual and Contract requirements to verify the quality of the work performed by the construction contractor.
- 1.7 Project Documentation: Maintain project submittal register, track project correspondence, check daily diaries, prepare inspectors progress reports, and complete appropriate CDOT paperwork and forms.
- 1.8 Contaminated Material Notification: Monitor construction operations and notify CDOT immediately when contaminated material is encountered or developed on the project. When such material is identified, procedures developed by the Contractor to mitigate the problem will be reviewed and a recommendation provided.
- 1.9 Check Surveying: Provide quality control surveying and quantity verification as needed. (If the Contract includes a Construction Surveying pay item, then the Contractor is responsible for performing all surveying required to properly layout and construct the work covered under the Contract.)

**Task 2.0 Post Construction Support**

- 2.1 Completion, Inspection and Punch List: Conduct a final inspection with the Contractor, Resident Engineer and CDOT Maintenance representative(s) upon substantial completion. The result of the inspection is the development of a punch list of remaining and/or outstanding work to be performed by the Contractor prior to final project acceptance.
- 2.2 As-Constructed Drawings: Complete as-constructed drawings of work completed by the Contractor including final pay quantities.
- 2.3 Completion Inspection and Close-Out: Following the completion of punch list items by the Contractor, conduct a final inspection with representatives from the Contractor and CDOT, to confirm the completion of the work. The result of this inspection will constitute final project acceptance.
- 2.4 Preparation of Final Pay Estimate: Determine final quantities with appropriate supporting documentation and checks and prepare final pay estimate. Prepare final project records to be submitted to the R3 Finals Administrator.

**Task 3.0 Project Management**

- 3.1 Progress Reports: Prepare monthly progress reports for the CDOT Resident Engineer documenting project progress, conformance with Contractor's schedule, status of change orders, and potential or ongoing problems.
- 3.2 Change Orders: Prepare project change orders and minor contract revisions. Obtain Resident Engineer's pre-approval for all changes.
- 3.3 Project Coordination: Track, update and monitor project costs versus budget and notify CDOT Resident Engineer of anticipated problems in a timely manner. Coordinate project personnel including inspectors and material testers.
- 3.4 Certified Payroll: Review certified payroll documentation provided by the Contractor and conduct random interviews of Contractor employees to determine if the Contractor is in conformance with CDOT EEO/Labor Compliance policies.
- 3.5 Documentation: File documentation in CDOT Projectwise software as defined by the Resident Engineer.

Deliverables generated during the project will include the following and will be submitted throughout the duration of the project, or at specific dates commensurate with the deliverable's intent:

- Monthly Progress Reports.
- Project correspondence generated and received during the project.
- Construction management records generated including minutes of meetings, project diary, inspection reports, quantity records, contract modification orders, schedules, and other documentation as prepared during the course of construction in accordance with CDOT requirements.
- Complete "as-constructed" plans.



**Requirements for Project Engineer**

Personnel will be required to work at the Project Engineer level. He or she shall be either a Colorado Registered Professional Engineer or a non-licensed individual with demonstrable construction administrative experience. The Project Engineer for this project can be a non-licensed individual as long as they are working under one of the consultants Registered Professional Engineers, licensed in the State of Colorado, with relevant bridge construction experience.

The Project Engineer shall have CDOT construction experience.

The Project Engineer shall be available to review work, resolve problems, and help make decisions in a timely manner as requested by CDOT. He or she is in charge of the engineering details of the construction project and is responsible for the administration and satisfactory completion of the project.

Specific responsibilities include: construction of the project in accordance with the plans, enforcement of governing specifications and special provisions, control of inspection and testing, and proper documentation. By law, Consultant, or entity Consultant, Consultant Project Engineers cannot obligate funds or authorize payment on behalf of CDOT. The Project Engineer has frequent personal contacts with the Contractor, property owners, municipal officials, utilities, and the traveling public; thus, personal conduct should be a credit to both the individual and CDOT.

The Project Engineer is the first level of authority concerned with unusual circumstances (e.g., non-specification work, work outside the scope of the Contract, disputes, change orders, etc.). As practical, problems concerning contract interpretation should be referred to higher levels of authority until the problem is acceptably resolved. Immediate decisions can be made and orders written, as necessary, to expedite construction.

The Project Engineer responsibilities may include but are not limited to the following:

1. Review, provide comments, and acknowledge completeness of required submittal resulting from but not limited to:
  - CDOT 205 Permit to Sublet
  - Methods of Handling Traffic (MHTs)
  - Progress schedule
  - Methods Statements
  - EEO requirements
2. Provide the following documentation, reports and billings on a routine basis:
  - Monthly reports and billing required by CDOT Procedural Directive 400.2.
  - Preparation of monthly progress estimates for monthly and final billings for Consultant fees and construction contractor payments.
  - Maintaining project files, project diaries, and time counts.
  - Monitoring contractor payroll compliance.
  - Conducting weekly progress meeting with contractor, subcontractors, utilities, and other interested parties.
  - Email weekly meeting minutes to the Resident Engineer and other interested parties following the weekly meeting.
  - Monitoring project contractor for fulfillment of project plans and specifications.
  - Securing project documentation from the Contractor.

## 23500 – SH 139 Douglas Pass North and South RR - CM SCOPE OF WORK

---

3. Prepare Contract Modification Orders (CMO) and Minor Contract Revisions (MCR) for the CDOT Resident Engineer's approval.
4. Prepare and transmit updates of construction activities to the CDOT Public Information Office, including weekly Lane Closure Reports.
5. Review of drawings and data submitted by the construction Contractor and suppliers for general conformance with the intent of the specifications. Inform and obtain concurrence as needed from the CDOT Resident Engineer and keep relative documentation for project records.
6. Communicate with adjacent landowners, as required, to resolve issues that arise due to construction.
7. Monitor traffic control for compliance with the approved MHT.
8. Verify project compliance with CDPHE and other environmental permits issued for the project.
9. Prepare a punch list of uncompleted work, non-conformance reports, and deficiency notices.
10. Prepare responses to Contractors' and suppliers' request for information, submittals, change notices, claims, and correspondence.
11. Shall be well versed in the use of AASHTOWare SiteManager Software. This project will use the SiteManager Materials and Laboratory Information Management System (SMM/LIMS) software. The Project Engineer will be required to have a basic knowledge of the procedures for the SMM/LIMS software.
12. Shall have successfully completed a TECS training program authorized by CDOT and be currently certified as a TECS for the duration of this Contract.

### **Requirements for Project Tester and Inspector**

Inspection, sampling, testing, and documentation shall be in accordance with the CDOT Field Materials and Construction Manuals. Sampling and testing will be done in accordance with CDOT's Minimum Sampling, Testing, and Inspection Schedule, the Special Notice to Contractors, and the Procedures, as contained in CDOT's Field Materials Manual. When the method is not cited, the order of precedence for sampling and testing is Colorado Procedures, AASHTO Procedures, and then ASTM Procedures. Unless otherwise designated, when CDOT's Construction Manual, Materials Manual, AASHTO, ASTM, or other specifications, standards, or policies are cited, the reference shall be to the latest edition as revised or updated by recommended supplements or interim editions published and issued prior to the date of advertising a specific construction project for bids.

The Consultant shall furnish personnel, materials, and equipment required to perform the work. CDOT's Contractor will provide a field laboratory. The tester shall be certified to perform the project sampling and testing in accordance with CDOT requirements. These requirements typically include the following certifications: CAPA levels A&B, ACI, WAQTC, and nuclear gauge operation. The tester shall be certified as defined by the requirements set forth in the current Colorado Procedure CP-10. Minimum requirements for certification are dependent on the item to be sampled and tested. Each tester responsible for sampling and testing on this project shall have required certifications based on the project's specific materials testing schedule. The tester shall be thoroughly familiar with CDOT forms and documentation requirements.

The consultant staff must be certified by the CDOT Construction Inspector Qualification Program in the areas of inspection to be performed. A copy of work experience, references and/or proof of Licensing shall be provided before work begins to the Project Engineer, placed in the project file, and made available to the CDOT Resident Engineer.

The tester shall be experienced and competent in aspects of highway construction testing within the scope of this project. The tester shall sample, test, inspect, and document materials incorporated into the project. This includes: materials delivered to the project that are listed in the Summary of Approximate

## 23500 – SH 139 Douglas Pass North and South RR - CM SCOPE OF WORK

---

Quantities in accordance with the SCHEDULE in the CDOT Field Materials Manual, materials that may be added to the project through contract modification, and altered material quantities whether increased or decreased. The tester shall review project quantities on a regular basis to verify that sufficient tests have been performed for the material placed to date. The tester shall also provide other services as requested by CDOT and/or the Consultant Project Engineer.

Testing of materials that are specifically designated to be pre-inspected or pre-tested by this or other Departments of Transportation shall remain the responsibility of CDOT. The tester shall document and ship samples of materials to the CDOT Central Laboratory that are required to be tested by CDOT regardless of pre-inspection or pre-testing responsibilities. The items and test frequencies of CDOT-tested materials shall be in accordance with the column titled "Central Laboratory" in the SCHEDULE. Test results, sample submittals, and inspection documentation transmitted to CDOT's Region or Central Laboratory shall be recorded on appropriate CDOT Forms. The Consultant may use CDOT worksheets or worksheets recommended by the CDOT Resident Engineer. CDOT Forms and worksheets are available through the Region Materials Engineering/Physical Technician at no cost to the Consultant.

The tester shall furnish the Project Engineer with the original copies of worksheets on a daily basis. The tester shall also keep the CDOT Form 626 up to date and provide copies of this form to the Project Engineer by the end of the shift for material found to be non-specification. At the discretion of the Project Engineer, the tester may be required to provide the Form 626 to the Contractor prior to the end of the shift for material found to be non-compliant with the specification.

The tester shall also perform inspection duties when not performing testing duties. Contractor activities to be inspected will be assigned by CDOT and/or the Consultant Project Engineer as necessary. The tester/inspector shall have relevant construction inspection experience on at least one recent CDOT project.

Proposed work procedures shall be coordinated with CDOT and/or the Consultant Project Engineer prior to the start of work. Other services may be requested in writing by the CDOT Resident Engineer. Test results shall be documented by the tester and reviewed by the Project Engineer. The tester shall be responsible for materials sampling, testing, and documentation.

The tester shall:

1. Be fully competent in the use of CDOT's LIMS Software.
2. Have a minimum of one year experience in each specialty field (soils, aggregates, asphalt paving, concrete, etc.) that requires testing.
3. Be certified by the American Concrete Institute (ACI) if testing concrete.
4. Be certified Level A/B by the Colorado Asphalt Technician Certification Program (LabCAT) if testing HMA.
5. Be certified through the WAQTC Qualification Program if testing soils and aggregates.
6. Be certified through the CDOT Material Technician Certification

Copies of Certifications shall be provided to the Project Engineer prior to the start of work on the project. References of testing experience shall be available for testers, and may be requested during the contract.

**Personnel Qualifications**

1. Personnel qualifications and staffing levels for the project shall be subject to the approval of the Resident Engineer.
2. The materials tester consultant should have at least one-year of materials testing experience and have the appropriate certifications as described in the “Work Description” section above.
3. The Consultants shall be thoroughly familiar with CDOT forms and documentation requirements.
4. Personnel provided by the consultant who do not meet the specified requirements, or who fail to perform their work in an acceptable manner, shall be removed from the project when determined and directed by the Resident Engineer.

**23500 – SH 139 Douglas Pass North and South RR - CM SCOPE OF WORK**

**CONSTRUCTION MANAGEMENT REQUIREMENTS  
CHECKLIST**

The following checklist shall be used to establish the Construction Management responsibilities of the individual parties for this project.

The checklist shall be prepared by placing an “✓” under the responsible party opposite each of the tasks listed below.

When a task does not apply to the project, not-applicable “NA” shall be placed under both parties.

Tasks that will be performed by CDOT Headquarters staff will be so indicated.

The Region in accordance with established policies and procedures shall determine who will perform all other tasks that are the responsibility of CDOT.

DESCRIPTION OF TASK	CONSULTANT	CDOT
1. Conduct the Pre-Bid conference, answer questions, and maintain a log of all decisions given and/or made.	✓	✓
2. Show project work site to prospective bidders, answer all questions regarding plans and specifications, and maintain a log of decisions given and/or made.	✓	✓
3. Coordinate all construction contract activities with appropriate stakeholders.		✓
4. Distribute <u>ten</u> award sets of plans and specifications to the CDOT Resident Engineer.		✓
5. Issue Notice to Proceed to the Contractor.		✓
6. Schedule, conduct and prepare minutes of project meetings as follows:		
a. Job Showing	✓	✓
b. Pre-construction Conference	✓	✓
c. Partnering Workshop	✓	✓
d. Weekly Project Meetings	✓	✓
e. Pre-Survey Conference (if required):		
(1) Construction Staking	✓	✓
(2) Survey Documentation	✓	✓
f. Bridge Construction Communications	✓	✓
g. Structural Concrete Pre-pour Conference	✓	✓
h. Concrete Pavement Preparing Conference	N/A	N/A
i. HBP Preparing Conference	✓	✓
j. Contractor Weekly Safety “Tool Box” Meeting	✓	✓
DESCRIPTION OF TASK	CONSULTANT	CDOT
8. Public Relations:		
a. Prepare and coordinate with CDOT and others to publish and distribute public notices of planned construction activities and schedules to the media, property owners, local residents, tenants, and other appropriate stakeholders affected by the project.	✓	✓
b. Perform public relation tasks with appropriate individuals as requested by CDOT.	✓	✓

**23500 – SH 139 Douglas Pass North and South RR - CM SCOPE OF WORK**

c. Explain construction and work with adjacent property owners to resolve issues that arise during construction.	✓	✓
a. CDOT Form # 205 - Sublet Permit Application after Form #713 has been checked by the Region EEO Administrative Program Specialist.	✓	✓
b. Method of Handling Traffic	✓	✓
c. Progress Schedules	✓	✓
d. Method Statements	✓	✓
e. Shop drawings per 105.02	✓	✓
f. Working drawings per 105.02	✓	✓
g. Other submittals per 105.02	✓	✓
h. EEO, Labor compliance requirements	✓	✓
i. Other submittals as directed	✓	✓
10. Construction inspection including calculations, measurements, and documentation of interim and final pay quantities as directed by the Project Engineer.	✓	✓
11. Perform required EEO/AA/DBE/OJT or labor compliance tasks as requested as follows:		
a. Conduct Contractor/Subcontractor reviews to verify conformance with the Equal Employment Opportunity (EEO)/Affirmative Action (AA)/DBE/OJT requirements contained in the contract. (Standard Special Provisions, Project Special Provisions and FHWA Form 1273.)		✓

DESCRIPTION OF TASK	CONSULTANT	CDOT
b. Complete and submit to the CDOT Resident Engineer, the required number of CDOT Form 280 - Equal Employment Opportunity and Labor Compliance Verification.	✓	✓
c. Monitor DBE participation to verify compliance with the “commercially useful function” requirements.	✓	✓
d. Complete and submit to the CDOT Region EEO Administrative Program Specialist, the applicable number CDOT Form #200 - OJT Training Questionnaire, when project utilizes OJT’s.	✓	✓
e. Check certified payrolls to verify contractor/subcontractor compliance with contract requirements. Project personnel trained in payroll checking shall complete the checking. (Contact the Region EEO Administrative Program Specialist for training requirements.)	✓	✓
f. Coordinate submittals by Contractor and subcontractors of FHWA Form 1391 (Highway Construction Contractor’s Annual EEO Report) to the CDOT Region EEO Administrative Program Specialist.	✓	✓

**23500 – SH 139 Douglas Pass North and South RR - CM SCOPE OF WORK**

12. Materials:		
a. CDOT Form # 250 - Materials Documentation Record:		✓
(1) Fill out and distribute CDOT Form # 250 before the Contractor commences work.		✓
(2) Complete Form # 250 after work is completed; distribute per instructions in CDOT Materials Manual.	✓	✓
b. Approve changes to the Typical Section (requires a CMO).		✓
c. Development, checking and design mix approvals:	✓	✓
(1) Concrete	✓	✓
(2) Hot Bituminous Pavement	✓	✓
d. Acceptance of manufactured products	✓	✓
e. Inspecting fabrication of structural steel and pre-cast concrete structural components.	✓	✓
f. Inspecting fabrication of bearing devices	✓	✓
g. Laboratory check testing.	✓	✓
<b>DESCRIPTION OF TASK</b>	<b>CONSULTANT</b>	<b>CDOT</b>
h. Acceptance testing.	✓	✓
i. Independent assurance testing - develop, complete and distribute CDOT Form # 379 - Project Independent Assurance Sampling Schedule.		✓
j. Approve sources of materials.	✓	✓
13. Maintain time counts	✓	✓
14. Maintain project files for documentation; provide duplicate documentation to CDOT Resident Engineer when requested.	✓	✓
15. Obtain, accept, and approve required material certifications.	✓	✓
16. Approve shop drawings	✓	✓
17. Perform Traffic Control Inspections	✓	✓
18. Approve traffic signal equipment		
19. Construction surveying - quality control checking and quantity verification as needed.	✓	✓
20. ROW Monumentation - quality control checking	N/A	N/A
21. Prepare monthly estimates of the Contractor's work performed, materials placed or stockpiled materials on hand in accordance with the Contract. <i>Note: Only a CDOT Resident Engineer can approve and sign vouchers for interim and final Contractor pay estimates.</i>	✓	✓
22. Review interim and final billings for Utility relocation work. <i>Note: Only a CDOT Resident Engineer can approve and sign vouchers for interim and final Utility Company billings.</i>		✓
23. Prepare CDOT Form # 90 [Contract Modification Order (CMO)] and/or # 90 [Minor Contract Revision (MCR)] including letter of explanation for CMO/MCR <i>Note: The Consultant may negotiate costs for extra work but only CDOT can approve costs. Only the CDOT Resident</i>	✓	✓

**23500 – SH 139 Douglas Pass North and South RR - CM SCOPE OF WORK**

<i>Engineer can approve and sign CMO/MCR's for modifying CDOT's Contract or paying the Contractor.</i>		
24. Monitor project financial status and submit monthly in a format acceptable to the Region, such as CDOT Form # 65a - Project Financial Status Report.	✓	✓

DESCRIPTION OF TASK	CONSULTANT	CDOT
25. Prepare and submit monthly progress reports to the Region Program Engineer: CDOT Form # 110a - Status of Active Construction Projects and CDOT Form # 517a - Status of Construction Project Finals	✓	
26. Prepare appropriate responses to Contractor, subcontractor or supplier requests for information, submittals, disputes, claims, change notices, or other correspondence.	✓	✓
27. Prepare response for Project Engineer status of claim & Claim Status Report Form	✓	✓
28. Prepare complete claim record	✓	✓
29. Give oral or written presentation to Region Director for claims.	✓	✓
30. Give presentation for Claim Review Board or AAA Arbitration board.	✓	✓
31. Conduct routine, random, project reviews to verify the project is being administered in accordance with the terms of the construction contract.	✓	✓
32. Conduct final project inspection of completed or unacceptable work and prepare punch list for final acceptance.	✓	✓
33. Prepare and submit CDOT Form # 1212a - Final Acceptance Report		✓
34. Prepare final project acceptance letter and distribute per procedures in the CDOT Construction Manual.	✓	✓
35. Advertise for final settlement.		✓
36. Maintain accurate as constructed notes and prepare and distribute final as-constructed plans per procedures in the CDOT Construction Manual.	✓	✓
37. Check final quantities, final plans, and prepare the final pay estimate. <i>Note: Only CDOT can sign final pay estimate sheets and voucher.</i>	✓	✓
38. Check material records.	✓	✓
39. Submit final materials certifications	✓	



**23500 – SH 139 Douglas Pass North and South RR - CM SCOPE OF WORK**

DESCRIPTION OF TASK	CONSULTANT	CDOT
40. Obtain and review CDOT Form # 17 - Contractor DBE Payment Certification from the Contractor and submit to the Region.	✓	✓
41. Obtain and review FHWA Form PR 47 (Statement of Materials and Labor Used) from the Contractor, check and submit to the Region.	✓	✓
42. Complete and submit CDOT Form # 950 for project closure.		✓
43. Submit original of project records to the CDOT Resident Engineer. (CDOT will retain project records for six years from the date of project closure.)	✓	✓