

**NON-PROJECT / NON-TASK SPECIFIC CURB RAMP GENERAL ENGINEERING
SCOPE OF WORK –**

Colorado Department of Transportation Region 1

Contract Administration:

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Day to Day Project Administration:

To be determined based the scope and location of individual task orders.

General administration of this contract will be delegated to the respective Resident Engineer involved with this consultant selection process. Active day to day administration and monitoring of contract task orders will be delegated to the Region Resident Engineers responsible for the work described within each task order. Some of these services must be provided under the direct supervision of a Colorado-licensed Professional Engineer (PE) or Professional Land Surveyor (PLS).

Background

In keeping with our goal of providing mobility and accessibility to all users of the transportation system, CDOT's Executive Management Team (EMT) has expressed a strong desire to aggressively increase ADA accessibility and move forward with a strategic and programmatic approach to achieving full compliance. The EMTs intent is to bring CDOT into full compliance with the ADA curb ramp requirements within five years.

A key element of this initiative is the adoption of the Public Right-of-Way Accessibility Guideline (PROWAG). PROWAG is the state of the art in accessibility for transportation facilities, unlike previous standards which were more oriented towards buildings. CDOT is working to update CDOT standards and specifications utilizing PROWAG for best practices and guidance. Once we have revised our standard plans and specifications, the adoption of PROWAG will provide criteria that are better suited to the transportation environment while also providing better accessibility to the disabled community.

Scope

This contract will provide General Engineering support for projects to implement the Region 1 ADA Curb Ramp Transition Plan including survey, right-of-way, utilities, and environmental services as well as preliminary and final design and construction engineering support for the development of plans, specifications, and cost estimates for ADA curb ramp projects throughout the region. These may include standalone curb ramp projects as well as individual ramp plans to be inserted into other project plan sets.

Type of work may include all or parts of the following activities:

- A. **General Engineering Services** -The scope for general engineering services may include but shall not necessarily be limited to:

- a. Provide conceptual drawings, graphs, data collection, or charts for the Region's planning, environmental, or other units as needed.
- b. Conduct or update studies for curb ramp compliance, transportation, environmental, NEPA etc.
- c. Provide support for region planning activities, including prioritizing/scheduling which curb ramps get upgrade when, including assistance with public meetings and/or public information including handouts, website support or development, and public meeting presentations.
- d. Provide drafting support or CADD services. All CADD work for CDOT will be conducted using Bentley products including Microstation, Inroads Software, and ProjectWise latest versions used by CDOT.
- e. Provide support research or search county, state or other areas for records or documents relevant to the project or task. This includes right of way documentation.
- f. Provide scoping services.
- g. Provide scheduling in MS Project or other scheduling software as requested.
- h. Provide funding guidance and or support including grant applications.
- i. Prepare, provide support, coordinate Innovative Contracting documents or supporting information.
- j. Provide Program Management support and/or financial planning as requested.
- k. Provide support, preparation, or guidance for Grant Applications including economic analysis.
- l. Write, review, and/or provide guidance or expertise related to manual preparation or guidance documents.
- m. Provide/prepare training, advice, or guidance as requested.
- n. Provide or acquire design services as required to complete tasks not specifically defined in the outline, but that may be required by specific task order.
- o. Provide Independent Cost Estimates
- p. Provide Constructability Reviews

B. **Roadway Design Activities** -The scope of work for roadway design activities may include:

- a. Provide design services including quantity calculations for the various components of roadway construction, which could include curb ramps, pedestrian movements, and relocation of utilities, traffic signals, and pedestrian signals.
- b. Conduct plan, specification, and cost estimate checking and/or quality control.
- c. Furnish detailing and drafting services utilizing MicroStation and Inroads Software, latest CDOT adopted versions utilizing CDOT format. Other software products required for design services and communication of information are Microsoft Office products such as Word, Excel, Power Point. In addition Project Wise. Sharepoint, or FTP sites may be required for file sharing. Other formats or software products may be required for specific tasks such as traffic modeling or truck turning movements.
- d. Attend and/or conduct meetings as needed such as scoping reviews, design office reviews, field inspection reviews, and final office reviews and provide minutes as appropriate.
- e. Prepare (PS&E Package) final plans, specifications and provide the CDOT project manager with detailed estimates that can be entered into CDOT Transport application system at any point in the project.
- f. Prepare revisions under-advertisement to plans or specifications when necessary.

- C. **Hydrology Activities** -The scope of work for the hydrology activities may include:
- a. Collect historical drainage data.
 - b. Establish drainage basin data.
 - c. Select run-off parameters and predict peak flow.
- D. **Hydraulics Design Activities** -The scope of work for hydraulics design activities may include:
- a. Furnish the size and location of drainage structures.
 - b. Furnish storm sewer design.
 - c. Furnish erosion protection design and NPDES requirements.
 - d. Furnish design and quantity calculations for drainage structures including irrigation and permanent BMP's for surface drainage.
 - e. Design of water and waste water systems.
 - f. Irrigation system designs including, but not limited to, typical ditches, traveling gun irrigation systems and other center pivot systems.
 - g. Design, advise, or plan for MS4 compliant facilities and calculations and/or plan preparation as needed.
 - h. FEMA Flood Mapping Revisions and Amendments
- E. **Traffic Engineering Activities** -The scope of work for traffic engineering activities may include:
- a. Perform in-field inventories of traffic control device locations and conditions (existing and what is needed to be fully in compliance with ADA requirements).
 - b. Furnish design and quantity calculations necessary to prepare signal, signing or pavement marking plans.
 - c. Furnish detailing and drafting services.
 - d. Attend meetings such as field inspection and final office review or others as requested.
 - e. Prepare construction signing plans and schedules.
 - f. Prepare final plans and specifications.
- F. **Landscape Architectural Activities** -The scope of work for landscape architectural activities may include:
- a. Coordinate all special permits that may be required.
 - b. Coordinate ROW requirements.
 - c. Prepare Storm Water Management Plan (SWMP) Sheets with BMP locations and quantity calculations for each phase of construction.
- G. **Materials and Geotechnical Services for Design** -The scope of work for design services may include:
- a. Material Design for constructing curb ramps and associated intersection items including: Signal poles (traffic and pedestrian)
- H. **Environmental Services** -The scope of work for environmental services may include:
- a. Review environmental conditions, determine required permits.

- b. Prepare and/or review environmental documents for CDOT projects.
 - c. Conduct and prepare environmental surveys and clearance reports.
- I. **Utility Services** -The scope of work for Utility Services may include:
- a. Survey/Research existing utilities.
 - b. Map existing and relocated utilities
 - c. Assist or facilitate utility agreements
 - d. Coordinate and discuss utility impacts with utility companies
 - e. Prepare exhibits or other support as needed for utilities
- J.. **Right of Way/Surveying** - Surveying activities, conforming to the latest version of the CDOT Survey manual, may include:
- a. Obtain Right of Entry if needed
 - b. Perform surveys related to the horizontal and vertical alignment of the project.
 - c. Perform GPS control survey.
 - d. Perform topographical surveys.
 - e. Perform cross section surveys.
 - f. Perform utility surveys (includes potholing).
 - g. Perform wetland survey.
 - h. Prepare project control diagram.
 - i. Perform LIDAR surveys.
 - j. Photogrammetric Mapping
- K. **Right-of-Way Plan Preparation** -Right-of-way plan preparation, conforming to the latest version of the CDOT Right-of-Way Manual, may include:
- a. Retrieve ownership/Title commitments as needed
 - b. Determine parcels.
 - c. Write parcel legal descriptions.
 - d. Determine parcel size.
 - e. Prepare R.O.W. plan tabulation sheet.
 - f. Prepare R.O.W. plan sheets.
 - g. Prepare monument tabulation sheets.
 - h. Prepare land survey control diagram.
 - i. Prepare total ownership maps.
- L. **Construction Management** – The consultant services may include supporting CDOT project staff with management of CDOT construction projects. The Consultant will not perform Construction Management on their own design without prior CDOT approval.
- K. **Other Services** - As requested by the Regions and specified in the task orders other services not specified above may be requested on an as needed basis. The scope of work for these services will include the details of the needs.

Timeframe and Deliverables

Timeframes and deliverables will be determined on a task by task basis at the time each task order

is developed under this contract.