

PUBLIC CONTRACT FOR SERVICES

THIS PUBLIC CONTRACT FOR SERVICES (the “Contract”) is made and entered into this _____ day of _____, **2026**, by and between the **BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF DOUGLAS, STATE OF COLORADO** (the “County”), and **THEOREM DESIGN GROUP, INC.**, a **S. CORPORATION** authorized to do business in Colorado (the “Consultant”).

RECITALS

WHEREAS, the County is undertaking certain activities for preliminary (50%) design services to improve safety and access along CDOT’s State Highway 83 (SH 83) at Prairie Canyon Ranch, including adding turn lanes, widened shoulders, drainage and slope corrections, and related features in anticipation of increased future traffic from the public’s use of this County property; and

WHEREAS, the County desires to engage the Consultant to render certain professional services and assistance in connection with such undertakings of the County; and

WHEREAS, the Consultant has the ability to assist the County through its professional expertise, knowledge, and experience and is ready, willing and able to provide such services, subject to the conditions hereinafter set forth.

NOW, THEREFORE, for and in consideration of the premises and other good and valuable consideration, the parties agree as follows:

1. LINE OF AUTHORITY: Brolin Bundy, (the “Authorized Representative”), is designated as Authorized Representative of the County for the purpose of administering, coordinating and approving the work performed by the Consultant under this Contract.

2. SCOPE OF SERVICES: All services described in Exhibit A, attached hereto and incorporated herein, shall be performed by Consultant.

The County may, from time to time, request changes to the scope of services to be performed hereunder. Such changes, including any increase or decrease in the amount of the Consultant’s compensation, which are mutually agreed upon between the County and Consultant, shall be in writing and shall become part of this Contract upon execution.

The Consultant agrees to diligently and professionally perform all the services described herein in a manner satisfactory to the Authorized Representative. It is also understood and agreed that the Consultant shall not, in performing services hereunder, undertake any action or activity prohibited by the terms of any lease, permit, license or other agreement in effect during the term hereof between the Consultant and the County for the use and occupancy by the Consultant of any County facilities or space.

3. COMPENSATION: Subject to the maximum contract liability and all other provisions of this Contract, the County agrees to pay to the Consultant, and the Consultant agrees

to accept payment as described in Exhibit B, attached hereto and incorporated herein, during the term hereof, in accordance with the terms set forth herein.

4. MAXIMUM CONTRACT EXPENDITURE: Any other provision of this Contract notwithstanding and pursuant to Section 29-1-110, C.R.S., the amount of funds appropriated for this Contract is four hundred and fifty thousand dollars and no cents (**\$450,00.00**) for fiscal year **2026**. In no event shall the County be liable for payment under this Contract for any amount in excess thereof. The County is not under obligation to make any future apportionment or allocation to this Contract nor is anything set forth herein a limitation of liability for Consultant. Any potential expenditure for this Contract outside the current fiscal year is subject to future annual appropriation of funds for any such proposed expenditure.

5. TERM: It is mutually agreed by the parties that the term of this Contract shall commence as of 12:01 a.m. on **March 31, 2026**, and terminate at 12:00 a.m. on **March 1, 2027**. This Contract and/or any extension of its original term shall be contingent upon annual funding being appropriated, budgeted and otherwise made available for such purposes and subject to the County's satisfaction with all products and services received during the preceding term.

6. INVOICING PROCEDURES: Payments shall be made to the Consultant based upon invoices submitted by the Consultant, provided such invoices have been approved by the Authorized Representative. Payments will be made to the Consultant within thirty (30) days, or within a mutually agreed upon period after County has received complete invoices from the Consultant. The County reserves the right to require such additional documentation, including monthly activity reports detailing the Consultant's activities and services rendered, as the County deems appropriate to support the payments to the Consultant. The signature of an officer of the Consultant shall appear on all invoices certifying that the invoice has been examined and found to be correct.

7. CONFLICT OF INTEREST: The Consultant agrees that no official, officer or employee of the County shall have any personal or beneficial interest whatsoever in the services or property described herein, and the Consultant further agrees not to hire, pay, or contract for services of any official, officer or employee of the County. A conflict of interest shall include transactions, activities or conduct that would affect the judgment, actions or work of the Consultant by placing the Consultant's own interests, or the interest of any party with whom the Consultant has a contractual arrangement, in conflict with those of County.

8a. INDEMNIFICATION-GENERAL: The County cannot and by this Contract does not agree to indemnify, hold harmless, exonerate or assume the defense of the Consultant or any other person or entity whatsoever, for any purpose whatsoever. Provided that the claims, demands, suits, actions or proceedings of any kind are not the result of professional negligence, the Consultant shall defend, indemnify and hold harmless the County, its commissioners, officials, officers, directors, agents and employees from any and all claims, demands, suits, actions or proceedings of any kind or nature whatsoever, including Workers' Compensation claims, in any way resulting from or arising from the services rendered under this Contract; provided, however, that the Consultant need not indemnify or save harmless the County, its officers, agents and employees from damages resulting from the sole negligence of the County's commissioners, officials, officers, directors, agents and employees. Further, this indemnification

is intended to comply with and be subject to C.R.S. 13-50.5-102 (8), as amended from time to time.

8b. INDEMNIFICATION FOR PROFESSIONAL NEGLIGENCE: The Consultant shall indemnify and hold harmless the County and any of its commissioners, officials, officers, directors, agents and employees from and against damages, liability, losses, costs and expenses, including reasonable attorney's fees, but only to the extent caused by the negligent acts, errors or omissions of the Consultant, its employees, agents or subcontractors, or others for whom the Consultant is legally liable, in the performance of professional services under this Contract. The Consultant is not obligated under this sub-section 8b to indemnify the County for the negligent acts of the County or any of its commissioners, officials, officers, directors, agents and employees.

9. INDEPENDENT CONTRACTOR: The Consultant is an independent contractor and is free to perform services for other clients. Notwithstanding any provision of this Contract, all personnel assigned by the Consultant to perform work under this Contract shall be and remain at all times, employees of the Consultant for all purposes. **THE INDEPENDENT CONTRACTOR IS NOT ENTITLED TO WORKERS' COMPENSATION OR UNEMPLOYMENT BENEFITS THROUGH THE COUNTY AND IS OBLIGATED TO PAY FEDERAL AND STATE INCOME TAX ON ANY MONIES EARNED PURSUANT TO THE CONTRACT RELATIONSHIP.**

10. NO WAIVER OF GOVERNMENTAL IMMUNITY ACT: The parties hereto understand and agree that the County, its commissioners, officials, officers, directors, agents and employees, are relying on, and do not waive or intend to waive by any provisions of this Contract, the monetary limitations or any other rights, immunities and protections provided by the Colorado Governmental Immunity Act, §§ 24-10-101 to 120, C.R.S., or otherwise available to the County.

11. ASSIGNMENT: The Consultant covenants and agrees that it will not assign or transfer its rights hereunder, or subcontract any work hereunder, either in whole or in part without the prior written approval of the Authorized Representative. Any attempt by the Consultant to assign or transfer its rights hereunder shall, at the option of the Authorized Representative, void the assignment or automatically terminate this Contract and all rights of the Consultant hereunder.

12. COUNTY REVIEW OF RECORDS: The Consultant agrees that, upon request of the Authorized Representative, at any time during the term of this Contract, or three (3) years thereafter, it will make full disclosure to the County and make available for inspection and audit upon request by the Authorized Representative, the County Director of Finance, or any of their authorized representatives, all of its records associated with work performed under this Contract for the purpose of making an audit, examination or excerpts. The Consultant shall maintain such records until the expiration of three (3) years following the end of the term of this Contract.

13. OWNERSHIP OF DOCUMENTS: Drawings, specifications, guidelines and any other documents prepared by the Consultant in connection with this Contract shall be the property of the County.

14. ASSIGNMENT OF COPYRIGHTS: The Consultant assigns to the County the copyrights to all works prepared, developed, or created pursuant to this Contract, including the right to: 1) reproduce the work; 2) prepare derivative works; 3) distribute copies to the public by sale, rental, lease, or lending; 4) perform the works publicly; and 5) to display the work publicly. The Consultant waives its rights to claim authorship of the works, to prevent its name from being used wrongly in connection with the works, and to prevent distortion of the works.

15. TERMINATION: The County shall have the right to terminate this Contract, with or without cause, by giving written notice to the Consultant of such termination and specifying the effective date thereof, which notice shall be given at least ten (10) days before the effective date of such termination. In such event, all finished or unfinished documents, data, studies and reports prepared by the Consultant pursuant to this Contract shall become the County's property. The Consultant shall be entitled to receive compensation in accordance with this Contract for any satisfactory work completed pursuant to the terms of this Contract prior to the date of notice of termination. Notwithstanding the above, the Consultant shall not be relieved of liability to the County for damages sustained by the County by virtue of any breach of the Contract by the Consultant.

16. NOTICES: Notices concerning termination of this Contract, notices of alleged or actual violations of the terms or provisions of this Contract, and all other notices shall be made as follows:

by the Consultant to: Brolin Bundy, Project Manager
Douglas County Department of Public Works
100 Third Street, Suite 220
Castle Rock, CO 80104
(303) 660-7490

with a copy to: E-mail: bbundy@douglas.co.us

Douglas County Attorney's Office
100 Third Street
Castle Rock, CO 80104
(303) 660-7414
E-mail: attorney@douglas.co.us

and by the County to: Theorem Design Group, Inc.
655 S Newport Street
Denver, CO 80224
Attn: Caroline Draper, PE
Phone: (720) 762-0989
E-mail:
caroline.draper@theoremdesigngroup.com

Said notices shall be delivered personally during normal business hours to the appropriate office above, or by prepaid first-class U.S. mail, via facsimile, or other method authorized in writing by the Authorized Representative. Mailed notices shall be deemed effective upon receipt or three

(3) days after the date of mailing, whichever is earlier. The parties may from time to time designate substitute addresses or persons where and to whom such notices are to be mailed or delivered, but such substitutions shall not be effective until actual receipt of written notification.

17. NONDISCRIMINATION: In connection with the performance of work under this Contract, the Consultant agrees not to refuse to hire, discharge, promote or demote, or to discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, marital status, or physical or mental disability.

18. GOVERNING LAW; VENUE: This Contract shall be deemed to have been made in and construed in accordance with the laws of the State of Colorado. Venue for any action hereunder shall be in the District Court, County of Douglas, State of Colorado. The Consultant expressly waives the right to bring any action in or to remove any action to any other jurisdiction, whether state or federal.

19. COMPLIANCE WITH ALL LAWS AND REGULATIONS: All of the work performed under this Contract by the Consultant shall comply with all applicable laws, rules, regulations and codes of the United States and the State of Colorado. The Consultant shall also comply with all applicable ordinances, regulations, and resolutions of the County and shall commit no trespass on any public or private property in the performance of any of the work embraced by this Contract.

20. SEVERABILITY: In the event any of the provisions of this Contract are held to be unenforceable or invalid by any court of competent jurisdiction, the validity of the remaining provisions shall not be affected. Should either party fail to enforce a specific term of this Contract it shall not be a waiver of a subsequent right of enforcement, nor shall it be deemed a modification or alteration of the terms and conditions contained herein.

21. NO THIRD-PARTY BENEFICIARIES: The enforcement of the terms and conditions of this Contract and all rights of action relating to such enforcement, shall be strictly reserved to the County and the Consultant, and nothing contained in this Contract shall give or allow any such claim or right of action by any other or third person under such Contract.

22. ADVERTISING AND PUBLIC DISCLOSURE: The Consultant shall not include any reference to this Contract or services performed pursuant to this Contract in any of Consultant's advertising or public relations materials without first obtaining the written approval of the Douglas County Public Affairs Director. Nothing herein, however, shall preclude the transmittal of any information to officials of the County, including without limitation, the County Manager, Assistant County Manager, and the Board of County Commissioners. Notwithstanding the foregoing, upon completion of the project, Consultant shall have the right to accurately represent their role, contractual relationship, and work performed under this Contract in client proposals for the purposes of establishing work experience.

23. PRIORITY OF PROVISIONS: In the event that any terms of this Contract and any Exhibit, attachment, or other referenced document are inconsistent, the following order of priority shall control:

- 1st This Contract, Sections 1 through 28
- 2nd Request for Proposal (if applicable)
- 3rd Exhibit C- Insurance Requirements
- 4th Exhibit A- Scope of Services
- 5th Exhibit B- Method of Payment
- 6th Response to Request for Proposal (if applicable).

24. HEADINGS; RECITALS: The headings contained in this Contract are for reference purposes only and shall not in any way affect the meaning or interpretation of this Contract. The Recitals to this Contract are incorporated herein.

25. ENTIRE AGREEMENT: The parties acknowledge and agree that the provisions contained herein constitute the entire agreement and that all representations made by any commissioner, official, officer, director, agent or employee of the respective parties unless included herein are null and void and of no effect. No alterations, amendments, changes or modifications to this Contract, except those which are expressly reserved herein to the Authorized Representative, shall be valid unless they are contained in writing and executed by all the parties with the same formality as this Contract.

26. INSURANCE: The Consultant shall be required to maintain the insurance requirements provided in Exhibit C, attached hereto and incorporated herein by reference. The Consultant shall provide evidence that such requirements have been met and shall provide updated information to the County in the event any changes are made to the Consultant's insurance coverage during the term of this Contract.

27. COUNTY EXECUTION OF AGREEMENT: This Contract is expressly subject to, and shall not be or become effective or binding on the County, until execution by all signatories of the County.

28. FORCE MAJEURE: No party shall be liable for failure to perform hereunder if such failure is the result of *force majeure*. Any time limit shall be extended for the period of any delay resulting from any *force majeure*, or this Contract may be terminated if such delay makes performance of the Contract impossible or impracticable. *Force majeure* shall mean causes beyond the reasonable control of a party against which it would have been unreasonable for the affected party to take precautions and which the affected party cannot avoid even by using its best efforts, such as, but not limited to, natural disasters of overwhelming proportions, exceptional adverse weather conditions, acts of God, acts of war, strikes, work stoppages, fire or other catastrophic casualty or action of non-party government authorities.

Remainder of page left blank (signature pages to follow)

IN WITNESS WHEREOF, the County and the Consultant have executed this Contract as of the above date.

THEOREM DESIGN GROUP, INC.

BY: Caroline Draper

Printed Name: Caroline Draper

Title: Principal

ATTEST: Matthew Alan Gilbert

Printed Name: Matt Gilbert

Title: _ Principal

DATE: 02/11/2026

Signature of Notary Public Required:

STATE OF Florida)

)

ss.

COUNTY OF BROWARD)

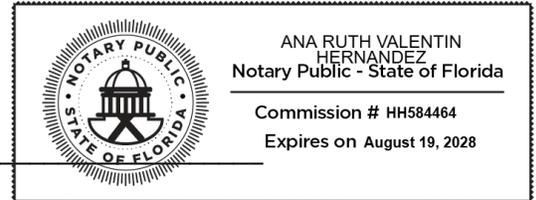
)

The foregoing instrument was acknowledged before me this 11th day of February, 2026, by Caroline Draper & Matthew Alan Gilbert

Witness my hand and official seal

Ana R. Valentin Hernandez

Notary Public



My commission expires: 08/19/2028

Notarized remotely online using communication technology via Proof.

Remainder of page left blank (Douglas County Signature page to follow)

Exhibit A

Client: Douglas County
Date: September 30, 2025

PHASE I - SH 83: PRAIRIE CANYON RANCH

PROJECT OVERVIEW

Parker Rd (SH 83) connects the Town of Parker to Colorado Springs. As development continues in the region, SH 83 traffic grows as well, especially as it serves as a relief route to I-25 during congestion. This section includes the access to Prairie Canyon Ranch and is two lanes with small shoulders and drainage ditches on both sides. Prairie Canyon Ranch is being opened to the public as an Open Space and the amount of traffic turning into the access is anticipated to increase.

This project will improve safety by adding turn lanes, accelerations/deceleration lanes, widened shoulders, roadway side slope corrections, culverts, detention ponds, and guardrails as needed.

This scope of work covers design services through the 50% milestone. We are assuming one initial review meeting at the 50% design submittal, which we have assumed is a formal review meeting for conservative scoping purposes.

Following submittal and review of the 50% design by Douglas County and CDOT, Theorem will submit a revised scope and fee for final design services under a separate amendment to this agreement. This allows incorporation of agency feedback prior to finalizing design for CDOT permitting.

SUBCONSULTANT SCOPE OVERVIEW

The following subconsultants are supporting Theorem on this project. Their detailed scopes are included in the Appendices, but a summary of their roles is provided below for reference:

- **105West** is responsible for topographic survey services. This includes establishing project control, collecting ground and utility surface data, and preparing the base map to support design activities.
- **T2ue** will perform Subsurface Utility Engineering (SUE) and utility coordination services. Their scope includes locating and mapping existing underground utilities, reviewing utility records, and identifying potential conflicts to inform the design.
- **ERO** will provide environmental support for the project, including preparation of the Categorical Exclusion (CatEx) documentation and coordination of all environmental compliance tasks outside of stormwater. ERO will also support permitting and agency coordination as needed.
- **IronStride** will provide traffic engineering services, including signing and striping and MOT plans, and a trip generation memo (including location and storage lengths for turn lanes).

Each subconsultant will coordinate directly with Theorem to integrate their work into the overall design package.

The fee for this proposal is located in Exhibit B. Subconsultant's fees are included in their respective attachments: **Attachment A** (105West), **Attachment B** (T2ue), **Attachment C** (ERO), and **Attachment D** (IronStride).

SECTION I - PROJECT MANAGEMENT TASKS

I.A. PROJECT MEETINGS

Meetings included in Theorem's scope are detailed below:

- Initial Project Kick-Off Meeting: 1.5 hour virtual meeting
- Progress Meeting Attendance and Preparation: 1 Hour for 6 Monthly Meetings

Assumptions:

1. Theorem will be responsible for any agendas, meeting minutes, and action and decision item logs for this project, including but not limited to plan review meetings and the internal team meetings.
2. No public meetings are assumed for this project.
3. No public notices/advertisements/communication aids are assumed for this project.

I.B. PROJECT MANAGEMENT

Theorem shall provide project management services to direct, coordinate, and monitor activities of the Project with respect to budget, schedule, and contractual obligations. This shall include, but is not limited to, the tasks below.

Tasks:

1. General Coordination with Douglas County Management: Assume 1 Hour for 24 Weeks
2. General Coordination with CDOT Management: Assume 1 Hour(s) for 6 Months
3. Review subconsultant invoices; prepare and submit monthly invoices and progress reports
4. Manage and coordinate work efforts with Douglas County's Project Manager and the CDOT permit personnel, and other Project Team members as required

I.C. DEVELOP A PROJECT SCHEDULE AND ASSIGN TASKS

Theorem will help the County develop, maintain, and communicate the Project schedule as needed.

I.D. QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

The full plans and specifications shall be reviewed internally at every milestone prior to providing them to the County/CDOT for their review. Theorem will internally review, coordinate with the designers on any questions, and verify the comments were appropriately addressed once the designers have reviewed and responded to the comments.

Theorem is responsible for quality checks and quality assurance for design deliverables to confirm the design meets applicable standards and codes. The County's role in the review process is to communicate design preferences, answer questions, clarify County positions, commitments, and to confirm the design meets the County's future development and vision.

Time for QC is included under the specific task for each discipline.

SECTION 2 - PRELIMINARY 50% DESIGN TASK DESCRIPTIONS

2.A. VERIFYING WORK BY OTHERS

Theorem will verify all data given to them by their subconsultants, which includes:

- 1) Verify survey data and project control for completeness
- 2) Review SUE information
- 3) Identify if any ROW or easements are necessary. No ROW or easement documentation is included as part of this scope.
- 4) Coordinate with CDOT to match pavement section for this area

2.B. HYDROLOGY/HYDRAULIC ENGINEERING

Theorem will perform the drainage design tasks associated with the project which include the following:

50% Tasks:

- 1) Data Collection and Hydrology
- 2) Establish drainage basin data: delineate and determine land use and time of concentration to develop peak flow rates for each basin.
- 3) Collect historical data.
- 4) Select a design storm frequency based on the established criteria.
- 5) Complete a hydrological analysis using existing studies or approved methods.
- 6) Collaborate with the County, CDOT, and the Cherry Creek Water Quality Board to develop Permanent Water Quality Control Measures (PWQ CMs) alternatives that best meet the project requirements, budgets, environmental considerations, right of way constraints, and maintenance concerns. This will provide a menu of options that can be incorporated into the roadway design to determine the appropriate PWQ CM solution(s).
- 7) Complete PWQ CM alternative analysis.
- 8) Develop preliminary layout of minor drainage structures. This scope assumes the existing culverts under SH 83 are in good enough shape to leave in place and extend as needed to accommodate the roadway widening. If the existing culverts need to be inspected for suitability, additional scope will be required.
- 9) Complete preliminary layout for PWQ CMs. This scope assumes the layout and rough grading plan for two extended detention basins (EDB). Structural details for forebays, trickle channels, outlet structures, and emergency overflows will not be provided until after the 50% design.
- 10) Prepare preliminary construction plans. This includes drainage and grading plans, drainage profiles, and EDB layouts.
- 11) Prepare preliminary Hydraulic Design Report in accordance with the CDOT Drainage Design Manual

Assumptions:

- 1) Internal QA/QC will be performed first by Theorem engineers and then engineers that are not involved with the project an independent check of both the drainage plans and reports.
- 2) There are no FEMA regulated floodplains within the project limits and no floodplain development permits are required for the work associated with the project.

2.C. ENVIRONMENTAL - WATER QUALITY

Theorem will provide SWMP plans for the project. It is assumed the area of disturbance will be over 1 acre. Theorem will perform the following design tasks:

50% Tasks:

- 1) Storm Water Management Plan/Grading, Sediment, and Erosion Control Plans for a site over one-acre of disturbance.
- 2) Prepare preliminary PWQ maps
- 3) Prepare preliminary water quality report as an appendix to the hydraulic design report
- 4) Conduct a PWQ meeting
- 5) Perform internal QA/QC prior to submittal to the county

2.D. ROADWAY DESIGN AND ROADSIDE DEVELOPMENT

Theorem will provide preliminary roadway design services including horizontal and vertical alignments, grading, and 3D modeling to support the 50% plan set. Roadside development will include critical utility crossings, coordination with drainage and SWMP elements, and identification of unique roadside features. Design will adhere to CDOT and Douglas County standards as applicable.

50% Tasks:

- 1) Roadway Design
 - a) Input and check horizontal and vertical alignments against all design criteria
 - b) Provide alignments, toes of slope and pertinent design features
 - c) Generate a 3 dimensional design model and produce preliminary quantities
- 2) Roadside Development (Special items, Staging, Pullouts, etc.)
 - a) Identify conflict locations for utilities with proposed roadway and drainage features. Utility coordination will be managed by T2ue under a separate scope.
 - b) Coordinate the roadside items with the Storm Water Management Plan (SWMP).
- 3) Perform internal QA/QC prior to submittal to CDOT.

2.E. PREPARATION FOR THE 50% REVIEW

Theorem will compile and coordinate the various discipline-specific plan components into a cohesive 50% plan set for submittal. This includes performing internal QA/QC, updating quantities and estimates, and assembling all plan sheets according to CDOT and County formatting. Plan set assumptions are detailed below and will be refined in future design phases. Theorem will maintain a comment resolution matrix to compile and track any revisions requested to the 50% plans and respond accordingly.

Additional details sheets will be added for the final plan submittal.

50% Tasks:

- 1) Coordinate, complete, and compile the plan inputs from other branches
- 2) Prepare/update the preliminary estimated quantities and estimate.
- 3) 50% Plans will include:
 - a) Title Sheet (Assume 1 sheet)
 - b) Standard Plans List (Assume 1 sheet)
 - c) General Notes (Assume 4 sheets)
 - d) Typical Sections (Assume 1 sheet)
 - e) SAQ (Assume 5 sheets)
 - f) Geometric Control (Assume 2 sheets)
 - g) Removals (Assume 2 sheets)
 - h) Roadway Plans & Profiles (Assume 2 sheets)
 - i) Drainage Notes (Assume 1 sheet)
 - j) Drainage Plan Sheets (Assume 2 sheets)
 - k) Drainage Pond Layout Sheets (Assume 2 sheets)
 - l) Profile Sheets (Assume 2 sheets)
 - m) SWMP Narrative (Assume 7 sheets)
 - n) SWMP Maps (Assume 6 sheets)
 - o) Signing & Striping Tabulation (Assume 1 sheet)
 - p) Signing & Striping Plan (Assume 2 sheets)
 - q) MOT Plans (Assume 2 sheets)
 - r) Roadway Cross Sections (Assume 15 sheets)

Sheet counts are approximate and may shift slightly based on field conditions and agency input.
- 4) 50% submittal will also include a Hydraulic Design Report as well as documents specified in ERO's scope for environmental work
- 5) QA/QC Audit of 50% plans

2.G. 50% REVIEW

Theorem will support the County during the formal 50% design review by attending the review meeting, documenting feedback, and tracking design decisions or deviations from standards. Any additional comments received will be tracked in the comment resolution matrix.

50% Tasks:

- 1) Attend the 50% Review Meeting
- 2) Review Meeting Minutes and Comment Tracking form
- 3) Document Design Decisions or Deviations

ASSUMPTIONS AND EXCLUSIONS:

- 1) Theorem will not prepare any IGA's
- 2) No pavement section design will be done under this contract.
- 3) No utility coordination management is included for Theorem in this scope.



4201 E. Yale Ave., STE 230
Denver, CO 80222
Phone 303-859-4491

April 28, 2025

Ms. Caroline Draper, PE
Principal
Theorem Design Group
655 S. Newport St.
Denver, CO 80224

RE: Professional Surveying Services – SH 83-Prairie Canyon Ranch – Topographic Design Survey – Douglas County, Colorado

Dear Caroline,

105 West, Inc., (105 West) appreciates the opportunity to offer our proposal providing professional surveying services for the above-referenced project.

SCOPE OF SERVICES

Task A – Meetings, Mobilization, and Coordination

105 West anticipates attending two (2) project team meeting with Theorem Design Group and Douglas County personnel as required. As part of this task 105 West will develop work plans, mobilize staff, and keep the Consultant Manager updated relative to the survey team's progress or any concerns.

Task B – Permits/Permission to Enter

105 West will apply for the right-of-way permits from the Colorado Department of Transportation perform survey work within the SH 83 public right-of-way. All work will take place within public right-of-way. No permission to enter private property is anticipated at this time.

Task C – Project Control

105 West will establish project control based on the Colorado State Plane (NAD 83) horizontally and NAVD 88 vertically. 105 West anticipates setting semi-permanent control points to be used for surveying purposes. The preparation of a project control diagram, signed and sealed by a Colorado Professional Land Surveyor, is included in this task.

Task D – Topographic Design Survey

105 West will obtain, by field methods, existing, visible planimetric features and topography at a one-foot (1') contour interval. The topographic survey will include the existing edges of pavement, existing edge of traveled surface, centerline, striping, terrain, culverts, and surface utility evidence within the limits of the project as shown in Yellow on the attached Exhibit A. All electronic deliverables will be provided in CDOT OpenRoads format.

Task E – Preliminary Ownership/ROW Map

In order to determine the existing property limits, 105 West will obtain vesting deeds for five (5) parcels within the area shown on the attached Exhibit A. Based on this information, in conjunction with subdivision plats, land surveys, and ROW plans, 105 West will survey the necessary aliquot land corners associated with the adjoining

parcel deeds and prepare a preliminary ownership map showing owner of record, site, address, and Assessor's parcel number based on record information. All electronic deliverables will be provided in CDOT OpenRoads format.

EXCLUSIONS

Underground Utility Paint Mark Survey
Utility Pothole Survey
Geotechnical Borehole Survey
Final ROW Plans and/or Legal Descriptions/Exhibits

FEES

For the professional services described herein, 105 West, Inc., proposes to be compensated on a cost not-to-exceed basis. Please see our fee breakdown spreadsheet dated *April 28, 2025*, for detailed project costs.

SCHEDULE

Upon receipt of our executed contract, we are prepared to commence work immediately. We anticipate completing Tasks A-E within twelve (12) weeks (weather permitting).

Thank you for the opportunity to provide our services to you. Please contact us if you have any questions.

Sincerely,

105 West, Incorporated



Robert C. Maestas, PLS
Director of Surveying and Mapping Services

EXHIBIT A

SH 83 - Prairie Canyon Ranch

Legend

 Survey Limits

Package I - End MP 44.20

83

Package I - Begin MP 43.76

Google Earth

Image Landsat / Copernicus



1000 ft

Subsurface Utility Engineering Scope of Work – Rev 2 State Highway 83 - Prairie Canyon Ranch



SEPTEMBER 22ND, 2025

Caroline Draper, PE

Theorem Design Group
655 S Newport St.
Denver, Colorado 80224
Email: caroline.draper@theoremdesigngroup.com
Office: (720) 762-6384 Direct: (720) 762-0989

RE: SH 83 - Douglas County - Prairie Canyon Ranch

Dear Ms. Draper,

Thank you for the opportunity to propose on this project. Our experience providing subsurface utility engineering for State DOTs, counties, municipalities, and various public works departments will enable us to successfully complete this utility investigation and meet the program and project goals. T2 UES Inc.'s active involvement in the development of 2018 Colorado Revised Statute, Title 9, Article 1.5 underscores our commitment to the SUE industry and the delivery of successful projects. The combination of our resources and experience will provide you with the confidence that T2 UES, Inc. is the right choice to complete the project on time and within budget. For more information, please visit www.T2ue.com.

Our Scope of Services is further detailed in the project understanding section of the proposal. The proposal has been prepared based on email correspondence from Theorem Design Group (Theorem) between the dates of April 16th, 2025 and August 19th, 2025. We have provided you with a lump sum fee to complete the specific items described within the Scope of Services. We respectfully request any comments or questions you may have.

Thank you again for this opportunity. We are committed to giving you the quality and service that you expect from T2 UES, Inc.

Sincerely,

T2 UES, Inc.

A handwritten signature in blue ink, appearing to read 'Cort Darby'.

Cort Darby
Project Manager
150 Capital Drive, Suite 190
Golden, CO 80401
cort.darby@T2ue.com
815.791.2244



Subsurface Utility Engineering Scope of Work – Rev 2 State Highway 83 - Prairie Canyon Ranch

PROJECT UNDERSTANDING

It is understood that Theorem Design Group (Theorem) and Douglas County is looking to complete ASCE 38-22 Subsurface Utility Engineering (SUE) QLD, QLC, QLQ, and QLA investigation along State Highway 83 from milepost 43.76 to milepost 44.20. Initial Utility Coordination is also included. The limits of the SUE investigation can be seen below in Figure 1, depicted in a yellow polygon.

It is understood that Theorem desires to comply with the requirements outlined in Colorado Revised Statutes, Title 9, Article 1.5 (CRS 9-1.5) and perform an ASCE/UESI/CI 38-22: Standard Guideline for Investigating and Documenting Existing Utilities compliant SUE investigation that is signed and sealed by a Professional Engineer. The T2 UES, Inc. team will utilize the ASCE/ UESI/CI 38-22 standard for collecting and depicting the existing utilities and building a high-quality representation of the existing utilities. This process will include an iterative field investigation and drawings that are signed and sealed by a Professional Engineer licensed in the state of Colorado in accordance with all of the requirements outlined in the State Law.



Figure 1: SUE Investigation Project Limits

Subsurface Utility Engineering

Scope of Work – Rev 2

State Highway 83 - Prairie Canyon Ranch



PROJECT APPROACH

T2 UES, Inc.'s general workflow to our approach is outlined below and includes weekly updates for the entire project team:

1. Perform records research.
2. Perform a geophysical investigation (field designating).
3. Perform a survey of utility appurtenances and markings placed by our designators.
4. Complete utility depictions as outlined in the ASCE/UESI/CI 38-22 standard.
5. QA/QC of our investigation's findings based on existing records and our fieldwork.
6. Review the investigation's findings with the design team and project stakeholders.
7. Coordinate and perform QLA test holes.
8. Provide documentation of the completed utility investigation findings – signed and sealed by a licensed engineer.

ASCE/UESI/CI 38-22 provides a nationally recognized standard guideline for the collection and depiction of existing subsurface utility data. The quality level provides a professional opinion of the quality and reliability of the utility information. The four quality levels are as follows:

- **Quality Level D (QLD):** Utility Quality Level D (QLD) information is determined primarily from the review and documentation of existing second-party information, such as utility records, historical project records, permits, verbal accounts, the existence of service, visual indicators, and/or One-Call markings, put into context with any other information the SUE Professional has in their possession during a Utility Investigation.
- **Quality Level C (QLC):** Utility Quality Level C (QLC) information is determined by correlating underground Utility Segments from existing second-party information to observable and measurable visible Utility Features. QLC does not refer to the Utility Feature or portion of the Utility Segment that is visible. It refers to the unobservable portion of the Utility Feature or Utility Segment that connects to visible, typically aboveground or within an accessible vault, surveyed Utility Features.
- **Quality Level B (QLB):** A Utility Quality Level B (QLB) may be assigned to a Utility Segment after the application of appropriate surface geophysical methods to identify the existence and approximate horizontal position of utilities (a Utility's "Designation"), followed by survey and documentation, review of available field and office data, and a final determination of the position for the Utility Segment or Utility Feature on the Deliverables. All aforementioned tasks are performed under the direct responsible charge of the SUE Professional. The largest source of potential error is usually the interpretation of the geophysical findings and results.
- **Quality Level A (QLA):** Quality Level A (QLA) builds on QLB information by confirming the existence, exact locations, and other attributes of subsurface utility through the exposure of the utility using safe excavating practices. QLA data are determined by physically exposing an unobservable utility feature or utility segment (essentially making it observable) and documenting its spatial extent and characteristics with a high degree of accuracy. Conventional accuracies shall be 0.1ft (30mm) vertical and 0.2ft (60 mm) horizontal for the measurements of the outside limits of the utility features or utility segment that is exposed.



Subsurface Utility Engineering

Scope of Work – Rev 2

State Highway 83 - Prairie Canyon Ranch



SCOPE OF WORK

The scope of services identified below provides for a QLA, QLB, QLC, and QLD investigation as well as initial Utility Coordination. T2 UES, Inc. shall conduct, document, stamp, and seal a Subsurface Utility Engineering (SUE) investigation of the project area to document existing utilities within the project limits. T2 UES, Inc. will work on the following tasks:

Utility Records Research

- Submit a Subsurface Utility Engineering ticket to Colorado 811 to aid in the identification of Utility Owners that may have facilities on, or be affected by, the project.
- Request, collect and review applicable utility facility records available through Utility Owner(s), such as one-call notification, service maps, as-built drawings, standard drawings, service plats, construction plans from prior projects, local government or Agency permit exhibit drawings, and oral histories gained through interviews with Utility Owner officials and authorities.
- Compile a list of all utility companies contacted for information. Note information received with contact information for each response and note non-response if applicable.

Field Utility Investigation (Utility Designation)

- Utilize appropriate surface geophysical techniques to determine the approximate horizontal position of utilities within the project area. Once designated (horizontally positioned), verified utilities are marked using appropriate pink paint and flagging which is the standard industry color for temporary survey markings. Utilities type or ownership that cannot be confirmed by the field investigation will be termed “unknown”. T2 UES, Inc. will utilize a suite of equipment including pipe and cable locators (PCL), Ground Penetrating Radar (GPR), magnetometers, and detectable sondes.
- If accessible, structures connected to gravity-fed systems will be opened, and inverts will be measured. Invert information and, where accessible, pipe size/material for the sewers will be collected at manholes/catch-basins from the surface and shown on the drawings accordingly. The alignment of the sewer pipes will be shown on the drawing based on a combination of record information received, results of the invert investigation, surveyed manholes/catch-basins, and professional judgment. If chambers are full of water or confined space entry is required, extra costs will be incurred and will be discussed with the Client in advance.
- T2 UES, Inc. will survey the utility designation marks and utility appurtenances referenced to the project survey controls. The results of this utility investigation and any survey work performed in conjunction with the investigation will be tied to the project datum as specified by the client and existing survey grade control points provided to T2 UES, Inc. for their use if available. In the absence of direction from the client or a control diagram, T2 UES, Inc. will choose a Local Coordinate System based on either local or NAVD88 vertical datum.

QA/QC and Professional Services

- Review the field investigation documents and records collected as a part of records research. Use professional judgment to assign quality levels and horizontal positions to subsurface utilities.
- Consolidate and draft the collected field information in an CAD deliverable.
- SUE Report signed and sealed by a Professional Engineer is not included in this scope but can be completed at an additional out-of-scope cost to the Client.



Subsurface Utility Engineering

Scope of Work – Rev 2

State Highway 83 - Prairie Canyon Ranch



QLB/C/D Utility Investigation Assumptions, Exclusions, and Stipulations

- T2 UES, Inc. will do everything within our control to access all areas of this project; however, some areas may be inaccessible due to unsuitable terrain, limited access, weather conditions, truck limitations, human limitations, safety concerns, etc., and may not be accessible. If any of these instances occur, they will be discussed with the Client and noted accordingly.
- Right-of-entry to private property or access to secured areas is to be coordinated and granted to T2 UES, Inc. by the Client and/or Owner.
- T2 UES, Inc. cannot guarantee we will find all unknown, abandoned, retired, or inactive utilities.
- Individual utility services to homes and buildings will include water, electricity, and natural gas. Telephone, CATV, and Fiber Optic services are excluded.
- Underground storage tanks (USTs), septic fields, traffic loop systems, thrust blocks, cathodic protection systems, drain tiles, irrigation channels, irrigation gates, irrigation valves, irrigation piping, irrigation headwalls, irrigation boxes, and landscape irrigation (both public & private) are excluded.
- Invert information and, where accessible, pipe size/material for the sewers will be collected at manholes/catch-basins from the surface and shown on the drawings accordingly. The alignment of the sewer pipes will be shown on the drawing based on a combination of record information received, results of the invert investigation, surveyed manholes/catch-basins, and professional judgment. If chambers are full of water or confined space entry is required, extra costs will be incurred and will be discussed with the Client in advance. Confined space entry is excluded.
- Utility vault dimensions and/or diagrams are excluded but can be performed at an additional out-of-scope cost to the Client.
- Butterfly diagrams or 3D modeling (with pipe networks) are excluded. Diagrams of the conduits within vaults are excluded but can be performed at an additional out-of-scope cost to the Client.
- Overhead utility lines will be shown as a singular line running pole to pole with the number of lines called out based on ownership. We will attempt to identify both ownership & connections on the poles and incorporate this information into the plans.
- Pole diagrams, images, and/or spreadsheets (or some combination thereof) as best suits this project and existing site conditions are excluded but can be performed at an additional out-of-scope cost to the Client.
- The removal of Colorado 811 paint marks or designation marks is excluded.
- T2 UES, Inc. will provide (0) days of traffic protection in accordance with local municipality specifications and permit requirements. This item will be subcontracted to a local traffic control company. The fee provided for this service is estimated based on quoted daily rates from the provider.
- The degree of success of a ground-penetrating radar (GPR) investigation is based entirely on the composition of the soils and the depth and scale of subsurface targets. Electrically less-conductive soils, such as quartz sands, typically allow for the detection of some utilities and/or their trenches at depths greater than 10 feet. Electrically conductive soils, such as clay, moist silt, or saline soils, typically preclude the investigation of targets deeper than three to six feet. Due to the unknown receptiveness of specific site soils to the passage of radar energy, conclusive results cannot be guaranteed from GPR.



Subsurface Utility Engineering Scope of Work – Rev 2 State Highway 83 - Prairie Canyon Ranch



SUE Investigation Deliverables

Deliverables produced from this Subsurface Utility Engineering (SUE) investigation will be:

- T2 UES, Inc. will provide a drawing showing the location of the utilities within the investigation area at the achieved ASCE 38-22 Quality Level. Utility line work will be depicted according to the standard APWA utility colors. This drawing will be a digital 22" x 34" PDF plan set at the following scales that is signed and sealed by a licensed PE. See Figure 2 for an example of an SUE drawing deliverable.
- Typical plan sheet scales will be as follows:
 - a) Plan and Profile 1 inch = 50 Feet (Urban)
 - b) 1 inch = 100 Feet (Rural)
 - c) Intersections 1 inch = 20 feet
- T2 UES, Inc. will provide an electronic file containing utility line work in an CAD deliverable.
- Invert elevations that reference the Client's specified project datum (if provided).
- A utility contact list to include the utility provider, contact name, email address, and phone numbers shown in the utility general notes and specifications.
- Test hole Summary Reports presented in electronic format signed and sealed by a licensed PE. Test Hole Data Reports shall include project-specific coordinates, the depth of the utility from the existing ground, the material, and the size of the utility found. The data collected as a part of the QLA investigation will then be incorporated into the existing utility drawing. An example of the test hole data sheet that will be provided can be seen in Figure 3.

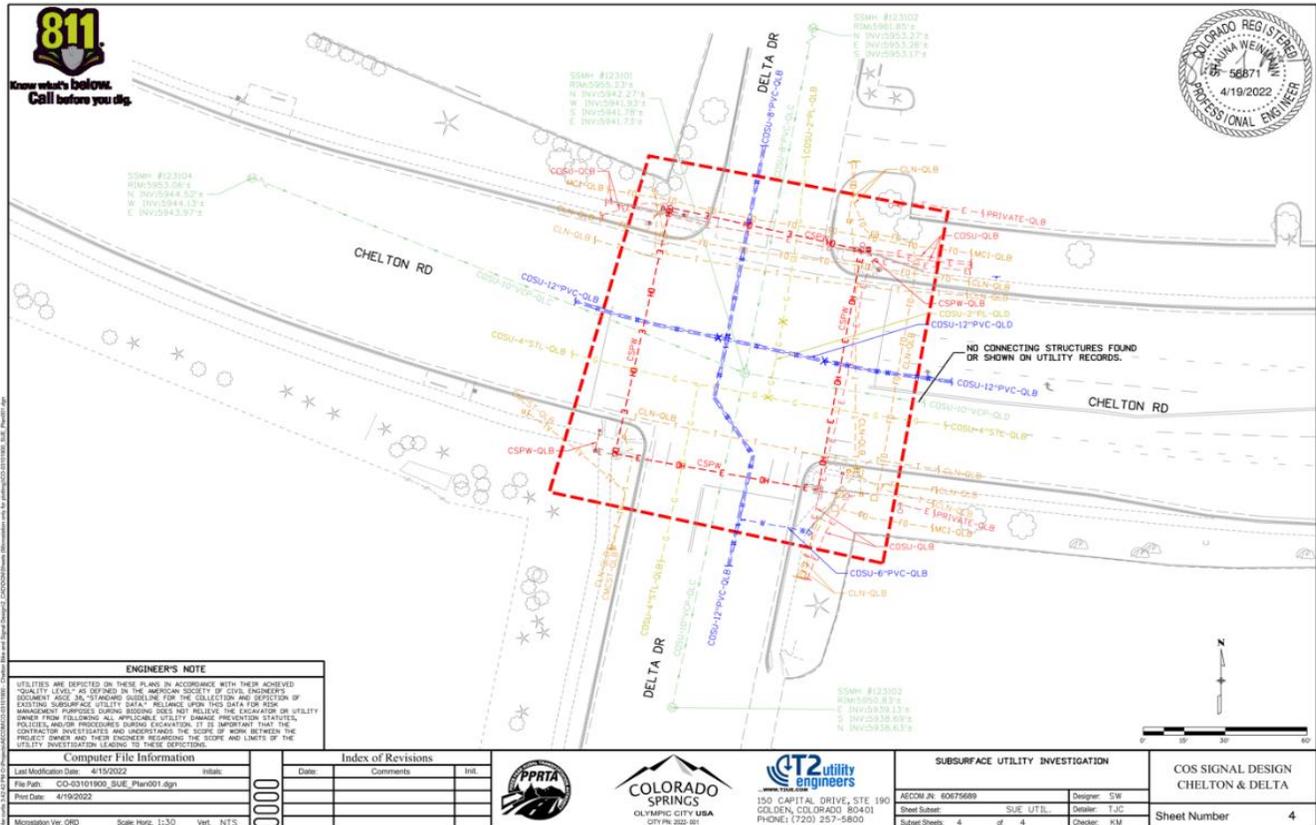


Figure 2: SUE Investigation Deliverable Example

Subsurface Utility Engineering

Scope of Work – Rev 2

State Highway 83 - Prairie Canyon Ranch

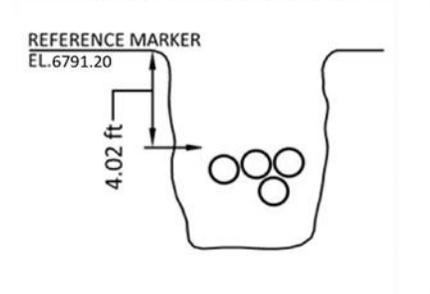
TEST HOLE DATA REPORT																																																																	
TEST HOLE NO: TH16B		CLIENT TEST HOLE NO: TH16																																																															
TEST HOLE DATE: 6/29/2022	150 Capital Drive Suite 190 Golden, Colorado 80401 TEL: 720.452.1090 www.T2ue.com	SUE CREW/TRUCK NO: DJI & DH																																																															
PROJECT NO: CO03101800		CITY, COUNTY: COLORADO SPRINGS, EL PASO COUNTY																																																															
CLIENT: AECOM		LOCATION/INTERSECTION: INTERQUEST PKWY & WINDSWEEP VW																																																															
PROJECT: BRIARGATE 16 WATERLINE																																																																	
VICINITY MAP	SITE PHOTO - FACING NORTHWEST																																																																
																																																																	
CROSS SECTION - NOT TO SCALE	TEST HOLE - UTILITY - FACING SOUTHWEST																																																																
																																																																	
DISCLAIMER: ADDITIONAL MATERIAL AND/OR UTILITIES MAY EXIST BELOW APPARENT BOTTOM																																																																	
<table border="0" style="width: 100%;"> <tr> <th colspan="2" style="text-align: left;">UTILITY DESCRIPTION</th> <th colspan="2" style="text-align: left;">REFERENCE MARKER</th> </tr> <tr> <td>UTILITY TYPE</td> <td>FIBER OPTIC</td> <td>NORTHING</td> <td>22875.64'</td> </tr> <tr> <td>UTILITY MATERIAL</td> <td>PLASTIC (PVC, PE, HDPE)</td> <td>EASTING</td> <td>104171.17'</td> </tr> <tr> <td>UTILITY DIRECTION</td> <td>NORTHEAST - SOUTHWEST</td> <td>ELEVATION</td> <td>6791.20'</td> </tr> <tr> <td>UTILITY WIDTH (FIELD)</td> <td>4.5"</td> <td>LOCATION</td> <td>CENTER OF UTILITY</td> </tr> <tr> <td>UTILITY WIDTH (RECORD)</td> <td>-</td> <td>MARKED BY</td> <td>NAIL & DISK</td> </tr> <tr> <td>APPARENT UTILITY OWNER</td> <td>COLORADO SPRINGS UTILITIES</td> <td></td> <td></td> </tr> <tr> <th colspan="4" style="text-align: left;">DEPTH FROM REFERENCE MARKER</th> </tr> <tr> <td>TOP OF UTILITY</td> <td>4.02'</td> <td></td> <td></td> </tr> <tr> <td>BOTTOM OF UTILITY</td> <td>4.52'</td> <td></td> <td></td> </tr> <tr> <th colspan="4" style="text-align: left;">ELEVATION OF UTILITY</th> </tr> <tr> <td>TOP OF UTILITY</td> <td>6787.18'</td> <td></td> <td></td> </tr> <tr> <td>APPARENT BOTTOM OF UTILITY</td> <td>6786.68'</td> <td></td> <td></td> </tr> <tr> <th colspan="4" style="text-align: left;">SURFACE</th> </tr> <tr> <td>TYPE</td> <td>ASPHALT</td> <td></td> <td></td> </tr> <tr> <td>THICKNESS</td> <td>5"</td> <td></td> <td></td> </tr> </table>	UTILITY DESCRIPTION		REFERENCE MARKER		UTILITY TYPE	FIBER OPTIC	NORTHING	22875.64'	UTILITY MATERIAL	PLASTIC (PVC, PE, HDPE)	EASTING	104171.17'	UTILITY DIRECTION	NORTHEAST - SOUTHWEST	ELEVATION	6791.20'	UTILITY WIDTH (FIELD)	4.5"	LOCATION	CENTER OF UTILITY	UTILITY WIDTH (RECORD)	-	MARKED BY	NAIL & DISK	APPARENT UTILITY OWNER	COLORADO SPRINGS UTILITIES			DEPTH FROM REFERENCE MARKER				TOP OF UTILITY	4.02'			BOTTOM OF UTILITY	4.52'			ELEVATION OF UTILITY				TOP OF UTILITY	6787.18'			APPARENT BOTTOM OF UTILITY	6786.68'			SURFACE				TYPE	ASPHALT			THICKNESS	5"			<div style="text-align: center;">  <p>7/27/2022</p> </div>
UTILITY DESCRIPTION		REFERENCE MARKER																																																															
UTILITY TYPE	FIBER OPTIC	NORTHING	22875.64'																																																														
UTILITY MATERIAL	PLASTIC (PVC, PE, HDPE)	EASTING	104171.17'																																																														
UTILITY DIRECTION	NORTHEAST - SOUTHWEST	ELEVATION	6791.20'																																																														
UTILITY WIDTH (FIELD)	4.5"	LOCATION	CENTER OF UTILITY																																																														
UTILITY WIDTH (RECORD)	-	MARKED BY	NAIL & DISK																																																														
APPARENT UTILITY OWNER	COLORADO SPRINGS UTILITIES																																																																
DEPTH FROM REFERENCE MARKER																																																																	
TOP OF UTILITY	4.02'																																																																
BOTTOM OF UTILITY	4.52'																																																																
ELEVATION OF UTILITY																																																																	
TOP OF UTILITY	6787.18'																																																																
APPARENT BOTTOM OF UTILITY	6786.68'																																																																
SURFACE																																																																	
TYPE	ASPHALT																																																																
THICKNESS	5"																																																																
<p>REMARKS:</p> <p>FOUND FOUR (4) 1.75" CONDUITS IN A BUNDLE WITH A TOTAL WIDTH OF 4.5".</p> <p>REVISION NOTES:</p>																																																																	
REVIEWED DATE: 7/11/2022	CHECKED DATE: 7/20/2022	REVISION DATE:																																																															
REVIEWED BY: KM	CHECKED BY: SW																																																																

Figure 2 QLA Investigation Deliverable Example

Subsurface Utility Engineering

Scope of Work – Rev 2

State Highway 83 - Prairie Canyon Ranch



QLA Investigation

T2 UES, Inc. will perform 10 Quality Level A test holes to determine the location, size, depth, and material of existing utilities. T2 UES, Inc. shall use minimally intrusive excavation techniques, which ensure the safety of the excavation and the integrity of the utility line to be documented. Other lines which may be encountered during the excavation will be noted. The excavation shall be conducted by means of air or hydro-assisted vacuum excavation equipment manufactured specifically for this purpose. To help minimize the number of test holes required, T2 UES, Inc. will lay out the holes and re-designate the associated utility prior to excavation. Test Hole Data Reports will be signed and sealed by a professional engineer and shall include project-specific coordinates, depth of the utility from the existing ground, material, and size of the utility found.

QLA Investigation Assumptions, Exclusions, and Stipulations

- It is assumed that each hole will be excavated with the intent of finding one utility per hole. If additional utilities are discovered within a hole, data for each additional utility will be collected and a separate test hole report will be provided. Each test hole report for an unintended utility will be billed as a reimbursable expense at \$250/test hole report.
- If a test hole is proposed over multiple utilities with the intent of exposing multiple utilities within one test hole, T2 UES, Inc. will invoice the Client at a per-test-hole rate multiplied by the number of utilities that were exposed.
- Trenching is excluded from this scope but can be performed at an out-of-scope cost to the Client.
- The Client will have test hole locations determined and provide test hole coordinates prior to the commencement of T2 UES, Inc.'s services.
- If the parameters of the QLA investigation change after T2 UES, Inc. has initiated QLA services, T2 UES, Inc. will discuss the implications for workflow, traffic control, and other activities with the Client and determine if a change order or additional funds are needed to account for the changes.
- T2 UES, Inc. will do everything within our control to access the test hole location(s); however, some areas may be inaccessible due to unsuitable terrain, limited access, weather conditions, truck limitations, safety concerns, etc., and may not be excavated. If any of these instances occur, they will be discussed with the Client and noted accordingly.
- T2 UES, Inc. will perform (4) concrete or asphalt cores. If additional cores are required, the cores will be completed under the reimbursable section for \$200 per hole.
- T2 UES, Inc. will repair utility test holes to near existing conditions prior to the test hole excavation.
- The standard price for test hole excavations is to a width of 18". For every additional 18" of width over 18", an additional \$250/foot will be billed as a reimbursable expense.
- The standard price for test hole excavations is to a depth of 6'. For every additional foot of depth over 6', an additional \$125/foot will be billed as a reimbursable expense.
- T2 UES, Inc. cannot guarantee we will find utilities within a 6' deep and 18" wide test hole. If a utility cannot be found in a 6' deep and 18" wide test hole, the Client will be notified before further test hole excavation activities are performed.
- If utilities cannot be designated, T2 UES, Inc. will excavate to a maximum depth of 6' and no more than 36" wide.
- T2 UES, Inc. will provide (3) days of traffic protection in accordance with local municipality specifications and permit requirements. This item will be subcontracted to a local traffic control company. The fee provided for this service is estimated based on quoted daily rates from the provider.
- Traffic Control Flag men for QLA test hole excavations is excluded but can be performed at an additional out-of-scope cost to the Client.
- Removal of One-Call marks and designation paint, concrete panel replacement or restoration, landscape restoration, and shoring are not included.



Subsurface Utility Engineering

Scope of Work – Rev 2

State Highway 83 - Prairie Canyon Ranch



SURVEY

T2 UES, Inc. will include the survey items below within the limits depicted in Figure 1. The following information will be located and obtained for specific visible utilities where access is possible and safe for personnel:

- The alignment of non-visible underground utilities based upon the survey of surface designations (markings) as performed by T2.
- Location of visible surface evidence of the various utility systems, including storm, sanitary, water, irrigation, electric, communication, gas, etc.
 - Sanitary and Storm Sewers: Manhole rims (2 shots, 1 on each side), inlets (2 shots, 1 on each side if round/4 shots, 1 on each corner if square), and catch basins (2 shots, 1 on each side if round/4 shots, 1 on each corner if square)
 - Water: Location of manholes, handholes, valves, hydrants, meters, and air vents
 - Irrigation: Location of visible sprinkler heads and control boxes
 - Electrical: Location of handholes, pedestals, transformers, and meters
 - Communications: Location of handholes, pedestals, risers, and boxes
 - Gas: Location of manholes, valves, meter, and warning markers
 - Poles: Location of poles, guy wires, and risers
 - Lights: Locations of poles, handholes, control boxes, and meters
- Any other visible utility surface features.

UTILITY COORDINATION

T2 UES, Inc.'s utility coordination team will coordinate with Client, Owner, and affected municipalities through the 50% design. Utility coordination and project management tasks are anticipated to include working with the design team and coordinating with all utilities within the project limits. By attending 50% project milestone meetings, our utility coordination team can establish a utility base map and test hole log. T2 UES, Inc.'s utility coordination team will use data collected from the Utility Records Research and Utility Drawing Scope of work to collect utility information and perform initial contact of each utility owner to hold up to (5) early utility coordination meetings, if necessary.

T2 UES, Inc.'s utility coordinator will work with up to (5) early coordination meeting to ensure all requirements are met to make this process go as smoothly as possible. Utility coordination support efforts will include:

- Map and research in conjunction with SUE Research.
- Utility Notification (Approximately (5) owners identified).
- Initial outreach of project notification.
- Scoping, FIR Meetings.
- Initial outreach of project notification.
- Impact letters, if applicable.
- Utility Conflict Matrix.

Utility Coordination Assumptions, Exclusions, and Stipulations

- All meetings are assumed to be virtual (except for 0 field visits).
- Utility specification is excluded.
- Utility Certification is excluded.
- No utility coordination will take place after the initial outreach, impact letters, and 50% design.



Subsurface Utility Engineering

Scope of Work – Rev 2

State Highway 83 - Prairie Canyon Ranch



CLIENT RESPONSIBILITIES

The Client and/or their representative will provide the following services:

- The Client will have right-of-entry secured prior to the commencement of T2 UES, Inc.'s services.
- Client to provide topo and survey control and other relevant files in support of the SUE work to be completed by T2 UES, Inc.
- If changes occur to the proposed project limits after T2 UES, Inc. has reviewed the plans, any recognized changes to workflow, traffic control, access, schedule, or other miscellaneous activities will be discussed with the Client to see if a change order or additional funds are needed to account for the changes.
- In situations beyond the control of the SUE Consultant, the Client will provide assistance in obtaining required data/information from other local, regional, State, and federal agencies.
- The Client will provide a timely review, comment, or direction as required to aid T2 UES, Inc. in completing an assigned task or maintaining the established project schedule.
- The Client will provide applicable general notes, special specifications, special provisions, graphic file data, standards, font libraries, and CAD cell/block libraries, etc. as required.
- The Client will provide any and all CAD and/or PDF files of the design provided by others and those files will be accurate and suitable for use by T2 UES, Inc. T2 UES, Inc. assumes that these files are approved and that they are the most current and up-to-date files available, including any and all approved addendums.

SCHEDULE

The project will commence with the project upon receipt of a fully executed contract and written notice to proceed (NTP) from the Client. Upon receiving a fully executed contract and written NTP, T2 UES, Inc. will work with the Client to develop a schedule that works for the Client based on T2 UES, Inc.'s current workload and the Client-specified project deadlines and Stakeholders expectations.

GENERAL ASSUMPTIONS

- This Scope of Services has been detailed to ensure we are providing the services desired and agreed to by the Client and T2 UES, Inc. Services not specifically listed are assumed to be excluded from T2 UES, Inc.'s scope.
- Topographic, ROW and/or boundary work will not be completed by T2 UES, Inc. as part of this scope and fee. Any Topographic, ROW, or boundary line work that T2 UES, Inc. is asked to incorporate into our plans will need to be provided to T2 UES, Inc. for its use. If this information is unable to be provided, it will not be included or shown on the SUE utility plans prepared and submitted by T2 UES, Inc.
- If the parameters of the SUE investigation change after T2 UES, Inc. has initiated services, T2 UES, Inc. will discuss the implications for workflow, access, traffic control, schedule, and other activities with the Client and determine if a change order, additional funds, or revisions to the schedule are needed to account for the changes.
- Possible delays to the schedule will be discussed with the Client as soon as they are identified.

ESTIMATED FEE

The Consultant will not exceed the estimated fee without prior authorization from the Client. An invoice will be prepared upon completion for the actual work completed billed hourly up to the estimated budget amount (invoiced monthly). We appreciate this opportunity to provide professional SUE and Surveying services for this project. Should you have any questions or require additional information, please do not hesitate to call.



Subsurface Utility Engineering

Scope of Work – Rev 2

State Highway 83 - Prairie Canyon Ranch



SUPPLEMENTAL TASKS (NOT INCLUDED IN THIS SCOPE OF WORK)

To achieve the Client's project goals, the following tasks can be included as supplemental tasks for an additional fee if requested:

PERFORM ADVANCED GEOPHYSICS INVESTIGATION

T2 UES, Inc. uses the Screening Eagle, which is a Multi-Channel Ground Penetrating Radar (MCGPR) solution dedicated to utility locating and mapping. These units employ 40+ separate channels with double polarized antennas, enabling the system to gather data simultaneously for both longitudinal and transversal purposes. The MCGPR unit is equipped with a GPS unit that enables the data set to easily be georeferenced to the project survey datum. The system is generally towed behind a vehicle at speeds up to 25 MPH, which permits gathering GPR data with minimal traffic control, thereby reducing the impact on local traffic.

CCTV

T2 UES, Inc. can perform video inspection within drainage facilities, as directed by the Client. Specifically, the consultant ensures the interior of the inspected pipe is visible using appropriate illumination and camera equipment; and records all video and images captured during the inspection.

SUE REPORT

A Subsurface Utility Engineering (SUE) report can be completed per the ASCE/UESI/CI 38-22 standard. The SUE report complements the utility drawings, assists the end user in better understanding the utility landscape and risks, and provides any metadata collected by T2 UES, Inc. during the course of the SUE investigation. The SUE report is signed and sealed by a Professional Engineer.

360 STRUCTURE SCANS

A 360-degree camera with an extremely bright light is mounted on an inverted tripod to be deployed vertically into a maintenance hole. The small size allows it to be deployed using a tethered reel. The camera captures mp4 video data. To add modeling/measuring capability, AI software can then be applied to populate photogrammetry that allows the calculation of data points to the nearest inch /centimeter to collect measurements -invert/obvert/chamber sizes, diameters and dimensions, as well as providing visuals.



ERO Resources Corporation

Scope of Work

State Highway 83 Prairie Canyon Ranch Access

Douglas County, Colorado

April 25, 2025

ERO Resources Corporation (ERO) is pleased to provide this Scope of Work (SOW) for environmental services to Douglas County (the County) (hereafter referred to as Client) in support of Colorado Department of Transportation (CDOT) permitting requirements for the Colorado State Highway 83 (SH 83) Prairie Canyon Ranch Access project, located at the access driveway for Prairie Canyon Ranch at the intersection of SH 83. ERO understands that the proposed project will entail improving the entrance/driveway at Prairie Canyon Ranch, and traffic flow improvements at the intersection.

Scoping with CDOT is necessary to determine the project area boundaries, and to determine a final task list for this project. If additional tasks are required, a revised cost and scope will be submitted.

Task 1. Biological Resources

ERO will conduct a field review to assess the project area for biological resources, including general wildlife, federally listed threatened and endangered (T&E) species habitat, Colorado state listed species habitat, migratory birds, wetlands and waters of the U.S., and noxious weeds. Based on the field review results, ERO will prepare a brief memo describing the biological resources found, the regulatory requirements pertaining to these resources, and recommendations.

Assumptions

- The project area will be determined by the Client and CDOT prior to any field reviews.
- Changes to the project area boundary after work on this contract has begun may require changes to this SOW and costs as necessary.
- The Client will provide written permission from all landowners to access the project area.
- Based on review of existing data, a wetland delineation will not be required.
- This SOW assumes no Clean Water Act (CWA) Section 404 permitting or CDOT Wetland Finding Report will be required for the project.
- No federal or state listed T&E species, or other protected species habitat occurs in the project area, and no presence/absence surveys will be required.
- This SOW assumes a standalone noxious weed management plan will not be required. If one is requested, ERO will provide a separate SOW and cost estimate.
- This SOW assumes a separate prairie dog management plan will not be required. If one is requested, ERO will provide a separate SOW and cost estimate.
- One round of Client and CDOT review and revisions of the memo is included in this SOW and cost estimate.

Deliverables

- Draft and final biological resources memo delivered to the Client and to CDOT via email.

Task 2. Hazardous Materials

ERO will conduct an ISA for hazardous materials for the project area. The assessment will generally conform to CDOT ISA requirements detailed in CDOT's Hazardous Material Guidance, dated June 2018. To complete this task, ERO will conduct a visual site inspection of the project area. The purpose of the inspection is to document environmental concerns. ERO will document the general site setting, such as current use(s) of the project area and adjoining properties, and general hydrogeologic and topographic features. ERO will provide a general description of structures and other improvements and identify the following site conditions, if they are observed during the site inspection:

- The quantity, type, and storage system for hazardous substances and petroleum products in connection with identified uses.
- Tanks, containers, drums, barrels, and other systems used for storing hazardous substances and petroleum products not connected to identified uses.
- Aboveground and underground storage tanks.
- Pits, ponds, lagoons, and other features potentially used for storage and/or disposal of hazardous substances and petroleum products.
- Odors, pools of liquids, stained soils and pavement, and stressed vegetation.
- Electrical equipment potentially containing polychlorinated biphenyls (PCBs).
- Potential lead-based paint (samples may need to be taken at additional cost).
- A cursory inspection of the project area for potential asbestos-containing materials.

The following issues are specifically excluded from the ISA: radon and lead in drinking water.

ERO will also conduct a search of records and files from a variety of sources and compile information pertaining to current and past environmental conditions. This search may include the following information:

- Topographic, land use, and environmental resource maps.
- Aerial photographs.
- County and city records.
- State and federal databases.

Based on the information gathered during this record search and site inspection, ERO will compile the information and findings into one detailed written report that includes the site description, records review, site reconnaissance, and conclusions. The ISA report will be submitted as a draft to the Client for review and comment prior to being submitted to CDOT.

Assumptions

- The Client will obtain written permission to access the project area.
- The Client will provide all required engineering plans, and specifications.
- Douglas County will not acquire private land as part of this project
- The project area boundary will be determined by the Client and CDOT prior to any field reviews. For the purpose of this task, ERO assumes that the project area boundary is within or

- immediately adjacent to CDOT right-of-way at the driveway for Prairie Canyon Ranch at SH 83.
- Changes to the project area boundary after work on this contract has begun may require changes to this SOW and costs as necessary.
- One round of revisions for the ISA report based on CDOT’s comments is included in this SOW and no other revisions will be needed.

Deliverables

- Draft ISA report delivered to the Client via email.
- Final ISA report, including a PDF document emailed to the Client.

Task 3. Archaeological Resources

Compliance with Section 106 of the National Historic Preservation Act (NHPA) and the Colorado State Register Act (Colorado Revised Statutes (CRS) 24-80.1 and 8 Code of Colorado Regulations (CCR) 1504-5) for archaeological resources is required as part of CDOT’s CatEx process. In coordination with CDOT, ERO will conduct a file search and literature review of the project area to assist in determining if the project has the potential to cause effects on historic properties. Sources include historical aerial photography, U.S. Geological Survey (USGS) quadrangles and highway maps, county assessor records, and the Office of Archaeology and Historic Preservation (OAHP) Compass database.

Based on a preliminary review of historical records, two archaeological resources are present in the immediate area of direct effects. In addition, outside the existing road, portions of the right-of-way (ROW) appear intact. ERO will coordinate with the CDOT archaeologist to determine the area of potential effects (APE) and conduct an intensive Class III cultural resource survey of the APE that conforms to the Secretary of the Interior’s (SOI) Guidelines for Identification and by supervisory personnel that meet the SOI Professional Qualification Standards. This task will involve two archaeologists walking systematic transects to identify unknown cultural resources within the APE.

Identified cultural resources will be documented on relevant OAHP site forms, mapped, photographed, and located using a submeter Trimble DA2 with Trimble Catalyst Service positioning system (GPS) unit. Each identified resource will be assessed for its eligibility to be listed in the NRHP per 36 Code of Federal Regulations (CFR) 60.4 of the National Historic Preservation Act (NHPA, 1966, as amended). Following the cultural resource survey, ERO will prepare a report that summarizes the survey results and resource eligibility. The report will provide information sufficient for CDOT to conduct an independent evaluation of the survey and to conduct consultation with the SHPO regarding potential project effects to historic properties.

Assumptions

- ERO will obtain OAHP data for archaeological resources under this task. Based on current wait times, ERO assumes the OAHP will return file search results within 15 to 20 business days. A rush order may be requested for an additional \$300 fee.
- Once a CDOT environmental clearance request has been issued, ERO cultural resources staff will

consult directly with CDOT to define the APE. ERO assumes the APE for this task is confined to areas of direct effect (i.e., the limits of disturbance).

- ERO assumes that access may be confined to the narrow, public ROW and, therefore, the documentation of any archaeological resources may be confined to that limited space.
- The number and complexity of cultural resources within the APE can substantially affect the level of effort to adequately document and evaluate the resources. ERO's cost estimate assumes three archaeological resources will be in the APE. If more than three resources are encountered, ERO will contact the Client after the survey is completed to negotiate a new cost estimate.
- ERO assumes no more than six shovel tests will be necessary to evaluate the subsurface for potential intact buried archaeological deposits.
- ERO assumes that treatment of historic properties, if needed, will be conducted under a separate SOW.
- This SOW includes one round of edits on the draft technical memorandum if requested by the CDOT reviewer.
- The draft submittal will often require design to be at 30%.

Deliverables

- Draft report delivered to CDOT via email.
- Final digital report, OAHP forms and accompanying files delivered to CDOT via email.

Task 4. Historic Resources

Compliance with Section 106 of the National Historic Preservation Act (NHPA) for historical resources is required as part of the NEPA documentation and CatEx process. ERO has completed a preliminary file search and literature review of the project area to assist in determining if the project has the potential to cause effects on historical resources. Consequently, ERO concluded that the project has the potential to cause effects on historical resources including State Highway 83. Therefore, ERO prepared the following tasks to identify and document historical resources in the APE and to provide CDOT with an effects report.

ERO will perform a file search and literature review to identify potential historic properties in the project area and surrounding region within a 0.25-mile buffer. For the record searches, ERO will conduct a formal file search with OAHP and review other relevant records (such as the CDOT Historic Sites Viewer, Historic Street Cars of Colorado, historical aerial photography, USGS quadrangles and highway maps, and county assessor records) to identify previously evaluated and potential historical resources in the APE. The results of the formal records review will be provided to CDOT in an email to define the APE.

After the APE is defined, ERO will conduct a pedestrian survey to document historical resources in the APE. All historical resources encountered will be documented on relevant OAHP site forms, mapped, photographed, and recorded using a submeter Trimble DA2 with Trimble Catalyst Service positioning system (GPS) unit. Previously recorded and newly identified historical resources will be assessed for

their eligibility to be listed in the National Register of Historic Places (NRHP) per 36 CFR 60.4 of the NHPA, 1966, as amended.

Following the cultural resource survey, ERO will prepare a summary of the eligibility of historical resources in the APE and potential project effects on the resources. The history summary will be drafted on CDOT letterhead and will provide information sufficient for CDOT to conduct an independent evaluation of the survey and to conduct consultation with the SHPO regarding potential project effects on historic properties.

Assumptions

- ERO will obtain OAHP data for historical resources under Task 3.
- Once a CDOT environmental clearance request has been issued, ERO cultural resources staff will consult directly with CDOT to define the APE.
- This SOW assumes no permanent or temporary easements, or right-of-way acquisition.
- This SOW assumes no changes to the APE will occur after CDOT defines the APE.
- ERO will not complete the cultural resource survey until after CDOT defines the APE.
- ERO anticipates the project will require documentation and evaluation of up to one resource.
- Should the survey result in the identification of additional resources, ERO will contact the Client immediately after the survey is completed to negotiate a new cost estimate.
- If the project results in an adverse effect on cultural resources eligible for listing in the NRHP, ERO will provide these services under a separate SOW.
- This SOW includes one round of report edits.
- The draft submittal will often require design to be at 30%.

Deliverables

- Email requesting that CDOT defines the APE delivered to CDOT.
- Draft and final historical resources letter report and accompanying site forms delivered to the Client and CDOT via email.

Task 5. Paleontological Resources

ERO will subcontract to Paleo Resource Specialist to assess the paleontological resources within the project area and general vicinity through multiple methods that constitute a comprehensive desktop review (Review). The Review will include a paleontological locality file search; a scientific literature search; assessment of pertinent geologic maps; and consultation with the CDOT Paleontologist as needed. A technical report presenting the results of the Review, with mitigation recommendations (if any), will be prepared using accepted resource assessment criteria and professional standards.

Assumptions

- No paleontological localities will be found in the proposed project area or vicinity.

Deliverables

- Draft and Final paleontological technical report emailed to the Client and CDOT.

Task 6. Project Coordination and Management

Under Task 6 ERO will coordinate with the client, CDOT, and subcontractors to establish a defined project scope and refine environmental clearance tasks. ERO will establish a project schedule and provide monthly updates to the project team. In addition, this task includes items associated with project coordination such as project start up and monthly invoicing, client and agency communication, updates to project tasks and scope, health and safety plan compliance, communication through emails and phone calls, and quality assurance. ERO will coordinate with the Client on schedule, design, and other project-related matters via telephone and email. ERO will ensure all documents and figures are reviewed for technical and editorial accuracy.

General Assumptions

- Changes to the project area boundary after environmental tasks have begun will require additional effort and ERO will coordinate with the Client to determine if changes in the scope or budget are necessary.
- This SOW assumes no permanent or temporary easements, or right-of-way acquisition.
- Air quality, noise, farmland protection, scenery or visual resources, SB40, and Section 4(f) and 6(f) clearances or analysis will not be needed.
- No on-site or in-person meetings are included in this SOW. All project communication will take place through emails and phone calls.
- Other than field mobilizations for survey, no field meetings or additional mobilizations will be needed. No additional in-person meetings with the County will be required to complete the environmental studies discussed in this SOW.
- This SOW does not include additional work required in the event any currently unknown significant resource is located in the project area.
- One round of revisions for all reports based on CDOT's comments is included in this SOW and no other revisions will be needed.

Estimated Costs

ERO will complete Tasks 1 through Task 6 on a time and materials basis for a cost not to exceed \$34,036.00 including expenses billed at cost plus 8 percent (see below for breakout).

Task 1. Biological Resources	\$4,574.00
Task 2. Hazardous Materials	\$5,306.00
Task 3. Archaeological Resources	\$13,155.00
Task 4. Historic Resources	\$5,540.00
Task 5. Paleontological Resources	\$1,890.00
Task 6. Project Coordination and Management	\$3,571.00
Total	\$34,036.00

ATTACHMENT D: IRONSTRIDE SCOPE

Region 1 Project Specific SH 83: Prairie Canyon Ranch

Task Order #1 - Scope of Work for Signing/Striping Design

Project Management and Coordination

IronStride will attend the project kick-off meeting, as well as monthly progress meetings and design team coordination meetings as-needed. We will prepare monthly progress reports and invoices. Task Order #1 assumes no conceptual plans, and includes one submittal: 50% plan submittal. The task order is anticipated to extend over a duration of approximately 6 months from NTP.

1.1 50% Plan Submittal

This task involves developing the 50% design for the signing and striping and MOT plans, including compilation of applicable standard details and specifications and development of a preliminary engineer's estimate of probable cost. In addition, a trip generation memo will be developed, including recommendations for location and storage lengths for turn lanes.

Tasks:

- Determine basis of design
- Collect traffic data and develop trip generation memo
- Field review and development of an existing sign inventory
- Compile list of standard signing/striping and MOT details
- Compile list of standard signing/striping and MOT special provisions
- Develop 50%-level signing/striping plans (approximately 4 sheets)
- Develop 50%-level MOT roll plot
- Develop supporting sheets (e.g., general notes, legends, tabulations)
- Prepare quantities and engineer's estimate of probable cost
- Attend 50% plan review meeting

Products:

- 50%-level signing/striping plans and quantities
- 50%-level MOT roll plot and quantities
- List of standard details and special provisions

Limitations:

- Detailed sign layouts (SignCAD) are not anticipated with 50% plans
- MOT assumes 2 phases

DOUGLAS COUNTY; PHASE I – SH 83: PRAIRIE CANYON RANCH ROAD

EXHIBIT B - METHOD OF PAYMENT

I. COMPENSATION

The Client shall compensate Theorem Design Group (“Consultant”) for services performed under this Agreement on a lump-sum basis by task, as summarized below:

CONSULTANT	FEE
Theorem Design Group (see Attachment A for fee)	\$243,695
105West (Survey) (see Attachment B for fee)	\$39,420
T2ue (SUE/Utility) (see Attachment C for fee)	\$43,275
ERO (Environmental) (see Attachment D for fee)	\$34,036
IronStride (Traffic) (see Attachment E for fee)	\$40,740
Fee Subtotal	\$401,166
Contingency - to be authorized in writing by County	12.17302%
TOTAL FEE	\$450,000

This total fee is inclusive of labor, overhead, and direct costs through the 50% milestone and assumes one formal 50% review prior to final submittal. Work beyond the 50% design milestone will be negotiated under a separate amendment.

This is further detailed in the scopes of work (Exhibit A), as well as the Attachments A, B, C, and D which include breakdowns for each subconsultant’s scope.

2. BILLING RATES

- Rates and assumptions are set forth in the attachments (Attachments A–E).
- Time-and-materials tasks will be billed at actual hours worked multiplied by the applicable hourly rate, plus allowable direct costs.

3. INVOICING SCHEDULE

- Invoices will be submitted monthly by Consultant to the Client.
- Each invoice will include:
 - A progress report describing work completed during the billing period.
 - A cost summary showing percent complete by task.
 - Subconsultant invoices, incorporated and reviewed by Consultant.
- Payment is due within 30 days of receipt of invoice.

4. ADJUSTMENTS AND ADDITIONAL SERVICES

- Any services requested by the Client that are outside the scope of Exhibit A will require a written amendment to this Agreement prior to initiation.

ATTACHMENT A - THEOREM FEE

PHASE I - SH 83: PRAIRIE CANYON RANCH DOUGLAS COUNTY THEOREM PROPOSED WORK HOURS DATE: 09-23-2025		Theorem						
		Project Management, Support		Roadway	Drainage	Total Hours		
		Drapet, Caroline	Gilbert, Matt	Heam, Brian	Sloan, Jeb			
CLASSIFICATION:		PM II	VP	EIV	VP			
866		174.04	248.60	194.74	248.60	1170		
SECTION 1 - PROJECT MANAGEMENT TASKS		<i>Section Totals</i>		210	0	64	46	320
A. PROJECT MEETINGS		<i>Task Totals</i>		18	0	10	10	38
1. Initial Project Kick-Off Meeting		2		2		2		6
2. Progress Meeting Attendance and Preparation (Assume 1 Hour(s) for 8 Monthly Meetings)		8		8		8		24
3. Meeting Minutes, Action and Decision Logs (Assume 1 Hour(s) for 8 Monthly Meetings)		8						8
B. PROJECT MANAGEMENT		<i>Task Totals</i>		184	0	54	36	274
1. General Coordination with Douglas County Management (Assume 1 Hour(s) for 32 Weeks)		32		10		20		62
2. General Coordination with CDOT Management (Assume 1 Hour(s) for 8 Months)		8		4		8		20
3. General Coordination		136		40				176
4. Preparation of monthly invoices and progress reports (Assume 1 Hour(s) for 8 Months)		8				8		16
C. DEVELOP A PROJECT SCHEDULE AND ASSIGN TASKS		<i>Task Totals</i>		8	0	0	0	8
1. Develop Project Schedule and Assign Tasks		8						8
SECTION 2 - PRELIMINARY 50% DESIGN TASK DESCRIPTIONS		<i>Section Totals</i>		43	8	465	334	850
A. Verifying Work by Others		<i>Task Totals</i>		12	0	26	16	54
1. Verify survey data and project control		4		8				12
2. Review SUE information		4		8		8		20
3. Identify if any ROW or easements are necessary		2		8		8		18
4. Coordinate with CDOT to match pavement section for this area		2		2				4
B. Hydrology/Hydraulic Engineering		<i>Task Totals</i>		0	8	8	220	236
1. Data Collection and Hydrology							32	32
2. Hydraulics							40	40
3. Conceptual Water Quality Alternative Analysis and Preferred Option Selection							40	40
4. Prepare preliminary construction plans							60	60
5. Prepare preliminary Hydraulic Design Report in accordance with the CDOT Drainage Design Manual							40	40
6. Perform internal QA/QC prior to submittal to the county			8	8		8		24
C. Environmental - Water Quality		<i>Task Totals</i>		0	0	20	96	116
1. Storm Water Management Plan							48	48
2. Prepare preliminary PWQ maps							20	20
3. Prepare preliminary water quality report as an appendix to the hydraulic design report							16	16
4. Conduct a PWQ meeting							4	4
5. Perform internal QA/QC prior to submittal to the county				20		8		28
D. Roadway Design and Roadside Development		<i>Task Totals</i>		20	0	350	0	370
1. Roadway Design								0
A. Input and check horizontal and vertical alignments against all design criteria						50		50
B. Provide alignments, toes of slope and pertinent design features						50		50
C. Plot/develop all required information on the plans in accordance with all applicable CDOT policies and procedures.						100		100
D. Generate a 3 dimensional design model						50		50
2. Roadside Development (Special items, Staging, Pullouts, etc.)								0
A. Critical locations in the plans for irrigation sleeves and other utility underneath the proposed roadways						50		50
B. Coordinate the roadside items with the Storm Water Management Plan (SWMP).						50		50
3. Perform internal QA/QC prior to submittal to CDOT.		20						20
E. Preparation for the 50% Review		<i>Task Totals</i>		8	0	60	0	68
1. Coordinate, complete, and compile the plan inputs from other branches						20		20
2. Prepare/update the preliminary estimated quantities and estimate.		8				40		48
F. 50% Review		<i>Task Totals</i>		3	0	1	2	6
1. Attend the 50% Review Meeting		1				1	1	3
2. Review Meeting Minutes and Comment Tracking form		1					1	2
3. Document Design Decisions or Deviations		1						1
Project Totals		253.0	8.0	529.0	380.0			1,170
Project Totals - By Discipline		261				380		

Cost per employee	\$ 44,032	\$ 1,989	\$ 103,017	\$ 94,468
Total Direct Salary Cost	243,506.38			
Direct Costs (In-House) Total	189.00			
Production Mileage	189.00			
Direct Costs (Outside) Total	378.00			
Total Theorem Estimate Cost:	243,695.38			

ATTACHMENT B - 105WEST FEE

105 West

28-Apr-25

Fee Schedule

SH 83 - Prairie Canyon Ranch

TASK / DELIVERABLE	105 West Staff							105 West Totals			TOTALS
	Director of Survey/Mapping	Survey Manager	Project Surveyor	Survey Technician	Party Chief	Instrument Operator	GPS/Robotic (1-Man)	Professional Service Hours	Professional Service Fee	105 West's Other Direct Costs and Subconsultants	Professional Service Fee and Other Direct Costs
	\$180	\$175	\$160	\$130	\$120	\$90	\$175				
SCOPE OF WORK											
Activity 1 - Survey & Mapping											
Task A - Meetings, Mobilization, and Coordination	2	4	6					12	\$ 2,020		\$ 2,020
Task B - Permits/Permission to Enter		2	4	8				14	\$ 2,030		\$ 2,030
Task C - Project Control	4	6	10	12	18	18		68	\$ 8,710		\$ 8,710
Task D - Topographic Design Survey	4	8	12	24	32	32	10	122	\$ 15,630		\$ 15,630
Task E - Preliminary Ownership/ROW Map	6	10	14	20	16	16		82	\$ 11,030		\$ 11,030
											\$ 39,420
TOTALS	16	30	46	64	66	66	10	298	\$ 39,420	\$ -	\$ 39,420

Subsurface Utility Engineering

Scope of Work – Rev 2

State Highway 83 - Prairie Canyon Ranch



PROJECT ESTIMATE					
SUE QUALITY LEVEL B, C, & D					
Geophysical Investigation "Designation"					
Designating (1-man crew)	0	hours @	\$215	per hour	\$0.00
Designating (2-man crew)	20	hours @	\$285	per hour	\$5,700.00
Subtotal:					\$5,700.00
Survey					
SUE Survey	1	each @	\$3,950	per each	\$3,950.00
Subtotal:					\$3,950.00
Professional Services					
Professional Engineer	8	hours @	\$205	per hour	\$1,640.00
Project Manager	25	hours @	\$170	per hour	\$4,250.00
SUE Manager	8	hours @	\$165	per hour	\$1,320.00
Assistant Project Manager / EIT	8	hours @	\$125	per hour	\$1,000.00
CADD Technician	28	hours @	\$120	per hour	\$3,360.00
Administration	8	hours @	\$100	per hour	\$800.00
Subtotal:					\$12,370.00
SUE Quality Level B, C, & D Total					\$22,020.00
SUE QUALITY LEVEL A					
Test Hole Excavation					
^{B,C} Quality Level A Test Hole	10	holes @	\$1,185	per hole	\$11,850.00
Quality Level A Test Hole (Non-targeted utility reports)	4	holes @	\$250	per hole	\$1,000.00
Excessive Depth - Depth Over 6 feet	6	feet @	\$125	per foot	\$750.00
Excessive Width - Width Over 3 feet	0	feet @	\$250	per foot	\$0.00
Asphalt or Concrete Coring	4	cores @	\$200	per core	\$800.00
Night Work	0	holes @	\$150	per hole	\$0.00
Subtotal:					\$14,400.00
Permits & Maintenance of Traffic					
^A Permits: (Local permits)	Reimbursable @ Cost + 10%				\$500.00
^A Permits: (CDOT permits assumed to be \$0)	Reimbursable @ Cost + 10%				\$0.00
^A Traffic Control + MOT Plan (assumes 3 days)	Reimbursable @ Cost + 10%				\$3,600.00
Subtotal:					\$4,100.00
SUE Quality Level A Total					\$18,500.00
UTILITY COORDINATION					
Professional Services					
Senior Utility Coordinator	3	hours @	\$205	per hour	\$615.00
Utility Coordinator	12	hours @	\$170	per hour	\$2,040.00
CADD Technician	0	hours @	\$120	per hour	\$0.00
Administration	1	hours @	\$100	per hour	\$100.00
Subtotal:					\$2,755.00
Utility Coordination Total					\$2,755.00
GRAND TOTAL					\$43,275.00

^A Proposal estimate only, the cost may vary plus or minus due to unknown field conditions & municipalities requirements. Proposal assumes a minimum working time of 8 hours/day. Proposal estimate is valid for a full 60 days from date listed above.

^B QLA Test Holes include One Call Management, Project Management, 2-Man Crew and Equipment, Survey, and PE Stamped QLA Test Hole Reports

^C The vacuum excavation truck utilized by T2 UES, Inc. for Test Holes (potholes) employs an air-lance system and is not hydro-based. As a cost saving measure on this project, native backfill compacted in 6" lifts and cold patch are recommended to restore test holes if permissible. If a different backfill material is required, the cost for the new material and dumping of the native material will be completed as an additional expense.

Note: In the event the estimated hours for mapping of utilities for this project is over the estimated amount, a change order will be completed prior to the completion of the project to account of the project overage. If less utilities are found, only the utilities hours used will be invoiced.

ATTACHMENT D - ERO FEE

ERO Resources Corporation
Scope of Work
State Highway 83 Prairie Canyon Ranch Access
Douglas County, Colorado

Estimated Costs

ERO will complete Tasks 1 through Task 6 on a time and materials basis for a cost not to exceed \$34,036.00 including expenses billed at cost plus 8 percent (see below for breakout).

Task 1. Biological Resources	\$4,574.00
Task 2. Hazardous Materials	\$5,306.00
Task 3. Archaeological Resources	\$13,155.00
Task 4. Historic Resources	\$5,540.00
Task 5. Paleontological Resources	\$1,890.00
Task 6. Project Coordination and Management	\$3,571.00
Total	\$34,036.00

ATTACHMENT E - IRONSTRIDE FEE AND RATES

HOURS ESTIMATE

PROJECT NUMBER TBD
 LOCATION SH-83: Prairie Canyon Ranch
 FIRM NAME IronStride Solutions, PC
 NAME OF PREPARER Lou Davenport
 SCOPE OF WORK DATE 9/12/2025

Task	Assumption	Expense	IronStride Hours							Total Hours	
			Principal	PM / Lead Design	Engineer	EIT	EIT	Controller	Admin		
Project Management and Coordination											
Project Management	Contract, invoices, progress reports, project controls (6 months)	\$3,225	2.00	6.00					3.00	6.00	17.00
Monthly Team Meetings	Monthly internal/external team meetings/coordination (6 months)	\$2,850	2.00	6.00	6.00						14.00
50% Phase											
Develop Basis of Design Memo	Brief memo documenting any design decisions prior to entering into detailed design phase.	\$2,330	2.00	2.00	8.00						12.00
Sign Inventory	Create a sign inventory and field review existing conditions.	\$3,600		8.00	12.00						20.00
Collect Traffic Data	Traffic data collection	\$1,000									0.00
Traffic Study	Determine Queue lengths	\$4,170	2.00	4.00				20.00			26.00
Develop SS Plan Sheets (4 sheets)	Develop the FIR SS plan sheets	\$4,995	1.00	4.00	24.00						29.00
Develop MOT Roll Plot and Cross Section	Develop FIR MOT roll plot and cross section	\$4,260	4.00	4.00			16.00				24.00
Develop Supporting Sheets (6 sheets)	General Notes (x2), legend (x2), SS tabulation, MOT tabulation (6 sheets)	\$5,415	1.00	6.00	24.00						31.00
Compile list of standard details/specs	Compile list of CDOT standard details and specs, and identify any need for project-specific details or special provisions	\$1,795	1.00	4.00	4.00						9.00
Prepare Engineer's Estimate	Compile quantities, evaluate historic bid prices, and develop engineer's estimate of probable cost	\$2,555	1.00	2.00	8.00		4.00				15.00
QA/QC 50% Plans	Complete QA/QC process prior to submission of 50% plans	\$3,490	2.00	8.00	4.00		4.00				18.00
50% Review Meeting	Attend 50% review meeting	\$1,055	1.00	2.00	2.00						5.00
Subtotal			\$40,740	19.00	56.00	92.00	24.00	20.00	3.00	6.00	220.00

2025/2026 Rate Schedule

IronStride Solutions

<u>Classification</u>	<u>Hourly Rate*</u>
Principal / Officer	
Level III	\$315
Level II	\$290
Level I	\$260
Senior PM / Lead Engineer / Tech Expert	
Level IV	\$300
Level III	\$280
Level II	\$255
Level I	\$235
Engineer / Planner	
Level IV	\$230
Level III	\$210
Level II	\$185
Level I	\$160
PM / CM / FM / OM	
Level IV	\$215
Level III	\$185
Level II	\$160
Level I	\$140
Designer / Inspector / EIT / GIS	
Level IV	\$170
Level III	\$150
Level II	\$135
Level I	\$120
Technician / PP	
Level IV	\$165
Level III	\$145
Level II	\$125
Level I	\$110
Admin / Controls / Support	
Level IV	\$160
Level III	\$135
Level II	\$115
Level I	\$90
Intern	\$75

*hourly rates are effective through 12/31/2026

Exhibit C
INSURANCE REQUIREMENTS

CONSULTANT or CONTRACTOR shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant, Contractor, its agents, representatives, or employees.

MINIMUM SCOPE AND LIMIT OF INSURANCE

Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Covering CGL on an “occurrence” basis, including products and completed operations, property damage, bodily injury and personal & advertising injury (including coverage for contractual and employee acts) with limits no less than **\$1,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit. \$2,000,000.
2. **Automobile Liability:** Insurance Services Office Form covering, Code 1 (any auto), or if CONSULTANT or CONTRACTOR has no owned autos, Code 8 (hired) and 9 (non-owned), with limit no less than **\$1,000,000** per accident for bodily injury and property damage.
3. **Workers’ Compensation** insurance as required by the State of Colorado, with Statutory Limits, and Employer’s Liability Insurance with limit of no less than **\$1,000,000** per accident for bodily injury or disease
4. **Professional Liability** (Errors and Omissions) Insurance appropriate to the CONSULTANT or CONTRACTOR’s profession, with limit no less than **\$1,000,000** per occurrence or claim, \$2,000,000 aggregate.

The Insurance obligations under this agreement shall be the minimum Insurance coverage requirements and/or limits shown in this agreement; whichever is greater. Any insurance proceeds in excess of or broader than the minimum required coverage and/or minimum required limits, which are applicable to a given loss, shall be available to the COUNTY. No representation is made that the minimum Insurance requirements of this agreement are sufficient to cover the obligations of the CONSULTANT or CONTRACTOR under this agreement.

OTHER INSURANCE PROVISIONS:

The insurance policies are to contain, or be endorsed to contain, the following provisions:

Additional Insured Status. Douglas County, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the CONSULTANT or CONTRACTOR including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the CONSULTANT or CONTRACTOR’s insurance (at least as broad as ISO Form CG 20 10 11 85 or **both** CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 forms if later revisions used).

Primary Coverage. For any claims related to this contract, the **CONSULTANT or CONTRACTOR's insurance coverage shall be primary** insurance. Any insurance or self-insurance maintained by Douglas County, its officers, officials, employees, or volunteers shall be excess and non-contributory to the CONSULTANT or CONTRACTOR's insurance.

Notice of Cancellation. Each insurance policy required above shall state that **coverage shall not be canceled, except with notice to Douglas County.**

Waiver of Subrogation. CONSULTANT or CONTRACTOR hereby grants to Douglas County a waiver of any right to subrogation which any insurer of said CONSULTANT or CONTRACTOR may acquire against Douglas County by virtue of the payment of any loss under such insurance. CONSULTANT or CONTRACTOR agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not Douglas County has received a waiver of subrogation endorsement from the insurer.

Self-Insured Retentions, Deductibles and Coinsurance. The CONSULTANT or CONTRACTOR agrees to be fully and solely responsible for any costs or expenses as a result of a coverage deductible, coinsurance penalty, or self-insured retention. Douglas County may require the CONSULTANT or CONTRACTOR to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or Douglas County. The CONSULTANT or CONTRACTOR will indemnify Douglas County, in full, for any amounts related to the above.

Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to Douglas County.

Claims Made Policies. If any of the required policies provide coverage on a claims-made basis:

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained, and evidence of insurance must be provided **for at least three (3) years after completion of the contract of work.**
3. If coverage is canceled or non-renewed, and not **replaced with another claims-made policy form with a Retroactive Date** prior to the contract effective date, the Consultant must purchase "extended reporting" coverage for a minimum of **three (3) years** after completion of contract work.

Verification of Coverage. CONSULTANT or CONTRACTOR shall furnish Douglas County with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by Douglas County before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the CONSULTANT or CONTRACTOR's obligation to provide them. Douglas County reserves the right, but not the obligation, to review and revise any insurance requirement, not limited to limits, coverage, and endorsements. Additionally, Douglas County reserves the right, but

not the obligation, to review and reject any insurance policies failing to meet the criteria stated herein. Failure on the part of the CONSULTANT or CONTRACTOR to provide insurance policies within ten (10) working days of receipt of the written request will constitute a material breach of contract upon which Douglas County may immediately terminate this contract.

The completed certificates of insurance with additional insured endorsements and waivers of subrogation and any notices, within 20 days of cancellation or termination will be sent via mail or e-mail to:

Douglas County Government
Attn: Risk Management
100 Third Street
Castle Rock, Colorado 80104
risk@douglas.co.us

Subcontractors. Consultant shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and CONSULTANT or CONTRACTOR shall ensure Douglas County is an additional insured on insurance required from subcontractors. Any subcontractors will not be required to maintain professional liability insurance if their scope of work does not include any: (a) engineering or design; (b) construction inspection; or (c) survey work.

Failure to Procure or Maintain Insurance. The CONTRACTOR will not be relieved of any liability, claims, demands, or other obligations assumed by its failure to procure or maintain insurance, or its failure to procure or maintain insurance in sufficient amounts, durations, or types. Failure on the part of the CONTRACTOR to procure or maintain policies providing the required coverage, conditions and minimum limits will constitute a material breach of contract upon which Douglas County may immediately terminate this contract.

Governmental Immunity. The parties hereto understand and agree that Douglas County is relying on, and does not waive or intend to waive by any provision of this Agreement, the monetary limitations or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, C.R.S. §§ 24-10-101 *et seq.* as from time to time amended, or otherwise available to Douglas County, its officers, or its employees

Special Risks or Circumstances

Douglas County reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

Megan Datwyler, Risk Manager

Date