

**Task Order
CDM Smith
AGR20-48b**

Task Order No.: 4

Date Prepared: February 2, 2022

Project Title: TA-50 Transmission Water Main Relocation

**Job Cost #: WP 7941 – \$298,152.00 (Services)
WP 7941 – \$23,479.47 (NMGRT)
\$321,631.47 (Total)**

Task Order Project Manager: James Martinez

Phone: (505)927-1518

Department: Department of Public Utilities - Engineering

Vendor Contact: Robert Fowlie

Scope of Work: See Exhibit 1 – Fee Proposal dated February 2, 2022

Start Work Date: 2/22/2022

Complete Work By: 04/28/2022

**Estimated Total Cost: (not to exceed amount): \$ 298,152.00
GRT Bernalillo County – ABQ (7.875%): \$ 23,479.47
Final Estimate: \$ 321,631.47**

Current Task Order Value	\$ 298,152.00	Less GRT
Estimated Value of all task orders to date, including this task order:	\$ 385,777.00	Less GRT
Remaining Contract Value:	\$ 652,348.00	Less GRT

SIGNATURE PAGE

_____ **Project Manager** **Date**

_____ **CDM Smith** **Date**

_____ **Utility Manager** **Date**



EXHIBIT 1

6001 Indian School Road NE, Suite 310
Albuquerque, New Mexico 87110
tel: 505-243-3200
fax: 505-243-2700

February 2, 2022

James Martinez, PE, PMP
Engineering Project Manager
Los Alamos Department of Public Utilities
1000 Central Avenue, Suite 130
Los Alamos, NM 87544

Subject: Task Order Proposal for TA-50 Transmission Main Relocation

Dear Mr. Martinez:

CDM Smith is pleased to present this scope of work and fee proposal to Los Alamos County (County) for design, bidding, and construction phase services for the relocation of the TA-50 Water Transmission Main. The project consists of relocating approximately 0.4 miles (2,100 LF) of 16-inch CCP transmission main from the Los Alamos National Laboratories (LANL) TA-50 parking lot on the south side of Pajarito Road between Pecos Road and Puye Road. The transmission main conveys water from County wells up to the Pajarito Tank. The transmission main is in a 40-foot water main easement in Pajarito Road and the TA-50 parking lot. The transmission main needs to be relocated so LANL can construct new buildings in the parking lot area. Based on our December 8, 2021, meeting with LANL, construction of the transmission main relocation will start after August 2022.

CDM Smith met with County and representatives from LANL on December 8, 2021, to discuss the project and walk the proposed alignment of the relocated transmission main. During that meeting, CDM Smith, the County, and LANL agreed on the following items that will need to be incorporated into the design of the relocated transmission main:

- LANL provided a GIS drawing showing their utilities in the area of the existing transmission main. There are numerous electrical lines in the Pajarito Road right-of-way. The relocated transmission main pipeline will most likely need to be installed in the shoulder or in one of the lanes of Pajarito Road.
- The relocated transmission main needs to be located on the south side of Pajarito Road to avoid the MDAC site behind the fence on the north side of Pajarito Road. Also, spotted owl nests are in that area too.
- The relocated transmission main will need to cross from the south to the north side of Pajarito Road to connect to the existing main. This crossing will need to be open cut as there isn't adequate room for a jacking pit





Mr. James Martinez, PE, PMP

February 2, 2022

Page 2

- Pajarito Road is LANL right-of-way. The relocated main will need to be installed in an easement obtained from LANL.
- LANL stated that they require traffic flow in both directions on Pajarito Road with a minimum lane width of 11-feet. Provisions for nighttime or weekend work will be needed in the specifications.
- LANL is planning to construct a pedestrian overpass in the vicinity of Pecos Road. The connection to the existing transmission main should be located west of the proposed overpass location.
- CDM Smith will work with the County and LANL to identify a staging area for the construction contractor. The location of the staging area will be identified for the environmental review and included in the construction drawings.
- LANL will conduct all environmental studies and reviews for the project.

The scope of services for this project has been broken down into the following tasks:

- **Task 1 Project Management and Kickoff Meeting**
- **Task 2 Surveying and Geotechnical Services**
- **Task 3 Design**
- **Task 4 Bidding Phase Service**
- **Task 5 Construction Phase Services**
- **Task 6 Construction Observation**

Scope of Work

Task 1 Project Management and Kickoff Meeting

This task consists of communications, coordination, meetings, project administration, and management during the project.

As part of this task, CDM Smith will conduct a Project Kickoff Meeting/Design Workshop with the County to obtain additional project information, develop critical success factors for the design and implementation of the Project. The kick-off meeting will be held by Teleconference (Microsoft Teams) and cover the following items:

- Introduction of the project team and the respective roles/responsibilities.
- Discussion of project communication plan.



Mr. James Martinez, PE, PMP

February 2, 2022

Page 3

- Review of project objectives and Owner expectations.
- Review of the project execution plan (project scope of work, deliverables, and baseline schedule).
- Identification and preliminary coordination of immediate project activities and information needs.
- Additionally, the Kickoff Meeting will be utilized as a pre-design workshop to facilitate the initiation and coordination of project design elements.

CDM Smith will also meet with the County and LANL in bi-weekly project progress meetings to discuss progress on the project and coordination issues with LANL. Bi-weekly progress meetings will be held virtually.

Other project management activities that will be performed under this task are management of subcontracts, project accounting, scheduling and budget tracking, and maintenance of project files. The project management efforts are included and budgeted within each task.

Assumptions:

- The duration of project management includes 4.5 months for design; 2 months for bidding phase services (one month for advertisement and bid opening and one month for contract negotiations) and 6 months of construction management services.
- The Project Kickoff Meeting will be held in-person with County staff, LANL staff assigned to the project, and CDM Smith's team including subconsultants for the survey and geotechnical exploration.
- Bi-weekly progress meetings will be held with County, LANL staff, and CDM Smith's team during the design of the transmission main relocation. All bi-weekly progress meetings will be held virtually.
- Monthly Progress Reports will be provided with monthly invoices.
- Additional meetings (including construction progress meetings) are included in other tasks.

Deliverables:

- Kick-off meeting agenda and meeting minutes
- Monthly progress reports – delivered via e-mail
- Monthly invoices



Mr. James Martinez, PE, PMP

February 2, 2022

Page 4

Task 2 Surveying and Geotechnical Services

Surveying Services

Subconsultant CobbFendley will perform surveying services for the TA-50 Transmission Main Relocation. Survey services will establish three (3) project control points based utilizing GPS static/RTK techniques along the project corridor. The survey will map existing planimetric features within the project area, including curb and gutter, lip of gutter, edge of pavement, fences, walls, breaklines along with visible utilities with invert and pipe sizes, designated utilities to be marked by LANL, and other pertinent features within the project area to generate mapping at a 1-foot contour interval.

CobbFendley will perform a Pothole Survey along the proposed alignment of the relocated transmission main. The Pothole Survey will document the location and depth of the existing utilities after potholes are completed by LANL. The Pothole Survey information will be collected and incorporated into the survey for the project.

CobbFendley will prepare one new easement document for placing the relocated transmission main in the right-of-way of Pajarito Road. Easement document preparation will include research of plat and deed information at the Los Alamos County Assessors and Clerks offices and to obtain current vesting documents, plats and/or deeds. Field crews will obtain field data for the easement including establishing property corners and evidence of occupancy. Field data will then be analyzed to determine the boundary of the easement and an easement exhibit and legal descriptions will be developed.

Assumptions:

- LANL will provide GIS files for their utilities in the area of the transmission main relocation.
- LANL will locate all their utilities in the area of the project prior to the survey.
- LANL will pothole all utility crossings identified by CDM Smith.

Deliverables:

- ASCII point files in Local Project Surface Coordinates (NAD83/NAVD88).
- AutoCAD Civil 3D topographic drawing.
- AutoCAD Civil 3D Pothole Survey Data.
- Easement document for the relocated transmission main in Pajarito Road.



Mr. James Martinez, PE, PMP
February 2, 2022
Page 5

Geotechnical Investigation

Subconsultant Wood Environmental and Infrastructure will perform a geotechnical investigation to obtain soil samples along the alignment of the relocated TA-50 Transmission Main. The geotechnical investigation will include drilling of 3 exploratory borings along the alignment of the Relocated TA-50 Transmission Main to collect samples for soil characterization and analysis. Borings will be drilled to depths of 15 feet below existing site grade or auger refusal.

Wood will prepare Draft and Final Geotechnical Reports for the project. The Reports will contain results of the geotechnical exploration, testing, and geotechnical recommendations for design and construction of the relocated transmission main.

Also included in the geotechnical investigation is training, badging, and preparing an Integrated Work Document (IWD) to meet LANL requirements.

Deliverables:

- Geotechnical Engineering Report including graphical boring logs, laboratory test results, and recommendations regarding existing soils, bedding materials, and backfill.

Task 3 Design

CDM Smith will complete the design of the TA-50 Transmission Main Relocation. Design will include submittal milestones of 60-percent, 90-percent, and 100-percent (Final) review submittals to the County and LANL. Design review meetings will be held with the County and LANL at the 60-percent and 90-percent deliverable milestones. Each deliverable will be submitted approximately 2 weeks prior to design review meetings for review and all review comments shall be provided prior to or during the design review meetings, which will be held virtually via Teams. An Engineer's Opinion of Probable Construction Cost (OPCC) will be provided at each design milestone submittal. The design scope of work is based on the following assumptions based on information provided by the County:

- The pipeline material will be ductile iron.
- Working pressure in the pipeline is 180 psi.
- Restoration of pavement will be in accordance with LANL standards.
- Two-way traffic needs to be always maintained in Pajarito Road.
- Minimum lane width for traffic control is 11 feet.
- Traffic control plans will not be developed for the project. CDM Smith will provide traffic flow and lane closure requirements in the plans and specifications.



Mr. James Martinez, PE, PMP

February 2, 2022

Page 6

- Transmission main crossing of Pajarito Road will be open cut. There is not enough room for a jack and bore.
- Valves will only be installed at the connections to the existing transmission main. No line valves will be installed on the transmission main.
- Cathodic protection is not included in the scope of services. The relocated transmission main will be ductile iron pipe in accordance with Los Alamos County Construction Standard 601.
- Profile for the pipeline will be based on standard depth of installation for a transmission pipeline (3.5-4 feet).
- CDM Smith will work with the County and LANL to identify a staging area for the construction contractor. This area will be shown on the construction plans.
- LANL will perform all environmental studies and clearances.
- CDM Smith will use the County's Standard Specifications and Standard Front-End Documents. Standard Specifications will be supplemented if needed.

60-Percent Design

CDM Smith will prepare 60-Percent Design Drawings for the TA-50 Transmission Main Relocation. Supply Pipeline. 60-percent design drawings will show the alignment of the relocated transmission main in plan and profile view and will be used to obtain County and LANL approval on the proposed alignment of the relocated transmission main. The 60-percent design will also include an Engineer's Opinion of Probable Construction Cost (EOPCC) based on the 60-percent design.

CDM Smith will also hold a workshop with the County and LANL via teleconference to review the 60-Percent Design submittal. Comments from the workshop will be addressed and incorporated into the 90-Percent Design submittal.

Assumptions:

- Drawings will be prepared at a scale of 1 in. = 40 ft horizontal scale and 1 in. = 5 ft vertical scale.
- Drawings will be developed using CDM Smith AutoCAD standard conventions.
- Plans will consist of ten drawings: Cover sheet, General Notes, Key Plan, three Plan and Profile Sheets, two detail sheets, and traffic control plan.
- 60-percent specifications including front end and technical specification sections.
- 60-percent EOPCC
- 60-percent design review meeting will be virtual.



Mr. James Martinez, PE, PMP
February 2, 2022
Page 7

Deliverables:

- Electronic drawing files in Adobe Portable Document Format (.pdf) format.
- Virtual review meeting agenda and summary notes.
- 60-percent EOPCC.

90-Percent Design Package

CDM Smith will prepare a 90-percent design package based on the 60-percent design, CDM Smith's internal quality review, and County and LANL review comments. The 90-percent design submittal will include:

- Plan and Profile of the relocated transmission main
- Details
- 90-percent specifications including front end and technical specification sections.
- 90-percent EOPCC

CDM Smith will also hold a workshop with the County and LANL via teleconference to review the 90-Percent Design submittal. Comments from the workshop will be addressed and incorporated into the Final Design submittal.

Deliverables:

- Review meeting agendas and summary notes.
- Electronic drawing and specification files in Adobe Portable Document Format (.pdf) format.
- 90-percent engineer's opinion of probable construction cost.

Final Design Package

CDM Smith will address County, LANL and internal review comments on the 90% design package and generate the 100-percent Final Design Plans and Specifications and the Final Engineer's Opinion of Probable Construction Cost. The 100-percent Plans and Specifications will be ready for bid.

Deliverables:

- Final electronic drawing and specification files in Adobe Portable Document Format (.pdf).
- 100-percent (final) engineer's opinion of probable construction cost.



Mr. James Martinez, PE, PMP
February 2, 2022
Page 8

Task 4 Bidding Phase Services

CDM Smith will provide bidding phase services for the project. Bidding phase services will include:

- Provide Advertisement for Bid for the County to publish.
- Attend Pre-bid conference and provide meeting minutes.
- Answer bidder's questions.
- Provide up to three addenda based upon potential changes and/or clarifications in the bidding documents.
- Attend Bid Opening, evaluate bids received, and provide letter of evaluation and recommendations for award of contract.

Assumptions:

- Pre-Bid Conference and site tour.
- CDM Smith will prepare up to three addenda during the bid phase and distribute to the County.
- The County will distribute plans and specifications to prospective bidders.

Deliverables:

- Pre-bid Conference meeting minutes.
- Addenda.
- Letter of evaluation and recommendation for award of contract.
- Conformed documents.

Task 5 Construction Phase Services

CDM Smith will provide construction phase services during construction. Services will include:

- Project management and construction administration during construction phase services.
- Attend Pre-Construction Conference and provide agenda and meeting minutes.
- Weekly construction progress meetings for this project will be held virtually and in person. Attendance by the Engineer will be virtual. . Agenda and meeting minutes will be provided by the construction contractor.
- Respond to Requests for Information (RFI) issued by the construction contractor.



Mr. James Martinez, PE, PMP

February 2, 2022

Page 9

- Provide interpretations of Construction Documents and as appropriate issue Work Directive Changes, Field Orders, and Change Orders.
- Receive, review, and respond to Shop Drawing submittals, including Operations and Maintenance Manuals, issued by the construction contractor.
- Review, and recommend for approval Partial Payment Requests by the construction contractor.
- Site visits to inspect work. CDM Smith assumes two site visits per month during construction.
- Conduct Final Completion Inspection of the Work when advised by the construction contractor.
- Prepare Record Drawings and Project Closeout documents

Assumptions:

- Assumed construction duration of 6 months.
- County will issue Notice of Award and Notice to Proceed to the construction contractor.
- County will prepare contract documents for the construction contractor.
- Contract documents will be managed using commercially available software provided by the construction contractor.
- Up to 11 submittals will be reviewed.
- Up to 4 RFIs will be received and responded to.
- Up to 2 Change Orders will be prepared.
- Record drawings will be completed in accordance with County Standards.

Deliverables:

- Electronic copies of RFI's, written responses, and supporting information to be cataloged with the project files and turned over to the County after project closeout.
- Electronic copies of construction contractor submittals will be maintained in the construction project files to be turned over to the County upon completion of construction.
- Final Change Orders ready for approval, accompanied by costs, specifications, sketches, and schedule documentation will be transmitted to the County for approval.
- Record documents and specifications will be submitted electronically (PDF).



Mr. James Martinez, PE, PMP
February 2, 2022
Page 10

Task 6 Construction Observation Services

CDM Smith will provide an on-site resident project representative (RPR) for observation of construction and coordination of the Project for compliance with the County's construction contract. Responsibilities of the RPR include:

- Monitor construction contractor's work and coordinate activities with County and LANL personnel.
- Weekly construction progress meetings for this project will be held virtually and in person. Attendance by the RPR will be in person with the construction contractor, County, and LANL.
- Review and approve construction contractor Partial Payment Requests and submit to Consultant for payment by the County.
- Monitor schedule of construction contractor progress monthly and address areas of non-compliance with the Contract requirements.
- Perform close-out activities, which will include preparation of the final Punch List, retrieval of Record Drawing information, conduction substantial and final inspections, processing final payment application, and archiving of the project records.

Assumptions:

- RPR will provide observation services based on 40-hours per week for a duration of 6 months.
- Materials testing and specialty inspections (such as soil testing and compaction testing,) are not included in this scope of services.

Deliverables:

- Recommendations of Partial Payment Requests by the construction contractor.
- Preparation of final deficiency list ("Punch List").
- Selected photographs chronologically sequencing the progress of construction.

Schedule

Final Design of the TA-50 Transmission Main Relocation will be completed within 4.5 months of Notice to Proceed. Bidding Phase services will be completed 2 months after completion of the Final Design. Construction Phase Services and Construction Observation will be completed 6 months after construction on the project begins.



Mr. James Martinez, PE, PMP
February 2, 2022
Page 11

Compensation for Services

The total fee for these services is **\$298,152**, excluding NMGR. The fee is broken out as follows:

- Design Phase Services (includes Survey and Geotechnical Services) –Lump Sum Fee of \$117,617.
- Bidding Phase Services – Lump Sum Fee of \$8,670.
- Construction Phase Services– Lump Sum Fee of \$38,790.
- Construction Observation (RPR) – Time and Materials not to Exceed \$133,075.

The attached spreadsheet provides a detailed breakdown of the manhours, direct costs, and subcontracted services associated with each task. We have also provided the cost proposals from our subconsultants for this project.

If you have any questions or comments regarding this scope of work and fee, please call me at 505-353-3709. We look forward to working with Los Alamos County on this project.

Sincerely,

A handwritten signature in blue ink that reads "Robert A. Fowlie".

Robert A. Fowlie, PE, BCEE
Associate/Client Service Leader
CDM Smith Inc.

Los Alamos County
TA-50 Transmission Main Relocation

Tasks	Hours										Labor Totals	Other Direct Costs	Subconsultants		Total		
	Engineer in Charge	Senior Technical Specialist	Prof VI (PM)	Prof VI (PTL)	Prof II	Sr. Designer Drafter	Prof I	Cost Estimator VI	Contract Admin	Admin Assistant			Firm	Cost			
	\$255.00	\$275.00	\$165.00	\$165.00	\$110.00	\$160.00	\$95.00	\$165.00	\$110.00	\$85.00	Hours	\$					
Task 1 - Project Management	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0		\$0	\$0	
Project Management	<i>included under each task as a subtask</i>										0	\$ -					\$0
Task 2 - Survey and Geotechnical	0	0	0	0	0	20	0	0	0	0	20	\$3,200	\$0		\$35,497	\$38,697	
Topographic Survey and SUE											10	\$1,600		CobbFendley	\$16,927	\$18,527	
Geotechnical Exploration											10	\$1,600		Wood	\$18,570	\$20,170	
Task 3 - Design Phase	30	20	80	4	136	168	0	44	10	16	508	\$78,570	\$350		\$0	\$78,920	
Project Management	2		10	4					10		26	\$3,920				\$3,920	
Monthly Progress Reports/Invoicing			10								10	\$1,650				\$1,650	
Kickoff Meeting (virtual)	4		6		4						14	\$2,450				\$2,450	
Bi-Weekly Progress Meetings	4		10		20						34	\$4,870				\$4,870	
60% Design	12	12	22	0	66	90	0	25	0	8	235	\$36,455	\$350		\$0	\$36,805	
Civil			4		40	70					114	\$16,260	\$350			\$16,610	
60% Cost Estimate			4		16			25			45	\$6,545				\$6,545	
60% Specifications			2		4					8	14	\$1,450				\$1,450	
60% Design Review Workshop	4		4		6						14	\$2,340				\$2,340	
QA/QC	8	12	8			20					48	\$9,860				\$9,860	
90% Design	8	6	16	0	38	70	0	15	0	2	155	\$24,355	\$0		\$0	\$24,355	
Civil			4		22	60					86	\$12,680				\$12,680	
90% Cost Estimate			2		10			15			27	\$3,905				\$3,905	
90% Specifications			2							2	4	\$500				\$500	
90% Design Review Workshop	4		4		6						14	\$2,340				\$2,340	
QA/QC	4	6	4			10					24	\$4,930				\$4,930	
Final Design Package	0	2	6	0	8	8	0	4	0	6	34	\$4,870	\$0		\$0	\$4,870	
Prepare Bid Documents		2	2		4					4	12	\$1,660				\$1,660	
Final Design Package			2		2	8				2	14	\$2,000				\$2,000	
100% Cost Estimate			2		2			4			8	\$1,210				\$1,210	
Task 4 - Bidding Phase Services	0	2	20	2	12	16	0	0	4	2	58	\$8,670	\$0		\$0	\$8,670	
PM/Invoicing/Coordination			8	2					4		14	\$2,090				\$2,090	
Pre-Bid Meeting			4								4	\$660				\$660	
Questions, Addenda		2	2		4						8	\$1,320				\$1,320	
Bid Opening and Award			4		4						8	\$1,100				\$1,100	
Conformed Documents			2		4	16				2	24	\$3,500				\$3,500	
Task 5 - Construction Services	8	4	102	6	107	0	40	0	12	4	283	\$38,190	\$600		\$0	\$38,790	
PM/Invoicing/Coordination			24	6					12		42	\$6,270				\$6,270	
Preconstruction Meeting			3		6						9	\$1,155				\$1,155	
Progress Meetings Weekly (24)			36		24						60	\$8,580	\$300			\$8,880	
RFI's		2	4		12						18	\$2,530				\$2,530	
Change Orders			4		12						16	\$1,980				\$1,980	
Submittal Reviews		2	11		33						46	\$5,995				\$5,995	
Pay Request Reviews			4		6						10	\$1,320				\$1,320	
Site Visit	8		8		8						24	\$4,240	\$300			\$4,540	
Substantial/Final Inspections			6								6	\$990				\$990	
Record Drawings			2		6		40			4	52	\$5,130				\$5,130	
Task 6 - Construction Observation Services	0	0	0	0	0	0	0	0	0	0	0	\$0	\$0		\$133,075	\$133,075	
Construction Observation (6 months)											0	\$0		Spinello- DCS	\$133,075	\$133,075	
Totals	38	26	202	12	255	204	40	44	26	22	869	\$128,630	\$950		\$168,572	\$298,152	

January 10, 2022

Robert A Fowlie PE, BCEE
Associate/Client Service Leader
CDM Smith
Suite 310
6001 Indian School Road, Suite 310, Albuquerque, NM 87110

VIA E-MAIL

Re: Los Alamos County TA-50 Transmission Main Relocation

Dear Mr. Fowlie:

Cobb, Fendley & Associates, Inc. (CobbFendley) is pleased to provide this proposal for the professional services associated with the project referenced above. The proposed Scope of Services and Basis of Compensation are outlined below.

SCOPE OF SERVICES

SURVEY

CobbFendley will establish project control utilizing “Trimble Now” VRS network or survey control provided by CDM Smith. Following validation and field verification of the control network, CobbFendley will collect topographic survey information on approximately 2,500’ of Pajarito Road.

GPS Control Surveys:

- Set and survey a minimum of 3 permanent control points utilizing GPS static techniques along the project corridor. The new control points will be tied to Los Alamos County Geodetic Control and/or existing N.G.S. geodetic control monuments. All surveyed points will be field checked for quality assurance prior to commencing subsequent surveying activities.

Deliverables will consist of a detailed survey report PDF and certified PDF’s and hard copies of the Survey Control Map.

Topographic Survey:

Location and topographic surveys will be conducted in which all pertinent features will be surveyed as described by CDM Smith. Features to be surveyed will include existing planimetrics within the project area and will include curb and gutter, lip of gutter, edge of pavement, fences, walls, breaklines along with visible utilities with invert and pipe sizes, designated utilities to be marked by LANL, and any other pertinent features within the project area. The data will be collected sufficiently to generate mapping at a 1-foot contour interval.

Fee for these services = \$8,789.20 Plus Applicable Taxes

Deliverables will consist of the following:

- Ascii point files in Local Project Surface Coordinates (NAD 83/NAVD 88)
- Copies of all field sketches and digital photographs
- AutoCAD Civil 3D 2018 drawing

Easement Exhibit and Legal Description

CobbFendley will research plat and deed information at the Los Alamos County Assessors and Clerks offices and obtain current vesting documents, plats and/or deeds. Field crews will commence to the site to search for property corners and evidence of occupancy. Field data will then be analyzed to determine the boundary of the parcel. Easement exhibits and legal descriptions will then be developed. CobbFendley will prepare one (1) new easement.

Deliverables will consist of the following:

one (1) Certified legal exhibit and legal description adhering to the Minimum Standards for surveying in New Mexico.

Lump Sum fee per easement = \$3,554.80 plus NMGR

Pothole Survey

Once potholes are complete (by others) CobbFendley will mobilize and survey pothole information. Our assumption is two mobilization and two days of field work.

Lump Sum fee per pothole survey= \$3,057.36 plus NMGR

TOTAL ESTIMATED VALUE OF THIS PROPOSAL (before NMGR) IS \$16,927.04

If this summary is acceptable, please forward an authorization to proceed. If you have any questions or comments, please do not hesitate to contact me.

Sincerely,

COBB, FENDLEY & ASSOCIATES, INC.



Survey Department Manager
Principal



8519 Jefferson Street N.E.
Albuquerque, New Mexico 87113
T: 505-821-1801
www.woodplc.com

January 20, 2022
Wood Proposal No. PF22-0102

CDM Smith
6001 Indian School Road NE
Suite 310
Albuquerque, NM 87110

Attention: Mr. Robert Fowlie, PE, BCEE,

**RE: GEOTECHNICAL INVESTIGATION AND REPORTING SERVICES
TA-50 WATER TRANSMISSION MAIN RELOCATION
LOS ALAMOS NATIONAL LABORATORY
LOS ALAMOS, NEW MEXICO**

Mr. Fowlie,

Wood is pleased to submit this proposal and cost estimate for the Water Transmission Main Relocation project at TA-50 in Los Alamos National Laboratory (LANL), Los Alamos, New Mexico. We have reviewed the solicitation including the documents provided. We understand the overall project is to complete a geotechnical investigation to determine site design parameters required to support design and relocation of the water main through TA-50.

Based on our experience with LANL, the subcontractor submittal requirements consist of training and badging for Wood and our subcontractors and submittal of an Integrated Work Document (IWD). We assume that a site-specific ES&H Plan will not be required, and that Wood's corporate ES&H Plan will be acceptable for this project. We also assume that Wood's Quality Management Program, dated January 2015 (revision 1) and the LANL audit and our IESL listing will be acceptable.

We have provided a detailed cost estimate that is broken down at the task level. For this project, the scope of work has been broken down into five separate Tasks for the purpose of estimating costs. Details related to the scope for each Task are provided below. Based on our communications regarding the project, we understand that the planned depth for the transmission line is between 4 to 10 feet below existing grade.

Task 1: Training, Badging, and IWD

Wood will liaise with the project Subcontractor Technical Representative (STR) to obtain the training for project personnel, badges for subcontractors, and badges for one Wood staff that will be required to be on site to support this project. Wood staff and subcontractors will be required to be present at the LANL facility to obtain badges and required training. Facility specific training will be conducted by Wood and subcontract personnel supporting this Task Order.

In summary, we have assumed project does not include the following:

- Project-specific ES&H Plan
- Project-specific QA Plan
- Project-specific Operations Security Plan



- Project permitting
- Geotechnical Investigation Plan (GIP)

Task 2 and 3: Geotechnical Field Exploration

Wood will drill three (3) exploratory borings by hollow-stem auger methods to approximate depths of fifteen (15) feet. We understand that if auger refusal material is encountered, drilling will be terminated. A truck-mounted drill will be used to advance each boring.

Wood will sample and perform standard penetration tests at depths of 0.5 feet, 2.5 feet, 5.0 feet, 7.5 feet, 10.0 feet, and 15 feet, in each boring. If soft or loose soils are encountered, we will obtain relatively undisturbed samples. Penetration resistance and samples will be obtained by the Standard Penetration Test (ASTM 01586) or 3-inch outer diameter (O.D.) drive samplers. Wood will perform laboratory tests as necessary to verify visual classifications made in the field and to evaluate engineering properties that may influence project performance. The laboratory testing will be performed at the Wood Albuquerque Materials testing facility. The Albuquerque laboratory is Nuclear Quality Assurance-1 (NQA-1) qualified and has been audited by LANL to support this contract. Actual types and quantities of tests performed depend upon subsurface conditions encountered and specific design requirements.

Enviro-Drill (EDI) will provide a CME-75 High Torque (HT) drill rig and a two-man crew. The drill rig will be equipped with 7-5/8" O.D. continuous flight, hollow stem auger and an HQ-3 Wireline Coring System. Auger cuttings will be used to backfill each boring upon completion. Cement/bentonite grout, concrete, bentonite chips, etc. are not included, but can be provided as an additional scope of work if required for boring abandonment. No surface depression will be visible, and all borings will be backfilled and compacted.

Based on the scope of services, we estimate one working day for utility locate and staking/marketing boring locations. We also estimate that drilling operations will take a total of one (1) working day including mobilization/demobilization to complete the three (3) borings. Reasonable allowance will be made for working with LANL personnel, but we have assumed that our drilling subcontractor will be able to conduct their work unhindered.

Wood will request escort services when drilling is to be conducted in secured areas. Cost of escort services is not included in the proposal.

Task 4: Laboratory Testing and Sample Logistics

Laboratory testing will be conducted at the Wood laboratory in Albuquerque on selected soil and rock core samples to obtain engineering properties to help characterize the subsurface. Moisture content analysis will be performed on all recovered soil samples. Sieve analysis, Atterberg limits test, unit weight tests, direct shear tests, and unconfined compression tests will be performed on selected samples. The table below presents our proposed testing schedule.

Laboratory Tests	ASTM Standard
Moisture Content	D2216
Density	D2937
Sieve Analysis	C136 & C117
Atterberg Limits	D4318
Modified Proctor	D1557
Soil Corrosivity Testing	n/a

This task does not include efforts of returning all soil and rock samples to the site. Upon request, Wood will charge an additional 8 man-hours to return samples after testing. Otherwise, Wood will store soil samples at our facility for 30 days then discard them.

Task 5: Geotechnical Investigation Report

Wood will prepare a Geotechnical Investigation Report presenting the results of exploratory drilling, laboratory testing, and engineering analyses.

The final report will include the following:

- Logs of the test borings, a site plan showing their locations, and a description of procedures and equipment used during subsurface exploration.
- Notes on pavement thicknesses, if applicable.
- Results of laboratory tests and a description of test methods.
- A description of the geotechnical profile and depth to groundwater, if encountered, beneath the site.
- Recommendations for subgrade preparation, fill construction and special site treatments.
- Description of groundwater and bedrock depths, if encountered
- Recommendations for utility installation by open-cut excavation techniques
- Recommendations for bedding and backfilling utilities
- Site preparation/earthwork recommendations
- Lateral earth pressures
- Drainage recommendations

Should subsurface exploration or laboratory testing reveal unexpected conditions, recommendations for additional work will be provided, upon review of the data by our project engineer.

PROJECT MANAGEMENT

Wood has allocated a total of 16 hours of effort for project management including procurement of subcontractors, tracking project man-hours and fees, responding to LANL requests, management of labor, and invoicing.

MILESTONE SCHEDULE

The table below presents estimated durations and project milestones. Please note duration is in terms of working days.

Subcontract Milestones	Calendar Days from NTP
Notice to Proceed	0
Submit IWD/Utility locate	7
Complete Field Exploration	1
Complete Laboratory Testing	28
Submit Geotechnical Investigation Reports	14
Total Duration	Fifty days

NOTE: The Milestone Schedule is tied to Notice to Proceed.



FEES

Wood understands that this project will be billed on a firm fixed fee, as detailed in this proposal, and cost estimate. The rates used to develop the fee are in accordance with the unit rates detailed in our MTOA contract. New Mexico Gross Receipts Tax is not included and will not be added if a NTCC is provided. Wood has developed the cost estimate for this project using the MTOA contract rates for non-NQA projects. We have estimated the follow fees for each task:

Task	Description	Lump Sum Price
1	Training, Badging, and IWD	\$ 2,600.00
2	Borehole Drilling	\$ 3,830.00
3	Site Investigations	\$ 2,610.00
4	Laboratory Testing	\$ 3,010.00
5	Geotechnical Investigation Report and	\$ 3,920.00
	Project Management	\$ 2,600.00
	Total Cost for TA-50	\$ 18,570.00

WARRANTY

Our professional services will be performed, our findings obtained, and our recommendations prepared in accordance with generally accepted engineering principles and practices. This warranty is in lieu of all other warranties, either expressed or implied.

ACCEPTANCE

Acceptance of this proposal can be indicated by providing Wood with a Notice to Proceed as per our MTOA contract terms and conditions. Please be advised that this proposal will remain valid for the period of ninety (90) days from the date of this offer.

Should you have questions concerning this proposal, we would appreciate the opportunity to discuss them with you. We greatly appreciate your consideration of our firm for the geotechnical services required for this project.

Respectfully submitted,

**Wood Environment &
Infrastructure Solutions, Inc.**



Azupuri Kaba, Ph.D., P.E., P.M.P.
Geotechnical Engineer

Reviewed by:



Eric Pease, Ph.D., P.E.
Associate Geotechnical Engineer

AK:EP

c: Addressee (2)

January 12, 2022

PAGE 1 OF 2

CDM SMITH/RAY DE LA VEGA, PE,
6001 Indian School Rd NE – Suite 310
Albuquerque, NM. 87110

PROJECT: LOS ALAMOS COUNTY-LANL (TA-50) – 16" TRANSMISSION MAIN
CONSTRUCTION ADMIN-OBSERVATION SERVICES

ONSITE FULL TIME 154 CAL DAYS (SUBST. COMPLETION) – 180 CAL DAYS (FINAL COMPLETION)

Mr. De La Vega,

SPINELLO-DCS, LLC, (S-DCS) **is pleased to provide CDM SMITH** with this Proposal on this Project, providing construction admin & observation services. Thank you for the opportunity to be of services.

SCOPE OF BASIC SERVICES:

(S-DCS) anticipated Scope of Services as follows: (Not limited too)

- + Provide Construction Observation Services **FULL TIME: 6 Mo's BASIS**, coordinating with the Project Team.
- + Review Construction Documents and Contractor Schedules.
- + Attendance @ the Pre-Construction Conference.
- + Conduct Weekly Progress Meetings.
- + Prepare 'Real-Time' Daily Field Reports w/Photos (DFRs) & distributed via e-mail to the Project Team daily – powered by NOTE-VAULT.
- + Verify that field Material Testing (by others) is per construction documents and specifications.
- + Review Change Orders prepared by Contractor, make recommendation to Project Engineer/Owner.
- + Review and make recommendation of Contractor Pay Applications.
- + Project coordination with Owner, Design Engineer & Contractor; as necessary throughout project completion.
- + Setup all Final Inspections with the Project Team.
- + Prepare Punch List.
- + Verify Punch List Items have been completed.
- + Prepare & submit any required Close-out Packages.

PROFESSIONAL TEAM:

- + Jim Spinello has over 40 years of Diversified Construction Services; working with several large and small Agencies within the region, providing these services. Onsite as much as needed to assure continuity & Field Tech Management. Attend Pre-Const. Conf. & Progress Meetings.
- + (S-DCS) also has several diversified Field Technicians to assign on awarded projects pending on timing, complexity of projects.
- + (S-DCS) shall introduce the assigned Project Team at the Pre-Construction Conference.

We **THANK YOU** for this opportunity to serve **CDM SMITH** and will strive to protect the Owner's Investment. Should there be any questions regarding (S-DCS) Project Team or this proposal, please do not hesitate to contact me.

Respectfully,
SPINELLO-DCS, LLC
Jim Spinello
 Jim Spinello, CET- President

COMPENSATION:

An Agreement for the Provision of Professional Services

Professional Firm:

SPINELLO – DCS, LLC (S-DCS)
 PO Box 21956
 Albuquerque, NM 87154-1956

Client:

CDM SMITH
 6001 Indian School Rd NE – Suite 310
 Albuquerque, NM 87110

(S-DCS) is basing this **Time & Material - Not to Exceed (T&M-NTE) Fee** on the Infrastructure Improvements **FT: 5 Mo's @ 40hrs-Wk / PT: 1 Mo's @ 20hrs-Wk** (5 Mo's Const. Duration – 30 Cal Days Close-out) which includes: Close-out Packages-Incidentals and Mileage. Does not include NMGR (Unless NTTC), as follows:

SPINELLO-DCS, LLC– COST (PLEASE REFER TO SCHEDULE OF SERVICES):	\$ 110,100.00
CLOSE-OUT PACKAGES:	\$ 4,125.00
<u>MILEAGE / REPRODUCTION:</u>	<u>\$ 18,850.00</u>
TOTAL TEAM SPINELLO-DCS, LLC:	\$133,075.00

T&M-NTE FEE: Using the procedures set forth, Owner shall pay **SPINELLO-DCS, LLC a Grand Total Estimated T&M-NTE Fee amount of:** ONE Hundred THIRTY-THREE Thousand, SEVENTY-FIVE Dollars. Not including NMGR). Unless issued an NTTC.

(S-DCS) proposes to invoice this project monthly, on a (T&M-NTE) basis for these services. We are basing our fee on construction duration of (26-weeks), starting from the issued Notice to Proceed (NTP).

Should the contractor exceed 26 weeks from the NTP – if approved (S-DCS) shall propose additional fees and continue providing listed Services.

Should there be any questions regarding (S-DCS) Project Team or this proposal, please do not hesitate to contact me.

Accepted this _____ day of 2022.

For:

SPINELLO-DCS, LLC

For:

CDM SMITH

 Signature

 Signature

JIM SPINELLO
 Name

 Name

PRESIDENT
 Title

 Title

SPINELLO - DCS, LLC

DIVERSIFIED CONSTRUCTION SERVICES...

SCHEDULE OF SERVICES

LA COUNTY-LANL (TA-50) - 16" TRANSMISSION MAIN

CONST ADMIN-OBSERVATION SERVICES

1.12.2022

ONSITE FULL-TIME SERVICES:

154 CAL DAYS (SUBSTANTIAL COMPLETION) - 180 CAL DAYS (FINAL COMPLETION)

Pre Construction Services (REVIEW PLANS/SPECS & PRE-CONST CONFERENCE)

	Hrly Rate	Est. Hours	Estimated Amount
Const Serv. Mgr.	\$135.00	8	\$1,080.00
Field Technician	\$95.00	8	\$760.00
Administrative	\$45.00	0	\$0.00
			\$1,840.00

Time Spent During Construction (5 Mo's./22 Wk's Construction Duration)

	Hrly Rate	Est Hours	Estimated Amount
Const Services Manager (8 HRS-WK)	\$135.00	176	\$23,760.00
Field Technician (40 HRS WK)	\$95.00	880	\$83,600.00
Administrative	\$45.00	20	\$900.00
			\$108,260.00

Record Drawings/Final Inspections/Closeout

	Hrly Rate	Est. Hours	Estimated Amount
Const Services Manager	\$135.00	15	\$2,025.00
Field Technician	\$95.00	15	\$1,425.00
Administrative	\$45.00	15	\$675.00
			\$4,125.00

Incidentals/Mileage **

	Per Diem	Est. Weeks	Estimated Amount
Const Services Manager	\$125.00	26	\$3,250.00
Field Technician	\$600.00	26	\$15,600.00
Administrative	\$0.00	26	\$0.00
			\$18,850.00

TEAM SPINELLO - DCS, LLC.

\$133,075.00

OVERTIME RATES

	Hrly Rate
Const Services Manager	\$200.00
Field Technician	\$140.00
Administrative	\$65.00

** Assuming 200 miles /per day @ a rate of:
\$.55cents/per mi. = \$110/day.
Actual current rate is \$.58.5cents /per mi.

Meals (lunch for FieldTech) assumed
\$10.00/per day & only \$15.00/per wk for
Const Mgr & Client.