CONTRACT OUTREACH

District 2
Middle Mile Broadband Network
(Specific routes within Modoc, Lassen, Shasta, Siskiyou, and Trinity Counties)
North Region Capital Outlay Support
Office of Broadband Middle Mile Network

Disclaimer:

The information provided in today's outreach event does not constitute a solicitation or offer of any contract with Caltrans. It solely serves an informational purpose only.
The scope of work, contract amount, schedule, and other aspects of the contract are still under development. Information provided is preliminary and subject to change.
MMBN is open access, state-owned high-capacity fiber lines that carry large amounts of data at higher speeds over longer distances between local networks. It will connect to a last-mile broadband infrastructure that will connect homes and businesses with local networks.

Purpose

The lack of available middle-mile broadband infrastructure has been a major issue in connecting California's unserved and underserved communities. The statewide open-access middle-mile network included in SB 156 will be a foundational investment to ensure every Californian has access to broadband Internet service, which meets the connectivity needs of today, and well into the future. Last-mile infrastructure relies on middle-mile to provide service to residents, large and small-businesses, schools, government offices, public safety agencies, and libraries. An open-access middle-mile network can provide the backbone for last-mile providers to serve residences and reduce costs of providing service for businesses and anchor institutions.

Contract Information

The Middle Mile Broadband Network (MMBN) is a physical fiber optic cable system for internet connectivity that is not yet connected. Senate Bill (SB)156 (Chapter 112, Statutes of 2021) expands the state's broadband fiber infrastructure and increases internet connectivity for families and businesses. The goal is to provide equitable access to high-speed broadband service and prioritize inclusion of unserved and underserved populations, tribal entities, agricultural regions, and anchor institutions (hospitals, universities, government entities, and community non-profits).

Estimated Contract Amount: $9,800,000

DVBE Requirements: 5%
Term: 4 Years (2 years or less to complete the 0 & 1 phase. 2 years for construction support)
Target RFQ: Beginning of October 2022
District 2: Lassen, Modoc, Shasta, Siskiyou, and Trinity Counties (within specified routes)

District 1
Estimated Contract Amount: $4,000,000
DVBE Requirements: 5%
Term: 4 Years (2 years or less to complete the 0 & 1 phase. 2 years for construction support)
Target RFQ: October 2022
Location: Mendocino County (within specified routes)

District 3
Estimated Contract Amount: $5,100,000
DVBE Requirements: 5%
Term: 4 Years (2 years or less to complete the 0 & 1 phase. 2 years for construction support)
Target RFQ: Beginning of November 2022
Location: Nevada, Placer, Sierra, and El Dorado Counties (within specified routes)

Scope Details

The preliminary engineering and environmental services required to complete the Project Approval & Environmental Document (PA&ED) phase; final plans, specifications, and estimate (PS&E) documents; right-of-way (R/W) engineering services; assistance during bidding; and engineering services support during construction are as follows.

PA&ED Phase

- Services related to the preliminary design of the Project infrastructure providing a continuous conduit path within the state highway R/W in accordance with Caltrans policies and standards.
- Develop preliminary cost estimate of Project construction and installation.
- Identify the need for new R/W, permanent easements, and temporary construction easements. Coordination with affected agencies to determine R/W impacts, such as utility right of way or relocation needs. Services related to the preparation, review, approval, and distribution of the Project Report and Final Environmental Document.

PS&E Phase

- A complete and final PS&E package that includes but is not limited to roadway, traffic, BMMN fiber optic cable system (using electrical

nomenclature), utility, landscaping, erosion control, and stage construction. Final plans shall consist of splicing vault locations, pull boxes, and all other information necessary to convey the design to the construction contractor, including documentation required for fiber optic cable system construction and installation.

- Land surveying including, but not limited to, preparing topographic, control, and boundary deliverables; drafting field notes, maps, drawings, and all other survey documents.
- Preparation of Right of Way Engineering documents including, but not limited to, preparation and recordation of various types of recorded maps, Land Net Maps, Appraisal Maps, Deeds, and all activities related to Right of Way Monumentation, Condemnation, Deeds, and Right of Way Record Maps.
- **Engineering Services Support During Construction Phase**
- Field review of construction/installation plans with contractors prior to construction/installation work.
- Land surveying and GIS data collection of installed infrastructure and support hardware including but not limited to vault enclosures, conduits, and network hub shelters.
- Providing support services consisting of design response to unanticipated or changed field conditions, analysis and participation in proposed design changes, and ongoing interpretation and classification of design plans.
- **Expectations are for segmented delivery, and incorporate lessons learned into future RTL packages.**

Design Considerations

Aggressive Project Schedules and Timelines

- Biddable and Buildable
  - Focus on avoidance of impacts
- Must complete designs in less than 2 years (December 2024)
  - Accelerated segmented delivery
- Not to exceed 4 years through final construction (December 2026)
- Design guidelines, standards, and specifications provided by HQ / CDT team

Work completed; to be provided to Consultant.

- Typical sections
- Bid items
- Specs

Environmental Considerations

Aggressive Project Schedules and Timelines

- CEQA Statutory Exemption or CE / NEPA CE, when possible

- Try to avoid resources when possible
- Try to avoid resource agency permitting when possible
- Look for innovative approaches
- Experienced personnel

Work completed; to be provided to Consultant.

- Work closely with Caltrans staff
- Use pre-existing surveys, resource and database information
- Preliminary work has been completed for some routes.

Project Surveyor Considerations

Specific tasks may include:

- Determination of existing rights (fee, easement, prescriptive, Federal lands) and preparation of a report signed by the PS. **(High probability)**
- Creation of R/W lines (5'+/- ?) and PS to approve lines. **(Medium probability)**
- Delivery of R/W determination and lines to Design Team. **(Medium probability)**
- Acquire additional rights adjacent to fee ownership based on design requirements. PS to prepare plats and legals. **(Low probability)**
- Acquire additional rights over existing/adjacent prescriptive, easement or Federal Lands, PS to prepare plats and legals. **(Medium probability)**
- Marking the R/W in the field. **(Low probability)**
- Staking of hub infrastructure improvements (location, drainage, access, etc.) **(Medium probability)**
- Certifying 3D as-builts. **(High probability)**

Work completed; to be provided to Consultant.

- Existing land rights for most routes.

  Project Surveyor Considerations

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- Marking the R/W in the field. **(Low probability)**
- Staking of hub infrastructure improvements (location, drainage, access, etc.) **(Medium probability)**
- Certifying 3D as-builts. **(High probability)**

Work completed; to be provided to Consultant.

- Existing land rights for most routes.

  Work is expected to be completed within existing State R/W except as noted below. R/W functions will be handled by Caltrans and may require extensive coordination throughout the project development process.

Right of Way R/W Considerations

Utility Avoidance

- To achieve the aggressive delivery schedules utility conflicts must be avoided.
- Verification maps and historical data will be provided when available.
- Positive Location of utilities will be required/completed during construction.
- Various construction methodologies may be required to ensure conflict avoidance, e.g., directional boring.

Railroad Involvement

- One instance of work to be completed outside State R/W is crossing of railroad R/W.
- Railroad agencies have lengthy processes associated with granting project approval and permits for any crossings of their facilities. 3-6 months minimum for initial review with 1-3 months for each revision review. Process can be streamlined with adherence to RR (AREMA) standards with placement of conduit 15' below grade.
- Extensive coordination with State R/W Agents will be required to address RR questions and ensure compliance with RR policies and requests.

Federal Lands and Lands Owned/Managed by Other State Agencies

- Another instance of work outside Caltrans R/W relates to areas where the State Highways pass through Federal Lands and Lands owned or managed by other state agencies, such as National or State Parks, Tribal Lands, and Levee Districts.
- Permitting and project approval requirements can vary greatly from one agency to another.
- Extensive coordination with State R/W Agents will be required to address requirements for permitting on Federal Lands and other associated areas where Caltrans requires additional rights or permitting to work in the area.

Work completed; to be provided to Consultant.

- Facility maps.

DES Considerations

Work completed by DES Office of Transportation Architecture Electrical Mechanical Water & Wastewater; to be provided to Consultant.

- DES OTAEMWW will provide the site layout and foundation design for the network hub shelter and propane tank.
- DES OTAEMWW will help districts in site validation for setbacks.
- DES OTAEMWW will provide Fire Marshal permit support
- The network hub shelter and the generator will be department-furnished items.
- OTAEMWW will also provide foundation design for the generator and site validation to check proper clearances and measurements of driveway leading to network hub shelter for fire department access and maintenance.

Work completed by District; to be provided to Consultant.

- The district will cover electrical service and related work, grading design, and fencing.
- Coordination with Air Quality Management District (AQMD) for generators and coordination with utility agencies will be covered by districts.

Consultant Personnel

The personnel classifications listed below are included in, but not limited to, the scope of work and are explained in further detail within the RFQ.

Consultant Contract Manager

- A degree (Bachelors, Masters, or higher) in engineering, planning, or other transportation-related field.
- A documented minimum of 10 years of demonstrated experience acceptable to Caltrans delivering highway projects AND EITHER:
  - A documented minimum of five years of demonstrated experience acceptable to Caltrans as a Project Manager (Project Development Team leader who manages multi-disciplinary resources across all phases of the project).

OR

- A documented minimum of seven years of demonstrated experience acceptable to Caltrans in fiber network design or a related field.

Biologist Personnel

- Bachelor of Science/ Bachelor of Arts Degree in Natural Sciences, Biology, Environmental Studies, or related discipline.
- A minimum of three (3) years of demonstrated experience acceptable to Caltrans in either biological impact analysis of

transportation projects including impacts to species of concern and their habitats, wetlands, and waters of the U.S., or biological mitigation development and monitoring.

- Possess or obtain the necessary collecting and/or handling permits, and/or have species specific experience, in order to provide services as required for sensitive, threatened, and endangered animal species.

Level of Effort Anticipated

- Memos, Natural Environment Study (NES), NES Minimal Impact (MI), Biological Assessments, (BA's), Aquatic Resource Delineations, botanical Surveys, focused habitat assessments, pre-construction surveys, monitoring and permitting.

Environmental Generalist

- A Bachelor of Science/Arts Degree in engineering, construction management, biology, planning or other environmental field related to the assigned specialized services.
- Documented minimum of five years of demonstrated experience acceptable to Caltrans with environmental compliance services is desirable and preferably related to local, regional, or highway projects.

Level of Effort Anticipated

- Most generalist work will be done in-house by Caltrans.

GIS Personnel

- A documented minimum of three years of demonstrated experience in the field of GIS is required and preferably related to highway projects.
- GIS certification is desirable.

Archaeologist

- A degree (Bachelors, Masters or higher) in Anthropology with a concentration in California Archeology. Must meet the Secretary of the Interior Professional Standards. Experience and familiarity with Caltrans cultural resources process.

Level of Effort Anticipated

- Tribal outreach, Memos, APE maps, Site investigations, HPSR, ASR or HRER if applicable, ESA Action Plans, Extended Phase 1 (XPI) proposals, reporting, field work and monitoring.

Engineering Geologist

- A degree (Bachelors, Masters, or higher) in engineering geology, geology, or related field.
- A documented minimum five (5) years of demonstrated experience acceptable to Caltrans in engineering geology.
- License as a Registered Certified Engineering Geologist in the State of California.

Level of Effort Anticipated

- Hazardous waste and Paleontological compliance may have been completed on various routes but if not, consultant may be requested to produce clearance memo's, Initial Site Assessments (ISA's), SSP's and nSSP's to incorporate into construction.

Quality Management Specialist

- A degree (Bachelors, Masters, or higher) in engineering, planning, or other transportation-related field is mandatory.
- A documented minimum of five years of demonstrated experience acceptable to Caltrans in Roadway Design, Project Development, or Construction of transportation-related projects.
- License as a Registered Professional Civil Engineer licensed in the State of California.

Hydraulic/Hydrological Engineer

- A degree (Bachelors, Masters, or higher) in engineering, landscape architecture, water quality, hydrology, or related environmental engineering field.
- A documented minimum of three years of demonstrated experience acceptable to Caltrans in the field of Hydraulics, Hydrology, Storm Water Quality, Erosion Control, and Horticultural expertise in plant and seed collection, propagation, and assessment, particularly as it relates with roadway projects.
- License as a Registered Professional Civil Engineer in the State of California.

Level of Effort Anticipated

- Prepare WQ memos, Water Quality Assessment Reports (WQAR), Location hydraulic studies / Summary floodplain encroachment reports.

Project Engineer

- A degree (Bachelors, Masters, or higher) in engineering, planning, or other transportation-related field.
- A documented minimum of five years of demonstrated experience acceptable to Caltrans in a leading capacity in Roadway Design and related Project Development and Construction of transportation-related projects.
- License as a Registered Professional Civil Engineer in the State of California.

Project Surveyor

- A Professional Land Surveyor licensed in the State of California.
- A pre-January 1, 1982, Registered Professional Civil Engineer licensed in the State of California.

Geotechnical Engineer

- A degree (Bachelors, Masters, or higher) in engineering, geology, or other transportation-related field.

- A documented minimum of five years of demonstrated experience acceptable to Caltrans in Roadway Design with an emphasis in foundation elements.
- License as a Registered Professional Geotechnical Engineer in the State of California.

Level of Effort Anticipated

- Geotech reports may be required for Horizontal Directional Drilling (HDD)

Electrical Engineer (Advisory Capacity)

- A degree (Bachelors, Masters, or higher) in electrical engineering or related field.
- A documented minimum of five years of demonstrated experience acceptable to Caltrans in performing engineering design, permitting, and cost estimation of outside plant for fiber optic networks.
- License as a Registered Professional Electrical Engineer in the State of California.
- Experience with large-scale middle-mile broadband fiber networks is desirable.

Information Resources

Caltrans Website:
https://dot.ca.gov/
CDT Broadband Initiative Website: Information and Map
https://middle-mile-broadband-initiative.cdt.ca.gov/
DPAC A&E website:
https://dot.ca.gov/programs/procurement-and-contracts
Look Ahead Report:
Procurement-and-contracts/ae-contract-information
Division of Procurement and Contracts (DPAC)
For information on SOQ processes and policies, click on the link for a pre-recorded video presented by the Division of Procurement and Contracts (DPAC).
https://youtu.be/mGgVEnUJ_S8
Office of Small Business & Disabled Veteran Business Enterprise Services (OSDS)
For certification program-related inquiries:
Email: OSDSHelp@dgs.ca.gov
Phone: 916-375-4940
To apply for certification:
https://caleprocure.ca.gov/pages/CertificationProcess/sbdvbe-1.aspx

Questions and Answers

All questions discussed during this outreach will be documented and posted to the DPAC website. For questions post outreach, please submit to: AE.Customer.Service@dot.ca.gov