

BUDGET INFORMATION - Construction Programs

OMB Approval No. 4040-0008
Expiration Date 07/30/2010

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ 9,136,593.00	\$ 0.00	\$ 9,136,593.00
2. Land, structures, rights-of-way, appraisals, etc.	\$ 2,657,051.00	\$ 0.00	\$ 2,657,051.00
3. Relocation expenses and payments	\$ 0.00	\$ 0.00	\$ 0.00
4. Architectural and engineering fees	\$ 2,578,500.00	\$ 0.00	\$ 2,578,500.00
5. Other architectural and engineering fees	\$ 4,148,733.00	\$ 0.00	\$ 4,148,733.00
6. Project inspection fees	\$ 790,400.00	\$ 0.00	\$ 790,400.00
7. Site work	\$ 322,313.00	\$ 0.00	\$ 322,313.00
8. Demolition and removal	\$ 0.00	\$ 0.00	\$ 0.00
9. Construction	\$ 80,940,644.00	\$ 0.00	\$ 80,940,644.00
10. Equipment	\$ 773,713.00	\$ 0.00	\$ 773,713.00
11. Miscellaneous	\$ 88,050.00	\$ 0.00	\$ 88,050.00
12. SUBTOTAL (sum of lines 1- 11)	\$ 101,435,997.00	\$ 0.00	\$ 101,435,997.00
13. Contingencies	\$ 0.00	\$ 0.00	\$ 0.00
14. SUBTOTAL	\$ 101,435,997.00	\$ 0.00	\$ 101,435,997.00
15. Project (program) income	\$ 0.00	\$ 0.00	\$ 0.00
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ 101,435,997.00	\$ 0.00	\$ 101,435,997.00
FEDERAL FUNDING			
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter eligible costs from line 16c Multiply X <input type="text" value="80"/> % Enter the resulting Federal share.			\$ 81,148,788.00

INSTRUCTIONS FOR THE SF-424C

Public reporting burden for this collection of information is estimated to average 180 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0041), Washington, DC 20503.

**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET.
SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

This sheet is to be used for the following types of applications: (1) "New" (means a new [previously unfunded] assistance award); (2) "Continuation" (means funding in a succeeding budget period which stemmed from a prior agreement to fund); and (3) "Revised" (means any changes in the Federal Government's financial obligations or contingent liability from an existing obligation). If there is no change in the award amount, there is no need to complete this form. Certain Federal agencies may require only an explanatory letter to effect minor (no cost) changes. If you have questions, please contact the Federal agency.

Column a. - If this is an application for a "New" project, enter the total estimated cost of each of the items listed on lines 1 through 16 (as applicable) under "COST CLASSIFICATION."

If this application entails a change to an existing award, enter the eligible amounts *approved under the previous award* for the items under "COST CLASSIFICATION."

Column b. - If this is an application for a "New" project, enter that portion of the cost of each item in Column a. which is *not* allowable for Federal assistance. Contact the Federal agency for assistance in determining the allowability of specific costs.

If this application entails a change to an existing award, enter the adjustment [+ or (-)] to the previously approved costs (from column a.) reflected in this application.

Column . - This is the net of lines 1 through 16 in columns "a." and "b."

Line 1 - Enter estimated amounts needed to cover administrative expenses. Do not include costs which are related to the normal functions of government. Allowable legal costs are generally only those associated with the purchases of land which is allowable for Federal participation and certain services in support of construction of the project.

Line 2 - Enter estimated site and right(s)-of-way acquisition costs (this includes purchase, lease, and/or easements).

Line 3 - Enter estimated costs related to relocation advisory assistance, replacement housing, relocation payments to displaced persons and businesses, etc.

Line 4 - Enter estimated basic engineering fees related to construction (this includes start-up services and preparation of project performance work plan).

Line 5 - Enter estimated engineering costs, such as surveys, tests, soil borings, etc.

Line 6 - Enter estimated engineering inspection costs.

Line 7 - Enter estimated costs of site preparation and restoration which are not included in the basic construction contract.

Line 9 - Enter estimated cost of the construction contract.

Line 10 - Enter estimated cost of office, shop, laboratory, safety equipment, etc. to be used at the facility, if such costs are not included in the construction contract.

Line 11 - Enter estimated miscellaneous costs.

Line 12 - Total of items 1 through 11.

Line 13 - Enter estimated contingency costs. (Consult the Federal agency for the percentage of the estimated construction cost to use.)

Line 14 - Enter the total of lines 12 and 13.

Line 15 - Enter estimated program income to be earned during the grant period, e.g., salvaged materials, etc.

Line 16 - Subtract line 15 from line 14.

Line 17 - This block is for the computation of the Federal share. Multiply the total allowable project costs from line 16, column "c." by the Federal percentage share (this may be up to 100 percent; consult Federal agency for Federal percentage share) and enter the product on line 17.

ASSURANCES - CONSTRUCTION PROGRAMS

OMB Approval No. 4040-0009
Expiration Date 07/30/2010

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

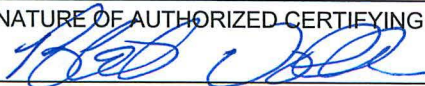
As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progress reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the

National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-1 33, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

*SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL 	*TITLE Chief Executive Officer
*APPLICANT ORGANIZATION California Broadband Cooperative	*DATE SUBMITTED 06-16-10



Comprehensive Community Infrastructure **Budget Narrative**

Applicant Name: California Broadband Cooperative, Inc.

EasyGrants Number: 5569

Organization Type: Cooperative

Proposed Period of Performance: 24 Months

Total Project Costs: \$ 101,435,997

Total Federal Grant Request: \$ 81,148,788

Total Matching Funds (Cash): \$ 20,287,209

Total Matching Funds (In-Kind): \$ 0

Total Matching Funds (Cash + In-Kind): \$ 20,287,209

Total Matching Funds (Cash + In-Kind) as Percentage of Total Project Costs: 20%

***** IMPORTANT*****

- ❖ **All Matching Funds are Cash. There are no In-Kind Matching Funds.**
- ❖ **All rates for labor are within the prevailing wage standards.**
- ❖ **All materials include California Sales Tax.**



Legend:

COE = Central Office Engineer	FTE = Full Time Employee
GM = General Manager	OSP = Outside Plant
PM = Project Management	PTE = Part Time Employee
SB = Splice Box	Std = Standard

1. Administrative and legal expenses - \$9,136,593



of this category is for Administrative Labor (includes IT Support and Application Development.)

Item	Rate	Units	Total Cost	Units of Measure	Rationale
Accounting					Acct full time [redacted] 18 month for admin of project and ARRA reporting.
Agency Coordination / Filing					Activities for [redacted] filings, per Environmental Consultant at their contracted hourly rate.
Agency Liaison					[redacted] for external communications, coordination with state/local gov't.
Business Processes					[redacted] to create and document Business Processes and records.
IT Support					[redacted] to support project computers, network, and integrate servers/OSS systems.
Contract Administration					[redacted] to administer sub-contractor contracts during construction.
Project Management					[redacted]
Project Office					[redacted]
Application Development - NOFA					[redacted]
TOTAL					



[Redacted] of this category is for Administrative Software.

Item	Rate	Units	Total Cost	Units of Measure	Rationale
Accounting and Finance Syst.					
Project Management Software					
TOTAL					

[Redacted] of this category is for Legal and Filing Fees, including permits.

Item	Rate	Units	Total Cost	Units of Measure	Rationale
					[Redacted] month 24 month.
Applications and Filing Fees					Various fees for filing for regulatory initiatives in Nevada and California.
Building and Site Permits					[Redacted] building permits for pre-fabricated preparation fees per Counties.
Dept. of Transport. Permits					[Redacted] inspection [Redacted] inspectors and one coordinator during period of underground construction [Redacted]
Permits - Parallel Trenching					County Permits linear permit schedule, based upon [Redacted] county/city areas.
Permits - Street Crossings					County Permits schedule, based upon estimated street crossings of underground const for Laterals in county/city areas.
Permits - Other					Estimated costs of permits for temporary land use, project filing fees, and environmental studies.
TOTAL					



[redacted] of this category is for the Administrative Office (includes utilities, insurance for government property during the construction phase – largely nodes and their network electronics).

Item	Rate	Units	Total Cost	Units of Measure	Rationale
Office Preparations					One time per-person set-up [redacted] project office workers, based on a detailed breakdown of miscellaneous items
Project Office Rental					[redacted] project office in [redacted] Based on center and yard space.
Telephone/Internet (Const. Phase)					Internet and telephone services for project office during construction phase.
TOTAL					

[redacted] is the Matching Cash Funds for the Administration and Legal Category.

Source	Commutation	Cash Contribution
<i>California Public Utility Communication</i>		
<i>Praxis Associates, Inc.</i>		
Total	Matching Cash Funds	



2. Land, structure, rights-of-way, appraisals, etc. - \$2,657,051

\$2,657,051 of this category is for Office and node Structures.

Item	Rate	Units	Total Cost	Units of Measure	Rationale
Acquire site for Fiber Nodes					Based on quote from pre-fabricated telecom building manufacturer. Preformed. Fully functional with average cost based on Real Estate research by agent.
Hut Insulation Kit (Extreme Temp.)					Three nodes are located in the Mojave desert and one is located in extreme high mountain climate, requiring additional insulation. Per vendor quote.
Mobile Construction Offices					two mobile construction offices will be acquired to move along with progress of construction. Based on list price and set up.
Placing & Securing Structure					buildings off the delivery truck and install them on the slabs at each node site.
Racks and Iron Work					Cable racking and trays for fiber and power cable in estimates from pervious invoices for similar projects.
TOTAL			\$2,657,051		

is the Matching Cash Funds for the Land, structure, rights-of-way, appraisals, etc.

Source	Commutation	Cash Contribution
California Public Utility Communication		
Praxis Associates, Inc.		
Total	Matching Cash Funds	

3. Relocation expenses and payment - \$0

\$0 have been allocated for Relocation Expenses and Payment. There will be NO relocations on this project.



4. Architectural and engineering fees - \$2,578,500

\$2,578,500 of this category is for engineering, architectural work for node sites and CAD Design.

Item	Rate	Units	Total Cost	Units of Measure	Rationale
COE Engineering					This is the detailed design of the node, electronics, and NOC relating to the network. [REDACTED] and interconnect points, as well as [REDACTED]
OSP CAD Design					This is the detailed computer-based design in AutoCAD and in ArcGIS for construction, permits and cable location records. [REDACTED]
OSP Engineering					[REDACTED] to update existing designs for permitting, resolve local issues during construction. Standard billing rate.
OSP Engineering - Surveying					Three [REDACTED] engineering teams of 2 for detailed route layout and surveying in field.
Site Architectural Plans					Cost per site improvement plans for Node sites, including basic node design and site plans. Arch estimated.
TOTAL			\$2,578,500		

[REDACTED] is the Matching Cash Funds for the Architectural and Engineering Fees.

Source	Commutation	Cash Contribution
California Public Utility Communication		
Praxis Associates, Inc.		
Total	Matching Cash Funds	

5. Other architectural and engineering fees - \$4,148,733

[REDACTED] of this category is for Network and Information Technology Testing (Cable, Equipment, Network and Service).



Item	Rate	Units	Total Cost	Units of Measure	Rationale
Cable Testing					End to end OSP cable testing and trouble shooting between [REDACTED] – two people each. [REDACTED] cable testing laterals. Std hourly rate.
Equipment Testing (FOT)					Testing of Fiber Optic Terminals and equipment in within each node building and laterals. Std rate for data com expert.
Electric Power (Testing Phase)					We used historic project costs to estimate our power consumption needs during the testing phase of this project. In total, we have [REDACTED] nodes and 1Network Operations Center NOC. (These include only the locations where our equipment is to be installed). [REDACTED] nodes are new buildings. The 1 NOC building will house all of the IT gear and where the network will be monitored and tested as well. The testing process includes a full set of tests for IT and network equipment. The electric power consumed is for the network equipment and heating/air conditioning needed to control the equipment environment in the buildings. The cost estimate is two part: We assumed [REDACTED] locations at [REDACTED] over the [REDACTED] period the equipment soaks and is tested -- [REDACTED] = [REDACTED]. In addition, he NOC will we operational prior to the Nodes, and but will have somewhat less [REDACTED]. We've estimated the NOC [REDACTED]
Network System Testing					
Service Testing - Anchor Circuits					
TOTAL					



██████████ of this category is for Cultural and Environmental Resources (includes Field Studies) that are required by the California Environmental Quality Act.

Item	Rate	Units	Total Cost	Units of Measure	Rationale
Cultural Resource Specialist	██████████	██████████	██████████	Lump Sum - Consultant Estimate	Historical surveys and on-site archeological monitoring as required by ██████████ per consultants during project excavation. Billing rate.
Environmental Oversight				Lump Sum - Consultant Estimate	Project liaison with Environmental consultant to provide technical support. ██████████
Environmental Study and Plan				Lump Sum - Consultant Estimate	Environmental impact analysis and project mitigation plan. Consultant estimate based on similar, local work.
Field Biologist/Botanist				Lump Sum - Consultant Estimate	On-going site monitoring during excavation in sensitive habitats as part of Mitigation Plan. Consultant estimate based on construction interval.
Field Studies				Lump Sum - Consultant Estimate	Environmental studies of select species habitats that could be impacted by project. Consultant estimate.
Project Assessment				Lump Sum - Consultant Estimate	Assessment and filings with ██████████ and federal agencies. Based on Environmental consultant estimate.
TOTAL					

██████████ is the Matching Cash Funds for the Other Architectural and Engineering Fees.

Source	Commutation	Cash Contribution
California Public Utility Communication	██████████	██████████
Praxis Associates, Inc.		
Total		

6. Project inspection fees - \$790,400



\$790,400 of this category is for Quality Control and field inspections of the work. It does not include Permit fees that are included in Legal and Filing Fees (Section 1: Administrative and Legal Expense)

Item	Rate	Units	Total Cost	Units of Measure	Rationale
Quality Control - Sr. Field Inspections			\$790,400	Unit = Hr. , Std Industry Rate, # =	Quality control and field inspection of work to assure Std Ind. Billing rate.
TOTAL			\$790,400		

is the Matching Cash Funds for the Project Inspection Fees.

Source	Commutation	Cash Contribution
California Public Utility Communication		
Praxis Associates, Inc.		
Total	Matching Cash Funds	

7. Site work - \$322,313



\$322,313 of this category is for Site Preparations for the Central Offices (nodes).

Item	Rate	Units	Total Cost	Units of Measure	Rationale
Fencing - [REDACTED] Enclosure	[REDACTED]	[REDACTED]	[REDACTED]	Vendor Est., # Per	[REDACTED] with security wiring, two gates. Local contractor estimate per location based on Cellular work performed.
Site Preparation - Hut	[REDACTED]	[REDACTED]	[REDACTED]	Vendor Est., # Per	Preparation of [REDACTED] (grading, slab, electrical conduit, and drainage. Per node, per contractor estimates.
TOTAL			\$322,313		

[REDACTED] is the Matching Cash Funds for the Site Work.

Source	Commutation	Cash Contribution
California Public Utility Communication	[REDACTED]	[REDACTED]
Praxis Associates, Inc.	[REDACTED]	[REDACTED]
Total	Matching Cash Funds	

8. Demolition and removal - \$0

\$0 have been allocated to Demolition and Removal. There is NO demolition on this project.

9. Construction - \$80,940,644



The line item pricing in this section is based on detailed field designs to obtain units, materials quotes from vendors, and some labor estimates, based on standard industry rates for similar work. The labor rates are also customary pricing derived from the local telecommunications industry contractors. Particular attention was paid to excavation, due to the large component it plays in the budget. The route was extensively surveyed by engineers and several excavation consultants. In addition, meetings were held with equipment manufacturers to obtain the latest information about equipment productivity.

The CBC contractor has determined that the unit prices on cable, conduit, vaults and related cable materials are very competitive with pricing that large telecommunications companies are paying for this equipment. California sales tax od 9.5% has been added, as well as delivery fees. The bulk of the products are manufacturer direct prices, with a 10% handling fee modifier to wholesale prices.

Item	Rate	Units	Total Cost	Units of Measure	Rationale
				Unit = Ea., \$= Quote, # = 1 per Node	Required in each or main route nodes to terminate main route and local cable. Vendor quote.
				Unit = Ea., \$= Quote, # = 1 per Node	Required in each node to terminate main route and local cable in smaller cable nodes of Benton, Boron and Crowley. Vendor quote.
				Unit = Ea., \$= Quote, # = 1 per Node	Required in each node to terminate main route and local cable in end nodes of Barstow and Carson. Vendor quote.
				Unit = Ft., \$= Industry Std Rate, # = Field Measured	Lease of 30 miles 4 strands of dark fiber. Per American Fiber System quote.
				Unit = Yd., Quote per Unit, Qty Estimate	Estimate, based on number of boring locations in lateral cables and on main route. Prices from local quote.
				Unit = Ea., \$= List Price, #=per node	One propane generator for each of Core nodes as back-up power. List price in vendor catalogue.
				Unit = Ea., \$= Quote, # = Per 4500 ft	One splice vault (traffic rated per Caltrans requirements) for each 4500' of conduit. Vendor quote.
				\$/ft - Ind. Std Rate., Field Measured	Back-hoe or suck-vac excavation and placing of barrel vault based on contractor estimates and experience.

9. Construction Cont.



Item	Rate	Units	Total Cost	Units of Measure	Rationale
					██████████ to for traffic protection at key node sites. Costs based on previous experience. (Two each location to protect vault access and generators.
					██████████ to facilitate collocation interconnection by Last Mile service providers and meet Open Architecture Network standards. Price as Quoted by vendor Needed to place conduit.
Boring - Dirt					Customary aggregate rate for boring in dirt in largely unpaved areas. There is ██████████ of boring for main route and or largely paved area boring for ██████████ of Laterals. Validated by several contractor and equip. manufacturer estimates. Footages field measured. Needed to place conduit.
Boring - Dirt with Rock					Customary rate for boring in dirt with rock in largely unpaved areas. There is ██████████ of boring for main route and no boring of this type for Laterals. Validated by several contractor and equip. manufacturer estimates. Footages field measured. Needed to place conduit.
Boring – All Terrain					Customary rate for All Terrain boring in unpaved areas. There is ██████████ for Main Route and 16,300 for June Spur and laterals This equipment is specialized for difficult-to-access locations. Unit price validated by several contractors and equip. manufacturer. Footages field measured. Needed to place conduit.
Boring - Soil/Rock with Casing					Customary ate for boring and placing hard casing in bore hole. Required under Caltrans highways and railroads. ██████████ for main route. Validated by several contractor and equip. manufacturer estimates. Footages field measured. Needed to place conduit.
Boring - Solid Rock					Customary rate for boring in solid rock in the Mono County area. There is ██████████ of this construction in the route. Validated by several contractor and equip. manufacturer estimates. Needed to place conduit.

9. Construction Cont.



Item	Rate	Units	Total Cost	Units of Measure	Rationale
Build Terminal – Field					Per unit labor to build each field terminal at CCI anchor and POI locations. Includes travel, access, set up cable routing and splicing.
C.O. Equip. Installation (Fiber)					
Cable, [REDACTED] (DE/Metal)					Field measured, fiber optic cable as quoted by contract with major vendor. [REDACTED]
Cable, [REDACTED] (DE/Metal)					Field measured, fiber optic cable as quoted by contract with major vendor. [REDACTED]
Cable, [REDACTED] (DE/Metal)					Field measured, fiber optic cable as quoted by contract with major vendor. [REDACTED] Anchor Laterals
Cable, [REDACTED] (DE/Metal)					Field measured, [REDACTED] strand fiber optic cable as quoted by contract with major vendor. 2,298438 for main route, [REDACTED] for laterals This is the main backbone for the route.
Cable, [REDACTED] (DE/Metal)					Field measured, [REDACTED] strand fiber optic cable as quoted by contract with major vendor. [REDACTED] route, [REDACTED] for Anchors,
Cable, [REDACTED] (DE/Metal)					Field measured, [REDACTED] strand fiber optic cable as quoted by contract with major vendor. [REDACTED] Anchor Laterals
Cabling and Patch Cords					These are fiber optic connecting cords used between patch panels in Central offices. We assumed [REDACTED] List price
Collocation Cabinet (Lockable)					Collocation cabinets for each node and at interconnect points (IXC and LM Svc Providers). This supports [REDACTED] requirements of NOFA.
Concrete					Estimate for patchwork excavating laterals. Local vendor quote for price.
Core Node Fiber Electronics					

9. Construction Cont.



Item	Rate	Units	Total Cost	Units of Measure	Rationale
Ducts - 1.25" Innerduct				Unit = Ft., \$= Quote, # = Field Measured	████████████████████ cable. Includes ██████████ route, ██████████ for Benton and ██████████ laterals Vendor quote.
Electrical Power				Unit = Ea., Quote, # = New Nodes	Service connections for commercial power at all new node sites. Based on utility costs on other jobs.
EM Markers				Unit = Ea., \$= List Price, # = 1 per Splice Box	Electromagnetic markers for locating buried facilities. These are placed in remote splice locations and vaults for future locating.
Fiber Optic Slicing (Sm.FAP)				Unit = Ea., Std Industry Rate, # = per Splice	Labor – Unit price to splice building terminal, including set up, racking at each Anchor and POI
Fiber Optic Splicing (Lg. FAP)				Unit = Ea., Std Industry Rate, # = per Splice	Labor – Unit price to splice main cable and laterals in underground vaults, including set up, and racking at each Anchor and POI. Includes set up, traffic control, and ██████████ fiber connections.
GPS Timer				Unit = Ea., \$= List Price, # = per node	Global Positional System to propagate synchronous timing throughout network needed at each site. List price.
Gravel and Shading Material				Unit = Yd., Quote per Unit, Qty Estimate	████████████████████ gravel for bottom of splice boxes and barrel vault for drainage.
Ground Rods				Unit = Ea., \$= List Price, # = 1 per Splice Box	One Ground Rod for electrical protection at every 2 splice boxes or barrel vault Safety requirement.
Ground Wire				Unit = Ea., \$= List Price, # = 60' per Splice Box	████████████████████ SB of copper wire to connect splice to ground rod. Safety requirement.
Handholes - 1730/34 HD				Unit = Ea., \$= Quote, # = Per Design	Fiberglass splice box for non-vehicular areas for fiber laterals. Point for splice connection.
Handholes - Drop Box				Unit = Ea., \$= Quote, # = Per Premium	Fiberglass hand-holes to connect to customer conduit for pull through for laterals at Anchor and CCI locations.
				Unit = Ea., Std Industry Rate, # = one install at each CCI location	Installation of ██████████ (installation estimate to 1/3 exclude testing)
Labor - Cable Ducts				\$/ft - Ind. Std Rate., Field Measured	Labor to place ██████████ in service trenches in locations for boring and trenching only. Unit price is standard industry rate for large project.
Labor - Fiber Cable				Unit = Ft., Std Industry Rate, # = Strands	Labor to install fiber optic cable in conduit in main route and in laterals. Unit price is standard industry rate for large project.

9. Construction Cont.



Item	Rate	Units	Total Cost	Units of Measure	Rationale
Laterals and Entrance Cable				[REDACTED], Std Industry Rate, # = 8 Crew-Hrs per Anchor	Installation of lateral cable from sidewalk / property line location to building entrance. Assumes 1 crew day per anchor to coordinate, install and set up. This does not double count the lateral cable, which was estimated only for public right of way areas.
Layer 2 CPE Switch - 6110				[REDACTED] \$= Bid, #=per each of Anchor and POI location	Fiber Optic Terminals connecting CCI with network backbone and provide [REDACTED] Anchor locations [REDACTED] requirement. [REDACTED]
[REDACTED]				Unit = Ft., \$= Industry Std Rate, # = Field Measured	Collocation and FOT ser up at Level 3 repeater location in Barstow. Per vendor estimate.
Low-Boy Service				[REDACTED] Est., Const Period	Lease of truck and trailer services for moving heavy construction equipment from location to location. Based on discussions with vendors who do this work and the remoteness of the area, they recommend leasing a rig to provide services through the construction period, as opposed to a per-dispatch basis. 14 months plus truck lease and operation.
OSP Cable Termination at CO				[REDACTED], Std Industry Rate, # = Strands	Termination of fiber optic cable at each node. Based on number of fiber strands terminated. Unit price is industry standard.
Plowing - Good Conditions				[REDACTED] Ind. Std Rate., Field Measured	Customary rate for boring in solid rock in the Mono County area. There is [REDACTED] for handling conduit, main route plowing and [REDACTED] plowing for laterals. Validated by several consultants and equip. manufacturer estimates. Validated with bottoms up budget analysis.
Route Markers				Unit=Ea., Vendor Unit Bid, 1 per [REDACTED]	"Fiber Cable" location markers are placed approximately every 800' (need to be visual from any point on buried cable route) on sections of main route. List price.
Router - Core				Unit = Ea., \$= Bid, #=per system	[REDACTED] This is a major network component to route data at the two Internet Interconnection locations and at the NOC. Quote.
Routers -				Unit = Ea., \$= Bid, #=per node	As a back-up to [REDACTED] in case of failure.
SB Installation 17x30				\$/ft - Ind. Std Rate., Field Measured	Install Fiberglass splice box for non-vehicular areas for fiber laterals. Point for splice connection.

9. Construction Cont.



Item	Rate	Units	Total Cost	Units of Measure	Rationale
SB Installation 3660/48				\$/ft - Ind. Std Rate., Field Measured	Labor -- Install Splice vault of connecting cables main route cable and laterals at each node and interconnection point on route and at NOC.
Install Tower/Antenna (New)					Installation of Monopole towers at node locations, involving foundation and erecting pole. Based on vendor estimate.
Security Systems				Unit = Syst., List Price, # = Node	Lighting for each on new nodes.
Special Construction (IXC)				Carrier Estimate, per Location	Construction for entrance facilities at [redacted] Reno and Barstow. Estimate based on recent [redacted] interconnection work.
Splice Box - 3660/48				Unit = Ea., \$= Quote, # = Per Node	Splice vault of connecting cables main route cable and laterals at each node and interconnection point [redacted]
Splice Closure - 450D6				Unit = Ea., \$= Quote, # = Per Design	Fiberglass splice box for non-vehicular areas for fiber laterals. Point for splice connection.
Splice Closure - CB24				Unit = Ft., \$= Quote, # = Anchor	Fiber Optic Building terminals to be located at all Anchor and POI location to terminate fiber cable. Vendor contracted price.
Traffic Control				\$/hr - Vendor Crew Est., Const Period	Traffic control crews contracted during construction period. [redacted] hour per contractor estimate. Three crews during construction period.
Trenching – Dig- able Rock				\$/ft - Ind. Std Rate, Field Measured	Mike started to put a comment but it is blank.
Trenching - Dirt				Unit = \$/ft - Ind. Std Rate., Field Measured	Trench excavation using backhoe or excavator for [redacted] main route and [redacted] for laterals (plus [redacted] USMC base). Rate validated by multiple vendors.
UPS System - Rectifier				Unit = Ea., \$= Recent bill, #=per node	Un-interrupt Power System that converts 110 current [redacted] for Node equipment. Needed at all new node sites. Price based on recent purchase.
UPS System Installation				Unit = Ea., \$= Experience, #=per node	Installation of Un-interrupt Power Systems at all new node sites. Price based on recent experience.
Special Construction (LM)				Carrier Estimate, per Location	Construction for interconnect points at each of [redacted] central offices. Based on previous experience.
TOTAL			\$80,940,644		

\$16,188,136 is for the Matching Cash Funds for Construction.



Source	Commutation	Cash Contribution
California Public Utility Communication		
Praxis Associates, Inc.		
Total	Matching Cash Funds	

10. Equipment - \$773,713

This section includes the information technology that will be used on the project, exclusive of components of the network, which is classified in the Construction section. Also included is furniture and small office machinery. No other equipment is being purchased. Tools and equipment used in the construction of the network is not included in this category, as contractors will supply their own equipment in the work processes. No other equipment is being purchased.

Item	Rate	Units	Total Cost	Units of Measure	Rationale
Communications Equipment				Unit = Lump Sum., List Price, # = Key Employees	crews and key employees and small system for NOC/Project Office. Assume telephone, and cells. Satellite down link field office
Furniture				Unit = Wk Sta., List Price, # = Office Employees	Desk/cubicle and miscellaneous parts for assembly per list price in Biz Rate catalogue.
Lap-Tops / GPS				Unit = Ea., List Price, # = Manager / Senior Tech	Dell Inspiron laptops equipped with basic office s/w package for inspectors, field engineers.
NOC Display Monitors				Unit = Ea., List Price, # = Per NOC	displays -- Two per positions in NOC plus one for surveillance and external communications.
Node IP Telephones				Unit = Syst., List Price, # = Node	Communicating with techs working remotely in nodes while testing. Utilizes DCN.
Operational Support Software				Unit = Ea., Quote, # = Per Network	Will be used to manage all aspects of network operations and customer support. Quote per vendor.
				Unit = Ea., Quote, # = Per Network	Will be used to manage customers and accounts. Part of the Quote per vendor.

10. Equipment Cont.



Item	Rate	Units	Total Cost	Units of Measure	Rationale
Routers (DCN Fiber)				Unit = Ea., Quote, # = Per Node	Out of band command and control for optical switching network. One per node and spares.
Mgmt Software				Unit = Ea., Quote, # = Per Network	Servers running Management App. used for troubleshooting & configuration of Optical switch
Standard Desktop PCs				Unit = Ea., List Price, # = Office Employees	Opti-plex Desktop computers for 6 administrative office workers.
Supplies-Office Machinery				Lump Sum - Office Machines, supplier	Set up of office machinery (printers, shredders, and other shared equipment at Project office and NOC.
Workstations (Site Mgmt)				Unit = Ea., List Price, # = Per NOC	Runs Site Manager for the entire network. Sized to run in groups.
TOTAL			\$773,713		

██████████ is the Matching Cash Funds for the Equipment.

Source	Commutation	Cash Contribution
California Public Utility Communication		
Praxis Associates, Inc.		
Total	Matching Cash Funds	

11. Miscellaneous - \$88,050



\$88,050 of this category is for the installation interconnection of the network at Last Mile Service Providers and IXC Interconnection to the Internet at the two major peering points.

Item	Rate	Units	Total Cost	Units of Measure	Rationale
Dial-up Diagnostic Lines (LM)				Unit=Mo, Carrier Tariff, # = 30 per node	These are for standard telephone lines for each of the nodes. It is standard industry practice to have these in place for remote diagnostics in the event the node electronics fail. Assume [redacted] per node as they are turned up. The average node turn up during construction period is [redacted]
IP Svc. Provisioning (IXC)				Unit=Ea., Rate= Industry Std.per loc	This is the non-recurring fee for the data service connectivity at end points of the network.
IXC Collo - Monthly - Const. Period				Unit=mo. Rate= Industry Std.per loc	Fees for Collocation at [redacted] Virginia during construction period from north end of route.
IXC Collocation (Set Up)				Unit=Ea., Rate= Industry Std.per loc	Collocation set up [redacted] Basin properties at [redacted]
IXC IP Monthly Services. (Constr. Period)				Unit=mo. Rate= Industry Std.per loc	Monthly IP services for network in Barstow and Reno during construction period.
TOTAL			\$88,050		

[redacted] is the Cash Matching Funds for Miscellaneous.

Source	Commutation	Cash Contribution
California Public Utility Communication		
Praxis Associates, Inc.		
Total	Cash Matching Funds	



13. Contingencies - \$0

- Contingencies are an unallowable expenditures under BTOP.

15. Project (program) income - \$0

BTOP Comprehensive Community Infrastructure Detailed Budget

Please complete the General Budget Overview and Detailed Project Costs worksheets.

Please refer to the Comprehensive Community Infrastructure Grant Guidance for detailed instructions on the completing this upload.

Applicants are required to provide this upload as an Excel file, and not to convert it to a PDF prior to upload. Applicants should not alter the layout of the provided templates, except to insert additional line-items as needed in the Detailed Project Costs worksheet.

California Broadband Cooperative, Inc.
DETAIL OF PROJECT COSTS

	Match (Cash/In-kind)	Cash Match Percentage	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
NETWORK & ACCESS EQUIPMENT					\$4,979,216	\$0	\$4,979,216	\$4,979,216		
OUTSIDE PLANT					\$74,261,972	\$0	\$74,261,972	\$74,261,972		

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	Match (Cash/In-kind)	Cash Match Percentage	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
PROFESSIONAL SERVICES					\$14,058,593	\$0	\$14,058,593	\$14,058,593		
TESTING					\$1,551,383	\$0	\$1,551,383	\$1,551,383		
OTHER UPFRONT COSTS					\$322,313	\$0	\$322,313	\$322,313		
PROJECT TOTAL:					\$101,435,997	\$0	\$101,435,997	\$101,435,997		

	Match (Cash/In-kind)	Cash Match Percentage	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
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SF-424C Cross-check Totals	
1. Admin and Legal	\$9,136,593
2. Land, structures	\$2,657,051
3. Relocation expenses	\$0
4. Architectural and engr.	\$2,578,500
5. Other archit. and engr.	\$4,148,733
6. Inspection fees	\$790,400
7. Site work	\$322,313
8. Demolition/removal	\$0
9. Construction	\$80,940,644
10. Equipment	\$773,713
11. Misc.	\$88,050

Matching Contribution Cross-check Totals	
Federal Funding Request	\$81,148,788
Cash Match Contribution	\$20,287,209
In-kind Match Contribution	\$0

Approach to allocating Last Mile and Middle Mile costs: This project does not have a Last Mile component.

General Budget Overview

Budget	Federal Funding Request	Matching Funds (Cash)	Matching Funds (In-Kind)	Budget TOTAL	Last Mile Allocation	Middle Mile Allocation	Allocated TOTAL
Network & Access Equipment (switching, routing, transport, access)	\$3,983,372	\$995,844		\$4,979,216		\$4,979,216.17	\$4,979,216
Outside Plant (cables, conduits, ducts, poles, towers, repeaters, etc.)	\$59,409,571	\$14,852,401		\$74,261,972		\$74,261,972.09	\$74,261,972
Buildings and Land – (new construction, improvements, renovations, lease)	\$2,151,641	\$537,911		\$2,689,551		\$2,689,551.38	\$2,689,551
Customer Premise Equipment (modems, set-top boxes, inside wiring, etc.)	\$1,928,005	\$482,002		\$2,410,007		\$2,410,006.98	\$2,410,007
Billing and Operational Support Systems (IT systems, software, etc.)	\$548,172	\$137,043		\$685,215		\$685,215.44	\$685,215
Operating Equipment (vehicles, office equipment, other)	\$382,197	\$95,549		\$477,746		\$477,746.07	\$477,746
Engineering/Professional Services (engineering design, project management, consulting, etc.)	\$11,246,873	\$2,811,720		\$14,058,593		\$14,058,593.13	\$14,058,593
Testing (network elements, IT system elements, user devices, test generators, lab furnishings, servers/computers, etc.)	\$1,241,106	\$310,277		\$1,551,383		\$1,551,383.20	\$1,551,383
Site Preparation	\$257,850	\$64,463		\$322,313		\$322,312.50	\$322,313
Other	\$0			\$0			\$0
TOTAL BROADBAND SYSTEM:	\$81,148,788	\$20,287,209	\$0	\$101,435,997	\$0	\$101,435,997	\$101,435,997
Cost Share Percentage:	80.00%	20.00%	0.00%				