

Exhibit E

Required Information for Special Construction for USAC Program Integrity Review

Exhibit E illustrates the typical information that has been requested by USAC USAC for all E-rate funding requests for special construction. CENIC understands that proposers may feel that the information requested is confidential and proprietary. USAC has established procedures for submission of confidential information (<https://www.usac.org/e-rate/service-providers/step-3-winning-the-bid/requesting-confidentiality/>) and CENIC will cooperatively alert successful proposers when USAC outreach has occurred, the content of the outreach, and mechanism to submit confidential information. Failure by the successful proposer to provide complete information to USAC and/or fully respond to USAC’s questions may lead to denial of funding and the cancellation of the associated contract for service.

The FCC’s Eligible Services List (<https://www.usac.org/e-rate/applicant-process/before-you-begin/eligible-services-list/>) defines eligible special construction as “construction of network facilities, design and engineering, and project management.” Therefore, any non-recurring costs outside of this definition should be identified as other eligible non-recurring charges and not as special construction.

Checklist of Information to be Provided to USAC (Upon Request)

- 1) **Total Project Plant Route Feet**
- 2) **Average Cost per Foot of Outside Plant**
- 3) **Total Strands**
- 4) **Number of E-rate Eligible Strands**
- 5) **Detailed breakdown for the Special Construction Charges**
 - a. Provide a Bill of Materials.
 - b. Identify and explain in detail the most expensive items on the construction invoice/bill of materials.
 - i. For example, if labor is the most expensive line item provide details such as the size of the labor crew, the number of hours of estimated work
 - ii. Was there a minimum number of hours for which the crew had to be hired that exceeded the labor hours required for the build
 - iii. Were there unique construction issues (e.g., a directional bore requirement because of rocky soil or a surface that could not be plowed; expensive make ready for pole attachments; bridge crossings; waterway crossings; railroad crossings; historic preservation issues or environmental issues) that caused the cost per foot to be inflated? If so, please provide a detailed explanation of these issues.
- 6) **Fiber Route Maps**

Please provide a map file of the route being constructed. That mapped out route should be available in either a .kmz or .json file.

7) Latitude and Longitude of Fiber Route Start Points and Fiber Route End Points

Please provide all of the details requested below of each route's endpoint within your fiber network that is being constructed.

Route Start Point		
Start Point Name (Include BEN Name and Number, if applicable)	Latitude	Longitude
		0
	0	0
	0	0
	0	0

Route Endpoint		
End Point Name (Include BEN Name and Number, if applicable)	Latitude	Longitude
		0
	0	0
	0	0
	0	0

8) Plant Type and Plant Mix Percentages and Costs

Please provide the information requested below for the whole project:

Plant Mix:			
Plant Type	Expected Plant Mix	Existing Plant Mix	Average Cost per Foot for Type of Plant Mix
Please indicate what % of build will be Aerial.	0.00	0.00	0.00
Please indicate what % of build will be Direct Buried.	0.00	0.00	0.00
Please indicate what % of build will be Buried with Conduit (underground).	0.00	0.00	0.00
Total (of the three categories above must = 100%)	0.00	0.00	N/A

9) Plant Type and Plant Mix Details

- a. Please indicate the cost per foot for the Aerial portion of the fiber build.
 - i. Please provide a further breakout of this cost:
 - ii. What is the average cost per foot for the Fiber Material? (E.g., cost per foot of only the fiber cable.)
 - iii. What is the average cost per foot for the Fiber Placement? (E.g. cost of attaching only the fiber cables on to the poles.)
 - iv. What is the average cost per foot for the Structure Material (all outside plant materials except fiber cable this could include anchors, j-hooks or guywires)?
 - v. What is the average cost per foot of the Structure Placement (E.g., adding of new poles, anchor or guywires that will be owned by applicant)?

- vi. What is the average cost per foot for the Pole Make Ready? (E.g., on carrier owned poles, any enhancement that needs to be done to accept new fiber such as addition of guy or anchor, or clearing of attachment points for new cable. This also includes the cost of placing new poles that will be owned by the pole owner.)
- b. Please indicate the cost per foot for the Direct Buried portion of the fiber build.
 - i. Please provide a further breakout of this cost:
 - ii. What is the average cost per foot of the Fiber Material? (E.g., cost per foot of the fiber cable that will be directly placed into the ground (no conduit).
 - iii. What is the average cost per foot of the Fiber Cable Placement? (E.g., labor cost per foot of placing the fiber cables in to the ground.)
 - iv. What is the average cost per foot for the Buried Conduit (e.g., in direct bury installations conduit that is necessary for special portions of the builds such as railroad crossings, road crossings or in bores under waterways (rivers, creeks, streams, ponds))?
 - v. What is the average cost per foot of the Trenching (e.g., cost of digging trench, cost of machinery needed for trenching and any permitting cost to lay new fiber)?
- c. Please indicate the cost per foot for the Buried with Conduit (Underground) portion of the fiber build.
 - i. Please provide a further breakout of this cost:
 - ii. What is the average cost per foot for the Fiber Material? (E.g., cost of the actual fiber cables that will be pulled through the conduit.)
 - iii. What is the average cost per foot for the Fiber Placement? (E.g., cost placing or pulling the fiber through the conduit.)
 - iv. What is the average cost per foot for the Structure Material (E.g., Cost of conduit, handholes, vaults, markers, etc.)?
 - v. What is the average cost per foot of the Structure Placement (E.g., labor and permitting for placement of all structure materials)?

10) Electronics Cost Detail (for lit fiber or managed solutions only)

Please provide the information requested below for the whole project:

Electronics Cost Detail	Material	Labor
Please provide the cost of Material and Labor for Customer Premise Equipment (CPE) needed to light the fiber being built.		
Please provide the cost of Material and Labor for Core Equipment needed to light the fiber being built.		
If you are not seeking any E-rate funding for CPE or Core Equipment needed to light the fiber, please explain why.		

11) Count of Remote Nodes

Please provide the information requested below for the whole project:

Count of Remote Nodes by Speed		
In your network, how many facilities/service location will be provided a 1gbps or less circuit to your hub/demarc?		
In your network, how many facilities/service locations will be provided at greater than 1gbps circuit to your hub/demarc?		
	Node Count	

12) Core/Host Node Detail

Please provide the information requested below for the whole project:

Core/Host Node Detail		
At the network Hub, there is generally either a router or a switch to which the circuits from service locations/facilities connect.		
On the equipment located at the Hub, how many ports are connecting a service location at the speed of 1gbps or less ?		Active Ports
On the equipment located at the Hub, how many ports are connecting a service location at the speed of greater than 1gbps but less than or equal to 10gbps?		

13) Alternative Route Questions

- a. Did you explore any alternative routes for the fiber build requested?
- b. If yes, please provide the cost estimates and route specifics for these alternative routes explored.
- c. If no alternatives were explored, please explain how the chosen route was identified as the most cost effective route.

14) Additional Eligibility Question(s)

Please answer **all** of the following questions and/or provide the documentation requested. For all documentation attached please identify which question it corresponds to.

#	Questions	Response (Required)
1	For FRN ----- please indicate the total number of fiber strands that will be installed at the time of construction.	

	<p>Note 1: By “total number of fiber strands,” we mean the total number of strands installed as part of the special construction build, irrespective of whether the strands: (a) will be lit for the applicant’s use or a potential other purpose; (b) will be lit this funding year or a future funding year; (c) have been cost-allocated out of the funding request; or (d) were not included in the one-time charges quoted to the applicant for the special construction project in the first instance.</p>	
2	<p>Of the total number of strands identified in response to Question 1, how many of the strands will be installed for the applicant’s exclusive use <u>and</u> will be lit within this funding year?</p>	
2(a)	<p>How many recipients of service will be served by the strands identified in response to Question 2?</p> <p>Note: Please state whether multiple recipients of service are located in one building and will be served by the same set of fiber strands.</p>	
2(b)	<p>What will be lit date for the fiber strands identified in response to Question 2 (if different segments of the build will be lit at different times prior to June 30, provide the latest lit date)?</p> <p>If the lit date is currently unknown, please state “unknown,” and proceed to Question 3. Note that you will be asked to demonstrate compliance with the obligation to light the fiber by the end of the funding year (i.e., June 30), when invoices for this FRN are submitted to USAC for reimbursement.</p>	<p style="text-align: center;">/ / _____</p> <ul style="list-style-type: none"> • <u>If the date entered above is on or before June 30, 2018, proceed to Question 3.</u> • <u>If the date entered above is after June 30, 2018, proceed to Question 2(c).</u>
2(c)	<p>If the lit date entered in Question 2(b) is after June 30, 2018, do you contend that special construction has been unavoidably delayed due to weather or other reasons?</p> <p>If yes, proceed to Question 2(d).</p> <p>If no, proceed to Question 3.</p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> N/A (lit date on or before June 30, 2018).</p>

	2(d)	<p>Applicants may request a one-year extension of the deadline to complete special construction and light the fiber if they demonstrate that special construction has been unavoidably delayed due to weather or other reasons.</p> <p>Please provide an explanation of the unavoidable delay that is preventing special construction from being completed in time to light the fiber by the end of the funding year (i.e., June 30). Please include a description of any intervening events (e.g., an unusual weather events), relevant facts about the complexity of the fiber build, and any other factors you would like USAC to consider.</p> <p>Then proceed to Question 3.</p>	
3		<p>Enter the total number of remaining strands here [Answer to Q1 – Answer to Q2 = Answer to Q3] (“Excess Fiber Strands”).</p> <p>If the response to this question is zero (0), you may disregard the remaining questions in this document. Otherwise, proceed to Question 4.</p>	
4		<p>Will <u>ALL</u> of the Excess Fiber Strands installed in your project be specifically for the applicant’s exclusive future use (e.g., anticipated growth in bandwidth requirements or future expansion)?</p> <p>If yes, proceed to Question 4(a). If no, proceed to Question 6.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
	4(a)	<p>Will all of the Excess Fiber Strands installed for the applicant’s exclusive future use remain dormant (dark) until lit for the applicant’s exclusive use during a future funding year (i.e., no other party will use the Excess Fiber Strands between the time they are installed and the time the applicant is ready to use them in the future)?</p> <p>If yes, proceed to Question 4(b). If no, proceed to Question 7.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No

	<p>4(b) Have the Excess Fiber Strands been cost-allocated out of the special construction FRN?</p> <p>If yes, proceed to Question 4(c). If no, proceed to Question 5.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<p>4(c) Please state the amount cost-allocated out of the special construction FRN and provide documents showing the basis for the cost-allocation. If your documents do not delineate specific costs of fiber installation, explain the tangible basis for the cost-allocation provided. Please contact the service provider for any additional information required to respond to this question.</p> <p>After doing so, you may disregard the remaining questions in this document. You may be contacted in a separate communication regarding your responses to these questions.</p>	
5	<p>An applicant may install Excess Fiber Strands that will not be lit within the same funding year as the funding request if: (i) the strands are installed exclusively for the applicant's future bandwidth needs; and (ii) the strands will remain dormant until lit for the applicant's exclusive future use. The cost of such Excess Fiber Strands must be allocated out of the relevant special construction FRN. Remaining special construction charges do not have to be cost-allocated.</p> <p>Because the above-referenced cost-allocation was not included in your funding request, the amount of the funding request will need to be adjusted. Please provide the information requested by Questions 5(a)-(c). If you do not have the information requested in Questions 5(a)-(c), contact the service provider to obtain it.</p> <p>After providing the requested information, you may disregard the remaining questions in this document. You may be contacted in a separate communication regarding your responses to these questions.</p>	
	<p>5(a) Please provide the specific cost of the Excess Fiber Strands that: (i) will not be lit this funding year; (ii) are being installed for the applicant's exclusive future use; and (iii) will remain</p>	

		dormant until lit for the applicant.	
	5(b)	Please provide the documentation identifying the cost of the Excess Fiber Strands stated in response to Question 5(a).	
	5(c)	If your documentation does not delineate the cost of the Excess Fiber Strands, please provide the tangible basis for the cost identified in response to Question 5(a) above.	
6		<p>You have stated that Excess Fiber Strands will be installed as part of your project. You have also indicated that the Excess Fiber Strands will not be installed for the exclusive future use of the applicant</p> <p>Will the Excess Fiber Strands be installed as part of the special construction project <u>solely</u> because using a cable with a higher strand count than what will be lit for the applicant's use within this funding year has been deemed to be more cost effective than installing just the number of strands that will be lit for the applicant's use within this funding year?</p> <p>If yes, proceed to Question 6(a). If no, proceed to Question 7.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
	6(a)	<p>Please provide an explanation and documents demonstrating that the higher strand solution, resulting in the installation of the Excess Fiber Strands, is the most cost effective option. Please be as specific as possible. For example, if the applicant seeks to light 6 strands for its use this year, but a 12-strand cable was deemed more cost-effective, provide a breakdown of the relative costs of installing 6-strands vs. 12-strands, and provide supporting documentation.</p> <p>Proceed to Question 6(b).</p>	
	6(b)	<p>Will all of the Excess Fiber Strands remain dormant (dark) unless lit for the applicant's exclusive use during a future funding year (i.e., no other party will use the Excess Fiber Strands until used exclusively by the applicant in the future)?</p> <p>If yes, you may disregard the remaining questions in this document. You may be contacted in a separate</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No

	<p>communication regarding your responses to these questions.</p> <p>If no, proceed to Question 7.</p> <p>Note: Please answer Question 6(b) irrespective of whether the Excess Fiber Strands: (a) would be lit this funding year or a future year by the applicant or any entity other than the applicant; (b) have been cost-allocated out of the funding request; or (c) were not included in the one-time charges quoted to the applicant for the special construction project and stated in the FRN.</p>	
7	<p>You have indicated that Excess Fiber Strands will be installed as part of your project. You have also indicated that either:</p> <ul style="list-style-type: none"> ▪ The Excess Fiber Strands will not be installed for the applicant's exclusive future use; ▪ The Excess Fiber Strands will be installed for the applicant's exclusive future use, but will not remain dormant (dark) until the fiber is used by the applicant in a future year; ▪ The Excess Fiber Strands will not be installed solely because installation of a higher strand count than what will be lit for the applicant's use this funding year has been deemed to be the most cost-effective option; or ▪ The Excess Fiber Strands will be installed solely because installation of a higher strand count than what will be lit for the applicant's use this funding year has been deemed to be the most cost-effective option, but the Excess Fiber Strands will not remain dormant (dark) until they are used by the applicant in a future year. <p>Please provide the information requested by Questions 7(a)-(d).</p> <p>Note: Answers to these questions are required irrespective of whether the Excess Fiber Strands: (a) would be lit this funding year or a future year; (b) have been cost-allocated out of the funding request; or (c) were not included in the one-time charges quoted to the applicant for the special construction project and stated in the FRN.</p>	

7(a)	<p>What other party is planning to use the Excess Fiber Strands? If multiple parties plan to use the Excess Fiber Strands, please identify all of them. If the fiber provider intends to use the Excess Fiber Strands to serve other customers, name the fiber provider.</p> <p>Note: This question does not seek information about the ultimate end-users of fiber strands. For example, if a leased lit fiber or leased dark fiber provider intends to use the Excess Fiber Strands to serve other customers, the answer to this question would be the name of the service provider. If a municipality plans to use Excess Fiber Strands installed as part of a self-provisioned network to serve other community institutions, the answer to this question would be the name of the municipal entity.</p>	
7(b)	<p>On what date does the other party plan to start using the Excess Fiber Strands? If multiple parties plan to use the Excess Fiber Strands, please identify the dates that each party plans to start using them.</p> <p>If the lit date for the Excess Fiber Strands is unknown, please state "unknown."</p>	___/___/_____
7(c)	<p>Is the applicant receiving any compensation in exchange for the planned use of the Excess Fiber Strands by another party (e.g., is the applicant being paid a fee, receiving a gift, receiving services/products in trade, or otherwise being compensated for use of the Excess Fiber Strands)?</p> <p>If so, please describe the compensation that the applicant will receive.</p>	
7(d)	<p>Please provide any documents pertaining to the information provided in response to Questions 7(a)-(c). If you do not know the answers to one or more of the questions above, please contact the service provider to obtain them.</p> <p>Proceed to Question 8.</p>	

8	Please provide the specific cost of installing the Excess Fiber Strands for use by another party as described in Question 7. Your response should include the both costs of the Excess Fiber Strands themselves and any additional special construction charges incurred due to the addition of the Excess Fiber Strands to the build (i.e., beyond what would be necessary if only the fiber strands that will be lit for the applicant's use within this funding year were installed).		
8(a)	Please provide documentation substantiating the costs identified in response to Question 8. If you do not have such documents, please contact the service provider. Then proceed to Question 9.		
8(b)	If you are unable to provide the documentation requested by Question 8(a), please explain the tangible basis for the costs you have identified in response to Question 8. Then proceed to Question 9.		
9	Have the costs that you identified in response to Question 8 been identified in your special construction FRN as ineligible costs allocated out of the funding request?		<input type="checkbox"/> Yes <input type="checkbox"/> No