Date	Version
July 3, 2025	Benefit of the Bargain Round v1.0

Arkansas BEAD Program

Engineering Design Package for a non-geostationary satellite (aka low earth orbit/LEO) Project

Prepare a "Engineering Design Package" in a pdf format, with clear labeling, indication of scale and a comprehensive legend to explain symbols and abbreviations used on drawings. Adhere to relevant industry standards for LEO satellite service network design and construction.

Sections

1. **Cover Page:**
Include your organization name as it exists in the BEAD Application Portal, your project number, and the date of your submission.

2. **Narrative Summary:**
Identify the amount of network capacity that shall be reserved sufficient to deliver broadband service that meets the BEAD performance and technical requirements to each BSL, simultaneously, in the project area.

Explain how the network design supports the speeds and latency the LEO network will deliver simultaneously to each BSL in the project area.

Specify the age and condition of existing infrastructure and plans to refresh and upgrade that infrastructure. Specify the number of current and planned LEO satellites along with timelines for deployment.

Explain how the network will have built-in redundancies and the ability to support high-capacity usage by end users.

Describe how the network will avoid or mitigate interference with terrestrial wireless networks and other communications network infrastructure.

3. **Utility Coordination**
If applicable, address utility coordination planning, including any indication of potential conflicts with existing utility lines and coordination plans for joint trenching.

4. **Permitting**
If applicable, include a list of any applicable permits required in the project area and your permitting schedule.

5. **Network Design:**
Upload an industry-standard **network design diagram** (in PDF format), certified by a professional engineer.

A[1]	Area map	A high-level aerial view of the entire service area, showing any relevant terrestrial infrastructure (e.g., base stations, not CPE)
B	Coverage maps	Maps showing satellite beam coverage and available capacity in the project area. Make note of factors such as terrain, buildings, and other obstacles
C	Network Topology Diagram	Illustrative representation of network architecture
D	Security Protocols	Describe your encryption protocols to protect data transmitted over the network
E	CPE Manufacturer and model of CPE	CPE Manufacturer and model of CPE
F	Certification Statement and Stamp	Engineer's professional stamp on the drawing signifying review and approval of the design, stating that the proposed network can deliver broadband service that meets the requisite performance requirements to all locations served by the project. (See Attachment A)

Note: Per the Conditional Limited Programmatic Waiver issued by NTIA, the PE Certification Requirement for the capital investment schedule is waived conditioned on the submission of a capital investment schedule evidencing complete build-out and initiation of service within four years of the date on which the entity receives the subgrant.[2]

[1] If your area of coverage is large, please submit as 4 quadrants, 1 per page

[2] https://broadbandusa.n□a.gov/funding-programs/policies-waivers/BEAD_-_Condi□onal_Limited_Programma□c_Waiver_and_Clarifica□on_of_Professional_Engineer_Cer□fica□on

Attachment A - Professional Engineer Certification

I, [PRINTED NAME]_____, am a licensed professional engineer in the State of [____] with license number [_____].

I have reviewed the plans, specifications, and documents related to the proposed project.

I certify that, to the best of my knowledge and belief, the design and planned construction of the project comply with all applicable laws, regulations, and codes.

The project has been designed and prepared in accordance with accepted engineering practices and standards.

The project will meet the minimum requirements within the guidelines provided.

The proposed network can deliver broadband service that meets the requisite performance requirements[3] to all locations served by the project.

Signed _____ Date _____

[PE STAMP HERE]

[3] According to the BEAD NOFO, the performance requirements for broadband service considered "Reliable Broadband Service" are a minimum download speed of 100 Mbps and a minimum upload speed of 20 Mbps, with 95% of latency measurements falling at or below 100 milliseconds round-trip time.