

EXHIBIT A-2

Scope of Work (SOW) — Construction and Installation Requirements

IFB #2026-001 | vpnet | USDA ReConnect Program Round 4 PR 1701-A73

1. Purpose and Scope

This Scope of Work (SOW) establishes the minimum technical and operational requirements for the construction and installation of an aerial and underground fiber optic infrastructure system along the approved corridor from the municipality of Patillas (coordinates: 18.005337032568484, - 66.01545310094531) to the municipality of Cidra (coordinates: 18.177560704400708, - 66.14741768373788), Puerto Rico.

All work shall be performed in strict conformance with the engineering plans provided as Exhibit A-1, the ReConnect Program Construction Procedures, Version 2.0 (February 2020), and all applicable federal, Commonwealth, and municipal regulations.

2. General Construction Requirements

The Selected Respondent shall perform all outside plant construction as defined under the USDA ReConnect Program Construction Procedures. The work encompasses three phases:

- Phase 1: Pre-Construction and Mobilization
- Phase 2: Outside Plant Construction
- Phase 3: Testing, Acceptance, and Closeout

All construction activities shall comply with applicable TIA/EIA and IEEE standards for fiber optic installation, and with all local and federal environmental, safety, and permitting requirements prior to commencement of any work segment.

3. Underground Construction Requirements

The Contractor shall strictly refer to the plan sheet identified as GN-1, where the applicable rights-of-way and/or easements for the different project roadways and segments are shown. For confirmation of the applicable roadway sections, the Contractor shall also refer to the document titled “Secciones de Calle Puerto Rico – Exhibit E-2”, which provides the roadway section references to be used for planning, coordination, and execution of the work.

Prior to commencing any field activity, the Contractor shall review and verify the applicable roadway section for each project segment, as the right-of-way width may vary depending on the specific roadway. In general, Road No. 1 reflects a right-of-way width of approximately 20.6 meters, while the remaining roadways or segments generally reflect right-of-way widths of approximately 13 meters, as shown on sheet GN-1 and further referenced in Exhibit E-2.

The Contractor shall not assume a uniform right-of-way width throughout the project. It shall be the Contractor’s responsibility to verify, on a segment-by-segment basis, the applicable roadway, roadway

section, right-of-way width, and any related easement prior to performing excavation, installation, crossing, construction, or any other work within the project limits. Any discrepancy, conflict, unforeseen condition, or uncertainty related to the limits of the right-of-way, easement, or roadway section shall be documented and reported to the Owner or the Owner's authorized representative prior to proceeding with work in the affected area.

3.1 Excavation

- All excavation shall be performed using controlled methods, including open-cut trenching and horizontal directional drilling (HDD) as designated in the engineering plans.
- Minimum burial depth: three (3) feet in rural, low-traffic areas.
- Depth requirements for road crossings and urban zones shall comply with applicable DTOP permit conditions and municipal regulations.
- All excavation activities shall comply with approved traffic control plans and utility locate requirements prior to breaking ground in any segment.

3.2 HDPE Conduit Installation

- High-density polyethylene (HDPE) conduit systems shall be installed along the entire approved underground route in accordance with Exhibit A-1.
- Conduit sizes: 2-inch mainline and 1.25-inch service drop laterals.
- All bends, couplings, end caps, and associated hardware shall be installed per manufacturer specifications and engineering plans.
- Conduit systems shall be pressure-tested and mandrel-tested prior to cable installation.

3.3 Service Drops

- A total of 840 service drops shall be installed at locations designated in the engineering plans, in accordance with RUS Form 515d (Bulletin 1753F-153).
- Each service drop installation shall include conduit, fittings, access hardware, and all associated appurtenances required for a complete and serviceable installation.

3.4 Hand Holes

- A total of 149 hand holes shall be installed at strategic intervals along the route as designated in the engineering plans.
- All hand holes shall be properly leveled, set, covered, and marked in accordance with applicable standards and permit requirements.
- Hand hole frames and covers shall meet applicable load-bearing requirements for their installation environment.

3.5 Splicing Chambers and Junction Boxes

- Splicing chambers and junction boxes shall be installed at locations designated in Exhibit A-1.
- All enclosures shall provide structural integrity, weatherproofing, and accessibility for future maintenance operations.
- Grounding provisions shall be incorporated where required by applicable electrical codes and engineering specifications.

4. Aerial Construction Requirements

- Aerial fiber optic cable shall be installed on existing utility poles along segments designated in Exhibit A-1, using lashing wire and appropriate strand hardware.
- All aerial attachments shall comply with NESC clearance requirements and applicable LUMA Energy pole attachment standards.
- Make-ready work requirements, if any, shall be coordinated with vnet and the relevant pole owner prior to aerial installation.
- Aerial strand and all attachment hardware shall meet applicable RUS specifications.

5. Fiber Optic Cable Installation

- All fiber optic cable shall be pulled and installed in strict accordance with the engineering plans and manufacturer specifications, without exceeding maximum allowable tensile load or minimum bend radius at any point.
- Fiber optic splicing shall be performed by certified fusion splice technicians, achieving splice loss values within the limits established in the engineering specifications and applicable TIA/EIA standards.
- All splices shall be protected using approved splice enclosures and organized within splice trays inside the designated splicing chambers.

6. Backfill, Compaction, and Surface Restoration

- All excavated areas shall be backfilled and compacted in accordance with permit conditions and applicable DTOP and municipal standards.
- Road surfaces, shoulders, sidewalks, and easement areas disturbed during construction shall be restored to their pre-construction condition or better, using materials and methods approved by the applicable permitting authority.
- Compaction testing shall be performed and documented as required by permit conditions.

7. Route Marking and Identification

- All underground conduit routes shall be marked with tracer wire and permanent route markers installed at intervals and locations required by applicable standards and permit conditions.
- Warning tape shall be installed above all underground conduit systems at the depth required by applicable regulations.
- All hand holes, splice chambers, and access points shall be identified with permanent labels indicating the route designation and facility owner.

8. Quality Control and Acceptance Testing

- The Selected Respondent shall implement a Construction Quality Control Plan approved by vpnet prior to commencement of Phase 2 activities.
- All installed fiber optic cable shall be tested using Optical Time Domain Reflectometer (OTDR) equipment and optical loss test sets prior to acceptance.
- Test results shall be documented in writing and submitted to vpnet for review. All results shall meet or exceed the performance thresholds established in Exhibit A-1.
- Final acceptance shall be conditioned upon successful completion of all required tests and vpnet's written confirmation of acceptance.

9. Coordination Requirements

The Selected Respondent shall coordinate all construction activities with the following agencies and entities as required:

Agency / Entity	Coordination Purpose
DTOP (Puerto Rico Dept. of Transportation)	Road crossing permits, traffic control
Applicable Municipalities	Excavation permits, right-of-way access
LUMA Energy	Pole attachments, electrical infrastructure crossings
AAA (Puerto Rico Aqueduct and Sewer Authority)	Water and sewer crossings
RUS General Field Representative (GFR)	Compliance oversight, inspections

All coordination activities shall be documented in writing and made available to vpnet upon request.

10. Closeout Requirements

Upon completion of all construction and testing, the Selected Respondent shall provide:

- Final as-built drawings in AutoCAD DWG native format and PDF format
- Complete OTDR and acceptance test documentation
- All required RUS closeout forms (RUS Form 724, 724a, 724b, 213)
- Final BABA Compliance Certification and documentation package
- Executed releases of liens from all subcontractors and material suppliers
- One (1) year warranty on all workmanship and materials, commencing from the date of final acceptance by vpnet and RUS