American Battle Monuments Commission

Performance Work Statement

For

Fiber Dedicated Internet Access Services
Version 2

May 23, 2025

Contents

About ABMC

The American Battle Monuments Commission (ABMC) is an independent agency established under authority of Chapter 21 of Title 36 U.S.C. Its mission is to commemorate the sacrifices and achievements of the United States armed forces through the administration, operation, and maintenance of commemorative cemeteries and memorials in 17 countries around the world. ABMC is also responsible for establishing and maintaining new memorials as directed by Congress. The Commission is composed of up to 11 members appointed by the President and a Secretary of the Commission, who is also a Presidential appointee. The Secretary is responsible for the day-to-day operation of the Commission.

The agency's workforce consists of approximately 500 staff, including 90 staff in Arlington, VA and Paris, France, and 250 users across 26 cemeteries. Information Technology (IT) staff work in Arlington, VA, Paris, France, and Manila, Philippines. Up to two (2) IT staff may work with Contractor on validating fiber works and site acceptance.

Background & Objectives

ABMC currently uses dedicated fiber internet access (DIA) services at 29 global sites. The existing service contract expires in July 2026. This project replaces the existing services with upgraded fiber connections at all locations by April 15, 2026, before local ABMC site preparations for Memorial Day 2026. Current services range from 100Mb/s to 1Gb/s. The North Africa American Cemetery in Tunisia does not have fiber connectivity due to the absence of a last-mile fiber provider.

ABMC hosts events throughout the year, including Memorial Day, Veterans Day, and D-Day commemorations. The project must be completed by April 15, 2026. This date allows for transition from the existing contract's ISP to the selected new contract's ISP well before Memorial Day 2026.

ABMC requires Contractor to perform these tasks, structured by Contract Line Item Number (CLIN):

1. **CLIN 0001 – Site Surveys**: Conduct surveys at each ABMC location. Document existing infrastructure, identify obstacles, and create fiber installation plans.
2. **CLIN 0002 – Exterior Civil Works**: Complete directional drilling, conduit installation, and related civil tasks from public fiber access points to ABMC's facility network entry locations.
3. **CLIN 0003 – Internal Fiber Installation**: Provide and install fiber optic cables, connections, and necessary network equipment within ABMC buildings to support 10 Gb/s services. Higher capacity (10Gbps) installations shall only be used under CLIN 0008 for event-based requirements. Validate all installations up to ABMC's designated network handoff at the firewall.
4. **CLIN 0004 – IPv4 Addressing**: Provide and configure IPv4 addresses at each site. Ensure integration with ABMC's existing network infrastructure.
5. **CLIN 0005 – IPv6 Addressing (Optional)**: Provide IPv6 addresses and configuration.
6. **CLIN 0006 – Monthly Fiber Internet Service**: Provide fiber DIA at speeds determined by ABMC for each location. Guarantee defined uptime percentages as per contract agreement.
7. **CLIN 0007 – DDoS Protection (Optional)**: Provide DDoS attack prevention and mitigation services for ABMC networks.
8. **CLIN 0008** – **Events-based 10 Gb/s Fiber Internet (Optional)**: Short-term, high-capacity 10 Gigabit per second (Gb/s) Dedicated Internet Access (DIA) to support ABMC's major commemorative events, such as Memorial Day, D-Day, and Veterans Day ceremonies.

Based on ABMC staff's onsite pre-assessment, ABMC hereby amends the original PWS to include two additional **optional** sites requiring fiber infrastructure services:

9. **OPTION CLIN 0009: Montfaucon American Monument**
   Information: https://www.abmc.gov/cemeteries-memorials/about-montfaucon-american-monument/

   - Approximately four (**4**) ABMC seasonal staff require Internet services.

10. **OPTION CLIN 0010: Montsec American Monument**
    Information: https://www.abmc.gov/cemeteries-memorials/about-montsec-american-monument/

    - Approximately six (**6**) ABMC seasonal staff require Internet services.

Contractor shall recommend monthly fiber speeds at each site based on "best value" of local fiber availability, ABMC staff count at the location (Appendix 1A and 1B), and optimal cost-benefit speed tier for each site. The DIA service must support Internet access, real-time videoconferencing, and cloud-based applications such as Microsoft 365 and Azure. ABMC currently utilizes Security-as-a-Service (SECaaS), Software-as-a-Service (SaaS), Infrastructure-as-a-Service (IaaS), and Platform-as-a-Service (PaaS) services within the Contiguous United States (CONUS).

During the contract period, ABMC may add or remove sites based on operational requirements, such as Honolulu Interpretive Center, or congressional directives. Any site changes will include corresponding pricing adjustments.

ABMC anticipates reusing external fiber infrastructure and internal wiring installed between 2020-2022, where feasible. Contractor shall assess infrastructure reuse opportunities during site surveys (CLIN 0001). ABMC will authorize new fiber construction only when one or more conditions occur:

1. **Insufficient Existing Infrastructure**: Existing conduits or fiber strands cannot provide fiber services or additional fiber strains cannot fit within current pathways.
2. **Infrastructure Deterioration**: Existing conduits, fiber, or support structures show damage, corrosion, or fail to meet operational standards upon inspection.
3. **Network Redundancy Requirement**: ABMC identifies critical sites requiring alternative or redundant fiber routes to avoid single points of failure.
4. **Security or Site Reconfiguration Needs**: Infrastructure must be repositioned or modified to meet site security requirements or facility expansions.
5. **Environmental or Preservation Restrictions**: Existing infrastructure interferes with environmentally or historically protected site elements.

Contractor shall submit pricing proposals covering the base period plus nine (9) option years for each site. This contract contains Firm Fixed Price (FFP) CLINs with a base period plus nine (9) optional renewal years, priced as follows:

1. **CLIN 0001 (Site Surveys)**: Firm Fixed Price (FFP)
2. **CLIN 0002 (Exterior Civil Works)**: FFP by site
3. **CLIN 0003 (Internal Fiber Installation)**: FFP by site
4. **CLIN 0004 (IPv4 Addressing)**: FFP with option years
5. **CLIN 0005 (IPv6 Addressing)**: FFP with option years
6. **CLIN 0006 (Monthly Fiber Services)**: FFP with option years
7. **CLIN 0007 (DDoS Protection)**: FFP with option years
8. **CLIN 0008 (10Gb/s for Events)**: FFP by site by event(s)

Scope of Services & CLIN Descriptions

This project will be organized into eight (8) CLINs to describe, manage, and reference the functional requirements and milestones, as well as to structure the associated government payments.

CLIN 0001 – Complete Site Surveys

Scope of Work
Conduct site surveys at each ABMC location listed in Appendix 1. Document existing fiber optic infrastructure and conditions to define fiber installation or upgrade requirements. Using survey data, Contractor shall develop detailed fiber installation plans that include identification of all underground utilities within a 2-meter radius of the proposed path. Contractor shall avoid trenching during reconnaissance and rely exclusively on validated non-invasive utility mapping methods.

Pre-Survey Preparation
Contractor shall:

1. Sign ABMC's Non-Disclosure Agreement (NDA) to receive site documentation. ABMC will share available network diagrams and prior documentation, if applicable.
2. Coordinate site visit schedules with ABMC IT, Engineering, and cemetery staff. Confirm escort availability and schedule stakeholder participation in all milestone meetings. ABMC will assign up to two IT personnel per site to escort contractor staff. Include ABMC Engineering staff in all milestone meetings and/or visits.

On-Site Assessment Tasks
Contractor shall perform these tasks at each site:

1. **Assess Physical Infrastructure**
    a. Document the condition of existing fiber infrastructure.
    b. Identify required upgrades or replacements.
    c. Determine and document feasible routes and methods for new fiber installations at sites without existing infrastructure.
2. **Conduct Civil Engineering Review** *(public domain, outdoor private grounds, and private domain)*
    a. Identify needs for directional drilling, conduit placement, and utility pole use. Use traditional trenching only for building entry; avoid where possible. Do not use micro-trenching. Clearly identify all new building penetrations.
    b. Document routing paths from the public demarcation point to the ABMC entry point, including any required trenching.
    c. Document routing paths from the ABMC entry point to the ABMC firewall, including any required trenching and building penetrations.
3. **Assess Internal Wiring** *(inside ABMC facilities)*
    a. Evaluate internal cabling and pathways for compliance with fiber installation requirements.
    b. Identify additional cabling or equipment needed to meet connectivity needs.
    c. Route new cabling through existing conduits, baseboards, tubes, or wall penetrations. Use false ceilings and conceal all visible wiring.
    d. Place patch bays in the basement, following local regulations. Include empty reserve tubes as required (e.g., France).
4. **Evaluate Power and Environmental Conditions**
    a. Document power availability at all equipment locations.
    b. Assess HVAC systems and other environmental factors that may affect equipment operation.

5. **Inventory Network Equipment**
    a. List existing network equipment, including switches, routers, and firewalls.
    b. Confirm compatibility with the proposed fiber connections.
6. **Identify Obstacles and Restrictions**
    a. Document site access restrictions, required permits, and regulatory limitations.
    b. Record any environmental or historical preservation issues that could affect installation.

Building Penetrations
Contractor shall propose building penetration points where existing penetrations are not available or suitable**.** After site staff and ABMC Engineering and Preservation validate entry points, Contractor shall assess and propose all required building penetration plans where existing penetrations are unavailable, unsuitable, or insufficient to support fiber entry:

1. Drill through each material as required to access the basement.
2. Use specialty collars to create a sealed, permanent barrier between all adjoining surfaces and materials.
3. Seal the interior side of each penetration with ABMC-approved material (e.g., use gypsum plaster or approved materials to seal interior penetrations and foam sealants are not applied) to match existing conditions.

Utility Detection

Before construction, Contractor shall investigate and document all utilities near the proposed fiber route. Use appropriate detection methods such as x-ray or ground-penetrating radar to identify buried utilities.

Documentation and Deliverables
Contractor shall submit the following deliverables for all sites covered by CLIN 0001 within two months of kick off meeting:

- **Site Survey Reports**:
    - Document existing infrastructure conditions and recommended improvements.
    - Include mapped exterior fiber paths in PDF and AutoCAD formats. Show all underground utilities within a 2-meter radius of the proposed fiber route. Ensure files are geo-referenced and GIS-ready. Label all survey photos and reference them in corresponding diagrams.
    - Include labeled photographs of surveyed locations and paths.
    - Provide AutoCAD diagrams for internal fiber routes and cabling (see Appendix 5 for AutoCAD specifications).
    - Provide survey plans of the cemetery grounds that integrate all existing utilities underground in the pathway (GIS ready)
    - Reference labeled photographs of survey locations and paths within the AutoCAD diagrams.

- **Preliminary Installation Plans**:
    - Submit site-specific fiber installation plans in AutoCAD and PDF formats. Include manholes, conduits, handholes, and building penetrations. ABMC Engineering will review and validate each plan. Incorporate all required corrections before requesting final approval.
    - Provide construction site plans showing all directional drilling entry points, facility

penetrations, trenching routes, and temporary installations for worker access and site security. Ensure all plans comply with local regulations.
    - Include a detailed, step-by-step implementation plan with:
        1. Labor requirements
        2. Materials list
        3. Estimated schedule with milestones for:
            1. Technical specification validation
            2. Intervention method validation
            3. Execution plan approval
            4. Sample and prototype validation
    - Obtain written validation for all deliverables from ABMC IT, Engineering, Cemetery Operations (CemOps), the site superintendent, local authorities, and any other designated stakeholders before starting work.

- **Risk Assessment Reports**:
    - List identified installation risks at each site.
    - Recommend mitigation actions.

- **Final Report Submission**:
  Contractor shall obtain validation for all CLIN 0001 deliverables from ABMC IT, Engineering, CemOps, site superintendent, local authorities, and other designated stakeholders.

Costs and Pricing
Contractor shall submit **Firm Fixed Price (FFP)** pricing for CLIN 0001 that includes all labor, materials, travel, subcontractors and related expenses required to complete the site surveys.

Acceptance Criteria
Contractor shall meet the following criteria for acceptance:

1. **Completeness**:
    - Document exiting underground utilities.
    - Document fiber routes from the provider's Point-of-Presence (POP) to ABMC's designated firewall location.
    - Document proposed construction methods, including site installation approaches, and obtain documented validation and approval from all designated stakeholders. Provide the following diagrams:
        - Global network peering diagrams showing providers and Microsoft ExpressRoute peering points.
        - Regional POP location diagrams.
        - Fiber optic routes from Provider Edge (PE) devices to Customer Premises Equipment (CPE).
        - Internal fiber pathways, identifying existing and proposed manholes, handholes, and conduits.
        - Connection diagrams illustrating links from fiber panels to CPE and ABMC network equipment.

2. **Accuracy**:
    - Present georeferenced maps for all survey data.
    - Document fiber runs with GPS coordinates.
    - Provide photographic documentation of surveyed locations, paths, and infrastructure elements.

- Provide photographs that capture unobstructed, well-lit, detailed shots and overall views (including ceiling, floor, and walls if applicable) that accurately represent survey locations, paths, and infrastructure elements.

3. **Precision**:
   - Present physical layouts with measurement accuracy in millimeters.

4. **Conformity**:
   - Report physical measurements in millimeters.
   - Use Coordinated Universal Time (UTC) and extended date formats (e.g., December-05-2024).

5. **Consistency**:
   - Propose a documentation template for ABMC approval.
   - Ensure uniformity across report layouts, data points, and formatting.

6. **Timeliness**:
   - Provide information that is current and accurate at the time of submission.
   - Report any changes to ABMC no later than seven (7) business days after identifying the changes.
   - Integrate all stakeholder comments within ten (10) business days after receiving these comments. Stakeholders shall provide their comments within ten (10) business days following receipt of deliverables.
   - Provide all requested information and supporting documentation to the COR within ten (10) business days after receiving the COR's request.

7. **Verifiability**:
   - Upload all deliverables to the ABMC-designated online collaboration repository.
   - Submit final survey reports to ABMC CORs via the same repository.

8. **Validity**:
   - Document any deviations from the stated requirements.
   - Identify errors discovered during data collection or reporting.

CLIN 0002 – Exterior Infrastructure Construction and Restoration

General Scope
Contractor shall design, install, and restore exterior telecommunications infrastructure in compliance with all ABMC-approved specifications. All infrastructure work shall meet industry standards including ANSI/TIA-758-B and ANSI/TIA-569-D (telecommunication standards), NFPA 70 (National Electrical Code), and local building codes. Contractor shall propose a plan and obtain written ABMC approval for all drilling, excavation and installation methods before starting work – observe all comments on validated items listed in CLIN 0001. Additional exterior work requirements are outlined in Appendix 2.

Coordination and Documentation
Contractor shall:

1. Obtain and maintain required local permits and regulatory approvals.
2. Submit pre-construction photographs documenting existing site conditions and construction paths.
3. Detect and document all existing utilities. Notify utility owners according to local regulations and allow time for them to secure their networks.

Infrastructure Installation
Contractor shall:

1. Install exterior telecommunications conduits, ducts, and pathways from public fiber access points to ABMC-designated network demarcation locations. Use only the methods, plans, and installations validated in CLIN 0001.
2. Provide duct banks, inter-ducts, handholes, manholes, cable racking hardware, toning wires, and warning tape in accordance with ANSI/TIA-607-D.
3. Ensure all installed infrastructure supports fiber circuits at 1Gb bandwidth according to IEEE 802.3 standards.
4. Mark conduits with mesh per local regulations. Protect all conduit segments with approved materials against pressure, cutting, and mechanical damage. This shall be observed for the full length of the fiber path, not only under areas with vehicle traffic.
5. Submit as-built plans and documentation confirming that all components meet technical specifications. ABMC must validate all documentation prior to acceptance.
6. For each facility penetration, proof of proper sealing shall be submitted to the CORs.
7. Prior to closing any trench, the CORs shall be notified to allow for inspection prior to backfilling.

Additional Fiber Strands Usage

If Contractor installs additional fiber strands intended for non-ABMC customers, Contractor shall:

1. Assume full responsibility for all associated costs without seeking reimbursement from ABMC.
2. Offset ABMC's monthly Fiber-to-the-Office (FTTO) service costs by the gross revenue generated from the use of these fiber strands by non-ABMC customers.

Site Preparation
Contractor shall:

1. Review detailed site survey(s) to document soil conditions, existing utilities, and construction obstacles (See Appendix 2, Section 1 for detailed requirements and see CLIN 0001).
2. Submit execution schedules that account for local permits, environmental limits, and staff availability.
3. Submit a detailed project execution schedule by site detailing local regulations, environmental requirements (including preservation requirements if applicable), and safety protocols. Schedules are to include milestones for:

1. Validation of technical specifications
2. Validation of intervention methods
3. Validation of execution plans
4. Validation of samples and prototypes.

4. Install conduits only after receiving written stakeholder validation for trenching and pathway plans. Use directional drilling where feasible to avoid unnecessary excavation

Trenching and Conduit Installation
Contractor shall:

1. Install fiber using directional drilling as the primary method, unless ABMC stakeholders approve alternative excavation techniques in writing. Only when no other method is proven appropriate and after validation by stakeholders, including ABMC horticulture representatives (See Appendix 2, Sections 2 and 5), may contractor excavate. Trenches shall be opened in depth and width to the strict minimum possible to enable Contractor to complete installation and execute penetrations into ABMC facilities. Necessary shoring shall be provided and installed by the contractor. FFP-contract.
2. Place all installations under the frost line.
3. Vibratory Plowing and Micro-trenching are prohibited in any area. If trenching cannot be avoided, conduits shall be placed within the trench using sand or gravel bedding to ensure structural stability. Signal the presence of conduit with mesh as compliant with local regulations. Use methods approved by ABMC to minimize environmental impacts in designated sensitive areas.
4. Install pull boxes or handholes at intervals consistent with ANSI/TIA-758-B standards and local regulations, whichever is more restrictive.
5. Use existing building penetrations if available.
6. If new penetrations are required, execute two penetrations in the facility basement wall wherever fiber is to be installed. Install adapted conduits in the wall and seal the exterior with specially adapted collars after installation of the fiber in one of the two conduits. Seal all material changes and gaps with appropriate, non-hardening, ABMC-approved material. Restore the interior of the facility to match existing conditions. The material used will be the same as the original construction.

Contractor shall not conduct trenching or work of any kind within cemetery plot areas.

Backfilling and Site Restoration
Contractor shall:

1. Inform stakeholders in writing at least 10 business days in advance of any excavation or restoration activities.
2. After stakeholders' validation, backfill trenches with materials approved by ABMC, compacted in layers to prevent settling (See Appendix 2).
3. Restore paved surfaces, sidewalks, landscaping, and any disturbed areas to their documented pre-construction conditions, as verified by pre-construction photographs (See Appendix 2).
4. Perform a sample section of backfilling and site restoration for stakeholder inspection and approval. After receiving written approval of the sample work, Contractor shall proceed with full execution of backfilling and site restoration for the remainder of the project area.
5. Remove construction debris from each site.
6. Remove all site installations from site.

Compliance and Safety
Contractor shall:

1. Comply with U.S. federal regulations, including OSHA 1910, and applicable local regulations.
2. Implement erosion control measures approved by ABMC and local authorities.
3. Adhere to ABMC-prescribed heritage preservation training and procedures. Contractor shall ensure all personnel performing excavation or ground-disturbing activities complete the required training and follow all preservation documentation protocols designated by ABMC.
4. Supply and enforce use of Personal Protective Equipment (PPE) according to OSHA standards or local regulations, whichever is more stringent.
5. Erect temporary fencing, signage, and barriers to secure construction zones and protect personnel and the public. This installation shall be new or in perfect condition to be installed and are to be maintained in perfect condition at all times. For stakeholder's purposes Contractor may be asked to modify, even temporarily, these installations as part of his FFP contract.

Quality Assurance
Contractor shall:

1. Perform tests of conductivity directly after installation of fiber by directional drilling.
2. Perform inspections after trench excavation, conduit installation, and final backfilling.
3. For every penetration in facilities, proof of proper sealing is provided to CORs. Contractor shall solicit their inspection before closing any trench.
4. Submit photographic evidence and inspection results demonstrating compliance with specifications.
5. Submit a Final Inspection Report detailing completed inspections, deficiencies found, and corrective actions implemented.
6. Perform rework on all non-compliant work until validated by ABMC stakeholders, unless ABMC decides otherwise.

Deliverables
Contractor shall deliver:

1. As-Built Drawings: Accurately illustrate final installed infrastructure locations, dimensions, and configurations using ISO 13567 standard, measured in metric units and as defined in CLIN 0001.
2. Final Inspection Report: Summarizes inspections performed, corrective actions taken, and certifies compliance with all project standards.

Cost and Pricing Structure

Contractor shall propose pricing for CLIN 0002 tasks on a Firm Fixed Price basis. The proposal will detail:

1. Material and labor costs integrated in a price by square-foot or square-meter, cubic-meter, unit price etc.
2. Equipment rental rates, and estimated quantities.
3. Permit fees and regulatory compliance costs.
4. On-site project supervision to ensure coordination, safety compliance, and quality control.
5. Any additional expenses required to complete exterior infrastructure construction and restoration tasks.

ABMC will negotiate final FFP terms with Contractor based on CLIN 0001 site survey findings and agreed scope of work prior to exercising CLIN 0002.

CLIN 0003 – Inside Wiring and Fiber Installation (Private Domain)

General Scope
Contractor shall install and test all internal fiber components, including equipment, accessories, and cabling, from the demarcation point to the ABMC firewall. Installations shall extend from the exterior demarcation point to ABMC routers and firewalls located in designated network closets. Installation shall comply with ANSI/TIA-568 standards and IEEE 802.3 Ethernet standards.

Equipment Installation and Fiber Termination
Contractor shall:

1. Install fiber optic patch panels, clearly label cables, and terminate fiber optic cables within the panels.
2. Ensure fiber optic strands are cleaned before splicing.
3. Splice fiber optic cables to minimize signal loss. Document splice test results.
4. Install temporary connectors on unused fiber strands, test strands, and secure them in protective splice cases.
5. Install fiber transport equipment or multiplexer devices as necessary for inter-site connectivity.

Work Affecting Active Network Cables
Contractor shall:

1. Submit a detailed work plan to ABMC at least 14 business days prior to any work that impacts existing active network cables.
2. Provide ABMC final confirmation notices 3 business days before starting work.
3. Provide ABMC 10 business days to validate each installation before site acceptance.

Fiber Circuit Installation
Contractor shall:

1. Install fiber optic cables at all ABMC-specified locations.
2. Complete installations to achieve end-to-end connectivity, including both outside plant (OSP) and inside plant (ISP) segments.

Installation Activities
Contractor shall:

1. **Internal Conduit and Pathway Installation:**
    - Install conduits, cable trays, or raceways within buildings to support fiber optic cable installation as defined in CLIN 0001.
    - Use to the maximum extent existing false ceilings, vertical conduits, and electrical baseboards to install conduits as defined in CLIN 0001.
    - Comply with applicable building codes and ANSI/TIA-569-D standards for internal pathways.
2. **Fiber Pulling and Splicing:**
    - Pull fiber optic cables through conduits or pathways, splice fibers using fusion splicing methods, and minimize insertion loss per industry standards.
3. **Fiber Termination:**
    - Terminate fiber optic cables within network rooms, server rooms, or cabinets using industry-approved fiber connectors.

Equipment and Materials
Contractor shall:

1. Provide fiber optic cable according to TIA-492-AAAC (single-mode) or IEEE 802.3 multimode fiber specifications.
2. Provide fiber termination enclosures, patch panels, and connectors.
3. Install Category 6A or Category 7 cabling where copper interfaces are required.
4. Ensure cable installation methods and lubricants (if required) are compatible with cable sheath material.
5. Provide all required materials, conduits, and accessories to meet installation standards.

Optical Network Terminals (ONTs)
Contractor shall:

1. Install Optical Network Terminals (ONTs) or equivalent equipment at each location to convert fiber-optic signals to Ethernet signals compatible with ABMC's local area network (LAN).

Testing and Certification
Contractor shall:

1. Test fiber for power loss, end-to-end continuity, and Optical Time Domain Reflectometer (OTDR) compliance. Document and submit all test results.
2. Verify installed fiber links comply with industry standards (ANSI/TIA-568.3-D), documenting attenuation, reflectance, and continuity.
3. Submit comprehensive fiber certification reports including OTDR test results.

Documentation and Reporting
Contractor shall deliver:

1. **As-Built Drawings:** Accurate drawings in AutoCAD DWG format, detailing locations of fiber installations, cable pathways, splice points, and termination equipment.
2. **Test and Certification Reports:** Comprehensive documentation verifying installation compliance with industry standards.
3. **Maintenance Guidelines:** Instructions for fiber network maintenance and troubleshooting.

Warranty and Support
Contractor shall:

1. Provide a minimum one (1)-year warranty for all installed materials and workmanship.
2. Provide post-installation support and repair services throughout the warranty and optional contract years.

Performance Requirements
Contractor shall:

1. Confirm installed fiber wiring reliably supports 1Gb/s, with physical cabling suitable for future upgrades to 10Gbps where feasible.
2. Ensure signal loss meets TIA/EIA-568.3-D industry standards.
3. Install all equipment in compliance with NFPA 70 (National Electrical Code) and OSHA, and local regulations.

Inclusions
Contractor's proposal shall include:

1. Labor, materials, equipment, and machinery required to perform internal fiber installations.
2. Permit fees and compliance with local building codes and regulations.
3. On-site project supervision to ensure coordination, safety compliance, and quality control.

4. Site restoration to pre-installation conditions.

Cost and Pricing Structure
Contractor shall propose pricing for CLIN 0003 tasks on a **FFP** basis. The proposal will detail:

- Detailed lists of materials, supplies, and associated unit costs including installation cost in unit price.
- Equipment rental rates and associated costs.
- Permit costs and anticipated regulatory expenses.
- All other expenses required for successful internal wiring and fiber installation.

ABMC will negotiate final FFP terms with Contractor based on CLIN 0001 site survey findings and agreed scope of work prior to exercising CLIN 0003.

CLIN 0004 – IPv4 Addressing

General Scope
Contractor shall allocate, configure, and maintain IPv4 address blocks for ABMC sites as part of the fiber internet installation project. Contractor shall assist ABMC in preparing documentation for permanent IPv4 address registration with the appropriate Regional Internet Registry (RIR).

Address Block Allocation
Contractor shall:

1. Allocate one IPv4 /28 block (16 IP addresses; 14 usable host addresses) for each of the following ABMC locations:
    - Arlington
    - Manila
    - Paris
2. Allocate one IPv4 /29 block (8 IP addresses; 6 usable host addresses) to each remaining ABMC site.
3. Assist ABMC in preparing and submitting required documentation to register allocated IPv4 blocks with the appropriate Regional Internet Registry.

Configuration
Contractor shall:

1. Configure IPv4 subnetting, routing tables, and related networking equipment at each site.
2. Update IPv4 configurations to match changes in ABMC infrastructure.

Testing and Validation
Contractor shall:

1. Test and validate IPv4 address assignments at each ABMC site.
2. Validate routing tables to confirm they are accurate, stable, and free from conflicts.
3. Test internal and external connectivity at each site. Confirm valid IPv4 communication.

Documentation
Contractor shall provide:

1. A complete listing of IPv4 address blocks assigned to each ABMC site.
2. Documentation of subnetting, routing, and device configuration details.
3. Connectivity test results confirming correct IPv4 address assignment and functionality.
4. As-built network diagrams in AutoCAD DWG (see Appendix 5 for AutoCAD specifications), Microsoft Visio, and PDF format clearly showing IP address schemes integrated within ABMC's

network architecture.

Support and Maintenance
Contractor shall:

1. Provide ongoing technical support related to IPv4 address configuration issues.
2. Perform network reconfigurations required by changes in ABMC infrastructure, ensuring continuous service stability.

Deliverables
Contractor shall deliver:

1. IPv4 Address Allocation Report detailing assigned IPv4 blocks by site.
2. Configuration documentation showing subnetting, routing, and assigned devices.
3. Comprehensive test and validation reports verifying IPv4 connectivity.
4. Updated as-built network diagrams documenting IPv4 network integration.

Service Level Agreement (SLA)
Contractor shall:

1. Achieve 100% accuracy in IPv4 block assignments and configuration.
2. Maintain 99.5% uptime for IPv4-dependent services measured monthly.
3. Respond within 2 hours to critical IPv4 configuration issues and resolve non-critical IPv4 issues within 24 hours.

Service Credits
Contractor shall propose service credits based on Monthly Recurring Costs (MRC) for any documented failure to meet IPv4 address configuration accuracy or uptime commitments as described in the SLA.

Cost and Pricing Structure
Contractor shall submit Firm Fixed Price (FFP) proposal for all CLIN 0004 IPv4 addressing tasks, clearly identifying:

- Non-Recurring Costs (NRC): Costs associated with initial IPv4 address allocation, configuration, documentation, and validation.
- Monthly Recurring Costs (MRC): Costs covering ongoing IPv4 address management, support, and required reconfiguration services.

CLIN 0005 – IPv6 Addressing (Optional)

General Scope
Contractor shall allocate, configure, test, and manage dual-stack IPv4/IPv6 addressing for ABMC sites to support network scalability. IPv6 implementation shall conform to industry standards (RFC 4291 and RFC 6177) and support ABMC's planned transition to IPv6.

IPv6 Address Allocation and Security
Contractor shall:

1. Allocate a unique IPv6 address block (/54 or larger) to each ABMC location.
2. Coordinate with and assist ABMC IT staff to integrate IPv6 blocks into the existing IPv4 network architecture and routing infrastructure.
3. Configure IPv6 security measures, including:
    - Access Control Lists (ACLs)
    - Secure Neighbor Discovery (SEND), per RFC 3971
    - Continuous monitoring for IPv6 security vulnerabilities and threats
4. Maintain uninterrupted dual-stack IPv4/IPv6 configuration throughout the deployment and transition phases, ensuring ongoing compatibility and minimal disruption.

Configuration
Contractor shall:

1. Configure IPv6 addresses and subnetting per ABMC's approved architecture.
2. Implement dual-stack IPv4/IPv6 configurations at each site to maintain interoperability during transition.

Testing and Validation
Contractor shall:

1. Validate IPv6 configurations through connectivity testing, including:
    - End-to-end internal IPv6 connectivity tests
    - External IPv6 internet accessibility tests
2. Document IPv6 address allocation accuracy, routing table correctness, and compatibility with existing infrastructure.

Documentation
Contractor shall provide:

1. IPv6 Address Allocation Report detailing assigned IPv6 blocks by location.
2. IPv6 Configuration Documentation including subnetting details, configuration scripts, and routing changes.
3. IPv6 Network Management Guidelines outlining procedures for managing, adding, or removing network devices.

Deliverables
Upon completion, Contractor shall deliver:

1. IPv6 Allocation Report: Comprehensive list of IPv6 blocks allocated per site, including subnet details.
2. Testing and Validation Report: Results of IPv6 connectivity and configuration testing, including documented issue resolution.
3. Network Documentation: Site-specific IPv6 configuration files, routing tables, and instructions for network management and troubleshooting.
4. Updated as-built network diagrams documenting IPv4/IPv6 network integration.

Service Level Agreement (SLA)
Contractor shall:

1. Complete IPv6 address block allocation, configuration, and testing within 30 calendar days following fiber service activation at each location.
2. Provide 99.9% uptime availability for IPv6 network services, measured monthly.
3. Provide ongoing IPv6 maintenance and support, including:
    - Continuous (24/7) monitoring and issue detection
    - 2-hour maximum response time for IPv6 connectivity issues

Service Credits
Contractor shall propose service credits based on Monthly Recurring Costs (MRC) if Contractor fails to meet IPv6 SLA metrics, including configuration accuracy or uptime commitments.

Cost and Pricing Structure
Contractor shall propose Firm Fixed Price (FFP) pricing clearly identifying:

- Non-Recurring Costs (NRC): Costs associated with IPv6 address allocation, configuration, testing, documentation, and initial deployment.
- Monthly Recurring Costs (MRC): Costs covering ongoing IPv6 monitoring, maintenance, troubleshooting, and technical support.

CLIN 0006 – Fiber Internet Services (Dedicated Internet Access)

General Scope
Contractor shall deliver Fiber-to-the-Office (FTTO) Dedicated Internet Access (DIA) to each ABMC site, ensuring 99.9% monthly availability, measured continuously, excluding pre-approved maintenance. Contractor shall apply service credits for any deviation from the uptime standard, continuously monitor network performance, and provide real-time monitoring dashboards accessible to ABMC.

Service Requirements
Contractor shall:

1. Provide symmetric internet service. Do not throttle bandwidth or enforce usage limits.
2. Maintain a monthly minimum uptime of 99.9%.
3. Provide unrestricted IP connectivity without traffic shaping, mandatory proxy servers, or required firewall appliances. ABMC shall manage all internal firewalls and network security.
4. Deliver direct IP connectivity supporting 1Gbs required bandwidth, low latency, and reliable performance suitable for real-time communications, cloud computing, and data transfer. Temporary 10Gbps service will be handled separately under CLIN 0008.

Performance Monitoring and Reporting
Contractor shall:

1. Provide ABMC IT staff real-time access to a network performance dashboard with monitoring and reporting features.
2. Integrate an incident reporting and support request feature into the dashboard.
3. Allow ABMC to review and download historical performance data.

Installation and Equipment
Contractor shall:

1. Install fiber cabling directly to each ABMC site, including all hardware required for FTTO service delivery such as routers, switches, patch panels, and related network equipment.
2. Configure all installed equipment to ensure full functionality and successful network handoff to ABMC routers.
3. Perform scheduled preventive maintenance on installed equipment, promptly resolve hardware and software issues, and replace network devices prior to reaching manufacturer-specified End-of-Life (EOL) dates during the contract term.
4. Clearly label installed hardware and maintain inventory records for all on-site equipment.

Service Activation Testing
Contractor shall:

- Provide a "Service Activation Test Checklist" in Microsoft Excel format, specifying pre-installation activities (performed by Contractor) and joint post-installation verification activities (performed by Contractor and ABMC). ABMC must approve the checklist prior to the start of service activation.
- Submit a service activation checklist, approved by ABMC, at least ten (10) business days before activating fiber services

Security
Contractor shall:

- Provide direct IP connectivity without mandatory security appliances or firewalls. ABMC will implement and manage its internal security measures and firewall configurations.

Cost and Pricing Structure
Contractor shall clearly itemize costs, separating Monthly Recurring Costs (MRC) and Non-Recurring Costs (NRC):

1. Monthly Recurring Costs (MRC) – Firm Fixed Price: Itemized monthly fees for dedicated internet service, support, and maintenance
Contractor shall provide monthly recurring charges, itemized per site, covering:

- Monthly dedicated fiber internet service fees at agreed bandwidth
- Continuous (24/7) network monitoring and performance reporting
- Ongoing equipment maintenance, lifecycle management, and replacement
- Technical support, including customer help desk services during standard business hours

MRC pricing shall be clearly detailed per site, with bandwidth tiers specified in Mbps or Gbps.

2. Service Credits
Contractor shall define a structured service credit schedule, including:

- Credits equal to 1% of the site's MRC per each 0.1% deviation below the contracted 99.9% uptime standard, up to a maximum of 20% per monthly billing cycle
- Process for applying and reporting service credits on the next full month’s invoice.

3. Pricing Validity

- All proposed pricing shall remain firm and valid throughout the base contract period and option years.
- Any proposed reduction of rates and/or escalation of rates in option years must be clearly stated and justified in Contractor’s proposal.

For efficient invoicing and contract administration, Contractor shall group the 30 ABMC sites into logical

or regional groups. Contractor shall propose these major groups (e.g. Europe, Americas, North Africa, Pacific), subject to ABMC's written approval during the project kickoff meeting.

Contractor shall activate and test internet services at each individual site within a group. ABMC will formally accept each site individually but will only authorize billing commencement after ABMC accepts **all** sites within a specified group to be negotiated during contract planning phases.

Once ABMC provides written acceptance for all sites within a group, billing for monthly recurring costs (MRC) for the entire group shall begin simultaneously as of the date of acceptance, establishing a unified billing start date for all sites in the group on an MRC basis.

Contractor shall consolidate billing for all site groups into a single, unified monthly invoice clearly detailing:

- Each individual site within every accepted group
- Monthly Recurring Cost (MRC) per individual site
- Monthly service credit per individual site
- Activation and unified billing start date per group
- Total monthly recurring costs for each site group
- Overall total monthly recurring cost of accepted groups

ABMC will not accept partial billing or separate invoices for different groups. All activated and ABMC accepted groups must be combined into one invoice, clearly itemized per site. Contractor shall submit the consolidated monthly invoice beginning from the unified billing date, and ABMC will process payment accordingly, net 30 days.

All costs shall remain within the contractual pricing agreed upon during negotiations, without hidden charges.

Reporting and Escalation Procedures
Contractor shall:

1. Provide a documented escalation procedure, including detailed contact information for tiered levels of technical support.
2. Submit monthly reports to ABMC summarizing service uptime, network latency, incident resolution timelines, and completed maintenance tasks.

Support and Maintenance
Contractor shall:

- Provide 24/7 network monitoring and standard business-hour technical support for ABMC.
- Maintain a dedicated technical support team available to address service-related issues and ensure prompt resolution.

Service Level Agreement (SLA)
Contractor shall meet or exceed the following SLA standards:

- Guarantee monthly network uptime of at least 99.9%.
- Provide a service credit of 1% of the site's Monthly Recurring Cost (MRC) for each 0.1% reduction below the required 99.9% uptime, capped at a total of 20% of the site's MRC per month.
- Provide timely notification and regular status updates to ABMC during network outages, performance degradations, or service disruptions until resolved.

CLIN 0007 – Distributed Denial of Service (DDoS) Mitigation Services (Optional)

Contractor shall provide DDoS mitigation to protect ABMC's external-facing networks from attacks. Services shall apply to all designated ABMC locations with active Dedicated Internet Access (DIA) circuits under CLIN 0006, totaling up to **30 global sites**.
The selected solution must provide proactive detection, traffic analysis, automated or pre-configured mitigation, and live monitoring across ABMC's global footprint. Contractor shall ensure the DDoS service integrates with ABMC's existing network infrastructure and complies with all applicable security and reporting requirements.

Technical Requirements

1. DDoS Bandwidth Coverage

- Contractor shall recommend a **minimum clean pipe capacity** to protect all 30 ABMC sites.
- ABMC estimates a **baseline of 5 Gb/s (approximately 200 Mb/s per site)** to accommodate worst-case attack scenarios, with room for burstable mitigation.
- Contractor shall validate this bandwidth recommendation based on the size of their scrubbing network, historical patterns, and expected traffic overhead.

2. DDoS Protection Levels

Contractor shall list available service tiers. Identify which ones support automated mitigation and always-on protection. (e.g., Case-by-Case, Basic, Advanced), and clearly identify which level supports:

- Pre-configured mitigation rules
- Automated detection and response
- Always-on vs. on-demand scrubbing

ABMC prefers a **Basic or Advanced plan** that allows pre-configured mitigations and automated routing of malicious traffic.

3. Traffic Scrubbing Architecture

- Confirm whether mitigation requires **GRE or IPsec tunnels** to redirect clean traffic from scrubbing centers to ABMC sites.
- Contractor shall support **BGP diversion or DNS redirection** as applicable and describe traffic flow architecture.
- Contractor shall assist ABMC with establishing and testing any required tunnels.

4. Multi-Vendor Support

- Contractor shall confirm whether **multi-vendor DDoS integration** is supported.
- Describe the process for sharing telemetry and mitigation data across multiple providers.
- Define ABMC's role in provisioning and maintaining such configurations, including peering or coordination with existing vendors (e.g., Cloudflare, Akamai).

5. Scrubbing Center Coverage

- Contractor shall provide a global map and list of scrubbing center locations with latencies to major ABMC regions (Europe, North America, Pacific).
- Include number of centers, typical traffic absorption capacity per site, and regional failover capabilities.

6. On-Site Equipment

- State whether any on-premises DDoS mitigation appliance or CPE integration is required at ABMC sites.
- If so, specify models, power/network footprint, and installation requirements.
- Contractor shall assume all responsibility for shipment, installation, and maintenance of any such equipment.

7. Types of DDoS Mitigations Offered

Contractor shall list available mitigation types and confirm whether each is configurable:

- SYN Flood mitigation
- UDP/ICMP flood mitigation
- DNS amplification/reflection filtering
- HTTP GET/POST flood protection
- Application-layer (Layer 7) signature-based filtering
- Geo-blocking
- Rate limiting
- Real-time anomaly detection and traffic shaping

ABMC may request custom mitigation profiles per site or group of sites, depending on operational risk.

8. DDoS Monitoring Console

- Contractor shall provide ABMC with 24/7 access to a web-based DDoS management console.
- Console features must include:
    - Real-time attack dashboards
    - Traffic graphs (per source/destination, port, protocol)
    - Mitigation logs and duration
    - Historical attack data and reports
    - Configurable alert thresholds
    - Role-based access controls
- Contractor shall describe any **licensing costs** associated with console access, advanced analytics, or custom reports.

9. Attack Notification and SLA

- Contractor shall notify ABMC of any detected DDoS attack using the following channels:
    - Email alerts (automated)
    - SMS or phone (for critical alerts)
    - Console alert log
- SLA for notifications:
    - Initial alert: within 5 minutes of attack detection
    - Mitigation status updates: every 15 minutes during mitigation
    - Post-event summary: within 1 business day of attack end

10. SOC Coordination

- ABMC will not host its own Security Operations Command Center (SOCC).
- Contractor shall direct all notifications and escalations to ABMC's designated national or regional SOCC as defined post-award.
- ABMC will provide central 24/7 telephone access to its SOCC and key personnel by region.
- Contractor shall maintain a clear escalation path and contact directory for use during major events or attacks.

Deliverables

Deliverable	Description	Format	Due Date
DDoS Protection Plan	ABMC site coverage, mitigation type, tunnel configuration, notification plan	PDF	15 days after option exercised
Scrubbing Center Map	Map and site list with latency metrics to ABMC locations	PDF	With proposal
Tunnel Configuration Guide	Setup and test procedures for traffic diversion tunnels	PDF	Upon initial setup
Monthly DDoS Mitigation Reports	Summary of attacks, mitigation activity, system availability, console usage	PDF	Monthly
Annual Threat Landscape Report	Industry trends and risks relevant to ABMC global sites	PDF	Annually
Incident Reports	Root cause, timestamps, actions taken, recommendations	PDF	Within 5 business days of event

Service Level Agreement (SLA)

SLA Item	Performance Target	Credit for Agency-wide Invoices
Mitigation activation (automated or manual)	< 2 minutes from detection	5% MRC for delays > 5 minutes
Notification to ABMC SOCC	< 5 minutes from detection	5% MRC if delayed
Console availability	99.9% monthly uptime	5% MRC per 0.1% below target
Mitigation effectiveness	≥ 95% traffic neutralization per event	10% MRC if not met and proven to be contractor-fault

Non-Recurring Costs (NRC)

Cost Element	Description
Initial Configuration	Tunnel setup, mitigation profiles, console access configuration
Equipment (if applicable)	One-time cost of shipping, installation, and licensing
Stakeholder Training	Console walkthrough, contact escalation tree, SLA walkthrough

Monthly Recurring Costs (MRC)

MRC Category	Description
DDoS Monitoring & Scrubbing	Continuous traffic analysis and threat mitigation
Console Access	Role-based access, real-time and historical views
Reporting & Analytics	Monthly summaries, event-based reporting, attack heat maps
Technical Support	24/7 access to Tier 2 or Tier 3 engineers, incident response teams

CLIN 0008 – Events-Based 10 Gb/s Fiber Internet (Reserve)

Scope of Work

ABMC hosts high-visibility annual commemorative events such as D-Day, Memorial Day, and Veterans Day, which attract global media attention, senior U.S. government officials, partner nation representatives, and thousands of in-person and virtual participants. To ensure uninterrupted communications and live streaming, and to secure high-bandwidth access to ABMC's cloud-based services during these events, ABMC requires short-term, temporary 10 Gb/s Dedicated Internet Access (DIA) at selected sites.

CLIN 0008 enables ABMC to request event-based, high-capacity internet service on a per site, temporary basis to support these mission-critical ceremonies. Services delivered under this CLIN 0008 shall operate independently of the standard monthly internet services provided under CLIN 0006 and must fully integrate with ABMC's existing LAN infrastructure and firewall configurations.

Contractor shall provide all necessary equipment, temporary cabling, activation, testing, and demobilization services to establish and sustain reliable symmetric bandwidth at designated locations for designated, limited periods of time. This includes support for live video streaming, high-volume secure file transfers, digital public engagement, and real-time collaboration tools such as Microsoft Teams and cloud-based media platforms.

Contractor shall Install and activate services at least 10 business days before the event and remove all equipment and restore the site within 3 business days after the event. All temporary systems must operate with <10 ms latency, meet the same uptime and performance standards as CLIN 0006, and avoid any interference with permanent ABMC networks or ongoing site operations.

Technical Requirements

Contractor shall:

- Confirm its capability to deliver event-based bandwidth increases (e.g., temporary upgrades to 1Gbps, 2Gbps, 5Gbps, or 10Gbps) at each ABMC site as needed.
- Ensure <10 ms average latency to Tier 1 internet exchange points
- Guarantee 99.9% uptime during the service window
- Install temporary fiber and/or supporting equipment only where no existing infrastructure can be reused
- Provide IPv4 and IPv6 addressing as needed for ABMC's event configuration
- Ensure seamless integration with ABMC's local area network (LAN), firewalls, and switching equipment
- Configure all network devices to ABMC specifications and validate performance with ABMC IT staff
- Submit a Service Activation Test Plan in advance of each deployment
- Coordinate site access and scheduling with ABMC IT, Engineering, and Cemetery Operations

- Submit its terms, conditions, minimum notice periods, and technical requirements for event-based bandwidth services as part of its response to this SOW
- Execute CLIN 0008 multiple times throughout the contract period, on an as-requested basis by ABMC
- Upon ABMC's written request, submit a Firm Fixed Price (FFP) proposal for each event-based bandwidth increase. Each proposal shall:
    - Specify the duration of the temporary service.
    - Identify all non-recurring charges (if applicable).
    - Confirm Monthly Recurring Cost (MRC) pro-rated for the event period.
    - Include cancellation and modification terms.

  Activation of event-based bandwidth services under CLIN 8 shall be contingent on ABMC's written approval of the Contractor's proposal for each individual event

Deliverables

Deliverable	**Description**	**Format**	**Due Date**
Event Circuit Design & Activation Plan	Circuit route, hardware layout, power and equipment requirements	PDF	30 calendar days prior to event
Service Activation Test Plan	Pre-install and post-install test steps; includes throughput, latency, and failover validation procedures	Excel / PDF	15 business days prior to activation
Pre-Event Performance Test Report	Test results showing achieved bandwidth, latency, packet loss, and routing path	PDF	5 business days before event
Live Bandwidth Monitoring Reports	Hourly statistics for throughput, latency, and system uptime during the event	CSV / PDF	Daily during event
Incident Report (if applicable)	Root cause, impact, resolution timeline, mitigation steps	PDF	Within 5 business days of incident
Post-Event Site Restoration Report	Confirm removal of all temporary infrastructure and restoration to pre-installation condition	PDF + Photos	Within 3 business days after event

Cost Structure

CLIN 0008 shall be executed on a Firm Fixed Price basis per event, covering all planning, equipment, transport, installation, testing, live monitoring, demobilization, and site restoration activities.

Contractor shall propose FFP pricing per event, including both Non-Recurring Costs (NRC) and Daily Recurring Charges (DRC) based on the number of active event days.

Non-Recurring Costs (NRC) – Firm Fixed Price per Event

Cost Category	Description
Site Survey & Engineering	Pre-event planning, circuit path survey, integration design
Temporary Equipment Rental	Routers, optical transceivers, 10 Gb/s switches, ONTs, racks, UPS units
Installation Labor	Equipment setup, configuration, testing
Activation & Validation	Performance testing and certification
Event Circuit Coordination	Carrier provisioning, local loop coordination, and escalation readiness
Site Demobilization & Restoration	Post-event removal, cable clean-up, floor/wall patching, lawn repair (if applicable)
Documentation & Reporting	All required documentation, diagrams, test results, and final report

Daily Recurring Charges (DRC) – Firm Fixed Price

Cost Category	Description
Daily DIA Service Fee	Provision of 10 Gb/s dedicated bandwidth with 24/7 monitoring and support
Live Monitoring	Real-time metrics dashboard, alerting, and bandwidth graphing
Technical Support	On-call engineering support and incident response throughout event duration

Acceptance Criteria

ABMC will approve CLIN 0008 deliverables upon:

- Successful testing and activation of the 10 Gb/s link at least 5 business days before the event
- Operational bandwidth meeting latency and performance targets for the full event duration
- Clean demobilization and full site restoration
- Submission and acceptance of all required reports and documentation

- Confirmation that ABMC firewalls and internal systems remained fully functional with the event circuit

CLIN 0009 – Montfaucon Monument (Optional)

Scope of Work

Contractor shall adhere to all requirements and deliverables outlined in CLINs 0001 through 0008 of the PWS for Montfaucon and Montsec sites **with the following exception**:

1. **Seasonal Internet Service Requirement:**

   Contractor shall provide dedicated Internet Service Provider (ISP) services at Montfaucon and Montsec monuments from April 1 to October 31 annually, aligning with operational periods when ABMC interpretive guides and guards are present onsite to interact with the public.

CLIN Requirements for Montfaucon and Montsec:

- **Refer to CLINs 0001-0003 (Site Surveys, Exterior Works, Inside Wiring):**
  Contractor shall fully comply with specifications for initial assessment, external infrastructure construction, internal wiring, equipment installation, and testing as described in previous pages of this PWS.

- **Refer to CLIN 0004 (IPv4 Addressing) and CLIN 0005 (Optional IPv6 Addressing):**
  Contractor shall allocate and configure IPv4 /29 (6 IP addresses per site), and optionally IPv6 addressing, consistent with the requirements and acceptance criteria previously defined.

- **Refer to CLIN 0006 (Fiber Internet Services):**
  Contractor shall activate and deactivate ISP services annually, corresponding to the seasonal operational schedule (April through October). Contractor shall clearly propose and document any associated activation or deactivation procedures and notification timelines.

  Monthly recurring costs (MRC) shall apply only during operational months April through October each year.

- **Refer to CLIN 0007 (Optional DDoS Mitigation Services):**
  Contractor shall provision optional DDoS protection services to be activated concurrently with seasonal ISP services. Monthly costs for DDoS services, if exercised, shall also apply only during operational months.

- **Refer to CLIN 0008 (Event-Based Temporary Bandwidth):**
  Contractor shall confirm capability to provide event-based bandwidth increases at Montfaucon and Montsec sites as requested by ABMC Contracting Officer during the seasonal operational months.

Implementation and Activation:
Contractor shall clearly document the annual activation and deactivation process, including notification

procedures, timelines, and any required stakeholder coordination, and shall submit these plans for ABMC review and approval.

All scope of the original PWS remain unchanged and fully applicable to these two additional sites.

CLIN 0010 – Montsec Monument (Optional)

Scope of Work

Contractor shall adhere to all requirements and deliverables outlined in CLINs 0001 through 0008 of the PWS for Montfaucon and Montsec sites **with the following exception**:

2. **Seasonal Internet Service Requirement:**

   Contractor shall provide dedicated Internet Service Provider (ISP) services at Montfaucon and Montsec monuments from April 1 to October 31 annually, aligning with operational periods when ABMC interpretive guides and guards are present onsite to interact with the public.

CLIN Requirements for Montsec:

- **Refer to CLINs 0001-0003 (Site Surveys, Exterior Works, Inside Wiring):**
  Contractor shall fully comply with specifications for initial assessment, external infrastructure construction, internal wiring, equipment installation, and testing as described in previous pages of this PWS.

- **Refer to CLIN 0004 (IPv4 Addressing) and CLIN 0005 (Optional IPv6 Addressing):**
  Contractor shall allocate and configure IPv4 /29 (6 IP addresses per site), and optionally IPv6 addressing, consistent with the requirements and acceptance criteria previously defined.

- **Refer to CLIN 0006 (Fiber Internet Services):**
  Contractor shall activate and deactivate ISP services annually, corresponding to the seasonal operational schedule (April through October). Contractor shall clearly propose and document any associated activation or deactivation procedures and notification timelines.

  Monthly recurring costs (MRC) shall apply only during operational months April through October each year.

- **Refer to CLIN 0007 (Optional DDoS Mitigation Services):**
  Contractor shall provision optional DDoS protection services to be activated concurrently with seasonal ISP services. Monthly costs for DDoS services, if exercised, shall also apply only during operational months.

- **Refer to CLIN 0008 (Event-Based Temporary Bandwidth):**
  Contractor shall confirm capability to provide event-based bandwidth increases at Montfaucon and Montsec sites as requested by ABMC Contracting Officer during the seasonal operational months.

Implementation and Activation:
Contractor shall clearly document the annual activation and deactivation process, including notification

procedures, timelines, and any required stakeholder coordination, and shall submit these plans for ABMC review and approval.

All scope of the original PWS remain unchanged and fully applicable to these two additional sites.

General DIA Support Requirements

Contractor shall comply with these requirements to maintain reliable service, network security, and regulatory compliance. This section defines Contractor's obligations, security measures, compliance requirements, reporting expectations, and escalation procedures.

Quarterly Review
Contractor and ABMC shall meet quarterly to review progress, discuss issues, and identify improvements. Contractor shall prepare a written summary report of progress and challenges at each meeting.

Contractor shall:

1. Schedule and attend quarterly and ad-hoc review sessions with ABMC to assess performance, address project challenges, and identify operational improvements.
2. Submit quarterly performance reports summarizing completed tasks, network performance, issues identified, and proposed corrective actions.
3. Respond within two (2) business hours to ABMC requests for information or escalations made outside scheduled review sessions.

IT Security Compliance
Contractor shall:

1. Monitor network equipment and promptly apply manufacturer security updates and patches.
2. Conduct quarterly vulnerability scans of all installed network components.
3. Submit vulnerability scan reports to ABMC within five (5) business days of scan completion, detailing vulnerabilities identified, actions taken, and any recommended additional mitigations.

FCC Covered List Compliance
Contractor shall comply with Section 2 of the Secure Networks Act and ensure no equipment, software, or services listed on the FCC's Covered List are used within ABMC's networks.
Specifically, Contractor shall:

1. Certify that all equipment, software, and subcontracted services deployed at ABMC sites comply with FCC Covered List restrictions.
2. Perform quarterly supply-chain audits to verify compliance and submit quarterly certification to ABMC confirming compliance.
3. Immediately remove and replace any non-compliant components identified, with all associated costs borne solely by the Contractor.

ABMC retains the right to:

- Request detailed documentation of supply chain sources and certifications.
- Conduct periodic compliance audits and require corrective actions.

Ticketing, Incident Response, and SLA

Contractor shall:

Trouble Reporting and Response

- Create a system for ABMC to report service issues.
- Immediately acknowledge service disruption reports and begin troubleshooting, providing ABMC with initial estimated resolution time and regular updates until resolution.

Escalation

- Submit and maintain an up-to-date escalation contact list, including names, roles, and response tiers, beginning at project initiation.
- Escalate unresolved issues according to defined procedures within the agreed SLA timelines.

Resolution

- Notify ABMC immediately upon resolution and request written confirmation from ABMC that service is restored to satisfaction.

Incident Reporting

- Submit detailed incident reports to ABMC within five (5) business days upon request, including cause analysis, actions taken, and prevention strategies.

Incident-Based SLA

Contractor's proposed SLA shall meet or exceed these performance requirements:

Ref	Description	Key Performance Indicators (KPI)
a.	Time-to-Restore (remote resolution)	Less than 4 hours
b.	Time-to-Restore (dispatch required)	Less than 8 hours
c.	Cybersecurity Incident Notification	Less than 1 hour

Service Management SLA

Contractor shall meet the following standards:

Ref	Description	Key Performance Indicators (KPI)
d.	Customer Account Queries (billing, POC changes)	Within 2 business days
e.	Billing Accuracy	Less than 5% errors monthly

Communications Circuit Maintenance
Contractor shall:

- Maintain and troubleshoot the communications circuits between ABMC sites and Contractor's network.
- Coordinate with third-party vendors and equipment manufacturers to expedite repairs and replacements.

Router Maintenance
Contractor shall:

- Perform preventive router maintenance quarterly or when critical security patches become available.
- Apply router operating system (OS) security patches as recommended by the manufacturer or regulatory advisories.

Service Dashboard
Contractor shall provide ABMC access to a web-based Service Dashboard that includes:

- Site details (name, location)
- CPE inventory (model, serial number, OS version)
- Interface status (up/down)
- Real-time and historical traffic statistics (daily, weekly, monthly, yearly views)

Ticketing System
Contractor shall implement a ticketing system to track all ABMC service and administrative requests. The system shall provide automated email notifications for service updates and scheduled maintenance.

Support Escalation
Contractor shall serve as the primary point of contact for connectivity issues, including:

- Fault isolation and problem resolution coordination
- Collaboration with other suppliers to track issue resolution progress
- Provision of a regularly updated escalation contact matrix

Project Delays and Penalties
Contractor shall adhere to these project deadlines and penalties:

Completion Deadline:

- Fully complete installation, configuration, activation, and ABMC acceptance of all ISP services (CLINs 0001-0006) by **April 15, 2026**.

Delay Penalties:

- Contractor shall credit ABMC $5,000 per calendar day until full, written operational acceptance from ABMC at all sites if Contractor misses the **April 15, 2026** deadline due to Contractor-caused delays.
- Contractor shall reimburse ABMC for all incurred charges from the current ISP vendor for extending existing ISP contract beyond July 2026 services due to Contractor-caused delays. **The current ISP does not allow partial termination of services.**

Contractor-Caused Delay Examples:
Delays subject to penalty include, but are not limited to:

- Late delivery of materials or equipment
- Staffing shortages or resource mismanagement
- Insufficient/Inadequate scheduling or coordination of site visits
- Failure to secure subcontractors promptly
- Delay in obtaining necessary permits or licenses
- Insufficient subcontractor management

Penalty Payments:
Contractor shall remit penalties to ABMC within 30 days of penalty confirmation or through direct deduction from outstanding invoices.

Delay Notification and Mitigation:
Contractor shall immediately notify ABMC of anticipated delays and provide a mitigation plan. ABMC reserves the right to accept or reject the proposed mitigation measures.

Contract Termination:
ABMC reserves the right to terminate the contract for default if:

- Project delays exceed ten business days beyond April 15, 2026.
- Invoice Contractor for expenses incurred by ABMC in extending the current ISP contract.
- SLA or performance standards fail consistently over three (3) consecutive months or an aggregate of five (5) months within any 18-month period.
- Contractor repeatedly fails to address service quality issues or implement corrective actions.

Upon termination for cause, ABMC will pay only for services satisfactorily completed and accepted. All additional costs incurred by ABMC due to Contractor default shall be borne solely by the Contractor.

Recurring CLINs Service Level Agreements (SLAs) and Service Credits

General Requirements
Contractor shall provide clearly defined Service Level Agreements (SLAs) and associated Service Credits to enforce compliance with the specified performance standards. Contractor shall monitor SLA compliance and immediately notify ABMC upon identification of any SLA breaches. ABMC is not responsible for identifying SLA breaches or initiating claims for Service Credits. Contractor shall calculate and automatically apply any applicable Service Credits to the subsequent monthly invoice within ten (10) business days following an SLA breach.

Service Credit Conditions
If Contractor fails to achieve the contractual 99.9% Internet Service uptime SLA for three (3) consecutive months or for five (5) months in any eighteen (18)-month period, ABMC shall receive an automatic 25% credit applied to the entire invoice following the month in which the latest SLA breach occurred.

SLA Reporting and Review
Contractor shall submit a monthly SLA compliance report detailing any SLA breaches, root causes, and corrective actions implemented. Reports shall be provided within five (5) business days following the close of each month. ABMC shall review SLA performance quarterly and may apply Service Credits or take corrective action as defined in the SLA Summary Table.

Minimum Service Level Agreement (SLA) Summary Table
Contractor shall meet or exceed each SLA standard monthly as detailed in the following table. This SLA Summary Table shall serve as a reference and is binding upon the Contractor:

SLA #	Description	Performance Standard	Service Credit
SLA-01	Contractor shall acknowledge and respond to all ABMC service desk communications (calls, emails, tickets) within 15 minutes during standard business hours (6:00 AM – 8:00 PM ET, excluding weekends and Federal holidays).	Contractor shall respond to service requests within 15 minutes at least 97% of the time each month, during business hours: 97% – 99% within 15 min 95% – 96.99% within 15 min < 95% within 15 min	1% of monthly invoice 3% of monthly invoice 5% of monthly invoice
SLA-02	Contractor shall provide continuous (24-hour) service desk support for all critical, emergency, or unplanned outages. Response to communications must occur within 15 minutes.	97% – 99% within 15 min 95% – 96.99% within 15 min < 95% within 15 min	1% of monthly invoice 3% of monthly invoice 5% of monthly invoice
SLA-03	Contractor shall provide hourly status reports to ABMC during critical, emergency, or unplanned outages.	97% – 99% hourly reports delivered 95% – 96.99% hourly reports delivered < 95% hourly reports delivered	1% of monthly invoice 5% of monthly invoice 10% of monthly invoice
SLA-04	Contractor's network (beyond ABMC's demarcation) shall maintain a minimum of 99% monthly availability, excluding ABMC-approved scheduled maintenance windows.	98.5% – 99.49% availability 97% – 98.49% availability < 97% availability	5% of monthly invoice 10% of monthly invoice 20% of monthly invoice
SLA-05	Contractor shall provide verbal notification within one (1) hour and written notification within 24 hours for all confirmed security incidents rated Medium or higher severity (per NIST National Vulnerability Database).	98% – 99% compliance 95% – 97.99% compliance < 95% compliance	5% of monthly invoice 10% of monthly invoice 20% of monthly invoice

SLA #	Description	Performance Standard	Service Credit
SLA-06	Contractor shall immediately provide verbal notification and detailed written notification within 24 hours of discovering any actual or suspected security breach.	98% – 99% compliance 95% – 97.99% compliance < 95% compliance	5% of monthly invoice 10% of monthly invoice 20% of monthly invoice
SLA-07	Contractor shall maintain network performance stability at or above 90% of the subscribed data rate (SDR).	<90% of SDR over any 3-day measurement period	10% of monthly invoice

Service Credit Calculation and Application
Contractor shall:

- Accurately calculate Service Credits based on SLA performance metrics detailed above.
- Apply Service Credits without requiring an ABMC request.

ABMC retains the right to verify SLA performance independently and request corrections or adjustments if inaccuracies are identified in Contractor's reporting or credit calculation.

Verification and Payment

ABMC and Contractor shall agree upon the performance period for each CLIN during the project kickoff meeting. Contractor shall complete all tasks under CLINs 0001 through 0007 no later than April 15, 2026, in accordance with the mutually agreed project schedule, which ABMC will incorporate into the contract.

ABMC will issue payments only after verifying accurate completion and acceptance of Contractor's deliverables. ABMC shall consider deliverables "Accepted" when:

- Contractor completes and submits successful test results for end-to-end attenuation testing, end-to-end signature testing, and splice testing of installed fiber.
- ABMC staff independently verify successful end-to-end Internet connectivity and confirm that all services are active according to the contract scope.

ABMC reserves the right to withhold payments if Contractor fails to meet agreed-upon CLIN deadlines. ABMC may perform independent inspections or tests of installed equipment and infrastructure prior to payment approval. Contractor shall support and facilitate all ABMC-requested inspections or testing.

ABMC shall condition payment approval upon ABMC's acceptance of submitted documentation if the scope includes engineering and design deliverables. ABMC will require at least ten (10) business days to perform a thorough review of Contractor submissions.

Contract Type and Payment Schedule
This contract includes Firm Fixed Price (FFP) terms. Contractor shall propose a CLIN-specific payment schedule aligned with milestone deliverables. ABMC will retain 20% of each payment until it formally accepts all deliverables under that CLIN.

Risk Management & Quality Assurance

Risk Management Plan

Contractor shall proactively identify, assess, and report project risks to ABMC, and implement mitigation strategies immediately and update ABMC weekly. Contractor shall also submit an initial Risk Management Plan within 30 calendar days of contract award, and weekly Risk Register updates. The Risk Register shall include risk likelihood, impact scoring, and planned mitigations. The plan shall identify specific project risks, categorize each risk by likelihood and impact, and define clear mitigation strategies for each identified risk.

Contractor shall:

- Update the Risk Management Plan weekly and submit the revised risk register to ABMC.
- Immediately notify ABMC if significant new or escalating risks arise, providing a detailed mitigation plan within five (5) business days of identification.
- Provide weekly risk management status reports to ABMC detailing identified risks, current status, and specific mitigation actions in progress or completed.

Quality Assurance and Compliance

ABMC reserves the right to conduct quarterly performance audits to verify Contractor compliance with contract requirements, technical specifications, and Service Level Agreements (SLAs). ABMC may utilize third-party auditors to independently confirm compliance, service quality, and adherence to established protocols.

Contractor shall:

- Develop and submit a detailed Quality Assurance Plan for ABMC approval. Include inspection points, testing protocols, and conformance checklists within 15 business days of contract kickoff meeting.
- Submit corrective action plans addressing audit-identified deficiencies within ten (10) business days of audit completion.
- Resolve deficiencies within ten (10) business days of identification. Repeated noncompliance will trigger w or contract termination.

Inspection and Acceptance Metrics
ABMC shall inspect and verify Contractor's CLIN 0001, 0002, and 0003 deliverables using the following standards:

Performance Objective	Performance Threshold	Surveillance Method
Adherence to installation requirements	Any deviation requires prior ABMC written approval	Visual inspection
Fiber optic testing at 1310 nm, 1490 nm, 1550 nm wavelengths using industry-standard methods	Zero deviation from standards	Visual inspection and performance test results review
DIA Service throughput measured by RFC 6349 tests	At least 95% of contracted DIA bandwidth	Review of RFC 6349 test results submitted via email
IP Geolocation accuracy	IP addresses correctly reflect site address in third-party IP databases	Third-party IP database verification
Restoration of disturbed grounds	Restored conditions must match original state or receive prior ABMC approval for exceptions	Visual inspection
Delivery of accurate test results and As-Built drawings	Zero deviation from technical standards	Visual inspection and document review

Quality Control Key Performance Indicators (KPIs)
Contractor shall maintain quarterly compliance with the following Quality Control KPIs:

- Minimum of 98% compliance with defined installation standards.
- Maximum defect rate of 2% measured quarterly.

Contractor shall report quality control challenges to ABMC within two (2) business days of identification and implement corrective actions within ten (10) business days.

Deliverables

All deliverables specific to each CLIN appear in their respective CLIN descriptions above.
Additionally, the following table details general deliverables applicable across the entire project. Without any exceptions, all deliverable documents shall be submitted in English.

Submission Instructions:
All deliverables shall be sent via encrypted email to OCIO@abmc.gov, and uploaded to ABMC's collaboration repository, unless specified otherwise. ABMC's collaboration repository is the official document storage location for this project.

Deliverable	Due Date / Frequency	Description & Required Format
Kick-Off Meeting	Within five (5) business days following contract award	Coordinate scheduling with ABMC Contracting Officer (CO) and Contracting Officer's Representative (COR). Conduct remotely.
Project Plan & Integrated Master Schedule (IMS)	Within fourteen (14) business days following Kick-Off Meeting	Submit detailed Project Plan and IMS in MS Project file format. Plan shall clearly outline milestones, tasks, timelines, resources, dependencies, and critical

Deliverable	Due Date / Frequency	Description & Required Format
		paths.
Public IP Address Plan	Within thirty (30) calendar days following contract award	Submit a detailed Public IP Address Allocation Plan in MS Excel format. Plan shall include allocated IPv4 and IPv6 address blocks by site, subnetting schemes, and assigned purposes.
Weekly Project Status and Activity Report	Weekly (by noon Eastern Time each Friday)	Submit an updated MS Project schedule detailing status by task and by site. Include task completion, issues encountered, and upcoming activities.
Weekly Project Status Meeting	Weekly (day/time coordinated with ABMC)	Host and lead weekly remote project status meetings, providing project updates and discussing schedule adherence, issues, and action items and provide meeting minutes to the CORs within 2 business days.
Pre-Deployment Checklist	At least fifteen (15) calendar days prior to scheduled deployment at each site	Submit a checklist documenting all required tasks necessary for successful Internet Service activation at each individual site.
Site Deployment Reports	Within two (2) business days following deployment completion at each site	Submit a deployment report containing: - Physical and logical fiber cabling and Customer Premise Equipment (CPE) diagrams in AutoCAD native format - Link test reports (ping, traceroute to Microsoft cloud services, throughput tests via speedtest.com and nperf.com, and site-to-site tests using iPerf and JPerf) - Detailed as-built fiber route diagrams in AutoCAD format with referenced, labeled photographs of locations and paths
Problem Escalation Matrix	Within two (2) business days following initial deployment at each site, and upon changes	Provide an updated Problem Escalation Matrix, including names, email addresses, phone numbers, and roles for support desks and operational contacts responsible for project delivery, network support, and escalation.
Service Acceptance Testing (SAT) Document	Within two (2) business days following completion of deployment at each site	Submit completed Service Acceptance Test documents including results from all required tests per contract standards. ABMC requires ten (10) business days to review, validate, and formally accept the site.
Risk Management Plan & Quality Control Reports	Initial Risk Management Plan within five (5) business days of contract award; Monthly updates or as new risks are identified	Submit: - Initial comprehensive Risk Management Plan including risk identification, analysis, and mitigation strategies - Monthly updated Risk Register documenting current risks and mitigation actions
As-Built Diagrams	Within two (2) weeks following completion of site surveys, updated after any change	Submit accurate as-built diagrams in AutoCAD native format, detailing exact installed infrastructure, including fiber routes, cable paths, splice points, and equipment locations with referenced, labeled

Deliverable	Due Date / Frequency	Description & Required Format
		photographs. Refer to Appendix 5 for specifications.
Close-Out Checklist	Upon close-out of each CLIN	Submit a final Close-Out Checklist including: - Final test results (attenuation, throughput, RFC 6349 reports) - Confirmed system configurations and firmware/software versions - Final as-built diagrams (AutoCAD and Visio) - Documentation verifying backups of all critical configurations and system data ABMC will verify compliance before issuing final acceptance and payment approval.

Contractor Selection and Site Assignments

ABMC will evaluate and select Contractor(s) based on technical capability, proposed solutions, cost-effectiveness, regulatory compliance, and proven past performance. While ABMC **prefers to award a single prime contract** covering all sites, the agency reserves the right, based on the content and quality of proposals, to make the following decisions:

- Award a **single, consolidated contract** to one prime contractor for all sites; or
- **Divide the scope** among multiple contractors by site or region, if doing so provides better value through improved cost, performance, risk mitigation, or implementation efficiency.

This flexibility enables ABMC to select the solution that best supports operational timelines, service quality, and global mission delivery. Site assignments will align with ABMC's strategic and logistical priorities. Each awarded contractor must independently deliver all assigned tasks and fulfill all requirements defined in this Performance Work Statement (PWS).

Contractor Selection
ABMC reserves the right to:

- Award the entire scope to a single contractor;
- Award portions of the work to multiple contractors responsible for specific sites or regions; or
- Exclude certain sites from award based on operational priorities or proposal deficiencies.

ABMC will base its selection on the evaluation criteria outlined in the solicitation, prioritizing overall best value, technical merit, and regulatory compliance. Although ABMC favors a unified award, this preference depends on the offeror's ability to demonstrate that a consolidated approach delivers superior value.

Site Assignments
ABMC may allocate specific site responsibilities to one or more Contractor(s) considering:

1. Geographic location of sites;
2. Contractor's demonstrated capabilities and service availability;
3. Cost-effectiveness, price competitiveness, and compliance with applicable regulations.

Contractors assigned to specific sites shall complete all tasks and deliverables specified in this Performance Work Statement (PWS) and other contract documents.

Contractor Responsibilities
Contractor shall:

1. Maintain full responsibility for delivering all required services, infrastructure installation, testing, and ongoing support for the specific sites assigned to them by ABMC.
2. Execute an individual contract with ABMC for the assigned sites, clearly outlining Contractor-specific obligations.
3. Not subcontract or delegate responsibility for any assigned sites without prior written authorization from ABMC.

Non-Award of Sites
ABMC may withhold contract awards for specific sites when:

- A proposal fails to meet ABMC's technical, operational, or regulatory standards; or
- Agency priorities shift before award.

ABMC's decision to exclude sites will not affect the enforceability of contracts awarded for other locations.

Amendments to Site Assignments
ABMC may revise site assignments during the contract period to address evolving requirements or operational changes. ABMC will issue all reassignment notices in writing and provide reasonable advance notice. Contractors must acknowledge receipt and confirm their ability to support the revised scope within ten (10) business days.

General Information

Contract Review
ABMC and Contractor shall jointly review the contract scope every two (2) years or upon ABMC's request. The reviews shall evaluate technological developments, emerging methodologies, and industry best practices to enhance service quality. Following each review, Contractor shall submit a written proposal outlining recommended improvements, including cost-neutral options where feasible. ABMC and Contractor shall mutually agree upon any changes. Agreed modifications will be formalized by the ABMC Contracting Officer (CO) through official contract modification prior to implementation.

Cost Modifications
Contractor shall obtain prior written approval from ABMC CO before incurring any costs exceeding the agreed Firm Fixed Price (FFP). To request approval, Contractor shall submit a detailed cost proposal and justification to the CO at least fifteen (15) business days in advance. All proposed cost modifications must align with current industry pricing standards. ABMC reserves the right to reject cost adjustments deemed unjustified, excessive, or outside the contract scope.

Public Announcements
Contractor shall obtain prior written approval from ABMC before releasing any public announcements, press releases, marketing communications, social media content, case studies, or publications referencing ABMC or this contract. Contractor shall submit draft content to ABMC at least thirty (30) calendar days prior to the intended release date. ABMC retains the authority to review, approve, reject, or request modifications to ensure compliance with ABMC's standards, confidentiality obligations, and U.S. Government guidelines.

Period of Performance
The table below defines the required periods of performance (PoP) for each CLIN. ABMC may negotiate specific timelines during contract award:

CLIN	Description	Period of Performance
CLIN 0001	Site Surveys	Complete within 60 calendar days from contract award.
CLIN 0002	Exterior Fiber Infrastructure to ABMC Demarcation Point	Complete within 120 calendar days from contract award or as discussed and approved by ABMC. Please see additional notes for project schedule considerations under the Holidays section below.
CLIN 0003	Internal Cabling (Demarcation Point to ABMC Network)	Complete within 90 calendar days from contract award or as discussed and approved by ABMC. Please see additional notes for project schedule considerations under the Holidays section below.
CLIN 0004	IPv4 Addressing Allocation and Configuration	Complete within 120 calendar days from contract award.
CLIN 0005	IPv6 Addressing Allocation and Configuration (Optional)	Complete within 120 calendar days from contract award.
CLIN 0006	Fiber Internet Services (Base Period)	Base Period begins upon ABMC acceptance of all sites, no later than April 15, 2026. Individual site activation schedules may vary.
CLIN 0007	Distributed Denial of Service (DDoS) Protection (Optional)	Base Period begins upon ABMC acceptance of all sites, no later than April 15, 2026. Individual site activation schedules may vary.
CLIN 0008	Events-Based 10 Gb/s Fiber Internet (Reserve)	Base Period begins upon ABMC acceptance of all sites, no later than April 15, 2026. Individual site activation schedules vary.

Option Years
ABMC may exercise up to nine (9) option years beyond the Base Period for CLINs 0004 through 0008.

Post-Award Meetings
Contractor shall coordinate with ABMC's CO and COR to schedule and conduct a Kick-off Meeting within five (5) business days after contract award. Subsequent project review meetings shall occur at intervals mutually agreed upon by Contractor and the COR.

Project Start Date
The contract's performance period begins on the contract award date.

Contractor Workforce Requirements
Contractor shall ensure that its workforce meets applicable safety and training standards. Contractor employees and subcontractors must maintain appropriate professional certifications, licensure, or documented in-house training. Contractor shall adhere to high labor standards, demonstrated by compliance with the following requirements:

- Pay workers prevailing wages and provide applicable benefits.
- Utilize project labor agreements and labor peace agreements.
- Prioritize local hiring practices.
- Maintain policies to prevent worker misclassification.

- Demonstrate a record free from recent violations of U.S. Federal and State labor and employment laws.

ABMC reserves the right to request Contractor workforce plans and labor practice documentation for verification, including information regarding subcontractors, to confirm compliance with the above standards.

Currency and Value-Added Taxes (VAT)
Contractor's price proposal must be provided in U.S. Dollars (USD). As a U.S. Federal Government agency, ABMC is exempt from all Value-Added Taxes (VAT).

Language Requirements
Contractor shall conduct all verbal and written communications with ABMC in English.

Holidays and Work Hours

Contractor shall plan all site activities around ABMC staff availability and holiday blackout periods. Project schedule shall account for schedule constraints:

- **ABMC Offices (Arlington & Paris)**

ABMC observes U.S. Federal and local host nation's (e.g., French, Philippines, etc.) national holidays. If a holiday falls on a Saturday, ABMC will observe the holiday on the preceding Friday. If the holiday falls on a Sunday, ABMC will observe it on the following Monday.

- A list of official U.S. Federal holidays is available at: https://www.opm.gov/policy-data-oversight/pay-leave/federal-holidays/

- **Cemetery Operating Hours**

All ABMC cemeteries remain open daily from 9:00 AM to 5:00 PM local time, including host-country holidays, except for closures on December 25 and January 1. During operating hours, ABMC ensures staff coverage in visitor centers or administration offices.

- **Additional Observances**

In addition to scheduled holidays, ABMC observes any additional days designated by U.S. Federal Statute, Executive Order, or Presidential Proclamation.

- ABMC staff will **not be available** to support project activities, including but not limited to coordination, testing, site acceptance, or approvals during the following periods:
  - Approximately **December 22, 2025 to January 09, 2026** globally
  - Approximately **three weeks in August 2025** in European sites

Contractor shall account for these availability restrictions when developing the detailed project implementation schedule and milestones. ABMC will confirm specific unavailable dates at the project kickoff meeting and subsequent project meetings. Contractor shall adjust work schedules accordingly to avoid delays.

Contractor Work Hours and Staffing Requirements
Contractor shall perform tasks during a standard workweek at each site. Where required, adjust work hours to meet operational needs at specific sites.

During the project planning phase, ABMC will identify sites requiring installation or service activation outside normal business hours to avoid operational disruptions. Contractor shall accommodate these requirements accordingly.

Contractor shall always maintain adequate staffing levels to ensure uninterrupted and timely performance of tasks defined within this PWS. Contractor shall prioritize workforce stability and continuity when hiring and staffing, as these are critical to successful project performance.

Appendix 1A – ABMC Locations & Staff Count

Country	Location Code	Site Name	Physical Address	Number of Employees	Number of Employees with Computer Access
BELGIUM	HCAC	Henri-Chapelle American Cemetery	Rue du Mémorial Américain 159 Hombourg 4852 Belgium	19	6
BELGIUM	ARAC	Ardennes American Cemetery	Route du Condroz 164 Neupré 4121 Belgium	19	5
BELGIUM	FFAC	Flanders-Field American Cemetery	Wortegemseweg 117 8790 Waregem	5	3
FRANCE	OO	Overseas Operations Office	32 rue de Monceau 75008 Paris	60	60
FRANCE	NOAC	Normandy American Cemetery	14710 Colleville sur Mer	73	45
FRANCE	PDH	Pointe du Hoc	Pointe du Hoc Ranger Monument 14450 Cricqueville-en-Bessin France	N/A	staffed by NOAC
FRANCE	BRAC	Brittany American Cemetery	50240 Saint-James	11	4
FRANCE	LOAC	Lorraine American Cemetery	Avenue de Fayetteville 57500 Saint-Avold	22	8
FRANCE	LEMC	Lafayette Escadrille Monument Cemetery	5 Boulevard Raymond Poincaré 92430 Marnes-la-Coquette France	N/A	staffed by SUAC
FRANCE	CTAM	Chateau Thierry American Monument	Route du Monument 02400, Chateau-Thierry France	N/A	staffed by AMAC
FRANCE	EPAC	Epinal American Cemetery	385, Rue de la Rondenolle 88000 Dinozé	14	5
FRANCE	MAAC	Meuse-Argonne American Cemetery	Rue du général Pershing 55110 Romagne-sous-Montfaucon	36	10
FRANCE	AMAC	Aisne-Marne American Cemetery	Rue des Chevaliers de Colomb 02400 Belleau	22	8
FRANCE	RHAC	Rhone American Cemetery	553, Boulevard John F. Kennedy 83300 Draguignan	14	7

FRANCE	SUAC	Suresnes American Cemetery	123, Boulevard de Washington 92150 Suresnes	15	9
FRANCE	SMAC	Saint-Mihiel American Cemetery	Route de Verdun 54470 Thiaucourt	17	5
FRANCE	OAAC	Oise-Aisne American Cemetery	Chemin Départemental 2 02130 - Seringes-et-Nesles	17	6
FRANCE	SOAC	Somme American Cemetery	02420 Bony	12	4
ITALY	SRAC	Sicily-Rome American Cemetery	Piazalle Kennedy, 1 00048 - Nettuno (RM)	23	12
ITALY	FLAC	Florence American Cemetery	Via Cassia S.N. 50023 - Tavarnuzze, Impruneta (FI)	15	4
LUXEMBOURG	LXAC	Luxembourg American Cemetery	50, Val du Scheid L-2517 - Luxembourg	15	8
MEXICO	MXAC	Mexico City American Cemetery	Virginia Fabregas No. 31, Col. San Rafeal Mexico City, Mexico	6	3
NETHERLANDS	NEAC	Netherlands American Cemetery	Amerikaanse Begraafplaats 1 Margraten 6269 NA Netherlands	19	8
PANAMA	CZAC	Corozal American Cemetery	Cementerio Americano de Corozal Calle Rufina Alfaro Edificio 65-66 0801 Corozal	12	5
PHILIPPINES	MNAC	Manila American Cemetery	McKinley Road, Fort Bonifacio 1634 Taguig City, Philippines	47	16
PHILIPPINES	CLAC	Clark American Cemetery	Manuel A. Roxas Highway 2010 Pampanga, Philippines	19	5
TUNISIA	NAAC	North Africa American Cemetery	Cathage, BP 346 2026 - Sidi Bou Said Tunisia	13	3
UNITED KINGDOM	CAAC	Cambridge American Cemetery	Madingley Road, Coton CB23 7PH - Cambridge	13	8
UNITED KINGDOM	BKAC	Brookwood American Cemetery	Dawney Hill - Brookwood GU24 0JB - Woking, Surrey	6	5
USA	HQ	ABMC Headquarters	American Battle Monuments Commission 2300 Clarendon Blvd., Ste. 500, Arlington, VA 22201-3367	60	60

OPTIONAL SITES					
France	MAMO	Montfaucon American Monument	https://maps.app.goo.gl/Co4gdxW6GnxNL1qKA Rue d'Amérique, 55270 Montfaucon-d'Argonne, France	4	4
France	SSMO	Montsec American Monument	https://www.abmc.gov/cemeteries-memorials/about-montsec-american-monument/ 55300 Montsec, France	6	6

Appendix 1B – Bandwidth and Local Loop Operator

Site Acronyms	Address	Zip Code	City	Country	Current Bandwidth	Port	Local loop operator
American Battle Monuments Commission Paris Office	32 rue Monceau	75008	Paris	France	1000M	1 Gbps	GTT
Brittany American Cemetery	Bel Orient	50240	Montjoie Saint Martin	France	100M	1 Gbps	OBS
Aisne-Marne American Cemetery	1 Rue des Chevaliers de Colomb	2400	Belleau	France	100M	1 Gbps	OBS
Epinal American Cemetery	385, rue de la Rondenolle	88000	Dinozé	France	1000M	1 Gbps	Completel
Lorraine American Cemetery	Avenue de Fayetteville	57500	Saint Avold	France	1000M	1 Gbps	Completel (IR)
Meuse-Argonne American Cemetery	Rue du Général Pershing	55110	Romagne-sous-Montfaucon	France	100M	Capped 200M	OBS
Normandy American Cemetery	Rue du Cimetière Américain	14710	Colleville Sur Mer	France	200M	1 Gbps	COVAGE
Oise-Aisne American Cemetery	CD2	2130	Seringes-et-Nesles	France	100M	Capped 200M	OBS
Pointe du Hoc Ranger Monument	Site de la Pointe Du Hoc	14450	Cricqueville-en-Bessin	France	200M	1 Gbps	COVAGE

Rhone American Cemetery	553 Boulevard John Kennedy	83300	Draguignan	France	1000M	1 Gbps	Completel (IR)
Saint-Mihiel American Cemetery	Rue du Cimetière	54470	Thiaucourt-Regniéville	France	100M	Capped 200M	OBS
Somme American Cemetery	D57	2420	Bony	France	100M	1 Gbps	OBS
Suresnes American Cemetery	123 Boulevard Wasington	92150	SURESNES	France	200M	1 Gbps	GTT
Château Thierry American Monument	Route du Monument	2400	Château-Thierry	France	200M	1 Gbps	GTT
Lafayette Escadrille Memorial Cemetery	5 Boulevard Raymond Poincaré	92430	Marnes-la-Coquette	France	200M	1 Gbps	COVAGE
Henri-Chapelle American Cemetery	159, rue du Mémorial Américain	4852	Hombourg	Belgium	100M	1 Gbps	Proximus
Ardennes American Cemetery	164, route du Condroz	B-4121	Neupré	Belgium	100M	1 Gbps	Proximus
Flanders Field American Cemetery	Wortegemseweg 117	8790	Waregem	Belgium	100M	1 Gbps	Proximus
Sicily-Rome American Cemetery	Piazzale Kennedy, 1	48	Nettuno	Italy	100M	1 Gbps	FASTWEB SpA
Florence American Cemetery	Via Cassia S.N.	50023	Tavarnuzze	Italy	200M	1 Gbps	FASTWEB SpA
Luxembourg American Cemetery	50, Val du Scheid	2517	Luxembourg	Luxembourg	200M	1 Gbps	Post Luxembourg
Netherlands American Cemetery	Amerikaanse Begraafplaats 1	6269	Margraten	Netherlands	200M	1 Gbps	Tele2 Netherlands - Ethernet
Manila American Cemetery	McKinley Road, Fort Bonifacio	1634	Taguig City	Philippines	200M	1 Gbps	PLDT
Clark Veterans Cemetery	Manuel A. Roxas Highway Clark Freeport Zone	2010	Pampanga, Philippines	Philippines	200M	1 Gbps	PLDT
Cambridge American Cemetery	Madingley Road Coton	CB23 7PH	Cambridge	UK	200M	1 Gbps	Virtual 1 Ltd

Brookwood American Cemetery	Dawney Hill - Brookwood	GU24 0 JB	Woking	UK	200M	1 Gbps	Virtual 1 Ltd
Corozal American Cemetery	Calle Rufina Alfaro	6566	Corozal	Panama	200M	1 Gbps	Neutrona Networks International
Mexico City National Cemetery	Virginia Fabregas No. 31, Col. San Rafeal	6470	Mexico City	Mexico	200M	1 Gbps	IG Networks
American Battle Monuments Commission Headquarters	2300 Clarendon Boulevard Ste 500	VA 22201	Arlington	USA	1000M	1 Gbps	Verizon TLS (VZT)
North Africa American Cemetery	553 Rue de Roosevelt 2016 Carthage Tunisia	2016	Tunis	Tunisia	100M	N/A	GlobalNet

Appendix 2 – Infrastructure Works (CLIN 0002) Requirements

ABMC will approve new fiber construction only when justified by reasons outlined previously in this contract. If ABMC approves new construction, Contractor shall comply fully with the requirements specified below.

General Requirements and Procedures
ABMC's previous experience indicates that certain groundwork at cemetery sites requires manual labor or cautious machine operation to protect existing structures and vegetation. At cemetery sites, excavation must be performed carefully by hand or cautiously by machinery to avoid damaging historic structures, utilities, or landscaping. ABMC may halt operations immediately if unsafe practices or risks are identified. In the majority, the installation work will be executed by directional drilling method.

Contractor shall plan accordingly, considering possible impacts to project timelines.

The ABMC Superintendent shall:

1. Immediately notify ABMC CO if machinery operations pose risks.
2. Stop or restrict Contractor activities immediately when risks arise from:
    - Poorly maintained or unsuitable equipment.
    - Improper operation by Contractor's staff.
    - Directional drilling or excavating menacing utilities and or other installations as well as vegetal heritage on site.

1. Site Preparation

Contractor shall:

- Perform comprehensive site surveys to assess soil conditions, identify existing utilities, and potential obstacles. Contractor uses non-invasive techniques for this purpose.
- Collaborate with ABMC to locate underground infrastructure. ABMC will provide available utility maps for informational purposes without guaranteeing completeness or accuracy.
- Use manual excavations (boreholes) and cable/pipe detection equipment to locate buried utilities such as power cables, communication lines, gas, water, drainage, and sewer lines prior to excavation only when non-invasive techniques formerly failed. This work will be considered integrated in the FFP.
- Maintain a certified cable and pipe detection device onsite throughout construction (acceptable manufacturers include Metrotech, 3M, or ABMC-approved equivalent).
- Provide ABMC with evidence of employees' detection-device training certifications.
- Assume responsibility and cost for immediate repair of any damage caused to underground utilities during excavation. ABMC will inspect and approve all repairs before backfilling occurs.
- Include in planning documents all schedules, applicable local regulations, environmental guidelines, and safety protocols.
- Obtain all necessary construction permits from local authorities.

2. Trenching and Conduit Installation

Contractor shall:

- Use directional drilling within the approved specifications laid out in the methods plan. If necessary, Contractor shall excavate trenches according to approved specifications for width and depth.
- Type of drilling fluids shall be validated by ABMC Horticulture staff if not noxious to plants. It shall be strictly non-toxic and not alter the soil's composition.
- Regularly and in a timely manner change drill bits on first sign of wear out.
- Provide a 50 mm sand bedding and or gravel bedding (or ABMC-approved equivalent) beneath conduits if trench bottoms contain debris or uneven surfaces.
- Use trenching methods that minimize environmental disturbance and damage to existing areas. Shoring needed to achieve this requirement is considered integrated in the FFP.
- Clearly mark interventions on site with drilling material and excavations with appropriate construction barriers.
- Prohibit excavation near tree roots unless explicitly authorized by ABMC's Horticulture Department.
- Avoid drilling and trenching within wooded areas by selecting alternate routes.
- Obtain ABMC approval on conduit placement prior to drilling or excavation.
- Install conduits securely in trenches and stabilize them with appropriate sand or gravel bedding.
- Install pull boxes or handholes at intervals and directional changes per industry standards for maintenance and cable management.
- Place a color-coded warning mesh 200 mm above conduits, following local code for low-voltage power cables.
- Inspect conduit runs prior to backfilling to ensure they are unobstructed and properly aligned.
- Limit trench dimensions to the minimum as to be laid out in methods plan. Ensure conduit will be installed deep enough to be frost free (minimum 0.8 m cover above conduits) and has to be protected from damage during landscaping or soil preparation activities by the use of appropriate materials.
- Ensure trench bottoms are level, free of sharp rocks or debris, and support conduits uniformly.
- Clean the intervention site daily.

Contractor shall not conduct any trenching, excavation, or work of any kind within the cemetery plot areas.

3. Turf Removal and Resodding

Contractor shall:

- Demonstrate the proposed sod-removal method to the ABMC Superintendent and Horticulture Directorate for approval before beginning excavation.
- Use appropriate sod-cutting equipment to remove turf carefully and place sod rolls onto protective, non-woven film.
- Maintain live sod off-site for a maximum of 48 hours, providing necessary watering until reinstatement after trench backfilling and compaction.

4. Backfilling Trenches

Contractor shall:

- Backfill trenches with suitable, stone-free material, compacting soil in layers to prevent settling.
- Ensure that initial cover above conduits consists of at least 100 mm of sand (or ABMC-approved equivalent) if suitable soil is unavailable.
- Compact soil mechanically in successive 200 mm layers above the initial layer to ensure trench stability and prevent subsidence.
- Restore trench surfaces with a topsoil layer free of stones, prepared for sod replacement.
- Remove excess excavation material to ABMC-designated storage areas.
- Perform compaction tests at regular intervals to verify adequate compaction.

5. Road and Walkway Crossings

Contractor shall:

- Not cut pavement on roads or pedestrian walkways. Trenches across paved surfaces are prohibited.
- Use directional boring methods for road or walkway crossings at sufficient depths to avoid surface disturbance.
- Install conduits within steel sleeves at road and walkway crossings, extending sleeves at least 1 m beyond each side of the crossing.
- Ensure a minimum setback of 1 m from pavement edges to excavation points.
- Shore all excavations adequately for worker safety based on trench depth and soil conditions.
- Immediately repair, at the Contractor's expense, any damage (e.g., pavement cracks) caused by directional boring equipment.
- Submit for ABMC approval detailed directional boring methods, sleeve specifications, and installation plans before commencing work.

6. Site Restoration

Contractor shall:

- Restore all disturbed areas, including landscaping, hardscape, structures, and pavement, to original or approved conditions.
- Remove all construction debris, leaving the site clean, safe, and ready for ABMC inspection.

7. Quality Assurance

Contractor shall:

- Conduct inspections at critical milestones (post-trenching, conduit installation, final backfill) and document compliance.
- Provide ABMC documented verification of adherence to approved plans at each inspection stage.
- Cooperate if ABMC requests bailiff-certified documentation for sensitive or high-risk construction locations.

8. Compliance and Environmental Protection

Contractor shall:

- Adhere strictly to applicable local, regional, and national regulations, securing all necessary permits prior to construction.
- Implement erosion-control measures to mitigate soil erosion impacts during and after construction activities.

9. Safety Protocols

Contractor shall:

- Ensure all onsite personnel use appropriate Personal Protective Equipment (PPE).
- Enforce safety practices related to machinery operation and construction procedures.
- Install clear and visible safety signage and protective barriers to ensure public and worker safety.

Required Deliverables

Contractor shall submit the following documentation to ABMC for review and acceptance:

- Pre-Construction Survey Report: Detailed site conditions, identified risks, and proposed mitigation measures.
- Detailed Construction Plans: Precise layouts for trenching, conduit placements, and restoration procedures.
- As-Built Drawings: Accurate AutoCAD diagrams documenting installed fiber infrastructure locations and configurations (metric measurements required).
- Final Inspection Report: Documentation of inspections, identified deficiencies, corrective actions, and verification of compliance with contractual requirements.

Appendix 3 – Proposal Selection Criteria

ABMC will evaluate proposals using the criteria below. Each criterion includes a suggested weighting percentage reflecting its relative importance in the proposal evaluation process.

1. Technical Approach (40%)
Contractors shall provide comprehensive details describing their technical solution for dedicated fiber Internet connectivity at ABMC sites. At a minimum, proposals shall clearly detail:

- Technical design and architecture of the proposed fiber solution.
- Quality assurance methodology, including testing protocols for bandwidth performance, latency, jitter, and network stability.
- Comprehensive support services demonstrating how the proposed solution meets or exceeds required Service Level Agreements (SLAs).
- Detailed, measurable SLAs for each applicable CLIN.
- Site survey templates

2. Project Plan and Schedule (20%)
Contractors shall submit a detailed project implementation plan and schedule to meet the required completion date of April 15, 2026. This plan shall include:

- Clearly defined tasks and activities.
- Timelines for equipment ordering, delivery, and installation at each site.
- Required personnel and resources.
- Milestones aligned with the project schedule, including deliverables.
- A clearly defined contingency plan outlining mitigation strategies to manage potential schedule delays or disruptions.
- Comprehensive onsite warranty and support provisions for both the base period and option years.

3. Past Performance (10%)
Contractors shall demonstrate their experience providing similar fiber-based Internet connectivity services. Contractors shall provide:

- Three (3) recent client references for comparable dedicated Internet access implementations completed within the past 36 months.
- Complete contact information for each reference provided, including name, phone number, and email address.
- Brief project description and scope for each reference provided.
- ABMC may independently verify references. References not confirmed or verified by ABMC will be excluded from evaluation scoring.

4. Pricing Proposal (30%)
Contractors shall provide detailed Firm Fixed Price (FFP) pricing for each CLIN, clearly specifying:

- Non-recurring costs (NRC) and monthly recurring costs (MRC) for each site.
- Pricing for specified bandwidth tiers and incremental cost options for increasing bandwidth.
- Clearly itemized pricing for all optional CLINs.
- Pricing for all option years beyond the base period.

Weighted Evaluation Summary:

Evaluation Criteria	Weighting
Solutions Approach	40%
Project Plan and Schedule	20%
Past Performance	10%
Pricing Proposal	30%
TOTAL	100%

Appendix 4 – Response Format

Contractor shall provide the following information, using the specified format, order, and numbering for all responses:

A. Contractor Information

1. Provide Contractor's Name, Address, and Website.
2. Provide the Federal Employer Identification Number.
3. Include active SAM.gov Registration Unique Entity Identifier (UEI), if applicable.
4. List the Principal Contact's Name and Title, Email and Phone Number.
5. List the Authorized Representative's Name and Title, Email and Phone Number.

B. Solutions Approach

Respond to each question individually, following the numbering provided below:

1. Describe your proposed solution, including confirmation of Contractor's understanding of scope for all CLINs and a general overview of the project.
2. Describe any partnerships or collaborations formed for this application (e.g., two or more Contractors partnering to serve an eligible project area). Specify if the workforce will be directly employed or subcontracted.
3. Provide a technical narrative that outlines the proposed solution, including details on engineering, construction, permitting, equipment installation, and other technical aspects.
4. Include a network diagram displaying the network topology and fiber routes that will connect ABMC to the Internet (mark as confidential if necessary).
5. Provide the proposed project timeline, including start date, end date, and **all key milestones in order to meet all deliverables for key CLINs no later than April 15, 2026**.
6. Proposed outline the engineering, design, project management, and construction plans for the project.
7. Explain the planned cadence and content of updates that will be provided to ABMC during the construction phase.

8. Explain the planned cadence and content of updates once the infrastructure is operational. Include details on the proposed dashboard for sharing network operations statistics with ABMC monthly, including:
    a. Number of service tickets opened
    b. Mean time to resolution of tickets
    c. Performance statistics against SLA standards (e.g., uptime, latency, jitter, packet loss)
    d. Service-impacting outages
    e. Time to resolution of service-impacting outages
9. Describe your DDoS mitigation platform, including SLA requirements and any other specifications.
10. Detail the Service Level Agreements (SLAs).
11. Outline the Service Credits and procedures to automate Service Credit claims.
12. Describe any known necessary permits, easements (including private easements), and regulatory approvals required for construction, as well as your approach to securing them.
13. Provide a IPv4/IPv6 dual stack plan and roadmap for full IPv6 readiness.

C. Capabilities and Competencies

1. Describe your relevant experience with projects of similar size and scope. Include at least three (3) references for similar projects.
2. Detail your capability to implement the proposed project and explain the competencies of the staff assigned to the project. Specify the level of support and expertise of the individual(s) responsible for managing the project.
3. Include resumes of key staff, particularly those overseeing program management, project management, and technical leads.
4. Explain how you will:
    a. Monitor implementation and achieve objectives
    b. Ensure project and fiscal accountability
    c. Comply with applicable regulatory and local requirements (e.g., permits, scheduling)
5. List the names and company backgrounds of your planned engineering, construction, and maintenance Contractors.

D. Pricing Schedule

Please refer to the attached Excel pricing template. Complete the ABMC-provided Excel spreadsheet for each CLIN. Include pricing for different recommended target speed tiers.

CLIN Pricing Integrity Requirements

To ensure fair and reasonable pricing across all CLINs, ABMC requires offerors to structure proposals without artificial underpricing or internal cross-subsidization between CLINs. Specifically:

1. **No Strategic Underbidding:**
   Offerors shall not artificially reduce pricing on non-construction CLINs (i.e., CLINs 0001 and 0004 through 0008) in a manner that results in excessive pricing or disproportionate escalation of construction-related CLINs (CLINs 0002 and 0003).

2. **Proportional Pricing Requirement:**
   Pricing for CLINs 0002 and 0003 must be:

   - Commensurate with the documented scope of work per site and consistent with industry benchmarks.
   - Aligned with the site conditions established during CLIN 0001 surveys (e.g., route length, terrain complexity, restoration needs).

3. **Independent Price Reasonableness Evaluation:**
   ABMC reserves the right to evaluate CLINs independently. Any apparent imbalance between construction and non-construction CLINs may result in:

   - Rejection of the offer as non-compliant or non-competitive, or
   - Downward negotiation or normalization of CLIN 0002 and 0003 pricing based on Government cost estimates and third-party benchmarks.

4. **Justification Requirement:**
   Offerors proposing construction CLIN prices that deviate by more than 20% from ABMC's Independent Government Cost Estimate (IGCE) shall provide a written justification, including:

   - Unit pricing breakdown
   - Labor/equipment rates
   - Regional cost adjustments
   - Supporting technical rationale

5. **Binding Unit Price Schedule:**
   Contractors shall include a binding unit price schedule for common civil works tasks (e.g., trenching per linear meter, conduit installation, restoration per m^2). ABMC may use these rates to validate proposal pricing or apply them to future task orders.

6. **Post-Award Review Authority:**
   ABMC reserves the right to audit and revalidate any pricing anomalies discovered post-award. Discovery of strategic price shifting or misrepresentation may result in:

   - Termination for default
   - Price reformation
   - Referral to responsible oversight authorities

Appendix 5 – AutoCAD Requirements for As-Built Drawings

As-Built Drawings must clearly show exact infrastructure placements for future ABMC reference and maintenance.

CAD standards requirements

CAD files produced will follow the most recent AIA CAD Layer Guidelines.

Software requirements and file requirements

CAD files shall be received in the AutoCAD .dwg format (AutoCAD 2018 version or newer). If Record "As-Built" Drawings have been prepared in a version of AutoCAD later than version 2018, the final Record "As-Built" Drawing file shall be 'saved' in AutoCAD 2018 prior to submitting to ABMC.

Drawing set-up

The following standards define how the AutoCAD drawing shall be set up.

Coordinate system

Coordinate system shall be defined for each site to choose the most precise coordinates. Results shall be converted to World Geodetic System WGS84 to achieve a universal coordinate system for the GIS.

Model Space / Paper Space

All entities shall be drawn in AutoCAD's model space. Paper space (layout view) shall be used for title blocks, north arrows, and other data not pertinent to the Geodatabase. Rotation of the "model space" from the x, y, and z axis shall not be accepted. The axis shall be set to 0. Any rotation of the project view shall be done in the "layout view" or "paper space". All plot configurations shall be set to Architectural D landscape page size.

Drawing units

All measurements shall be presented in metric units. Units for angles shall be set to decimal degrees or DMS for insertion. Scale units shall be set to unitless.

Snapping & connectivity

All line work and objects shall be created using standard AutoCAD "OSNAP" commands ensuring proper joining of the features. Objects inserted such as valves, meters, hydrants, etc., shall be snapped to the appropriate endpoint. Separate line segments shall be used to separate and identify varying pipe diameters and pipe materials, as well as distances between valves and fittings. Polygon easements shall be represented in AutoCAD with lines, polylines, and arcs and all endpoints shall be snapped ensuring that a closed polygon will be created in GIS. Additionally, the following shall apply:

- Each line will begin and end with a point entity.
- Each line intersecting another line within the same layer shall be split.
- A line being intersected by a line from an unrelated layer shall not be split.
- The appropriate point entity shall be populated at intersections of all lines.
- If two distinctly different lines are connected, the appropriate point entity that describes the change shall be used.

AutoCAD Line Objects

Only lines, polylines, and arcs shall be used. The use of splines is unacceptable.

Layer formatting

All objects shall be drawn or created on the appropriate layer. All properties (color, line type) shall be set to “Bylayer”. No entity shall have a separate color or line type.

GIS shape layer standards shall be received directly from CAD raw information as per CAD standards agreed on preliminary stage. GIS attributes will also be defined on preliminary stage.

Layer 0

Layer 0 - Color White, Continuous line type. No entity or text shall be drawn on Layer 0. Only blocks shall be drawn on Layer 0 then inserted on the appropriate layer.

Layer segregation

Components to be uploaded shall be segregated in layers to include only the features for that component. Other line work and text not associated with that component, but required for production of the construction plans, shall be housed on other layers. Not all layers will apply to all projects. Exact name matching is required for proper functionality.

Layer names

Layer names will be provided in an AutoCAD template. It is essential that the correct entity is on the correct layer. Do not alter any layer name; doing so will result in not capturing required data.

Additional layers

Record drawing data to be uploaded will include only new construction and care will be taken to exclude any “existing” facilities from this dataset to not duplicate information in the GIS system. Existing data can be included in the drawing but shall reside on separate layers. It is recommended that the prefix “EX-” be added to the layers of all existing data.

Layer colors

Layer colors shall be provided in AutoCAD template.

Fonts

Use standard AutoCAD fonts. Other fonts used, such as architectural fonts, shall be approved. Supply the electronic font file or shape file (.SHX) in case of using a nonstandard AutoCAD font. SOFTDESK fonts are acceptable.

External references

Drawings (Project_Name_Utilities_Only.DWG) submitted for the geodatabase shall not contain External References (xrefs). Before drawings are submitted, all xrefs shall be bound to create a completely independent and standalone drawing.

Templates

An AutoCAD template that will include all the standard layers will be provided. This will be set to the appropriate drawing units. It is strongly recommended that all contractors use the template provided.

Appendix 6 – Non-Recurring CLINs Liquidated Damages

ABMC may impose escalating liquidated damages upon Contractor for specific performance deficiencies or delays as outlined per CLIN 0001, CLIN 0002, CLIN 0003, and CLIN 0008, such as:

1. **Missed Delivery Milestones:**
    a. Failure to meet agreed-upon project milestone and delivery dates **as identified in the approved project schedule** beyond **5 business days.**
2. **Delayed ISP Service Activation:**
    a. Delays of more than 5 business days in activation of internet services for any individual site or defined group of sites, as identified in the project schedule.
3. **Incorrect or Non-Compliant IP Assignments:**
    a. Incorrect assignment or configuration of IPv4 or IPv6 address blocks, causing rework or delayed acceptance by ABMC.
4. **Failure to Meet Service Level Agreement (SLA) Requirements:**
    a. More than two (2) failures to meet the approved SLAs outlined in the PWS regarding network uptime, latency, packet loss, or response times, despite notice and reasonable opportunity to correct.
5. **Repeated or Unresolved Network Performance Issues:**
    a. More than three instances within a 30-calendar day period of the same or similar network service issues, performance degradation, or outages.
6. **Non-Responsive or Delayed Problem Resolution:**
    a. Contractor's repeated failure two (2) or more times to respond to ABMC's written reported service issues or incidents.
7. **Incomplete, Incorrect, or Late Documentation:**
    a. Two (2) or more failures or delays in delivering critical project documentation, including as-built diagrams, site reports, configuration documentation, and testing certifications.
8. **Non-Compliance with FCC Covered List and Supply Chain Requirements:**
    a. Failure to adhere to federally mandated IT security and supply-chain restrictions, specifically use of prohibited equipment or suppliers listed by the FCC.
9. **Failure to Maintain Required Certifications or Licenses:**
    a. Contractor and/or their subcontractor failure to obtain or maintain necessary professional certifications, permits, licenses, or regulatory approvals impacting deliverables or project timelines as identified in project schedule.
10. **Repeated Violation of Safety and Preservation Protocols:**

a. Two (2) or more instances of Contractor's and/or their subcontractor disregard of ABMC-established safety guidelines, preservation protocols, or local regulatory requirements, causing site damage, work stoppage, or additional costs.

11. **Failure to Coordinate and Notify ABMC Appropriately:**

    a. Failure to coordinate site visits, site surveys, construction activities, or service disruptions with adequate and proper notification as defined in the contract.

Notice and Cure Period

1. ABMC will provide written notice of the specific non-compliance to Contractor when one or more deficiencies or delays outlined above.
2. Contractor shall have ten (10) business days from notification to correct or cure the identified issue(s) or submit a corrective action plan acceptable to ABMC.
3. If issues remain unresolved or occur repeatedly following the cure period, ABMC will assess escalating liquidated damages, per issue, as follows:

Duration or Recurrence of Issue	Liquidated Damages Amount
Initial violation (after cure period)	$2,500 in service credit per calendar day
Repeated violations or continued unresolved issues (occurring after 30 calendar days)	$5,000 in service credit per calendar day
Violations persisting beyond 60 calendar days or recurring three or more times within 90 calendar days	$10,000 in service credit per calendar day, **plus** potential contract remedies

ABMC will pursue additional contractual remedies, including termination for default, after three (3) or more instances of Contractor failing to meet contractual obligations.